Amendment No. 1 to confidential draft submission
As submitted confidentially to the Securities and Exchange Commission on October 14, 2020 pursuant to the Jumpstart Our Business Startups Act. This draft registration statement has not been publicly filed with the Securities and Exchange Commission and all information herein remains strictly confidential.

No. 333-

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-1

REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

Maravai LifeSciences Holdings, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**8731**	**85-2786970**
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification No.)

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San Diego, California 92121
Telephone: (858) 546-0004
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Carl W. Hull
Chief Executive Officer
10770 Wateridge Circle Suite 200
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Copies of all communications, including communications sent to agent for service, should be sent to:

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Approximate date of commencement of proposed sale to the public: As soon as practicable after this Registration Statement becomes effective.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box: ☐

If this Form is filed to registered additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☒	Smaller reporting company	☐
		Emerging growth company	☒

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act. ☐

Title of Each Class of Securities to be Registered	**Proposed Maximum Offering Price(1)(2)**	**Amount of Registration Fee**
Class A Common Stock, par value $0.01 per share	$	$

(1) Includes the aggregate offering price of shares of common stock subject to the underwriters' option to purchase additional shares.
(2) Estimated solely for purposes of computing the amount of the registration fee pursuant to Rule 457(o) under the Securities Act of 1933.

The registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until this Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

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The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. The prospectus is not an offer to sell these securities nor a solicitation of an offer to buy these securities in any jurisdiction where the offer and sale is not permitted.

PRELIMINARY PROSPECTUS (Subject to Completion)
Issued , 2020

Shares

Class A Common Stock

This is the initial public offering of shares of Class A common stock of Maravai LifeSciences Holdings, Inc., par value $0.01 per share. Maravai LifeSciences Holdings, Inc. is offering shares of its Class A common stock to be sold in the offering.

Prior to this offering, there has been no public market for the Class A common stock of Maravai LifeSciences Holdings, Inc. It is currently estimated that the initial public offering price per share will be between $ and $. Maravai LifeSciences Holdings, Inc. intends to apply to have its Class A common stock listed on The Nasdaq Global Select Market under the symbol "MRVI."

Maravai LifeSciences Holdings, Inc. has two authorized classes of common stock: Class A and Class B (together, the "common stock"). Holders of the Class A common stock and Class B common stock are each entitled to one vote per share. All holders of Class A common stock and Class B common stock will vote together as a single class except as otherwise required by applicable law. Holders of Class B common stock do not have any right to receive dividends or distributions upon the liquidation or winding up of Maravai LifeSciences Holdings, Inc.

Maravai LifeSciences Holdings, Inc. will use the net proceeds from this offering to purchase (i) newly-issued units ("LLC Units") in Maravai Topco Holdings, LLC ("Topco LLC") and (ii) outstanding LLC Units from Maravai Life Sciences Holdings, LLC ("MLSH 1"), the sole existing member of Topco LLC. The purchase price for the LLC Units will be equal to the initial public offering price of the shares of Class A common stock less the underwriting discounts and commissions referred to below. Topco LLC will use the net proceeds it receives from Maravai LifeSciences Holdings, Inc. in connection with this offering as described under "Use of Proceeds." Upon completion of this offering, Maravai LifeSciences Holdings, Inc. will have LLC Units representing a % economic interest in Topco LLC and, although Maravai LifeSciences Holdings, Inc. will initially have a minority economic interest in Topco LLC, it will be the sole managing member of Topco LLC and will operate and control its business. MLSH 1 will hold the remaining LLC Units representing a % economic interest in Topco LLC. Each LLC Unit, together with one share of our Class B common stock, is, from time to time, exchangeable for one share of Class A common stock or, at our election, for cash from a substantially concurrent public offering or private sale (based on the price of our Class A common stock in such public offering or private sale). Maravai LifeSciences Holdings, Inc. will be a holding company, and upon consummation of this offering and the application of the net proceeds therefrom, its sole asset will be LLC Units of Topco LLC. Immediately following this offering, the holders of Class A common stock will collectively own 100% of the economic interests in Maravai LifeSciences Holdings, Inc. and have % of the voting power of Maravai LifeSciences Holdings, Inc. MLSH 1, through ownership of our Class B common stock, will have the remaining % of the voting power of Maravai LifeSciences Holdings, Inc.

Maravai LifeSciences Holdings, Inc. is an "emerging growth company" as the term is used in the Jumpstart Our Business Startups Act of 2012 and, as such, has elected to comply with certain reduced public company reporting requirements for this prospectus.

Investing in our Class A common stock involves risks. See "Risk Factors" beginning on page 21 to read about factors you should consider before buying shares of our Class A common stock.

Immediately after this offering, assuming an offering size as set forth above, funds controlled by our equity sponsor, GTCR, LLC ("GTCR"), will control approximately % of the combined voting power of our outstanding shares of Class A common stock and Class B common stock (or % if the underwriters' option to purchase additional shares is exercised in full). As a result, we expect to be a "controlled company" within the meaning of the corporate governance standards of The Nasdaq Stock Market. See "Management—Corporate Governance—Controlled Company Status."

PRICE $ A SHARE

	Per share	Total
Initial public offering price	*$*	*$*
Underwriting discounts and commissions (1)	*$*	*$*
Proceeds, before expenses, to Maravai LifeSciences Holdings, Inc.	*$*	*$*

(1) See "Underwriters" for additional information regarding underwriting compensation.

The underwriters have the option to purchase up to an additional shares of Class A common stock from us at the initial public offering price less the underwriting discounts and commissions for a period of 30 days after the date of this prospectus.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR PASSED UPON THE ACCURACY OR ADEQUACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The underwriters expect to deliver shares of Class A common stock against payment in New York, New York on or about , 2020.

MORGAN STANLEY *JEFFERIES* *GOLDMAN SACHS & CO. LLC*

BOFA SECURITIES *CREDIT SUISSE* *UBS INVESTMENT BANK*

BAIRD *WILLIAM BLAIR*

, 2020.

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Neither we nor any of the underwriters have authorized anyone to provide any information or make any representations other than that contained in this prospectus or in any free writing prospectus filed with the Securities and Exchange Commission ("SEC"). We and the underwriters take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. We are offering to sell, and seeking offers to buy, shares of Class A common stock only in jurisdictions where offers and sales are permitted. The information contained in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or of any sale of the Class A common stock. Our business, financial condition, results of operations, and prospects may have changed since such date.

For investors outside of the United States, neither we nor any of the underwriters have done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. You are required to inform yourselves about, and to observe any restrictions relating to, this offering and the distribution of this prospectus outside of the United States.

Through and including , 2020 (the 25th day after the date of this prospectus), all dealers effecting transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This is in addition to a dealer's obligation to deliver a prospectus when acting as an underwriter and with respect to an unsold allotment or subscription.

BASIS OF PRESENTATION

In connection with the consummation of this offering, we will effect certain organizational transactions. Unless otherwise stated or the context otherwise requires, all information in this prospectus reflects the consummation of the organizational transactions and this offering, which we refer to collectively as the "Organizational Transactions." See "Organizational Structure" for a description of the Organizational Transactions and a diagram depicting our anticipated structure after giving effect to the Organizational Transactions, including this offering.

Unless we state otherwise or the context otherwise requires, the terms "we," "us," "our," "our business," "the Company" and "Maravai" refer to and similar references refer: (1) on or following the consummation of the Organizational Transactions, including this offering, to Maravai LifeSciences Holdings, Inc. and its consolidated subsidiaries, including Topco LLC, and (2) prior to the consummation of the Organizational Transactions, including this offering, to Topco LLC and its consolidated subsidiaries. The term "GTCR" or "our Sponsor" refers to GTCR, LLC, our equity sponsor, and the term "Topco LLC" refers to Maravai Topco Holdings, LLC.

We will be a holding company and the sole managing member of Topco LLC and, upon consummation of this offering and the application of net proceeds therefrom, our sole asset will be LLC Units of Topco LLC. Topco LLC is the predecessor of the issuer, Maravai LifeSciences Holdings, Inc., for financial reporting purposes. Maravai LifeSciences Holdings, Inc. will be the reporting entity following this offering.

Accordingly, this prospectus contains the historical financial statements of Topco LLC and its consolidated subsidiaries. The unaudited pro forma condensed consolidated financial data of Maravai LifeSciences Holdings, Inc. presented in this prospectus has been derived from the application of pro forma adjustments to the historical consolidated financial statements of Topco LLC and its subsidiaries included elsewhere in this prospectus. These pro forma adjustments give effect to the Organizational Transactions as described in "Organizational Structure," including the consummation of this offering and other related transactions, as if all such transactions had occurred on January 1, 2019. See "Unaudited Pro Forma Condensed Consolidated Financial Information" for a complete description of the adjustments and assumptions underlying the unaudited pro forma consolidated financial data included in this prospectus.

MARKET AND INDUSTRY DATA

Unless otherwise indicated, information in this prospectus concerning economic conditions, our industry, our markets and our competitive position is based on a variety of sources, including information from independent industry analysts and publications, as well as our own estimates and research.

Our estimates are derived from publicly available information released by third-party sources, as well as data from our internal research, and are based on such data and our knowledge of our industry, which we believe to be reasonable. We have not had this information verified by any independent sources. The independent industry publications used in this prospectus were not prepared on our behalf. While we are not aware of any misstatements regarding any information presented in this prospectus, forecasts, assumptions, expectations, beliefs, estimates and projects involve risk and uncertainties and are subject to change based on various factors, including those described under the headings "Forward-Looking Statements" and "Risk Factors."

TRADEMARKS AND TRADENAMES

This prospectus includes our trademarks and service marks, "Maravai LifeSciences," "TriLink BioTechnologies," "Glen Research," "Cygnus Technologies," "Vector Laboratories," "CleanCap®," and "MockV™," which are protected under applicable intellectual property laws and are the property of Maravai LifeSciences Holdings, Inc. or its subsidiaries. This prospectus also contains trademarks, service marks, trade names and copyrights of other companies which are the property of their respective owners. Solely for convenience, trademarks and trade names referred to in this prospectus may appear without the ® or ™ symbols, but such references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or the rights of the applicable licensor to these trademarks and trade names.

PROSPECTUS SUMMARY

This summary highlights information contained elsewhere in this prospectus. This summary does not contain all of the information that you should consider before investing in our Class A common stock. For a more complete understanding of us and this offering, you should read and carefully consider the entire prospectus, including the more detailed information set forth under "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations," and our consolidated financial statements and the related notes. Some of the statements in this prospectus are forward-looking statements. See "Forward-Looking Statements." Unless otherwise stated, this prospectus assumes no exercise of the underwriters' option to purchase additional shares.

OVERVIEW

We are a leading life sciences company providing critical products to enable the development of drug therapies, diagnostics, novel vaccines and support research on human diseases. Our more than 5,000 customers as of August 31, 2020 include the top 20 global biopharmaceutical companies ranked by research and development expenditures according to industry consultants, and many other emerging biopharmaceutical and life sciences research companies, as well as leading academic research institutes and *in vitro* diagnostics companies. Our products address the key phases of biopharmaceutical development and include complex nucleic acids for diagnostic and therapeutic applications, antibody-based products to detect impurities during the production of biopharmaceutical products, and products to detect the expression of proteins in tissues of various species.

Our businesses principally serve high growth market segments in biopharmaceutical development and manufacturing. We estimate that the market segments we serve are growing at a weighted average blended rate of 20% per annum. In particular, the field of cell and gene therapy has emerged as one of the fastest growing treatment modalities to address a host of human conditions. There are more than 400 cell and gene therapies in development or launched and sales in this category are expected to grow more than tenfold by 2024, according to industry consultants and management estimates. Our portfolio offers key products for each stage of the cell and gene therapy development lifecycle. For example, our mRNA products are used in drug development to assist in the production of immune-activating antigens; our CleanCap® technology is used to stabilize mRNA; and we expect our upcoming plasmid DNA products will be used as vectors in gene editing for cellular therapies. We also provide biologics safety testing technology used to ensure the safety of the biological drug manufacturing process and drug products. We estimate that more than % of our revenue for the nine months ended September 30, 2020 were in support of vaccines and therapies in development, including biological drugs and cell and gene therapies.

Our proprietary capabilities and products underpin the value we aim to provide to our customers. Among other capabilities, we are experts in RNA and mRNA products, which are challenging and often unstable molecules requiring significant chemical modifications to ensure their stability and efficacy in our customers' applications. Notably, according to research commissioned by us consisting of over 70 interviews with our current and former customers, our competitors and industry experts focused across our three business segments (the "Industry Analysis"), we believe CleanCap® is viewed as a leading solution to ensure the stability of mRNA. CleanCap® is a novel chemical approach to produce a cap analog, which, in addition to making mRNA more stable, aids in protein production and helps prevent an unwanted immune response to the mRNA. As of September 30, 2020, CleanCap® had been used by 109 customers and had been incorporated into several development programs, including six mRNA vaccine programs targeting immunization against the novel strain of coronavirus, SARS-CoV-2 ("COVID-19") and will potentially be used in up to three additional COVID-19 mRNA vaccine programs. We estimate our mRNA and CleanCap® products have also been incorporated in at least 33 therapeutic programs in development. Should one or more of these programs proceed to commercialization, we believe we will continue to supply our customers and our products will likely be incorporated in customer regulatory filings.

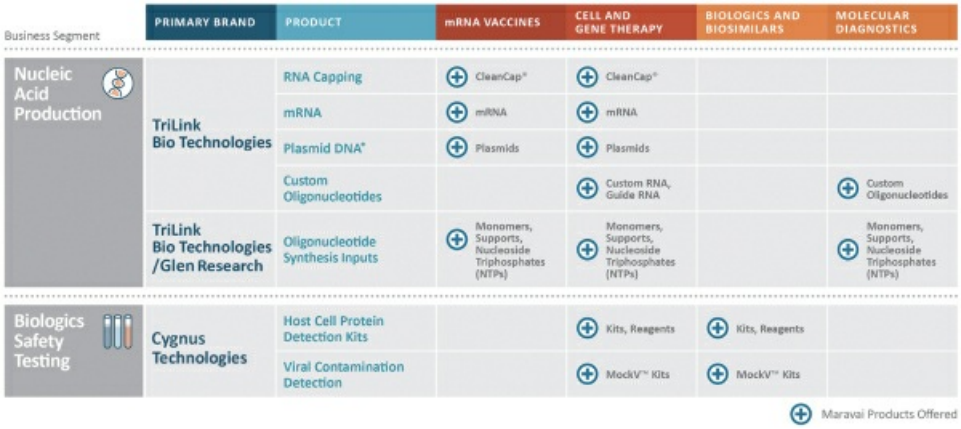
mRNA is at the core of our capabilities. We developed our expertise in mRNA with a belief in its potential as a therapeutic modality. With the COVID-19 pandemic, mRNA has shown its potential for more rapid vaccine design and manufacture when compared to traditional techniques involving culturing inactivated virus to elicit an immune response. According to the World Health Organization, there were 193 COVID-19 vaccine development programs as of October 2, 2020, with some of the lead candidates for approval in the RNA class. COVID-19 has helped highlight the potential advantage of mRNA as a treatment modality and directed significant resources to the developing base of knowledge about mRNA. We believe this knowledge will be directed at future vaccine programs as well as therapeutic agents for a host of human diseases. We are positioned to serve our biopharmaceutical customers in the fast-growing mRNA field across a range of clinical programs for a variety of diseases. Approximately % of our revenue were derived from products that support mRNA research for the nine months ended September 30, 2020.

Forming long-term partnerships with our customers is core to our strategy. We primarily serve our customers during the product development and process development phases. During product development, we collaborate with our customers to develop and synthesize nucleic acids, which in some cases comprise the active pharmaceutical ingredients ("APIs") of our customers' pre-commercial products. While we do not provide products that are themselves regulated as drugs or *in vitro* diagnostics, our customers frequently incorporate our products into their highly validated products and processes. For example, we provide oligonucleotides and antibody-based products used by *in vitro* diagnostic product manufacturers for their on-market products. Because of the extensive validation required for these products, these components are frequently purchased for the life of our customers' products and we believe they are unlikely to be substituted. In addition, our analytical tools are used in the design and development of manufacturing processes and often will be used throughout the life cycle of our customers' manufactured products. As a result, our customer relationships may span many years.

We believe we are a leader in providing critical products and solutions to life sciences customers worldwide to support all phases of biopharmaceutical development for innovative vaccines, therapies and diagnostics. The end markets we serve are growing rapidly, and we believe we will continue to benefit as biopharmaceutical companies increasingly look for partners like us with specialized and technical capabilities and products and services that span from research and development through commercialization. For the year ended December 31, 2019, we generated revenue of $143.1 million, representing 16% growth as compared to the year ended December 31, 2018. We incurred net losses of $5.2 million and generated Adjusted EBITDA of $62.0 million for the year ended December 31, 2019.

OUR PORTFOLIO AND CAPABILITIES

Our products address our customers' needs for nucleic acid production, biologics safety testing and protein detection, and our operations are aligned to these three segments. For the nine months ended September 30, 2020, we sold more than % of our products and services to biopharmaceutical customers and our products serve high growth applications in vaccines, cell and gene therapies, biological drugs and molecular diagnostics.



* Our plasmid DNA products are expected to launch in Q1 2021.

Nucleic Acid Production (% of Revenue for the Nine Months Ended September 30, 2020)

We are a global provider of highly modified, complex nucleic acids and related products. We have recognized expertise in complex chemistries and products provided under exacting quality standards. Our core offerings include mRNA, long and short oligonucleotides, our proprietary CleanCap® capping technology and oligonucleotide building blocks. We offer a suite of CleanCap® analogs that are specifically made for therapeutics and vaccines. Based on the Industry Analysis, we believe our cap analogs are critical features of several mRNA vaccines in development. Our offerings address key customer needs for critical components, from research-grade to good manufacturing practices ("GMP") grade materials. We market our nucleic acid products under the TriLink BioTechnologies and Glen Research brands.

Biologics Safety Testing (% of Revenue for the Nine Months Ended September 30, 2020)

We provide products and services under the Cygnus Technologies brand that ensure the purity of our customers' biopharmaceutical products, including biological drugs. For over 20 years, the Cygnus Technologies brand has been associated with products and services that enable the detection of impurities and contaminants present in bioproduction. Our biologics safety testing products are used during development and scale-up, during the regulatory approval process and throughout commercialization. We are recognized globally for the detection of host cell proteins ("HCPs") and process-related impurities during bioproduction.

Protein Detection (% of Revenue for the Nine Months Ended September 30, 2020)

We believe that we are a leader in labeling and detection reagents for immunohistochemistry, immunofluorescence and glycobiology, principally in research settings, with Vector Laboratories, the brand under which we market our protein detection products, having been cited over 350,000 times in scientific

publications. Our products are used to detect the expression of proteins in tissue, which may indicate an ongoing disease process, with the use of antibody-based detection systems. We also manufacture lectins, proteins that preferentially bind to carbohydrates and which are used, for example, in the study of glycosylation, the process by which carbohydrates attach to proteins and lipids. Glycosylation is critical in a range of biological processes, including cell-to-cell adhesion, the performance of glycoprotein-based drugs and cancer. In addition, we manufacture bioconjugation reagents to allow rapid and quantifiable conjugation of all classes of biomolecules.

OUR COMPETITIVE STRENGTHS

We believe we are a leader in providing nucleic acid products and biologics safety testing products to biopharmaceutical customers worldwide. Our success is built on our ability to provide proprietary technologies and products under exacting quality standards to reliably serve our customers' needs for critical raw materials.

Leading Supplier of Critical Solutions for Life Sciences from Discovery to Commercialization

We seek to be an important component of our customers' supply chain by providing inputs that are central to the performance of their products and processes throughout the product lifecycle. By collaborating with customers early in the development phase, our products frequently follow our customers' development path to commercialization and are likely to be incorporated as raw materials in their on-market products and processes. Our decades-long experience and track record, coupled with our ongoing investment in facilities and quality systems, allow our customers to rely on us for their critical products. Our approach is to be a trusted partner throughout the life cycle of our customers' products.

Innovation, Proprietary Technologies and Knowhow Underpin Our Portfolio

Our expertise in complex chemistries leads customers to seek our collaboration in designing complex products that meet high performance expectations. Based on the responses to the Industry Analysis, we believe the solutions we provide, in many cases, cannot be provided effectively by our competitors. In certain cases, like our CleanCap® technology, our knowhow is backed by intellectual property. In other cases, such as our HCP products, our antibodies are proprietary and therefore can only be supplied by us. We believe the proprietary nature of our knowhow and products solidifies our long-term customer relationships.

Products with Outstanding Performance

We believe our products stand out when compared to our competitors because they present innovative solutions to customer needs, as indicated by the responses to the Industry Analysis, while providing reliable performance and quality. CleanCap®, for example, offers advantages over competing technologies in yield, stability and safety. Our oligonucleotides address complex chemistry challenges, which few competitors can address. The results of the Industry Analysis indicate that our HCP ELISAs have defined the market for impurity detection and we believe they have become a *de facto* standard in biologics safety testing. Our protein detection assays have been recognized for their performance for over 40 years.

Trusted Brands

Our TriLink BioTechnologies, Glen Research, Cygnus Technologies and Vector Laboratories product brands are well known in their respective markets for consistent quality and performance. This brand recognition has been earned over decades. Our manufacturing processes, quality standards, technical support and high-touch customer service ensure that we maintain the reputation of our brands.

State-of-the-Art Manufacturing Facilities

Our biopharmaceutical customers manufacture their products to meet stringent quality standards and expect their critical suppliers to meet their exacting requirements. Our customers further expect that we have the

production capacity to meet their needs. As of September 30, 2020, we estimate that $ million has been invested in our flagship San Diego, California facility and manufacturing suites to produce materials under GMP conditions, along with the necessary quality systems, to meet requirements specified by our customers. We similarly invest in our other sites to ensure we meet our customers' expectations. We believe that the capacity to manufacture to stringent biopharmaceutical standards is constrained in the industry and our ability to meet this demand sets us apart from our competition.

Experienced Leaders and Talented Workforce

Our management includes experienced leaders with demonstrated records of success at Maravai and other highly regarded industry participants. In addition, as of August 31, 2020, approximately 10% of our workforce have advanced degrees. We believe the quality of our personnel is critical to ensuring the collaborative, long-standing relationships we maintain with many of our customers.

OUR MARKETS

We participate in three distinct market segments: nucleic acid production, biologics safety testing and protein detection, which together represented approximately $8.4 billion in annual spending in 2019 and which are expected to grow at a 15% compound annual growth rate ("CAGR") through 2023 according to industry consultants and management estimates. Of that combined market, we estimate our addressable portion represents approximately $3.6 billion. Our addressable segments, adjusted for the mix of products we offer, are expected to grow at a weighted average blended rate of 20% per annum through 2023. We benefit from favorable industry dynamics in our broader market segments and specific growth drivers in our addressable market segments.

The biopharma space remains well-funded, as demonstrated by the substantial amount of capital that has been raised in recent years. In addition, the level of capital markets activity in this space over recent years underscores the rapid pace of biopharmaceutical innovation and increasing cost of drug development. According to Dealogic, between 2015 and 2020 to date, more than $195 billion has been raised by biotechnology companies and in the U.S. public capital markets. This includes over $35 billion raised by companies across more than 228 initial public offerings, reflecting an average of 40 initial public offerings of biotechnology companies per year from 2015 to the six-month period ended June 30, 2020.

Business Segment	PRIMARY BRAND	PRODUCT	TOTAL MARKET SIZE (2019)	MARKET GROWTH (2019-2023 CAGR)	ADDRESSABLE MARKET SIZE[1] (2019)	ADDRESSABLE MARKET GROWTH[2] (2019-2023 CAGR)
Nucleic Acid Production	TriLink Biotechnologies and Glen Research	• RNA Capping (CleanCap®) • mRNA • Plasmid DNA • Oligonucleotides and Inputs	$3.5B	19%	$2.8B	28%
Biologics Safety Testing	Cygnus Technologies	• Host Cell Protein Detection • Viral Contamination Detection	$2.8B	12%	$575M	13%
Protein Detection	Vector Laboratories	• Immunohistochemistry	$2.2B	8%	$200M	6%
		TOTAL	$8.4B	15%	$3.6B	20%

1 Includes products, use cases, and customer types relevant to Maravai

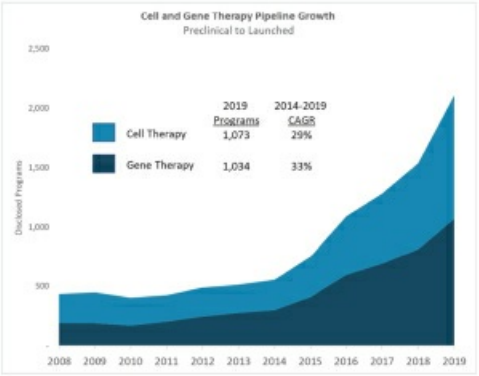
2 Growth rates weighted by revenue exposure to addressable market segments

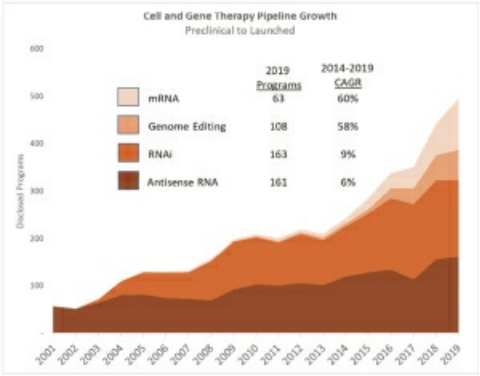
Biopharmaceutical customers are increasingly relying on outside parties to provide important inputs and services for their clinical research and manufacturing, a development driving growth for suppliers with unique capabilities and the ability to manufacture at an appropriate scale to support customer programs. We believe that

suppliers like ourselves, with this rare combination of capabilities, proprietary products and the required investment in manufacturing and quality systems, are benefiting from rapid growth as biopharmaceutical customers seek to partner with a small number of trusted suppliers.

In addition to the continued trend toward outsourcing, several market developments are driving increased growth, above the broader market growth rates, in our addressable market segments, including:

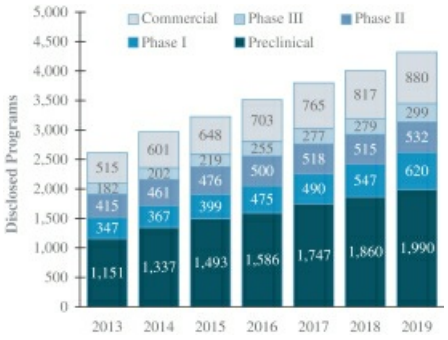
- **Pivot toward mRNA vaccines, driven in part by COVID-19**. mRNA vaccine pre-clinical programs grew approximately 38% in 2019, before the COVID-19 pandemic. That rate is expected to increase to approximately 63% in 2020. The increased growth is being driven, in part, by 25 COVID-19 vaccine programs using mRNA as of October 2, 2020 according to the World Health Organization. Six of the 25 involve our CleanCap® products and up to three more will potentially use our CleanCap® products. mRNA vaccine technology is gaining prominence as a result of its faster development time, lower manufacturing costs and improved safety because of the lower risk of unwanted immune responses. RNA expertise is highly specialized and customers seek partners to provide these complex products. A small number of providers, like ourselves, can provide this RNA capability.
- **Rapid growth in development of cell and gene therapies**. Sales of cell and gene therapy drugs are expected to grow from $1 billion in 2019 to $25 billion by 2024, according to industry consultants. We support the development of these therapies with products used in gene editing and cell therapy research, and we are well positioned to supply materials for gene therapy with our launch of DNA plasmid products, which we expect in the first quarter of 2021.



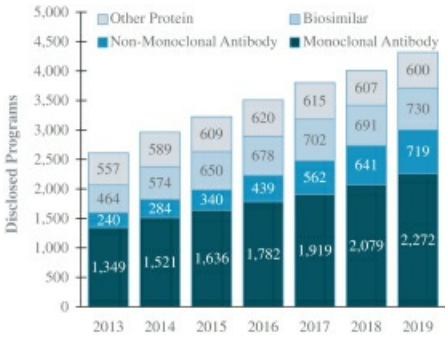


- **Large and growing pipeline of protein-based therapeutics.** In addition to cell and gene therapies, an increase in protein-based therapies is driving the need for impurity testing during process development and manufacturing.

Protein Therapy Pipeline Growth
CAGR = 9%



Protein Therapy Pipeline Mix
CAGR = 9%



Source: Industry consultants. Included proteins are biosimilars, antibodies, recombinant proteins, hormonal products and coagulation factor

- **Rise in molecular diagnostics, driven by COVID-19**: The market for molecular diagnostics is growing dramatically because of demand for new tests related to COVID-19. This growth is driving demand for our products, particularly oligonucleotides and related inputs.
- **COVID-19 providing both short-term and expected long-term growth**: Several of our product categories are experiencing accelerated growth in 2020, notably our CleanCap® and oligonucleotides products. We expect the impact of COVID-19 on our growth to sustain in the longer-term as the entire mRNA category, as well as research in other therapeutic categories, experience increased growth from lessons learned and research conducted for COVID-19 diffuses more broadly into other vaccines and therapies.

Anticipated COVID-19 Impact on Market Growth

Business Segment	Primary Brand	Product	Near Term (2020-2021)	Long Term (2022+)	Comments
Nucleic Acid Production	TriLink BioTechnologies	RNA Capping	⊕	⊕	• Significant growth from '19 to '20 driven by COVID mRNA programs • Success will grow R&D pipeline for non-COVID mRNA therapeutics, vaccines, & diagnostics in 2022+, sustaining significant category growth
		mRNA	⊕	⊕	
		Plasmid DNA	⊖	⊖	• Minimal impact • Not a significant input to COVID vaccines, PCR diagnostics, etc.
		Custom Oligonucleotides	⊕	⊖	• Molecular diagnostics driving outsized near-term growth, likely to return to historic growth rates
	TriLink BioTechnologies /Glen Research	Oligonucleotide Synthesis Inputs	⊕	⊖	• Supporting commercialized efforts that rely on mRNA for vaccines & therapeutics, likely to return to secular category growth rates
Biologics Safety Testing	Cygnus Technologies	Host Cell Protein Detection	⊖	⊖	• Minimal impact • HCP tests & viral clearance growing from biologics & biosimilars market, not directly impacted by COVID vaccines & diagnostics
		Viral Contamination Detection	⊖	⊖	
Protein Detection	Vector Laboratories	Immunohistochemistry	⊗	⊖	• Market decline in '20 due to COVID-driven lab closures, expect post-COVID recovery

⊕ Strong Positive Impact ⊕ Moderate Positive Impact ⊖ Minimal Impact ⊗ Negative Impact

* Our plasmid DNA products are expected to launch in Q1 2021.

OUR STRATEGY

Our customers strive to improve human health. Our goal is to provide them with products and services to accelerate their development efforts, from basic research through clinical trials and ultimately to commercialization for drugs, diagnostics and vaccines.

Supporting Biopharma Customers from Product Development through Commercialization

Our customers include both emerging and established biopharmaceutical leaders developing novel therapies, diagnostics and vaccines. Emerging biopharmaceutical customers frequently seek the support we can offer in our state-of-the-art facilities under our stringent quality standards, with the capabilities that result from the capital and process investments we have made over the last several years. Although our products are exempt from current GMP regulations, we are capable of manufacturing reagents from research-grade to GMP-grade, which often exceeds the in-house capabilities of our pre-commercial customers. See "Business—Government Regulation." The results of the Industry Analysis indicate that our emerging and established customers also seek us out for our leading capabilities in nucleic acid chemistries, especially in highly modified nucleic acids and mRNA, and process control assays. We further support our customers as they transition from product development to commercialization by providing critical raw materials for their drugs.

Developing Proprietary Technologies that Deepen Our Relationships with Our Customers

We are experts in nucleic acids and our scientists aim to develop proprietary enabling technologies that become integral to our customers' products. For example, CleanCap®, our proprietary chemical capping technology, has demonstrated its advantages in terms of the stability of the associated mRNA and its efficiency in protein production when compared to traditional capping technologies. This efficiency has led biopharmaceutical customers to employ CleanCap® in their vaccine and therapeutic programs. As those products proceed through development into commercialization, we believe CleanCap® will be a critical input in on-market vaccines and therapeutics, with 109 customers having used CleanCap® as of September 30, 2020 and six COVID-19 vaccine programs incorporating CleanCap® as of September 30, 2020, and we expect to supply our customers throughout their products' life cycle.

Forming Long-Term Partnerships for Critical Biopharmaceutical Components and Process Tests

Our products are frequently incorporated into regulated and highly validated therapeutic and diagnostic products and processes. Our biopharmaceutical customers expect us to provide them with consistent, high quality products that meet narrow specifications, and that we ensure their supply chain for such products for the length of their programs. In many cases, we may be the sole source of the products we provide. Our emphasis on partnership generally leads to long-term relationships with our customers.

Focusing Our Efforts on High Growth End Markets

While biopharmaceutical research and *in vitro* diagnostics markets are experiencing strong growth, we target the highest growth segments within those markets. Our product portfolio is well positioned to serve the biologics, cell and gene therapy and mRNA vaccine and therapeutic end markets, which are currently experiencing above-market growth. By investing in technologies at the forefront of biopharmaceutical and *in vitro* diagnostics, we aim to remain focused on the highest-growth applications.

Acquiring Leading Life Sciences Businesses and Supporting Their Continued Development

We built our business by acquiring established and emerging companies with strong scientific foundations in our target markets and investing in their systems, processes and people to accelerate their growth and expand their technologies. We seek acquisitions that meet, or could meet after being acquired and expanded, the following criteria:

- address our core target markets;
- have a demonstrated adherence to high quality standards;
- be leaders in their market niches;
- have differentiated or proprietary products and processes that provide clear value to our biopharmaceutical and other customers; and
- have a track record of attractive rates of growth and compelling returns on invested capital.

Our acquisition strategy is to invest significantly in our acquired businesses. We strive to rapidly integrate their information and financial systems, seek opportunities to invest in their facilities and personnel and augment their commercial capabilities through a combination of sales and marketing resources dedicated to each business, supported by our global marketing infrastructure. We will continue to seek a balance between driving growth organically and through acquisitions and we expect mergers and acquisitions to be an important pillar of our growth in the future.

RISKS ASSOCIATED WITH OUR BUSINESS

There are a number of risks related to our business, this offering and our Class A common stock that you should consider before you decide to participate in this offering. You should carefully consider all the information presented in the section entitled “Risk Factors” in this prospectus. Some of the principal risks related to our business include the following:

- our history of losses, the risk that we may continue to incur losses in the future and our ability to generate sufficient revenue to achieve or maintain profitability;
- the fluctuation of our operating results, which makes our future operating results difficult to predict and could cause our operating results to fall below expectations or any guidance we may provide;
- our dependence on a limited number of customers for a high percentage of our revenue;
- the use of certain of our products in the production of vaccines and therapies that represent relatively new and still-developing modes of treatment, which may experience unforeseen adverse events, negative clinical outcomes or increased regulatory scrutiny;
- the impact of COVID-19 and any pandemic, epidemic or outbreak of infectious disease;
- changes in economic conditions;
- our dependence on customers’ spending on and demand for outsourced nucleic acid production, biologics safety testing and protein detection research products and services;
- competition with life science, pharmaceutical and biotechnology companies who are substantially larger than we are and potentially capable of developing new approaches that could make our products, services and technologies obsolete;
- the ability of our products and services to perform as expected and the reliability of the technology on which our products and services are based;

- our ability to obtain, maintain and enforce intellectual property protection for our current and future products; and
- the other factors set forth under "Risk Factors."

These and other risks are more fully described in the section entitled "Risk Factors" in this prospectus. If any of these risks actually occurs, our business, financial condition, results of operations, cash flows and prospects could be materially and adversely affected. As a result, you could lose all or part of your investment in our Class A common stock.

OUR SPONSOR

We have a valuable relationship with our equity sponsor, GTCR. In connection with this offering, we will enter into a director nomination agreement (the "Director Nomination Agreement") with GTCR that provides GTCR the right to designate nominees to our board of directors (the "Board"), subject to certain conditions. See "Certain Relationships and Related Party Transactions—Director Nomination Agreement" for more details with respect to the Director Nomination Agreement.

Founded in 1980, GTCR is a leading growth-oriented private equity firm focused on investing in growth companies in the Healthcare, Financial Services & Technology, Technology, Media & Telecommunications and Growth Business Services industries. The Chicago-based firm pioneered The Leaders Strategy™—finding and partnering with management leaders in core domains to identify, acquire and build market-leading companies through transformational acquisitions and organic growth. Maravai is an example of the Leaders Strategy™, whereby GTCR is partnering with Carl Hull and Eric Tardif to build and grow a leading life sciences platform. Since its inception, GTCR has invested more than $18.0 billion in over 200 companies.

GENERAL CORPORATE INFORMATION

Our principal executive offices are located at 10770 Wateridge Circle Suite 200, San Diego, California, 92121. Our telephone number is (858)546-0004. Our website address is www.maravai.com. The information contained on, or that can be accessed through, our website is not incorporated by reference into this prospectus, and you should not consider any information contained on, or that can be accessed through, our website as part of this prospectus or in deciding whether to purchase our Class A common stock. We are a holding company and all of our business operations are conducted through, and substantially all of our assets are held by, our subsidiaries.

IMPLICATIONS OF BEING AN EMERGING GROWTH COMPANY

We qualify as an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012 (the "JOBS Act"). We will remain an emerging growth company until the earlier of (1) the last day of the fiscal year following the fifth anniversary of the completion of this offering, (2) the last day of the fiscal year in which we have total annual gross revenue of at least $1.07 billion, (3) the date on which we are deemed to be a large accelerated filer (this means the market value of common that is held by non-affiliates exceeds $700.0 million as of the end of the second quarter of that fiscal year), or (4) the date on which we have issued more than $1.0 billion in non-convertible debt securities during the prior three-year period.

An emerging growth company may take advantage of reduced reporting requirements that are otherwise applicable to public companies. These provisions include, but are not limited to:

- not being required to comply with the independent registered public accounting firm attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002, as amended (the "Sarbanes-Oxley Act");

- only required to present two years of audited financial statements, plus unaudited condensed financial statements for any interim period, and related management's discussion and analysis of financial condition and results of operations;
- reduced disclosure obligations regarding executive compensation in our periodic reports, proxy statements and registration statements; and
- exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and shareholder approval of any golden parachute payments not previously approved.

We have elected to take advantage of certain of the reduced disclosure obligations regarding financial statements and executive compensation in this prospectus and expect to elect to take advantage of other reduced burdens in future filings. As a result, the information that we provide to our shareholders may be different than you might receive from other public reporting companies in which you hold equity interests.

Under the JOBS Act emerging growth companies can delay adopting new or revised accounting standards until such time as those standards apply to private companies. We have elected to avail ourselves of the extended transition period for complying with new or revised financial accounting standards. As a result of the accounting standards election, we will not be subject to the same implementation timing for new or revised accounting standards as other public companies that are not emerging growth companies, which may make comparison of our financials to those of other public companies more difficult.

OWNERSHIP AND ORGANIZATIONAL STRUCTURE

Maravai LifeSciences Holdings, Inc. is a Delaware corporation formed to serve as a holding company that will hold an interest in Topco LLC. Maravai LifeSciences Holdings, Inc. has not engaged in any business or other activities other than in connection with its formation and this offering. Upon consummation of this offering and the application of the proceeds therefrom, we will be a holding company, our sole asset will be an equity interest in Topco LLC and we will operate and control all of the business and affairs and consolidate the financial results of Topco LLC. See "Organizational Structure" for a complete description of the Organizational Transactions.

In connection with the Organizational Transactions:

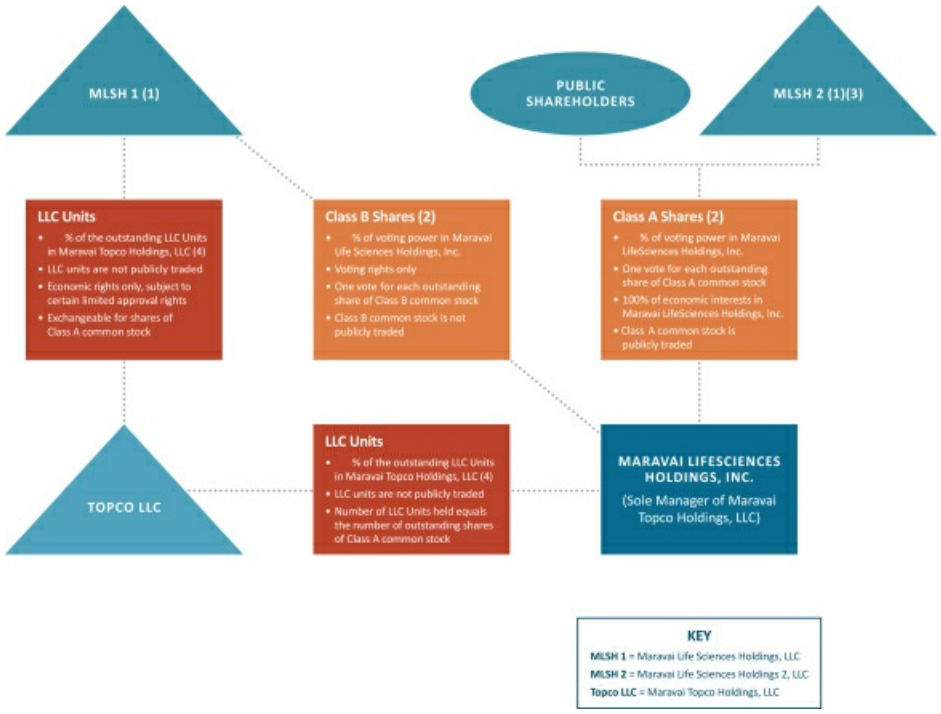
- We will amend and restate Topco LLC's existing operating agreement (the "LLC Operating Agreement") to, among other things, (i) modify Topco LLC's capital structure by replacing the membership interests currently held by Topco LLC's existing owners (beneficially owned through MLSH 1) with a new class of LLC Units held initially by MLSH 1 and (ii) appoint Maravai LifeSciences Holdings, Inc. as the sole managing member of Topco LLC. See "Organizational Structure—Amended and Restated Operating Agreement of Topco LLC.
- Certain of the entities (the "Blocker Entities") through which GTCR and other existing members of MLSH 1 hold their ownership interests in MLSH 1 will form Maravai Life Sciences Holdings 2, LLC ("MLSH 2") and engage in a series of transactions (the "Blocker Mergers") that will result in each of the Blocker Entities merging with and into Maravai LifeSciences Holdings, Inc., with Maravai LifeSciences Holdings, Inc. remaining as the surviving corporation. As a result of such transactions, (i) the former equityholders of the Blocker Entities will become members of MLSH 2 and (ii) MLSH 2 will exchange all of the equity interests in the Blocker Entities for (x) shares of Class A common stock and (y) the right to receive payments pursuant to the Tax Receivable Agreement.

- We will enter into an exchange agreement (the "Exchange Agreement") with MLSH 1 pursuant to which MLSH 1 will be entitled to exchange LLC Units, together with an equal number of shares of Class B common stock, for shares of Class A common stock on a one-for-one basis or, at our election, for cash, from a substantially concurrent public offering or private sale (based on the price of our Class A common stock in such public offering or private sale). See "Organizational Structure—Exchange Agreement."
- We will enter into a tax receivable agreement (the "Tax Receivable Agreement") with MLSH 1 and MLSH 2 that will provide for the payment by Maravai LifeSciences Holdings, Inc. to MLSH 1 and MLSH 2, collectively, of 85% of the amount of cash savings, if any, in U.S. federal, state and local income taxes (computed using simplifying assumptions to address the impact of state and local taxes) we actually realize (or, under certain circumstances are deemed to realize in the case of an early termination payment by us, a change in control or a material breach by us of our obligations under the Tax Receivable Agreement, as discussed below) as a result of (i) certain increases in the tax basis of assets of Topco LLC and its subsidiaries resulting from purchases or exchanges of LLC Units, (ii) certain tax attributes of the Blocker Entities, Topco LLC and subsidiaries of Topco LLC that existed prior to this offering and (iii) certain other tax benefits related to our entering into the Tax Receivable Agreement, including tax benefits attributable to payments that we are required to make under the Tax Receivable Agreement. See "Organizational Structure—Tax Receivable Agreement."
- We estimate that the net proceeds to us from the sale of our Class A common stock in this offering, after deducting underwriting discounts and commissions and estimated expenses payable by us, will be approximately $ million ($ million if the underwriters exercise their option to purchase additional shares in full), based on an assumed initial public offering price of $ per share (the midpoint of the estimated public offering price range set forth on the cover page of this prospectus). We intend to use such net proceeds as follows:
  - $ million to acquire newly-issued LLC Units in Topco LLC and $ million to acquire outstanding LLC Units from MLSH 1, in each case at a purchase price per LLC Unit equal to the initial offering price per share of Class A common stock in this offering, less underwriting discounts and commissions; and
  - $ million to pay MLSH 2 as consideration for the Blocker Mergers.

In turn, Topco LLC intends to apply the balance of the net proceeds it receives from us (including any additional proceeds it may receive from us if the underwriters exercise their option to purchase additional shares) to pay expenses incurred in connection with this offering and the Organizational Transactions and for general corporate purposes. See "Use of Proceeds."

The diagram below depicts our historical organizational structure prior to the completion of the Organizational Transactions. This diagram is provided for illustrative purposes only and does not purport to represent all legal entities owned or controlled by us, or owning a beneficial interest in us.

The diagram below depicts our expected organizational structure immediately following completion of the Organizational Transactions. This diagram is provided for illustrative purposes only and does not purport to represent all legal entities owned or controlled by us, or owning a beneficial interest in us.



(1) Upon completion of this offering, GTCR will control the voting power in Maravai LifeSciences Holdings, Inc. as follows: (i) approximately % (or approximately % if the underwriters exercise their option to purchase additional shares in full) through its control of MLSH 1 and (ii) approximately % through its control of MLSH 2. See "Principal Shareholders" for additional information about MLSH 1 and MLSH 2.

(2) Shares of Class A common stock and Class B common stock will vote as a single class. Each outstanding share of Class A common stock and Class B Common stock will be entitled to one vote on all matters to be voted on by shareholders generally. The Class B common stock does not have any right to receive dividends or distributions upon the liquidation or winding up of Maravai LifeSciences Holdings, Inc. In accordance with the Exchange Agreement to be entered into in connection with the Organizational Transactions, MLSH 1 will be entitled to exchange LLC Units, together with an equal number of shares of Class B common stock, for shares of Class A common stock determined in accordance with the Exchange Agreement or, at our election, for cash from a substantially concurrent public offering or private sale (based on the price of our Class A common stock in such public offering or private sale).

(3) Upon completion of this offering, we expect to award options to purchase an aggregate of shares of Class A common stock with an exercise price set at the initial public offering price issued pursuant to the 2020 Omnibus Incentive Plan (the "2020 Plan").

(4) Assumes no exercise of the underwriters' option to purchase additional shares. If the underwriters exercise their option to purchase additional shares in full, (i) the holders of Class A common stock will have % of the voting power in Maravai LifeSciences Holdings, Inc., (ii) MLSH 1, through ownership of the Class B common stock, will have % of the voting power of Maravai LifeSciences Holdings, Inc., (iii) MLSH 1 will own % of the outstanding LLC Units in Topco LLC and (iv) Maravai LifeSciences Holdings, Inc. will own % of the outstanding LLC Units in Topco LLC.

Our corporate structure following the offering, as described above, is commonly referred to as an"Up-C" structure, which is commonly used by partnerships and limited liability companies when they undertake an initial public offering of their business. Our Up-C structure together with the Tax Receivable Agreement will allow the existing owners of Topco LLC to continue to realize tax benefits associated with owning interests in an entity that is treated as a partnership, or "passthrough" entity, for income tax purposes following the offering. One of these benefits is that future taxable income of the Topco LLC that is allocated to such owners will be taxed on a flow-through basis and therefore will not be subject to corporate taxes at the entity level. Additionally, because the LLC Units that the existing owners will continue to hold are exchangeable for shares of our Class A common stock or, at our option, for cash, from Topco LLC, the Up-C structure also provides the existing owners of Topco LLC potential liquidity that holders of non-publicly traded limited liability companies are not typically afforded. See "Organizational Structure" and "Description of Capital Stock."

Following this offering, MLSH 1 will hold a number of shares of our Class B common stock equal to the number of LLC Units it owns. Holders of our Class A common stock and Class B common stock will each be entitled to one vote per share on all matters on which shareholders are entitled to vote.

Maravai LifeSciences Holdings, Inc. will also hold LLC Units, and therefore receive benefits on account of its ownership in an entity treated as a partnership, or "passthrough" entity, for income tax purposes. As Maravai LifeSciences Holdings, Inc. purchases LLC Units from MLSH 1 under the mechanism described above, it will obtain a step-up in tax basis in its share of the assets of Topco LLC and its flow-through subsidiaries. Thisstep-up in tax basis will provide Maravai LifeSciences Holdings, Inc. with certain tax benefits, such as future depreciation and amortization deductions that can reduce the taxable income allocable to Maravai LifeSciences Holdings, Inc. Pursuant to the Tax Receivable Agreement, Maravai LifeSciences Holdings, Inc. will agree to pay MLSH 1 and MLSH 2, collectively, 85% of the value of these tax benefits; however, the remaining 15% of such benefits will be available to Maravai LifeSciences Holdings, Inc. Due to the uncertainty of various factors, we cannot precisely quantify the likely tax benefits we will realize as a result of LLC Unit exchanges and the resulting amounts we are likely to pay out to LLC Unitholders pursuant to the Tax Receivable Agreement; however, we estimate that such payments may be substantial. See "Organizational Structure—Tax Receivable Agreement."

Generally, Maravai LifeSciences Holdings, Inc. will receive a pro rata share of any distributions (including tax distributions) made by Topco LLC to its members. Tax distributions will be calculated without regard to any applicable basis adjustment under Section 743(b) of the Internal Revenue Code (the "Code") and will be based upon an assumed tax rate, which, under certain circumstances, may cause Topco LLC to make tax distributions that, in the aggregate, exceed the amount of taxes that Topco LLC would have paid if it were a similarly situated corporate taxpayer. Funds used by Topco LLC to satisfy its tax distribution obligations will not be available for reinvestment in our business. See "Risk Factors—Risks Related to Our Organizational Structure."

As a result of the Organizational Transactions:

- the investors in this offering will collectively own shares of our Class A common stock and we will hold LLC Units;
- MLSH 1 will own LLC Units and shares of Class B common stock;
- our Class A common stock will collectively represent approximately % of the voting power in us; and
- our Class B common stock will collectively represent approximately % of the voting power in us.

THE OFFERING

Issuer	Maravai LifeSciences Holdings, Inc.
Class A common stock offered by us	shares.
Underwriters' option to purchase additional shares of Class A common stock	shares.
Class A common stock to be outstanding immediately after this offering	shares (or shares if the underwriters' option is exercised in full). If all outstanding LLC Units held by MLSH 1 were exchanged for newly-issued shares of Class A common stock on a one-for-one basis, shares of Class A common stock (or shares if the underwriters' option is exercised in full) would be outstanding.
Class B common stock to be outstanding immediately after this offering	shares. Immediately after this offering, MLSH 1 will own 100% of the outstanding shares of our Class B common stock.
Ratio of shares of Class A common stock to LLC Units	Our amended and restated certificate of incorporation and the amended and restated operating agreement of Topco LLC will require that we and Topco LLC at all times maintain a one-to-one ratio between the number of shares of Class A common stock issued by us and the number of LLC Units owned by us (subject to certain exceptions for treasury shares and shares underlying certain convertible or exchangeable securities).
Voting	Each share of our Class A common stock entitles its holder to one vote on all matters to be voted on by shareholders generally. Each share of our Class B common stock entitles its holder to one vote on all matters to be voted on by shareholders generally. After this offering, MLSH 1 will hold a number of shares of Class B common stock equal to the number of LLC Units it owns. See "Description of Capital Stock—Class B Common Stock." Holders of our Class A common stock and Class B common stock vote together as a single class on all matters presented to our shareholders for their vote or approval, except as otherwise required by applicable law.

Voting power held by holders of Class A common stock	% (or 100% if all outstanding LLC Units were exchanged for newly-issued shares of Class A common stock on a one-for-one basis).
Voting power held by holders of Class B common stock	% (or 0% if all outstanding LLC Units were exchanged for newly-issued shares of Class A common stock on a one-for-one basis).
Use of proceeds	We estimate, based upon an assumed initial public offering price of $ per share (which is the midpoint of the estimated public offering price range set forth on the cover page of this prospectus), we will receive net proceeds from this offering of approximately $ million (or $ million if the underwriters exercise their option to purchase additional shares in full), after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. We intend to use the net proceeds as follows: • $ million to acquire newly-issued LLC Units (or LLC Units if the underwriters exercise their option to purchase additional shares in full) in Topco LLC and $ million to acquire outstanding LLC Units (or LLC Units if the underwriters exercise their option to purchase additional shares in full) from MLSH 1, in each case at a purchase price per LLC Unit equal to the initial public offering price per share of Class A common stock in this offering, less underwriting discounts and commissions; and • $ million to pay MLSH 2 as consideration for the Blocker Mergers. In turn, Topco LLC intends to: • apply the balance of the net proceeds it receives from us (including any additional proceeds it may receive from us if the underwriters exercise their option to purchase additional shares) to pay expenses incurred in connection with this offering and the Organizational Transactions and for general corporate purposes. See “Use of Proceeds” and “Organizational Structure.”

Controlled company	After this offering, assuming an offering size as set forth in this section, GTCR will control approximately % of the voting power (or % of our Class A common stock if the underwriters' option to purchase additional shares is exercised in full) in us. As a result, we expect to be a controlled company within the meaning of the corporate governance standards of The Nasdaq Stock Market ("NASDAQ"). See "Management—Corporate Governance—Controlled Company Status."
Dividend policy	We currently intend to retain any future earnings for investment in our business and do not expect to pay any dividends in the foreseeable future. The declaration and payment of all future dividends, if any, will be at the discretion of our board of directors (our "Board") and will depend upon our financial condition, earnings, contractual conditions or applicable laws and other factors that our Board may deem relevant. See "Dividend Policy."
Exchange rights of holders of the LLC Units	Prior to this offering, we will enter into the Exchange Agreement with MLSH 1 so that it may exchange LLC Units, together with an equal number of shares of Class B common stock, for shares of Class A common stock on a one-for-one basis or, at our election, for cash from a substantially concurrent public offering or private sale (based on the price of our Class A common stock in such public offering or private sale). Any shares of Class B common stock so delivered will be cancelled. See "Organizational Structure—Exchange Agreement."
Tax Receivable Agreement	We will enter into the Tax Receivable Agreement with MLSH 1 and MLSH 2 that will provide for the payment by us to MLSH 1 and MLSH 2, collectively, of 85% of the amount of tax benefits, if any, that Maravai LifeSciences Holdings, Inc. actually realizes (or in some circumstances is deemed to realize) as a result of (i) certain increases in the tax basis of assets of Topco LLC and its subsidiaries resulting from purchases or exchanges of LLC Units, (ii) certain tax attributes of the Blocker Entities, Topco LLC and subsidiaries of Topco LLC that existed prior to this offering and (iii) certain other tax benefits related to our entering into the Tax Receivable Agreement, including tax benefits attributable to payments that we make under the Tax Receivable Agreement See "Organizational Structure—Tax Receivable Agreement."

Registration Rights Agreement	We intend to enter into a registration rights agreement (the "Registration Rights Agreement") with MLSH 1 and MLSH 2 in connection with this offering. The Registration Rights Agreement will provide MLSH 1 and MLSH 2 certain registration rights whereby, following our initial public offering and the expiration of any related lock-up period, MLSH 1 and MLSH 2 can require us to register under the Securities Act shares of Class A common stock, (including shares issuable to MLSH 1 upon exchange of its LLC Units). The Registration Rights Agreement will also provide for piggyback registration rights for MLSH 1 and MLSH 2. See "Certain Relationships and Related Party Transactions—Registration Rights Agreement."
Risk factors	Investing in our Class A common stock involves a high degree of risk. See "Risk Factors" elsewhere in this prospectus for a discussion of factors you should carefully consider before deciding to invest in our Class A common stock.
Symbol for trading on The Nasdaq Global Select Market	"MRVI."

Unless otherwise indicated, all information in this prospectus:

- assumes the effectiveness of the Organizational Transactions;
- assumes an initial public offering price of $ per share, which is the midpoint of the estimated public offering price range set forth on the cover of this prospectus;
- assumes that the underwriters' option to purchase additional shares of Class A common stock is not exercised;
- excludes the shares of Class A common stock that may be issuable upon exercise of redemption and exchange rights held by MLSH 1; and
- excludes shares of Class A common stock reserved for future issuance under the 2020 Plan.

SUMMARY HISTORICAL FINANCIAL AND OTHER DATA

The following tables present, as of the dates and for the periods indicated, (1) the summary historical consolidated financial and other data for Topco LLC and its consolidated subsidiaries and (2) the summary unaudited pro forma financial data for Maravai LifeSciences Holdings, Inc. and its consolidated subsidiaries, including Topco LLC. Topco LLC is the predecessor of Maravai LifeSciences Holdings, Inc. for financial reporting purposes. The summary condensed consolidated statement of operations data for the nine months ended September 30, 2019 and 2020 and the summary condensed consolidated balance sheet data as of September 30, 2020 have been derived from the unaudited condensed consolidated financial statements and notes of Topco LLC and its subsidiaries included elsewhere in this prospectus. The summary consolidated statement of operations data for the years ended December 31, 2018 and 2019 and the summary consolidated balance sheet data as of December 31, 2018 and 2019 have been derived from the audited consolidated financial statements and notes of Topco LLC and its subsidiaries included elsewhere in this prospectus.

The results of operations for the periods presented below are not necessarily indicative of the results to be expected for any future period and the results for any interim period are not necessarily indicative of the results that may be expected for a full fiscal year. The information set forth below should be read together with "Use of Proceeds," "Capitalization," "Selected Consolidated Financial Data," "Unaudited Pro Forma Condensed Consolidated Financial Information" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the consolidated financial statements and the accompanying notes included elsewhere in this prospectus.

The summary unaudited pro forma consolidated financial data of Maravai LifeSciences Holdings, Inc. presented below have been derived from our unaudited pro forma condensed consolidated financial statements and notes included elsewhere in this prospectus. The summary unaudited pro forma financial data as of and for the year ended December 31, 2019 and as of and for the nine months ended September 30, 2020, gives effect to the Organizational Transactions as described in "Organizational Structure," including the consummation of this offering, the use of the net proceeds therefrom and related transactions, as described in "Use of Proceeds" and "Unaudited Pro Forma Condensed Consolidated Financial Data," as if all such transactions had occurred on January 1, 2019, with respect to the condensed consolidated statement of operations data and September 30, 2020, with respect to the condensed consolidated balance sheet data. The unaudited pro forma financial data include various estimates that are subject to material change and may not be indicative of what our operations or financial position would have been had this offering and related transactions taken place on the dates indicated, or that may be expected to occur in the future. See "Unaudited Pro Forma Condensed Consolidated Financial Information" for a complete description of the adjustments and assumptions underlying the summary unaudited pro forma consolidated financial data.

The summary historical consolidated financial and other data of Maravai LifeSciences Holdings, Inc. have not been presented as Maravai LifeSciences Holdings, Inc. is a newly incorporated entity, has had no business transactions or activities to date and had no material assets or liabilities during the periods presented in this section.

	Historical Topco LLC				Pro Forma Maravai LifeSciences Holdings, Inc.	
	Year Ended December 31,		Nine Months Ended September 30,			
(in thousands, except per share and per unit data)	2018	2019	2019	2020	Year Ended December 31, 2019	Nine Months Ended September 30, 2020
			(Unaudited)		(Unaudited)	
Consolidated Statement of Operations Data:						
Revenue	$123,833	$143,140	$	$	$	$

(in thousands, except per share and per unit data)	Historical Topco LLC				Pro Forma Maravai LifeSciences Holdings, Inc.	
	Year Ended December 31,		Nine Months Ended September 30,		Year Ended December 31,	Nine Months Ended September 30,
	2018	2019	2019	2020	2019	2020
			(Unaudited)		(Unaudited)	
Operating Expenses:						
Cost of revenue	60,765	66,849				
Research and development	4,499	3,627				
Selling, general and administrative	41,194	48,354				
Change in estimated fair value of contingent consideration	939	322				
Total operating expenses	107,397	119,152				
Income from operations	16,436	23,988				
Other income (expense):						
Interest expense	(27,399)	(29,959)				
Loss on extinguishment of debt	(5,622)	—				
Other income	87	118				
Loss before income taxes	(16,498)	(5,853)				
Income tax expense (benefit)	417	(652)				
Net loss	$ (16,915)	$ (5,201)	$	$	$	$
Net loss attributable to noncontrolling interests	(12,443)	(731)				
Net loss attributable to Topco LLC member	$ (4,472)	$ (4,470)	$	$	$	$
Net loss per common unit attributable to Topco LLC member—basic and diluted	$ (17,727)	$ (8,481)	$	$	$	$
Weighted-average common units outstanding	1,000	1,000				
Per Share Data(1):						
Pro forma weighted average shares of Class A common stock outstanding:						
Basic						
Diluted						
Pro forma net loss available to Class A common stock per share:						
Basic					$	$
Diluted					$	$
Selected Other Data:						
Adjusted EBITDA(2)	$ 53,000	$ 62,014	$	$	$	$
Adjusted Free Cash Flow(3)	$ 49,193	$ 42,101	$	$	$	$

	Historical Topco LLC			Pro Forma Maravai LifeSciences Holdings, Inc.	
	As of December 31,		As of September 30,	As of December 31,	As of September 30,
	2018	2019	2020	2019	2020
			(Unaudited)	(Unaudited)	
Consolidated Balance Sheet Data (at period end):					
Cash	$ 21,866	$ 24,700	$	$	$
Working capital(4)	17,883	30,990			
Total assets	539,676	577,796			

	Historical Topco LLC			Pro Forma Maravai LifeSciences Holdings, Inc.	
	As of December 31,		As of September 30,	As of December 31,	As of September 30,
	2018	2019	2020	2019	2020
			(Unaudited)		(Unaudited)
Long-term debt, less current portion	335,550	334,783			
Total liabilities	391,660	433,169			
Total member's/shareholders' equity	148,016	144,627			

(1) See the unaudited pro forma consolidated statement of operations in "Unaudited Pro Forma Consolidated Financial Information" for the description of the assumptions underlying the pro forma net loss per share calculations.

(2) Adjusted EBITDA is a supplemental measure of operating performance that is not prepared in accordance with U.S. generally accepted accounting principles ("GAAP") and that does not represent, and should not be considered as, an alternative to net loss, as determined in accordance with GAAP. We define Adjusted EBITDA as net loss before interest, taxes, depreciation and amortization, certain non-cash items and other adjustments that we do not consider in our evaluation of ongoing operating performance from period to period.

We use Adjusted EBITDA to understand and evaluate our core operating performance and trends and to develop short-term and long-term operating plans. We believe that Adjusted EBITDA facilitates comparison of our operating performance on a consistent basis between periods and, when viewed in combination with our results prepared in accordance with GAAP, helps provide a broader picture of factors and trends affecting our results of operations.

Adjusted EBITDA has limitations as an analytical tool, and you should not consider it in isolation, or as a substitute for analysis of our results as reported under GAAP. Because of these limitations, Adjusted EBITDA should not be considered as a replacement for net loss, as determined by GAAP, or as a measure of our profitability. We compensate for these limitations by relying primarily on our GAAP results and using non-GAAP measures only for supplemental purposes.

A reconciliation of Adjusted EBITDA to net loss, the most directly comparable GAAP measure, is as follows:

	Historical Topco LLC				Pro Forma Maravai LifeSciences Holdings, Inc.	
	Year Ended December 31,		Nine Months Ended September 30,		Year Ended December 31,	Nine Months Ended September 30,
(in thousands)	2018	2019	2019	2020	2019	2020
Net loss	$(16,915)	$ (5,201)	$	$	$	$
Add:						
Amortization	20,122	20,274				
Depreciation	2,225	3,810				
Interest expense	27,399	29,959				
Income tax expense (benefit)	417	(652)				
EBITDA	33,248	48,190				
Acquisition contingent consideration[a]	939	322				
Loss on extinguishment of debt[b]	5,622	—				
Acquisition integration costs[c]	7,529	6,170				
Amortization of purchase accounting inventory step-up[d]	2,967	1,856				

(in thousands)	Historical Topco LLC Year Ended December 31, 2018	Historical Topco LLC Year Ended December 31, 2019	Historical Topco LLC Nine Months Ended September 30, 2019	Historical Topco LLC Nine Months Ended September 30, 2020	Pro Forma Maravai LifeSciences Holdings, Inc. Year Ended December 31, 2019	Pro Forma Maravai LifeSciences Holdings, Inc. Nine Months Ended September 30, 2020
Unit-based compensation(e)	2,121	1,679				
GTCR management fees(f)	574	523				
Merger and acquisition related expenses(g)	—	3,274				
Adjusted EBITDA	$ 53,000	$ 62,014	$	$	$	$

(a) Refers to the change in fair value and settlement of earn-out payments related to a 2017 acquisition.
(b) Refers to non-operating cash expense incurred on extinguishment of debt.
(c) Refers to incremental costs incurred to execute and integrate completed acquisitions.
(d) Refers to a non-cash charge related to the amortization expense of the step-up of inventory from purchase price accounting.
(e) Refers to non-cash expense associated with unit-based compensation.
(f) Refers to cash fees paid to GTCR pursuant to the advisory services agreement that will terminate in connection with this offering.
(g) Refers to diligence, legal, accounting, tax and consulting fees incurred associated with an acquisition that was not consummated.

(3) Adjusted Free Cash Flow is a supplemental measure of operating performance that is not prepared in accordance with GAAP and that does not represent, and should not be considered as, an alternative to net loss, as determined in accordance with GAAP. We define Adjusted Free Cash Flow as Adjusted EBITDA less capital expenditures.

We believe that Free Cash Flow facilitates comparison of our operating performance on a consistent basis between periods and, when viewed in combination with our results prepared in accordance with GAAP, helps provide a broader picture of factors and trends affecting our results of operations.

Adjusted Free Cash Flow has limitations as an analytical tool, and you should not consider it in isolation, or as a substitute for an analysis of our results as reported under GAAP. Because of these limitations, Adjusted Free Cash Flow should not be considered as a replacement for net loss, as determined by GAAP, or as a measure of our profitability. We compensate for these limitations by relying primarily on our GAAP results and using non-GAAP measures only for supplemental purposes.

A reconciliation of Adjusted Free Cash Flow is as follows:

	Historical Topco LLC Year Ended December 31, 2018	Historical Topco LLC Year Ended December 31, 2019	Historical Topco LLC Nine Months Ended September 30, 2019	Historical Topco LLC Nine Months Ended September 30, 2020	Pro Forma Maravai LifeSciences Holdings, Inc. Year Ended December 31, 2019	Pro Forma Maravai LifeSciences Holdings, Inc. Nine Months Ended September 30, 2020
Adjusted EBITDA	$53,000	$ 62,014	$	$	$	$
Capital expenditures(a)	$ (3,807)	$(19,913)	$	$	$	$
Adjusted Free Cash Flow	$49,193	$ 42,101	$	$	$	$

(a) We define capital expenditures as purchases of property and equipment and intangible assets, including patents, which are included in cash flows from investing activities, and accounts payable and accrued expenses.

(4) We define working capital as current assets less current liabilities.

RISK FACTORS

Investing in our Class A common stock involves a high degree of risk. You should carefully consider the risks and uncertainties described below, together with all of the other information contained in this prospectus, including our consolidated financial statements and the related notes thereto, before making a decision to invest in our Class A common stock. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties that we are unaware of, or that we currently believe are not material, may also become important factors that affect us. If any of the following risks occur, our business, financial condition, results of operations and prospects could be materially and adversely affected. In that event, the price of our Class A common stock could decline, and you could lose all or part of your investment.

Risks Related to Our Business and Strategy

We have incurred losses since inception, we may incur losses in the future and we may not be able to generate sufficient revenue to achieve or maintain profitability.

We have incurred losses since our inception. For the years ended December 31, 2018 and 2019, we incurred net losses of $16.9 million and $5.2 million, respectively. As of December 31, 2019, we had an accumulated deficit of $42.4 million. We expect that our operating expenses will continue to increase as we grow our business and as a result of our becoming a public company. Since our inception, we have financed our operations primarily through the incurrence of indebtedness, revenue from our products and services and the sale of our equity securities. We will need to generate significant additional revenue to achieve or maintain profitability and we cannot be sure that we will remain profitable for any substantial period of time. We may never be able to generate sufficient revenue to achieve or maintain profitability and our recent and historical growth should not be considered indicative of our future performance.

Our operating results may fluctuate significantly in the future, which makes our future operating results difficult to predict and could cause our operating results to fall below expectations or any guidance we may provide.

Our quarterly and annual operating results may fluctuate significantly, which makes it difficult for us to predict our future operating results. These fluctuations may be driven by a variety of factors, many of which are outside of our control, including, but not limited to:

- demand from our largest customers, which account for a significant percentage of our sales and orders, may not meet our expectations regarding volume and price in any given time period;
- the level of demand for our products and services, which may vary significantly, and our ability to increase penetration in our existing markets and expand into new markets;
- customers accelerating, canceling, reducing or delaying orders as a result of developments related to theirpre-clinical studies and clinical trials;
- impacts on us, our suppliers and our customers as a result of theCOVID-19 pandemic;
- the relative reliability and robustness of our products and services;
- changes in governmental regulations or the regulatory posture toward our business;
- the volume and mix of the products and services we sell or changes in the production or sales costs related to our products and services;
- the success of our newer products, such as our CleanCap® mRNA products, and the introduction of other new products or product enhancements by us or others in our industry;
- the timing and amount of expenditures that we may incur to acquire, develop or commercialize additional products, services and technologies or for other purposes, such as the expansion of our facilities;

- changes in governmental and academic funding of life sciences research and developments or changes that impact budgets, budget cycles or seasonal spending patterns of our customers;
- future accounting pronouncements or changes in our accounting policies;
- difficulties encountered by our commercial carriers in delivering our products, whether as a result of external factors such as weather or internal issues such as labor disputes;
- general market conditions and other factors, including factors unrelated to our operating performance or the operating performance of our competitors; and
- the other factors described in this "Risk Factors" section.

The impact of any one of the factors discussed above, or the cumulative effects of a combination of such factors, could result in significant fluctuations and unpredictability in our quarterly and annual operating results. As a result, comparisons of our operating results on a period-to-period basis may not be meaningful. Investors should not rely on our past results as an indication of our future performance.

As a result of variability and unpredictability, we may also fail to meet the expectations of industry or financial analysts or investors for any period. If our revenue or operating results fall short of the expectations of analysts or investors or any guidance we may provide, or if the guidance we provide falls short of the expectations of analysts or investors, the price of our Class A common stock could decline substantially. Such a stock price decline could occur even when we have met or exceeded any previously publicly stated guidance we may have provided.

We depend on a limited number of customers for a high percentage of our revenue. If we cannot maintain our current relationships with customers, fail to sustain recurring sources of revenue with our existing customers, or if we fail to enter into new relationships, our future operating results will be adversely affected.

For the years ended December 31, 2018 and 2019, revenue from our top 10 customers accounted for 33% and 34% of our total revenue, respectively. For the years ended December 31, 2018 and 2019, revenue from our top five customers accounted for 25% and 26% of our total revenue, respectively, and revenue from our top six to 10 customers accounted for 8% and 9% of our total revenue during the same periods, respectively. For the year ended December 31, 2018, one single customer represented 13% of total consolidated accounts receivable. For the year ended December 31, 2019, two customers accounted for 11% and 10% of total consolidated accounts receivable. Our largest customer, Thermo Fisher Scientific Inc., accounted for 9% and 10% of our total revenue for the years ended December 31, 2018 and 2019, respectively. No other customer has accounted for 10% or more of our total revenue for these periods. The revenue attributable to our top customers has fluctuated in the past and may fluctuate in the future, which could have a material adverse effect on our business, financial condition, results of operations, cash flows and prospects. In addition, the termination of these relationships, including following any failure to renew a long-term contract, could result in a temporary or permanent loss of revenue.

Our future success depends on our ability to maintain these relationships, to increase our penetration among these existing customers and to establish new relationships. We engage in conversations with other companies and institutions regarding potential commercial opportunities on an ongoing basis, which can be time consuming. There is no assurance that any of these conversations will result in a commercial agreement, or if an agreement is reached, that the resulting relationship will be successful. Speculation in the industry about our existing or potential commercial relationships can be a catalyst for adverse speculation about us, our products, our services and our technology, which can adversely affect our reputation and our business. In addition, if our customers order our products or services, but fail to pay on time or at all, our liquidity, financial condition, results of operations, cash flows and prospects could be materially and adversely affected.

We cannot assure investors that we will be able to further penetrate our existing markets or that our products or services will gain adequate market acceptance. Any failure to increase penetration in our existing markets would adversely affect our ability to improve our operating results.

Certain of our products are used by customers in the production of vaccines and therapies, some of which represent relatively new and still-developing modes of treatment. Unforeseen adverse events, negative clinical outcomes, or increased regulatory scrutiny of these and their financial cost may damage public perception of the safety, utility, or efficacy of these vaccines and therapies or other modes of treatment and may harm our customers' ability to conduct their business. Such events may negatively impact our revenue and have an adverse effect on our performance.

Gene therapy and nucleic acid vaccines remain relatively new and are under active development, with only a few gene therapies and no nucleic acid vaccines approved to date by regulatory authorities. Public perception may be influenced by claims that gene therapy or nucleic acid vaccines are unsafe or ineffective, and gene therapy may not gain the acceptance of the public or the medical community. In addition, ethical, social, legal and financial concerns about gene therapy and nucleic acid vaccines could result in additional regulations or limitations or even prohibitions on certain gene therapies or vaccine-related products. More restrictive regulations or negative public perception could reduce certain of our customers' use of our products and services, which could negatively affect our revenue and performance.

A pandemic, epidemic, or outbreak of an infectious disease, such as COVID-19, has affected, and may continue to materially and adversely affect our business, financial condition, results of operations, cash flows and prospects.

In late 2019, COVID-19 surfaced in Wuhan, China. Since then, COVID-19 has spread to multiple other regions and countries, including the San Francisco Bay Area, where our protein detection business is located, the San Diego, California and Washington, D.C. areas, where our nucleic acid production business is located and the Wilmington, North Carolina area, where our biologics safety testing products business is located. The COVID-19 pandemic is evolving and to date has led to the implementation of various responses, including government imposed shelter-in-place orders, quarantines, travel restrictions and other public health safety measures, as well as reported adverse impacts on healthcare resources, facilities and providers in California, across the United States and in other countries. In response to the spread of COVID-19, and in accordance with direction from state and local government authorities, we have restricted access to our facilities mostly to personnel and third parties who must perform critical activities that must be completed on-site, limited the number of such personnel that can be present at our facilities at any one time, and requested that many of our personnel work remotely. In the event that government authorities were to further modify current restrictions, our employees conducting research and development or manufacturing activities may not be able to access our laboratory or manufacturing facilities and our core activities may be significantly limited or curtailed, possibly for an extended period of time.

As a result of the COVID-19 pandemic, or similar pandemics and outbreaks that may occur in the future, we have experienced and may in the future experience severe disruptions, including:

- interruption of or delays in receiving products and supplies from the third parties we rely on to, among other things, manufacture components to our products, due to staffing shortages, production slowdowns or stoppages and disruptions in delivery systems, which may impair our ability to manufacture and sell our products and services;
- limitations on our business operations by the local, state or federal government that could impact our ability to manufacture, sell or deliver our products and services;
- on-site visit limitations and prohibitions imposed by customers that could impact our ability to engage inpre-sales activities, and to provide post-sale activities, such as training, service and support;
- delays in customers' purchasing decisions and negotiations with customers and potential customers;
- business disruptions caused by workplace, laboratory and office closures and an increased reliance on employees working from home, travel limitations, cyber security and data accessibility limits, or communication or mass transit disruptions; and

- limitations on employee resources that would otherwise be focused on the conduct of our activities, including because of sickness of employees or their families or the desire of employees to avoid contact with large groups of people.

Any of these factors could severely impact our research and development activities, manufacturing business operations and sales or delay necessary interactions with local regulators, third-party vendors and other important contractors and customers. These and other factors arising from the COVID-19 pandemic could worsen in countries that are already experiencing significant levels of COVID-19 infections, could continue to spread to additional countries or could return to countries where the pandemic has been partially contained and could further adversely impact our ability to conduct our business generally and have a material adverse impact on our business, financial condition, results of operations, cash flows and prospects. For example, our protein detection segment experienced a decrease in sales for the second quarter of 2020 relative to the same period in 2019 due to stay-at-home orders in the San Francisco Bay Area and the closure of many academic laboratories that are the main customers of this segment and the reduced operations of other customers. Prolonged closures or shutdowns as a result of the COVID-19 pandemic would continue to affect sales of our protein detection segment adversely.

The extent to which the pandemic may negatively impact our consolidated operations and results of operations or those of our third-party manufacturers, suppliers, partners or customers will depend on future developments, which are highly uncertain and cannot be predicted with confidence, such as the ultimate geographic spread of the disease, the duration of the pandemic, the extent of travel restrictions, additional or modified government actions, new information that will emerge concerning the severity and impact of COVID-19 and actions to contain the pandemic or treat its impact, such as social distancing, quarantines, lock-downs or business closures.

We cannot presently predict the scope and severity of any potential business shutdowns or disruptions as a result of the COVID-19 pandemic. If we or any of the third parties with whom we engage were to experience shutdowns or other business disruptions, our ability to conduct our business in the manner and on the timelines presently planned could be materially and negatively impacted, which could have a material adverse effect on our business, financial condition, results of operations, cash flows and prospects.

Changes in economic conditions could negatively impact our revenue and earnings.

Our reagents are sold primarily to biopharmaceutical and academic organizations developing novel vaccines and therapies and performing basic research. Research and development spending by our customers and the availability of government research funding can fluctuate due to changes in available resources, mergers of pharmaceutical and biotechnology companies, spending priorities, general economic conditions and institutional and governmental budgetary policies. Our biologics safety testing customers are biopharmaceutical companies, contract research organizations (“CROs”), contract development and manufacturing organizations (“CDMOs”) and life science companies, which largely serve the biopharmaceutical industry. Our nucleic acid production customers are largely vaccine and therapeutic drug makers or diagnostics manufacturers, which rely in part on government healthcare-related policies and funding. Changes in government funding for certain research or reductions in overall healthcare spending could negatively impact us or our customers and, correspondingly, our sales to them. Currently, the U.S. and global economies are experiencing a period of economic downturn as a result of the COVID-19 pandemic. Other global economies have been slow to recover from past downturns. Any continued or further economic downturns or reductions or delays in governmental funding could cause customers to delay or forego purchases of our products and services. In addition, the majority of our customers’ contracts can be terminated, delayed or reduced in scope upon short notice or no notice. Changes in the level of orders received and filled can cause fluctuations in our quarterly revenue and earnings.

We are dependent on our customers' spending on and demand for outsourced nucleic acid production, biologics safety testing and protein detection research products and services. A reduction in spending or demand could have a material adverse effect on our business, financial condition, results of operations, cash flows and prospects.

The success of our business depends primarily on the number and size of contracts with our customers, primarily pharmaceutical and biotechnology companies, for our products and services. Over the past several years, we have benefited from an increased demand for our products and services as a result of the continued growth of the global biologics market, increasing research and development budgets of our customers and greater degree of outsourcing by our customers. A slowing or reversal of any of these trends could have a significant adverse effect on the demand for our products and services.

In addition to these industry trends, our customers' willingness and ability to utilize our products and services are also subject to, among other things, their own financial performance, changes in their available resources, their decisions to acquire in-house manufacturing capacity, their spending priorities, their budgetary policies and practices and their need to develop new biological products, which, in turn, are dependent upon a number of factors, including their competitors' discoveries, developments and commercial manufacturing initiatives and the anticipated market, clinical and reimbursement scenarios for specific products and therapeutic areas. In addition, consolidation in the industries in which our customers operate may have an impact on our customers' spending as they integrate acquired operations, including research and development departments and associated budgets. If our customers reduce their spending on our products and services as a result of any of these or other factors, our business, financial condition, results of operations, cash flows and prospects would be materially and adversely affected.

We compete with life science, pharmaceutical and biotechnology companies who are substantially larger than we are and potentially capable of developing new approaches that could make our products, services and technology obsolete.

The market for pharmaceutical, reagent, therapeutic and diagnostic products and services is intensely competitive, rapidly evolving, significantly affected by new product introductions and other market activities by industry participants and subject to rapid technological change. We also expect increased competition as additional companies enter our market and as more advanced technologies become available. We compete with other providers of outsourced biologics products and services. We also compete with the in-house discovery, development and commercial manufacturing functions of pharmaceutical and biotechnology companies. Many of our competitors are large, well-capitalized companies with significantly greater resources and market share than we have. As a consequence, these competitors are able to spend more aggressively on product and service development, marketing, sales and other initiatives than we can. Many of these competitors also have:

- broader name recognition;
- longer operating histories and the benefits derived from greater economies of scale;
- larger and more established distribution networks;
- additional product and service lines and the ability to bundle products and services to offer higher discounts or other incentives to gain a competitive advantage;
- more experience in conducting research and development, manufacturing and marketing;
- more experience in entering into collaborations or other strategic partnership arrangements; and
- more financial, manufacturing and human resources to support product development, sales and marketing and patent and other intellectual property litigation.

These factors, among others, may enable our competitors to market their products and services at lower prices or on terms more advantageous to customers than we can offer. Competition may result in price

reductions, reduced gross margins and loss of market share, any of which could have a material adverse effect on our business, financial condition, results of operations, cash flows and prospects. Additionally, our current and future competitors, including certain of our customers, may at any time develop additional products and services that compete with our products and services and new approaches by these competitors may make our products, services, technologies and methodologies obsolete or noncompetitive. We may not be able to compete effectively against these organizations.

In addition, to develop and market our new products, services, technologies and methodologies successfully, we must accurately assess and meet customers' needs, make significant capital expenditures, optimize our development and manufacturing processes to predict and control costs, hire, train and retain the necessary personnel, increase customer awareness and acceptance of our services, provide high-quality services in a timely manner, price our products and services competitively and effectively integrate customer feedback into our business planning. If we fail to create demand for our new products, services or technologies, our future business could be harmed.

If our products and services do not perform as expected or the reliability of the technology on which our products and services are based is questioned, we could experience lost revenue, delayed or reduced market acceptance of our products and services, increased costs and damage to our reputation.

Our success depends on the market's confidence that we can provide reliable, high-quality life science reagents. We believe that customers in our target markets are likely to be particularly sensitive to product defects and errors. Our reputation and the public image of our products, services and technologies may be impaired if our products or services fail to perform as expected.

Although our products are tested prior to shipment, defects or errors could nonetheless occur. Our operating results depend on our ability to execute and, when necessary, improve our quality management strategy and systems and our ability to effectively train and maintain our employee base with respect to quality management. A failure of our quality control systems could result in problems with facility operations or preparation or provision of products. In each case, such problems could arise for a variety of reasons, including equipment malfunction, failure to follow specific protocols and procedures, problems with raw materials or environmental factors and damage to, or loss of, manufacturing operations. Such problems could affect production of a particular batch or series of batches of products, requiring the destruction of such products or a halt of facility production altogether. Furthermore, some of the products that we manufacture are subsequently incorporated into products that are sold by other life sciences companies and we have no control over the manufacture and production of those products.

In addition, in the event we, or our suppliers, fail to meet required quality standards and if our products experience, or are perceived to experience, a material defect or error, our products could be recalled or we may be unable to timely deliver products to our customers, which in turn could damage our reputation for quality and service. In the past, certain of our custom mRNA and CleanCap® reagent products have been sold with insufficient capping efficiency or with incorrect transcription instructions. Additionally, several lots of our HCP ELISA biologics safety testing kits have experienced a possible instability drift and decrease in accuracy. Although we have taken steps to improve our quality review, product documentation and reference testing procedures, we cannot guarantee that we will not experience quality assurance issues with our products in the future. Any such failure could, among other things, lead to increased costs, delayed or lost revenue, delayed market acceptance, damaged reputation, diversion of development resources, legal claims, reimbursement to customers for lost drug product, starting materials and active pharmaceutical ingredients, other customer claims, damage to and possibly termination of existing customer relationships, increased insurance costs, time and expense spent investigating the cause and, depending on the cause, similar losses with respect to other batches or products, any of which could harm our business, financial condition, results of operations, cash flows and prospects. Such defects or errors could also narrow the scope of the use of our products, which could hinder our success in the market.

Even after any underlying concerns or problems are resolved, any lingering concerns in our target markets regarding our technology or any manufacturing defects or performance errors in our products or services could continue to result in lost revenue, delayed market acceptance, damage to our reputation and claims against us.

In addition, we may be unable to maintain the quality, reliability, robustness and expected turnaround times of our products and services to continue to satisfy customer demand as we grow. To effectively manage our growth, we must continue to improve our operational, manufacturing and quality control systems and processes and other aspects of our business and continue to effectively expand, train and manage our personnel. The time and resources required to improve our existing systems and procedures, implement new systems and procedures and to adequately staff such existing and new systems and procedures is uncertain, and failure to complete this in a timely and efficient manner could adversely affect our operations and negatively impact our business and financial results. We may need to purchase additional equipment, some of which can take several months or more to procure, set up and validate, establish new production processes and increase our personnel levels to meet increased demand. There can be no assurance that any of these increases in scale, personnel expansion or equipment or process enhancements will be successfully implemented, or that we will have adequate space, including in our laboratory and production facilities, to accommodate such required expansion. Failure to manage this growth or transition could result in delays in turnaround times, higher product costs, declining product quality, deteriorating customer service and slower responses to competitive challenges. A failure in any one of these areas could make it difficult for us to meet market expectations for our products and services and could damage our reputation and our business, financial condition, results of operations, cash flows and prospects could be adversely affected.

Our products are highly complex and are subject to quality control requirements.

Whether a product is produced by us or purchased from outside suppliers, it is subject to quality control procedures, including the verification of stability and performance and, for certain products, additional validation required by certain GMP that we voluntarily follow, European Conformity (“CE”) marking and ISO 9001:2015 compliance, prior to final packaging. Certain of our products are manufactured following the voluntary GMP quality standards of the International Council for Harmonisation’s GMP Guide, comparable GMP principles for the European Union and customer-specific requirements. We believe these products are exempt from compliance with the Food, Drug, and Cosmetic Act (“FDCA”) and the current GMP (“cGMP”) regulations of the Food and Drug Administration (“FDA”), as our products are further processed and incorporated into final drug products by our customers and we do not make claims related to their safety or effectiveness. In the event we, or our suppliers, produce products that fail to comply with required quality standards, we may incur delays in fulfilling orders, write-downs, damages resulting from product liability claims and harm to our reputation.

We rely on a limited number of suppliers or, in some cases, sole suppliers, for some of our raw materials and may not be able to find replacements or immediately transition to alternative suppliers.

Certain of our raw materials are sourced from a limited number of suppliers and some materials, including a proprietary DNA reagent, certain packaging materials, specific cell lines for Cygnus Technologies’ operations and certain raw materials used in our nucleic acid production products, as well as those raw materials sold under the Glen Research brand, are sole sourced. Delays or difficulties in securing these raw materials or other laboratory materials could result in an interruption in our production operations if we cannot obtain an acceptable substitute. Any such interruption could significantly affect our business, financial condition, results of operations, cash flows and prospects. While we may identify other suppliers, raw materials furnished by such replacement suppliers may require us to alter our production operations or perform extensive validations, which may be time consuming and expensive. There can be no assurance that we will be able to secure alternative materials and revalidate them without experiencing interruptions in our workflow. If we should encounter delays or difficulties in obtaining raw materials, our business, financial condition, results of operations, cash flows and prospects could be adversely affected.

We depend on a stable and adequate supply of quality raw materials from our suppliers, and price increases or interruptions of such supply could have an adverse impact on our business, financial condition, results of operations, cash flows and prospects.

Our operations depend upon our ability to obtain raw materials at reasonable prices. If we are unable to obtain the materials we need at a reasonable price, we may not be able to produce certain of our products at marketable prices or at all, which could have a material adverse effect on our results of operations.

Although we believe that we have stable relationships with our existing suppliers, we cannot assure you that we will be able to secure a stable supply of raw materials going forward. Our suppliers may not be able to keep up with our pace of growth or may reduce or cease their supply of raw materials to us at any time. In addition, we cannot assure you that our suppliers have obtained and will be able to obtain or maintain all licenses, permits and approvals necessary for their operations or comply with all applicable laws and regulations, and failure to do so by them may lead to interruption in their business operations, which in turn may result in shortages of raw materials supplied to us. Some of our suppliers are based overseas and therefore may need to maintain export or import licenses. If the supply of raw materials is interrupted, our business, financial condition, results of operations, cash flows and prospects may be adversely affected.

Our business could be adversely affected by disruptions at our sites.

We rely upon our internal manufacturing, packaging and distribution operations to produce many of the products we sell and our warehouse facilities to store products pending sale. Any significant disruption of those operations for any reason, such as labor unrest, power interruptions, fire, hurricanes, the COVID-19 pandemic, earthquakes or other events beyond our control, could adversely affect our sales and customer relationships and therefore adversely affect our business. We have significant operations in California, near major earthquake faults, which make us susceptible to earthquake risk.

If we are unable to manufacture in specific quantities, our operating results will be harmed.

Our revenue and other operating results depend in large part on our ability to manufacture and ship our products in sufficient quantities. Any interruptions we experience in the manufacturing or shipping of our products could delay our ability to recognize revenue in a particular quarter. Manufacturing problems can and do arise, and as demand for our products increases, any such problems could have an increasingly significant impact on our operating results. While we have not generally experienced problems with, or delays in, our production capabilities that resulted in delays in our ability to ship finished products, there can be no assurance that we will not encounter such problems in the future. We may not be able to quickly ship products and recognize anticipated revenue for a given period if we experience significant delays in the manufacturing process. In addition, we must maintain sufficient production capacity in order to meet anticipated customer demand, and we may be unable to offset the associated fixed costs if orders slow, which would adversely affect our operating margins. If we are unable to manufacture our products consistently, in sufficient quantities and on a timely basis, our revenue, cash flow, gross margins and our other results of operations will be materially and adversely affected.

Natural disasters, geopolitical unrest, war, terrorism, public health issues or other catastrophic events could disrupt the supply, delivery or demand of products and services, which could negatively affect our operations and performance.

We are subject to the risk of disruption by earthquakes, hurricanes, floods and other natural disasters, fire, power shortages, geopolitical unrest, war, terrorist attacks and other hostile acts, public health issues, epidemics or pandemics, such as the COVID-19 pandemic, and other events beyond our control and the control of the third parties on which we depend. Any of these catastrophic events, whether in the United States or abroad, may have a significant negative impact on the global economy, our employees, facilities, partners, suppliers, distributors or customers, and could decrease demand for our products and services, create delays and inefficiencies in our supply chain and make it difficult or impossible for us to deliver products and services to our customers.

In addition, a catastrophic event that results in damage to specific equipment that would be difficult to replace, the destruction or disruption of our research and production facilities or our critical business or information technology systems would severely affect our ability to conduct normal business operations and, as a result, our operating results would be adversely affected.

Future strategic transactions or acquisitions may require us to seek additional financing, which we may not be able to secure on favorable terms, if at all.

We plan to continue a strategy of growth and development for our business. To this end, we actively evaluate various strategic transactions on an ongoing basis, including licensing or acquiring complementary products, technologies or businesses that would complement our existing portfolio of products and services. In order to complete such strategic transactions, we may need to seek additional financing to fund these investments and acquisitions. Should we need to do so, we may not be able to secure such financing, or obtain such financing on favorable terms because of the volatile nature of the biotechnology marketplace. In addition, future acquisitions may require the issuance or sale of additional equity, or equity-linked securities, which may result in additional dilution to our shareholders. Further, the First Lien Credit Agreement and Second Lien Credit Agreement contain a number of restrictive covenants that impose significant restrictions on our ability to make acquisitions or certain other investments.

Because we rely heavily on third-party package-delivery services, a significant disruption in these services, damages or losses sustained during shipping or significant increases in prices could adversely affect our business, financial condition, results of operations, cash flows and prospects.

We ship a significant portion of our products to our customers through independent package delivery companies, such as FedEx, UPS and DHL. If one or more of these third-party package-delivery providers were to experience a major work stoppage, preventing our products from being delivered in a timely fashion or causing us to incur additional shipping costs we could not pass on to our customers, our costs could increase and our relationships with certain of our customers could be adversely affected. In addition, if one or more of these third-party package-delivery providers were to increase prices, and we were not able to find comparable alternatives or make adjustments in our delivery network, our profitability could be adversely affected. Furthermore, if one or more of these third-party package-delivery providers were to experience performance problems or other difficulties, it could negatively impact our operating results and our customers' experience. In the past, some of our products have sustained serious damage in transit such that they were no longer usable. Although we have taken steps to improve our packaging and shipping containers, there is no guarantee our products will not become damaged or lost in transit in the future. If our products are damaged or lost in transit, it may result in a substantial delay in the fulfillment of our customer's order and, depending on the type and extent of the damage, it may result in a substantial financial loss. If our products are not delivered in a timely fashion or are damaged or lost during the delivery process, our customers could become dissatisfied and cease using our products our services, which would adversely affect our business, financial condition, results of operations, cash flows and prospects.

If we are unable to continue to hire and retain skilled personnel, we will have trouble developing and marketing our products and services.

Our success depends largely upon the continued service of our management and scientific staff and our ability to attract, retain and motivate highly skilled technical, scientific, management and marketing personnel, who deliver high-quality and timely services to our customers and keep pace with cutting-edge technologies and developments in biologics. We also face significant competition in the hiring and retention of such personnel from other companies, other providers of outsourced biologics services, research and academic institutions, government and other organizations who have superior funding and resources. The loss of key personnel or our inability to hire and retain skilled personnel could materially adversely affect the development of our products and services and our business, financial condition, results of operations, cash flows and prospects.

We may enter into additional distribution arrangements and marketing alliances for certain products and services and any failure to successfully identify and implement these arrangements on favorable terms, if at all, may impair our ability to effectively distribute and market our products.

We may pursue additional arrangements regarding the sales and marketing and distribution of one or more of our products and services and our future revenue may depend, in part, on our ability to enter into and maintain arrangements with other companies having sales, marketing and distribution capabilities and the ability of such companies to successfully market and sell any such products and services. Any failure to enter into such arrangements and marketing alliances on favorable terms, if at all, could delay or impair our ability to distribute or market our products and services and could increase our costs of distribution and marketing. Any use of distribution arrangements and marketing alliances to commercialize our products and services will subject us to a number of risks, including the following:

- we may be required to relinquish important rights to our products;
- we may not be able to control the amount and timing of resources that our distributors or collaborators may devote to the distribution or marketing of our products;
- our distributors or collaborators may experience financial difficulties; and
- business combinations or significant changes in a collaborator's business strategy may adversely affect a collaborator's willingness or ability to complete its obligations under any arrangement.

Our success depends on the market acceptance of our life science reagents. Our reagents may not achieve or maintain significant commercial market acceptance.

Our commercial success is dependent upon our ability to continue to successfully market and sell our life science reagents. Our ability to achieve and maintain commercial market acceptance of our products and services and provide customers access to our life science reagents will depend on a number of factors, including:

- our ability to increase awareness of the capabilities of our technology and solutions;
- our customers' willingness to adopt new products, services and technologies;
- whether our products and services reliably provide advantages over legacy and other alternative technologies and are perceived by customers to be cost effective;
- our ability to execute on our strategy toscale-up our CleanCap® technology to meet increasing demand and provide channels to access our CleanCap® technology and life science reagents;
- the rate of adoption of our products and services by biopharmaceutical companies, academic institutions and others;
- the relative reliability and robustness of our products and services as a whole and the components of our life science offerings, including, for example, CleanCap®, our assays for detecting host cell proteins and research products for labeling and detecting proteins;
- our ability to develop new tools and solutions for customers;
- whether competitors develop and commercialize products and services that provide comparable features and benefits at scale;
- the impact of our investments in product innovation and commercial growth;
- negative publicity regarding our or our competitors' products resulting from defects or errors; and
- our ability to further validate our technology through research and accompanying publications.

We cannot assure you that we will be successful in addressing these criteria or other criteria that might affect the market acceptance of our products and services. If we are unsuccessful in achieving and maintaining market acceptance of our products and services, our business, financial condition, results of operations, cash flows and prospects could be adversely affected.

The market may not be receptive to our new products and services upon their introduction.

We expect a portion of our future revenue growth to come from introducing new nucleic acid products, including plasmid DNA. The commercial success of all of our products and services will depend upon their acceptance by the life science and biopharmaceutical industries. Some of the products and services that we are developing are based upon new technologies or approaches. As a result, there can be no assurance that these new products and services, even if successfully developed and introduced, will be accepted by customers. If customers do not adopt our new products, services and technologies, our results of operations may suffer and, as a result, the market price of our Class A common stock may decline.

It may be difficult for us to implement our strategies for revenue growth in light of competitive challenges.

We face significant competition across many of our product lines. In addition, consolidation trends in the pharmaceutical, biotechnology and diagnostics industries have served to create fewer customer accounts and to concentrate purchasing decisions for some customers, resulting in increased pricing pressure on us. Moreover, customers may believe that larger companies are better able to compete as sole source vendors, and therefore prefer to purchase from such businesses. Failure to anticipate and respond to competitors' actions may impact our future revenue and profitability.

The estimates of market opportunity and forecasts of market growth included in this prospectus may prove to be inaccurate, and even if the market in which we compete achieves the forecasted growth, our business could fail to grow at similar rates, if at all.

Addressable market estimates and growth forecasts are subject to significant uncertainty and are based on assumptions and estimates that may not prove to be accurate. These estimates and forecasts are based on a number of complex assumptions and third-party estimates and other business data, including assumptions and estimates relating to our ability to generate revenue from existing products and services and the development of new products and services. The estimates and forecasts in this prospectus relating to the size and expected growth of our markets may prove to be inaccurate. Even if the markets in which we compete meet the size estimates and growth forecasted in this prospectus, our business could fail to grow at the rate we anticipate, if at all.

Product liability lawsuits against us could cause us to incur substantial liabilities, limit sales of our existing products and limit commercialization of any products that we may develop.

Our business exposes us to the risk of product liability claims that are inherent in the development, production, distribution, and sale of biotechnology products. We face an inherent risk of product liability exposure related to the use of certain of our products in our customers' human clinical trials and product liability lawsuits may allege that our products or services identified inaccurate or incomplete information or otherwise failed to perform as designed. We may also be subject to liability for errors in, a misunderstanding of or inappropriate reliance upon, the information we provide in the ordinary course of our business activities. If any of our products harm people due to our negligence, willful misconduct, unlawful activities or material breach, or if we cannot successfully defend ourselves against claims that our products caused injuries, we could incur substantial liabilities. Regardless of merit or eventual outcome, liability claims may result in the following, any of which could impact our business, financial condition, results of operations, cash flows and prospects:

- decreased demand for our products and any products that we may develop;
- injury to our reputation;
- costs to defend the related litigation;
- loss of revenue; and
- the inability to commercialize products that we may develop.

We maintain product liability insurance, but this insurance is subject to deductibles, limits and exclusions and may not fully protect us from the financial impact of defending against product liability claims or the potential loss of revenue that may result. Any product liability claim brought against us, with or without merit, could increase our insurance rates or prevent us from securing insurance coverage in the future.

We are subject to stringent privacy laws, information security laws, regulations, policies and contractual obligations related to data privacy and security and changes in such laws, regulations, policies and contractual obligations could adversely affect our business, financial condition, results of operations, cash flows and prospects.

We are subject to data privacy and protection laws and regulations that apply to the collection, transmission, storage and use of proprietary information and personally-identifying information, which among other things, imposes certain requirements relating to the privacy, security and transmission of certain individually identifiable information.

Numerous other federal and state laws, including state security breach notification laws, state health information privacy laws and federal and state consumer protection laws, govern the collection, use, disclosure and security of personal information. These laws continue to change and evolve and are increasing in breadth and impact. Failure to comply with any of these laws and regulations could result in enforcement action against us, including fines, imprisonment of company officials and public censure, claims for damages by affected individuals, damage to our reputation and loss of goodwill, any of which could have a material adverse effect on our business, financial condition, results of operations, cash flows and prospects. Additionally, if we are unable to properly protect the privacy and security of personal information, we could be found to have breached our contracts.

Many states in which we operate have laws that protect the privacy and security of personal information. For example, the California Consumer Privacy Act of 2018 ("CCPA"), which increases privacy rights for California residents and imposes obligations on companies that process their personal information, came into effect on January 1, 2020. Among other things, the CCPA requires covered companies to provide new disclosures to California consumers and provide such consumers new data protection and privacy rights, including the ability to opt-out of certain sales of personal information. The CCPA provides for civil penalties for violations, as well as a private right of action for certain data breaches that result in the loss of personal information. This law and others like it are as yet untested and may subject us to increased regulatory scrutiny, litigation, and overall risk. State laws are changing rapidly and there is discussion in Congress of a new federal data protection and privacy law to which we would become subject, if it is enacted.

Various foreign countries in which we operate also have, or are developing, laws that govern the collection, use, disclosure, security and cross-border transmission of personal information. The legislative and regulatory landscape for privacy and data protection continues to evolve, and there has been an increasing focus on privacy and data protection issues that have the potential to affect our business. For example, privacy requirements in the European Union (the "EU") govern the transfer of personal information from the European Economic Area to the United States. In the EU and the United Kingdom, the collection and use of personal data is governed by the provisions of the General Data Protection Regulation ("GDPR"), in addition to other applicable laws and regulations. The GDPR came into effect in May 2018, repealing and replacing the European Union Data Protection Directive, and imposing revised data privacy and security requirements on companies in relation to the processing of personal data of EU and United Kingdom data subjects. The GDPR, together with national legislation, regulations and guidelines of EU member states and the United Kingdom governing the processing of personal data, impose strict obligations with respect to, and restrictions on, the collection, use, retention, protection, disclosure, transfer and processing of personal data. The GDPR authorizes fines for certain violations of up to 4% of a company's total global annual turnover for the preceding financial year or €20 million, whichever is greater. Such fines are in addition to any civil litigation claims by data subjects. Brexit may also lead to further legislative and regulatory changes and increase our compliance costs. The United Kingdom has

transposed the GDPR into domestic law, with a United Kingdom version of the GDPR taking effect in January 2021, after the end of the Brexit transitional period. This could have the result of exposing us to two parallel data privacy regimes in Europe, each of which potentially authorizes significant fines for certain violations. Other jurisdictions outside the EU are similarly introducing or enhancing privacy and data security laws, rules and regulations, which could increase our compliance costs and the risks associated with noncompliance. We cannot guarantee that we are, or will be, in compliance with all applicable international regulations as they are enforced now or as they evolve.

It is possible that these laws may be interpreted and applied in a manner that is inconsistent with our practices and our efforts to comply with the evolving data protection rules may be unsuccessful. We must devote significant resources to understanding and complying with this changing landscape. Failure to comply with federal, state and international laws regarding privacy and security of personal information could expose us to penalties under such laws, orders requiring that we change our practices, claims for damages or other liabilities, regulatory investigations and enforcement action, litigation and significant costs for remediation, any of which could adversely affect our business. Even if we are not determined to have violated these laws, government investigations into these issues typically require the expenditure of significant resources and generate negative publicity, which have a material adverse effect on our business, financial condition, results of operations, cash flows and prospects.

We may be unable to efficiently manage growth as a larger and more geographically diverse organization.

Our strategic acquisitions, the continued expansion of our commercial sales operations and our organic growth have increased the scope and complexity of our business. As a result, we will face challenges inherent in efficiently managing a more complex business with an increased number of employees over large geographic distances, including the need to implement appropriate systems, policies, benefits and compliance programs. Our inability to manage successfully the geographically more diverse and substantially larger combined organization could materially adversely affect our operating results.

Our acquisition growth strategy poses risks and challenges.

We routinely explore acquiring other businesses and assets and have completed six acquisitions and several investments since April 2016. However, we may be unable to continue to identify or complete promising acquisitions for many reasons, including competition among buyers, the high valuations of businesses in our industry, the need for regulatory and other approvals and the availability of capital. There can be no assurance that we will engage in any additional acquisitions or that we will be able to do so on terms that will enable us to realize the anticipated benefits. In addition, acquisitions financed with borrowings could increase our leverage and interest expense, which could make us more vulnerable to business downturns.

Our internal computer systems, or those of our customers, collaborators or other contractors, have been and may in the future be subject to cyber-attacks or security breaches, which could result in a material disruption of our product development programs or otherwise adversely affect our business, financial condition, results of operations, cash flows and prospects.

Despite the implementation of security measures, our internal computer systems and those of our customers are vulnerable to damage from computer viruses and unauthorized access. Cyber-attacks are increasing in their frequency, sophistication and intensity, and have become increasingly difficult to detect. Cyber-attacks could include the deployment of harmful malware, ransomware, denial-of-service attacks, social engineering and other means to affect service reliability and threaten the confidentiality, integrity and availability of information. Cyber-attacks also could include phishing attempts or e-mail fraud to cause unauthorized payments or information to be transmitted to an unintended recipient. A material cyber-attack or security breach could cause interruptions in our operations and could result in a material disruption of our business operations, damage to our reputation, financial condition, results of operations, cash flows and prospects.

In the ordinary course of our business, we collect and store sensitive data, including, among other things, personally identifiable information about our employees, intellectual property, and proprietary business information. Any cyber-attack or security breach that leads to unauthorized access, use or disclosure of personal or proprietary information could harm our reputation, cause us not to comply with federal and/or state breach notification laws and foreign law equivalents and otherwise subject us to liability under laws and regulations that protect the privacy and security of personal information. In addition, we could be subject to risks caused by misappropriation, misuse, leakage, falsification or intentional or accidental release or loss of information maintained in the information systems and networks of our company and our vendors, including personal information of our employees, and company and vendor confidential data. In addition, outside parties have previously attempted and may in the future attempt to penetrate our systems or those of our vendors or fraudulently induce our personnel or the personnel of our vendors to disclose sensitive information in order to gain access to our data and/or systems or make unauthorized payments to third parties. Like other companies, we have on occasion experienced, and will continue to experience, data security incidents involving access to company data, unauthorized payments and threats to our data and systems, including malicious codes and viruses, phishing, business email compromise attacks, or other cyber-attacks. The number and complexity of these threats continue to increase over time. If a material breach of our information technology systems or those of our vendors occurs, the market perception of the effectiveness of our security measures could be harmed and our reputation and credibility could be damaged.

We could be required to expend significant amounts of money and other resources to respond to these threats or breaches and to repair or replace information systems or networks and could suffer financial loss or the loss of valuable confidential information. In addition, we could be subject to regulatory actions and/or claims made by individuals and groups in private litigation involving privacy issues related to data collection and use practices and other data privacy laws and regulations, including claims for misuse or inappropriate disclosure of data, as well as unfair or deceptive practices. Although we develop and maintain systems and controls designed to prevent these events from occurring, and we have a process to identify and mitigate threats, the development and maintenance of these systems, controls and processes is costly and requires ongoing monitoring and updating as technologies change and efforts to overcome security measures become increasingly sophisticated. Moreover, despite our efforts, the possibility of these events occurring cannot be eliminated entirely and there can be no assurance that any measures we take will prevent cyber-attacks or security breaches that could adversely affect our business, financial condition, results of operations, cash flows and prospects.

We are subject to export and import control laws and regulations that could impair our ability to compete in international markets or subject us to liability if we violate such laws and regulations.

We are subject to U.S. export controls and sanctions regulations that restrict the shipment or provision of certain products and services to certain countries, governments and persons. While we take precautions to prevent our products and services from being exported in violation of these laws, we cannot guarantee that the precautions we take will prevent violations of export control and sanctions laws. If we are found to be in violation of U.S. sanctions or export control laws, it could result in substantial fines and penalties for us and for the individuals working for us. We may also be adversely affected through other penalties, reputational harm, loss of access to certain markets, or otherwise. Complying with export control and sanctions regulations may be time consuming and may result in the delay or loss of sales opportunities or impose other costs. Any change in export or import regulations, economic sanctions or related legislation, or change in the countries, governments, persons or technologies targeted by such regulations, could result in our decreased ability to export or sell certain products and services to existing or potential customers in affected jurisdictions.

We are subject to risks related to Brexit.

On January 31, 2020, the United Kingdom (the "UK") left the EU, which is commonly referred to as "Brexit." Brexit creates an uncertain political and economic environment in the UK and potentially across other EU member states for the foreseeable future, including during any period while the terms of the future

relationship between the UK and EU are being negotiated and such uncertainties could impair or limit our ability to transact business in the member EU states. Additionally, there also is a risk that other countries may decide to leave the EU.

Further, Brexit could adversely affect European and worldwide economic or market conditions and could contribute to instability in global financial markets, and the value of the Pound Sterling currency or other currencies, including the Euro. We are exposed to the economic, market and fiscal conditions in the UK and the EU and to changes in any of these conditions. Consequently, no assurance can be given as to the impact of Brexit, or continued uncertainty regarding it, and, in particular, no assurance can be given that our operating results, financial condition and prospects would not be adversely impacted by the result.

Changes in political, economic or governmental regulations may reduce demand for our products and services or increase our expenses.

We compete in many markets in which we and our customers must comply with federal, state, local and international regulations, such as environmental, health and safety and food and drug regulations. We develop, configure and market our products and services to meet customer needs created by those regulations. The U.S. and international healthcare industry is subject to changing political, economic and regulatory influences that could significantly affect the drug development process, research and development costs and the pricing and reimbursement for pharmaceutical products. Any significant change in regulations could have an adverse effect on both our customers' business and our business, which could result in reduced demand for our products and services or increases in our expenses. For example, we provide products and services used for basic research, raw materials used by biopharmaceutical customers for further processing, and active pharmaceutical ingredients used for preclinical studies and clinical trials.

Changes in the FDA's regulation of the drug discovery and development process may have a negative impact on the ability of our customers to conduct and fund clinical trials, which could have a material adverse effect on the demand for the products and services we provide these customers. Additionally, the U.S. government and governments worldwide have increased efforts to expand healthcare coverage while at the same time curtailing and better controlling the increasing costs of healthcare. If cost-containment efforts limit our customers' profitability, they may decrease research and development spending, which could decrease the demand for our products and services and materially adversely affect our growth prospects. Any of these factors could harm our customers' businesses, which, in turn, could materially adversely hurt our business, financial condition, results of operations, cash flows and prospects.

We are subject to financial, operating, legal and compliance risk associated with global operations.

We engage in business globally, with approximately 40% and 41% of our revenue for the years ended December 31, 2018 and 2019, respectively, coming from outside the U.S. In addition, one of our strategies is to expand geographically, both through distribution and through direct sales. This subjects us to a number of risks, including international economic, political, and labor conditions; currency fluctuations; tax laws (including U.S. taxes on income earned by foreign subsidiaries); increased financial accounting and reporting burdens and complexities; unexpected changes in, or impositions of, legislative or regulatory requirements; failure of laws to protect intellectual property rights adequately; inadequate local infrastructure and difficulties in managing and staffing international operations; delays resulting from difficulty in obtaining export licenses for certain technology; tariffs, quotas and other trade barriers and restrictions; transportation delays; operating in locations with a higher incidence of corruption and fraudulent business practices; and other factors beyond our control, including terrorism, war, natural disasters, climate change and diseases.

The application of laws and regulations implicating global transactions is often unclear and may at times conflict. Compliance with these laws and regulations may involve significant costs or require changes in our business practices that result in reduced revenue and profitability. Non-compliance could also result in fines,

damages, criminal sanctions, prohibited business conduct, and damage to our reputation. We incur additional legal compliance costs associated with our global operations and could become subject to legal penalties in foreign countries if we do not comply with local laws and regulations, which may be substantially different from those in the U.S.

We may expand our operations in countries with developing economies, where it may be common to engage in business practices that are prohibited by anti-corruption and anti-bribery laws and regulations that apply to us, such as the U.S. Foreign Corrupt Practices Act (FCPA), the U.S. Travel Act, and the UK Bribery Act 2010, which prohibit improper payments or offers of payment to foreign governments and political parties by us for the purpose of obtaining or retaining business. Although we implement policies and procedures designed to ensure compliance with these laws, there can be no assurance that all of our employees, contractors, distributors and agents, including those based in foreign countries where practices which violate such U.S. laws may be customary, will comply with our internal policies. Any such non-compliance, even if prohibited by our internal policies, could have an adverse effect on our business and result in significant fines or penalties.

Our acquisitions expose us to risks that could adversely affect our business, and we may not achieve the anticipated benefits of acquisitions of businesses or technologies.

As a part of our growth strategy, we have made in the past, and plan to make in the future, selected acquisitions of complementary businesses, products, services or technologies. In April 2016, we acquired Vector Laboratories, Inc. ("Vector Laboratories"), which allowed our entry into the protein detection business. In September 2016, we acquired TriLink BioTechnologies, Incorporated ("TriLink BioTechnologies"), in December 2016 we acquired the assets of Solulink Incorporated ("Solulink") and in December 2017 we acquired Glen Research Corporation ("Glen Research"), which together have formed our nucleic acid business and production capabilities. In October 2016 we acquired Cygnus Technologies, LLC ("Cygnus Technologies") and in March 2020 we acquired MockV Solutions, Inc., which together constitute biologics safety testing business.

Any acquisition involves numerous risks, uncertainties and operational, financial, and managerial challenges, including the following, any of which could adversely affect our business, financial condition, results of operations, cash flows and prospects:

- difficulties in integrating new operations, systems, technologies, products, services and personnel of acquired businesses effectively;
- problems maintaining uniform procedures, controls and policies with respect to our financial accounting systems;
- lack of synergies or the inability to realize expected synergies and cost-savings, including enhanced revenue, technology, human resources, cost savings, operating efficiencies and other synergies;
- difficulties in managing geographically dispersed operations, including risks associated with entering foreign markets in which we have no or limited prior experience;
- underperformance of any acquired technology, product, or business relative to our expectations and the price we paid;
- negative near-term impacts on financial results after an acquisition, including acquisition-related earnings charges;
- the potential loss of key employees, customers, and strategic partners of acquired companies;
- declining employee morale and retention issues affecting employees of businesses that we acquire, which may result from changes in compensation, or changes in management, reporting relationships, future prospects or the direction of the acquired business;
- claims by terminated employees and shareholders of acquired companies or other third parties related to the transaction;

- the assumption or incurrence of additional debt obligations or expenses, or use of substantial portions of our cash;
- the issuance of equity or equity-linked securities to finance or as consideration for any acquisitions that dilute the ownership of our shareholders;
- the issuance of equity securities to finance or as consideration for any acquisitions may not be an option if the price of our Class A common stock is low or volatile which could preclude us from completing any such acquisitions;
- any collaboration, strategic alliance and licensing arrangement may require us to relinquish valuable rights to our technologies or products, or grant licenses on terms that are not favorable to us;
- disruption of our ongoing operations and diversion of management's attention and company resources from existing operations of the business;
- inconsistencies in standards, controls, procedures, and policies;
- the impairment of intangible assets as a result of technological advancements, or worse-than-expected performance of acquired companies;
- assumption of, or exposure to, historical liabilities of the acquired business, including unknown contingent or similar liabilities that are difficult to identify or accurately quantify, litigation-related liabilities and regulatory compliance or accounting issues, and potential litigation or regulatory action arising from a proposed or completed acquisition;
- the need to later divest acquired assets at a loss if an acquisition does not meet our expectations; and
- risks associated with acquiring intellectual property, including potential disputes regarding acquired companies' intellectual property. In addition, the successful integration of acquired businesses requires significant efforts and expense across all operational areas, including sales and marketing, research and development, manufacturing, finance, legal, and information technologies.

There can be no assurance that any of the acquisitions we have made, or that we may make, will be successful or will be, or will remain, profitable. Our failure to successfully address the foregoing risks may prevent us from achieving the anticipated benefits from any past or future acquisition in a reasonable time frame, or at all.

Our results of operations could be negatively affected by potential fluctuations in foreign currency exchange rates.

We conduct a significant portion of our business in international markets. We are exposed to the risk of an increase or decrease in the value of certain foreign currencies relative to the U.S. dollar, which could decrease the value of our revenue when measured in U.S. dollars. As a result, our results of operation may be influenced by the effects of future exchange rate fluctuations and such effects may have an adverse impact on the market price of our Class A common stock.

Our products could become subject to more onerous regulation by the FDA or other regulatory agencies in the future, which could increase our costs and delay or prevent commercialization of our products, thereby materially and adversely affecting our business, financial condition, results of operations, cash flows and prospects.

We make certain of our products available to customers asresearch-use-only ("RUO") products. RUO products are regulated by the FDA as medical devices, and include *in vitro* diagnostic products in the laboratory research phase of development that are being shipped or delivered for an investigation that is not subject to the FDA's investigational device exemption requirements. Although medical devices are subject to stringent FDA

oversight, products that are intended for RUO and are labeled as RUO are exempt from compliance with most FDA requirements, including premarket clearance or approval, manufacturing requirements, and others. A product labeled RUO but which is actually intended for clinical diagnostic use may be viewed by the FDA as adulterated and misbranded under the FDCA, and subject to FDA enforcement action. The FDA has indicated that when determining the intended use of a product labeled RUO, the FDA will consider the totality of the circumstances surrounding distribution and use of the product, including how the product is marketed and to whom. The FDA could disagree with our assessment that our products are properly marketed as RUO, or could conclude that products labeled as RUO are actually intended for clinical diagnostic use, and could take enforcement action against us, including requiring us to stop distribution of our products until we are in compliance with applicable regulations, which would reduce our revenue, increase our costs and adversely affect our business, prospects, results of operations and financial condition. In the event that the FDA requires us to obtain marketing authorization of our RUO products in the future, there can be no assurance that the FDA will grant any clearance or approval requested by us in a timely manner, or at all.

Our raw material products are manufactured following the voluntary quality standards of ISO 9001:2015. Our GMP-grade raw material products follow ISO 9001:2015 standards, additional voluntary GMP quality standards and customer specific requirements. We believe these raw material products, including our GMP-grade raw material products, are exempt from compliance with the FDCA and the cGMP regulations of the FDA, as our products are further processed by our customers and we do not make claims related to their safety or effectiveness. We provide API products to customers for use in preclinical studies through and including clinical trials. Our API products are manufactured following the principles detailed in the International Council for Harmonisation (ICH) Q7, Good Manufacturing Practice Guide for Active Pharmaceutical Ingredients (Section 19, APIs For Use in Clinical Trials) in order to comply with the applicable requirements of the FDCA, and the comparable GMP principles for Europe; European Community, Part II, Basic Requirements for Active Substances Used as Starting Materials (Section 19, APIs For Use in Clinical Trials). Manufacture of APIs for use in clinical trials is regulated under § 501(a)(2)(B) of the FDCA, but is not subject to the current GMP regulations in 21 CFR § 211 by operation of 21 CFR § 210. Our API products are provided to customers under customer contracts that outline quality standards and product specifications. As products advance through the clinical phases, requirements become more stringent and we work with customers to define and agree on requirements and risks associated with their product.

The FDA could disagree with our assessment that our products are exempt from current GMP regulations. In addition, the FDA could conclude that the raw material and API products we provide to our customers are actually subject to the pharmaceutical or drug quality-related regulations for manufacturing, processing, packing or holding of drugs or finished pharmaceuticals, and could take enforcement action against us, including requiring us to stop distribution of our products until we are in compliance with applicable regulations, which would reduce our revenue, increase our costs and adversely affect our business, prospects, results of operations and financial condition. In the event that the FDA requires us to comply with FDA regulations, for our raw material and API products in the future, including the FDA's current GMP regulations, there can be no assurance that the FDA will find our operations are in compliance in a timely manner, or at all.

Our ability to use net operating loss and tax credit carryforwards and certainbuilt-in losses to reduce future tax payments is limited by provisions of the Internal Revenue Code, and it is possible that certain transactions or a combination of certain transactions may result in material additional limitations on our ability to use our net operating loss and tax credit carryforwards.

Sections 382 and 383 of the Internal Revenue Code of 1986, as amended, contain rules that limit the ability of a company that undergoes an ownership change, which is generally any change in ownership of more than 50% of its stock over a three-year period, to utilize its net operating loss and tax credit carryforwards and certain built-in losses recognized in years after the ownership change. These rules generally operate by focusing on ownership changes involving stockholders owning directly or indirectly 5% or more of the stock of a company and any change in ownership arising from a new issuance of stock by the company. Generally, if an ownership

change occurs, the yearly taxable income limitation on the use of net operating loss and tax credit carryforwards and certain built-in losses is equal to the product of the applicable long-term, tax-exempt rate and the value of the company's stock immediately before the ownership change. As a result, following any such ownership change, we might be unable to offset our taxable income with losses, or our tax liability with credits, before such losses and credits expire, in which event we could incur larger federal and state income tax liabilities than we would have had we not experienced an ownership change.

Our activities are and will continue to be subject to extensive government regulation, which is expensive and time consuming.

We are subject to various local, state, federal, foreign and transnational laws and regulations, and, in the future, any changes to such laws and regulations could adversely affect us.

We provide products and services used for basic research, raw materials and life science reagents used by biopharmaceutical customers for further processing, assays for biologics safety testing and active pharmaceutical ingredients used for preclinical studies and clinical trials. The quality of our products and services is critical to researchers looking to develop novel vaccines and therapies and for biopharmaceutical customers who use our products as raw materials or who are engaged in preclinical studies and clinical trials. Biopharmaceutical customers are subject to extensive regulations by the FDA and similar regulatory authorities in other countries for conducting clinical trials and commercializing products for therapeutic or diagnostic use. This regulatory scrutiny results in our customers imposing rigorous quality requirements on us as their supplier through supplier qualification processes and customer contracts.

Additionally, regulatory authorities and our customers may conduct scheduled or unscheduled periodic inspections of our facilities to monitor our regulatory compliance or compliance with our quality agreements with our customers. There are significant risks at each stage of the regulatory scheme for our customers.

Regulatory agencies may in the future take action against us or our customers for failure to comply with applicable regulations governing clinical trials and the development and testing of therapeutic products. Failure by us or by our customers to comply with the requirements of these regulatory authorities, including without limitation, remediating any inspectional observations to the satisfaction of these regulatory authorities, could result in warning letters, product recalls or seizures, monetary sanctions, injunctions to halt manufacture and distribution, restrictions on our operations, civil or criminal sanctions, or withdrawal of existing or denial of pending approvals, including those relating to products or facilities. In addition, such a failure could expose us to contractual or product liability claims, contractual claims from our customers, including claims for reimbursement for lost or damaged active pharmaceutical ingredients, as well as ongoing remediation and increased compliance costs, any or all of which could be significant.

We are also subject to a variety of federal, state, local and international laws and regulations that govern, among other things, the importation and exportation of products, the handling, transportation and manufacture of substances that could be classified as hazardous, and our business practices in the U.S. and abroad such as anti-corruption and anti-competition laws. Any noncompliance by us with applicable laws and regulations or the failure to maintain, renew or obtain necessary permits and licenses could result in criminal, civil and administrative penalties and could have an adverse effect on our results of operations.

We may be required to record a significant charge to earnings if our goodwill and other amortizable intangible assets, or other investments become impaired.

We are required under GAAP to test goodwill for impairment at least annually and to review our goodwill, amortizable intangible assets and other assets acquired through merger and acquisition activity for impairment when events or changes in circumstance indicate the carrying value may not be recoverable. Factors that could lead to impairment of goodwill, amortizable intangible assets and other assets acquired via acquisitions include

significant adverse changes in the business climate and actual or projected operating results (affecting our company as a whole or affecting any particular segment) and declines in the financial condition of our business. We may be required in the future to record additional charges to earnings if our goodwill, amortizable intangible assets or other investments become impaired. Any such charge would adversely impact our consolidated financial results.

Changes in accounting principles and guidance could result in unfavorable accounting charges or effects.

We prepare our consolidated financial statements in accordance with GAAP. These principles are subject to interpretation by the SEC and various bodies formed to create and interpret appropriate accounting principles and guidance. A change in these principles or guidance, or in their interpretations, may have a material effect on our reported results, as well as our processes and related controls, and may retroactively affect previously reported results. For example, during February 2016, the Financial Accounting Standards Board issued ASU 2016-02, Leases (Topic 842). The updated standard requires the recognition of a liability for lease obligations and a corresponding right-of-use asset on the balance sheet, and disclosures of certain information regarding leasing arrangements. We are currently assessing the timing and impact of adopting the updated provisions.

Our revenue recognition and other factors may impact our financial results in any given period and make them difficult to predict.

Under accounting standards update No. 2014-09 (Topic 606), *Revenue from Contracts with Customers*, ("ASC 606"), we recognize revenue when our performance obligations have been satisfied in an amount that reflects the consideration that we expect to receive in exchange for those performance obligations. Our revenue includes revenue from the sale of manufactured products, including products that can be purchased out of a catalog and custom manufactured products, and services, including custom antibody and assay development contracts, antibody affinity extraction and stability and feasibility studies, as well as certain licensing and royalty arrangements. The majority of our contracts include only one performance obligation, namely the delivery of products, both custom and catalog, and services. We also recognize revenue from other contracts that may include a combination of products and services, the provision of solely services, or from license fee arrangements which may be associated with the delivery of product. Our application of ASC 606 with respect to the nature of future contractual arrangements could impact the forecasting of our revenue for future periods, as both the mix of products and services we will sell in a given period, as well as the size of contracts, is difficult to predict. We adopted the requirements of ASC 606, effective January 1, 2019 using the modified retrospective method. Under the modified retrospective method, this guidance is applied to those contracts that were not completed as of January 1, 2019, with no restatement of contracts that were commenced and completed within fiscal years prior to January 1, 2019, and the prior period comparable financial information continues to be presented under the guidance of ASC 605, Revenue Recognition (ASC 605).

Furthermore, the presentation of our financial results requires us to make estimates and assumptions that may affect revenue recognition. In some instances, we could reasonably use different estimates and assumptions, and changes in estimates may occur from period to period. See "Management's Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Policies and Estimates—Revenue Recognition."

Given the foregoing factors, comparing our revenue and operating results on a period-to-period basis may not be meaningful, and our past results may not be indicative of our future performance.

Fluctuations in our effective tax rate may adversely affect our results of operations and cash flows.

We are subject to a variety of tax liabilities, including federal, state, foreign and other taxes such as income, sales/use, payroll, withholding, and*ad valorem* taxes. Changes in tax laws or their interpretations could decrease our net income, the value of any tax loss carryforwards, the value of tax credits recorded on our balance sheet

and our cash flows, and accordingly could have a material adverse effect on our business, financial condition, results of operations, cash flows and prospects. In addition, some of our tax liabilities are subject to periodic audits by the relevant taxing authority, which could increase our tax liabilities.

Our business is subject to a number of environmental risks.

Our manufacturing business involves the controlled use of hazardous materials and chemicals and is therefore subject to numerous environmental and safety laws and regulations and to periodic inspections for possible violations of these laws and regulations. In addition to these hazardous materials and chemicals, our facility in Burlingame, California also produces certain toxins for research use that can cause severe illness in humans. The costs of compliance with environmental and safety laws and regulations are significant. Any violations, even if inadvertent or accidental, of current or future environmental and safety laws or regulations and the cost of compliance with any resulting order or fine could adversely affect our operations.

Risks Related to Our Intellectual Property

If we are unable to obtain, maintain and enforce intellectual property protection for our current or future products, or if the scope of our intellectual property protection is not sufficiently broad, our ability to commercialize our products successfully and to compete effectively may be materially adversely affected.

Our success depends on our ability to obtain and maintain patent and other intellectual property protection in the United States and other countries with respect to our current and future proprietary products. We rely upon a combination of patents and trade secret protection to protect the intellectual property related to our technology, manufacturing processes, and products. Our commercial success depends in part on obtaining and maintaining patent and trade secret protection of our current and future products, if any, and the methods used to manufacture them, as well as successfully defending such patents and trade secrets against third-party challenges. Our ability to stop third parties from making, using, selling, offering to sell or importing our products is dependent upon the extent to which we have rights under valid and enforceable patents and other intellectual property that covers these activities.

The patent prosecution process is expensive and time consuming, and we may not be able to file and prosecute all necessary or desirable patent applications at a reasonable cost or in a timely manner or in all jurisdictions where protection may be commercially advantageous. It is also possible that we may fail to identify patentable aspects of our research and development output before it is too late to obtain patent protection. In addition, we or our collaborators may only pursue, obtain or maintain patent protection in a limited number of countries. There is no assurance that all potentially relevant prior art relating to our patents and patent applications has been found. We may be unaware of prior art that could be used to invalidate or narrow the scope of an issued patent or prevent our pending patent applications from issuing as patents. Because patent applications in the United States, Europe and many other non-U.S. jurisdictions are typically not published until 18 months after filing, or in some cases not at all, because publications of discoveries in scientific literature lag behind actual discoveries, and because we cannot be certain that we or our licensors were the first to make the inventions claimed in any of our owned or any in-licensed issued patents or pending patent applications, or that we or our licensors were the first to file for protection of the inventions set forth in our patents or patent applications. As a result, we may not be able to obtain or maintain protection for certain inventions. Even if patents do successfully issue, such patents may not adequately protect our intellectual property, provide exclusivity for our current or future products, prevent others from designing around our claims or otherwise provide us with a competitive advantage. We cannot offer any assurances about which, if any, patents will issue, the breadth of any such patents or whether any issued patents will be found invalid or unenforceable or will be threatened by third parties. In addition, third parties may challenge the validity, enforceability, ownership, inventorship or scope of any of our patents. Any successful challenge to any of our patents could deprive us of rights necessary for the successful commercialization of our current or future products and could impair or eliminate our ability to collect future revenue and royalties with respect to such products. If any of our patent

applications with respect to our current or future products fail to result in issued patents, if their breadth or strength of protection is narrowed or threatened, or if they fail to provide meaningful exclusivity or competitive position, it could dissuade companies from collaborating with us or otherwise adversely affect our competitive position.

The patent positions of life science companies can be highly uncertain and involve complex legal and factual questions for which important legal principles remain unresolved. No consistent policy regarding the breadth of claims allowed in life science patents has emerged to date in the United States. The standards applied by the United States Patent and Trademark Office (the "USPTO") and foreign patent offices in granting patents are not always applied uniformly or predictably, and can change. Additionally, the laws of some foreign countries do not protect intellectual property rights to the same extent as the laws of the United States, and many companies have encountered significant problems in protecting and defending such rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents and other intellectual property rights, particularly those relating to biotechnology, which could make it difficult for us to stop the infringement, misappropriation, or other violation of our patents or other intellectual property, including the unauthorized reproduction of our manufacturing or other know-how or the marketing of competing products in violation of our intellectual property rights generally. Any of these outcomes could impair our ability to prevent competition from third parties, which may have a material adverse effect on our business, financial condition, results of operations, cash flows and prospects.

Further, the existence of issued patents does not guarantee our right to practice the patented technology or commercialize products covered by such a patent. Third parties may have or obtain rights to patents which they may use to prevent or attempt to prevent us from practicing our patented technology or commercializing our patented products. If any of these other parties are successful in obtaining valid and enforceable patents, and establishing our infringement of those patents, we could be prevented from selling our products unless we were able to obtain a license under such third-party patents, which may not be available on commercially reasonable terms or at all. In addition, third parties may seek approval to market their own products similar to or otherwise competitive with our products. In these circumstances, we may need to defend or assert our patents, including by filing lawsuits alleging patent infringement. In any of these types of proceedings, a court or agency of competent jurisdiction may find our patents invalid or unenforceable. Our competitors and other third parties may also be able to circumvent our patents by developing similar or alternative products in a non-infringing manner. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations, cash flows and prospects.

In addition, competitors may use our technologies in jurisdictions where we have not obtained or are unable to adequately enforce patent protection to develop their own products and further, may export otherwise infringing products to territories where we have patent protection, but enforcement is not as strong as that in the United States and Europe. These products may compete with our products, and our patents or other intellectual property rights may not be effective or sufficient to prevent them from competing with us. Proceedings to enforce our patent rights, whether or not successful, could result in substantial costs and divert our efforts and attention from other aspects of our business, could put our patents at risk of being invalidated or held unenforceable, or interpreted narrowly and our patent applications at risk of not issuing, and could provoke third parties to assert claims against us. We may not prevail in any lawsuits that we initiate and the damages or other remedies awarded, if any, may not be commercially meaningful. Accordingly, our efforts to enforce our intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop, acquire or license.

Intellectual property that we own orin-license may be subject to a reservation of rights by one or more third parties. For example, one of our patents isco-owned with third parties and some of our patent rights in the future may be co-owned with third parties. If we are unable to obtain an exclusive license to any such third-partyco-owners' interest in such patent rights, such co-owners may be able to license their rights to other third parties, including our competitors, and our competitors could market competing products and technology. In addition, we

may need the cooperation of any such co-owners of such patent rights in order to enforce such patent rights against third parties, and such cooperation may not be provided to us. Any of the foregoing could have a material adverse effect on our competitive position, business, financial conditions, results of operations, and prospects.

Moreover, the research resulting in certain of our patents and technology was funded in part by the U.S. government. As a result, the U.S. government has certain rights to such patent rights and technology, which include march-in rights. When new technologies are developed with government funding, in order to secure ownership of such patent rights, the recipient of such funding is required to comply with certain government regulations, including timely disclosing the inventions claimed in such patent rights to the U.S. government and timely electing title to such inventions. Additionally, the U.S. government generally obtains certain rights in any resulting patents, including a nonexclusive license authorizing the government to use the invention or to have others use the invention on its behalf. Accordingly, we or our licensors have granted the U.S. government a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States, the inventions described in the patents and patent applications relating to such inventions. If the U.S. government decides to exercise these rights, it is not required to engage us as its contractor in connection with doing so. The government's rights may also permit it to disclose our confidential information to third parties and to exercise march-in rights to use or allow third parties to use such government-funded technology. The government can exercise its march-in rights if it determines that action is necessary because we fail to achieve practical application of the government-funded technology, or because action is necessary to alleviate health or safety needs, to meet requirements of federal regulations, or to give preference to U.S. industry. In addition, our rights in such inventions may be subject to certain requirements to manufacture products embodying such inventions in the United States. If we fail to comply with those requirements, we could lose our ownership of or other rights to any patents subject to such regulations. Any exercise by the government of any of the foregoing rights or by any third party of its reserved rights could have a material adverse effect on our competitive position, business, financial condition, results of operations, and prospects.

Furthermore, patents have a limited lifespan. In the United States, the natural expiration of a patent is generally 20 years after its effective filing date. Various extensions may be available, however, the life of a patent and the protection it affords is limited. Given the amount of time required for the development, testing, regulatory review and approval of new products, our patents protecting such candidates might expire before or shortly after such candidates are commercialized. If we encounter delays in obtaining regulatory approvals, the period of time during which we could market a product under patent protection could be further reduced. Even if patents covering our future products are obtained, once such patents expire, we may be vulnerable to competition from similar products. The launch of a similar version of one of our products would likely result in an immediate and substantial reduction in the demand for our product. For example, certain patents related to our SoluLINK products expired in 2020 and certain other patents related to such products are due to expire in 2021 and 2022. As a result, our patent portfolio may not provide us with sufficient rights to exclude others from commercializing products similar or identical to ours. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations, cash flows and prospects.

If we are unable to protect the confidentiality of our proprietary information, the value of our technology and products could be materially adversely affected.

We also may rely on trade secrets to protect our technology, especially where we do not believe patent protection is appropriate or obtainable. To maintain the confidentiality of trade secrets and other proprietary information, we enter into confidentiality agreements with our employees, consultants, contractors, collaborators, contract development and manufacturing organizations ("CDMOs"), contract research organizations ("CROs") and others upon the commencement of their relationships with us. These agreements require that all confidential information developed by the individual or entity or made known to the individual or entity by us during the course of the individual's or entity's relationship with us be kept confidential and not disclosed to third parties. Our agreements with employees as well as our personnel policies also generally provide that any inventions conceived by the individual in the course of rendering services to us shall be our exclusive property or that we

may obtain full rights to such inventions at our election. However, trade secrets are difficult to protect. Although we use reasonable efforts to protect our trade secrets, our employees, consultants, contractors, collaborators, CDMOs, CROs and others may unintentionally or willfully disclose our information to competitors. We also face the risk that present or former employees could continue to hold rights to intellectual property used by us, demand the registration of intellectual property rights in their name, and seek payment of damages for our use of such intellectual property.

Enforcing a claim that a third party illegally obtained or is using any of our trade secrets is expensive and time consuming, and the outcome is unpredictable. We may not have adequate remedies in the event of unauthorized use or disclosure of our trade secrets or other proprietary information in the case of a breach of any such agreements and our trade secrets and other proprietary information could be disclosed to third parties, including our competitors. Many of our partners also collaborate with our competitors and other third parties. The disclosure of our trade secrets to our competitors, or more broadly, would impair our competitive position and may materially harm our business, financial condition, results of operations, cash flows and prospects. Costly and time-consuming litigation could be necessary to enforce and determine the scope of our rights, and failure to maintain trade secret protection could adversely affect our competitive business position. The enforceability of confidentiality agreements may vary from jurisdiction to jurisdiction. Courts outside the United States are sometimes less willing to protect trade secrets. Moreover, our competitors may independently develop substantially equivalent or superior knowledge, methods and know-how, and the existence of our own trade secrets affords no protection against such independent discovery.

We may become involved in lawsuits to protect or enforce our patents, which could be expensive, time-consuming and unsuccessful and could result in a court or administrative body finding our patents to be invalid or unenforceable.

Even if the patent applications we own or license are issued, third parties may challenge or infringe upon our patents. To counter infringement, we may be required to file infringement claims, which can be expensive and time-consuming. In patent litigation in the United States, defendant counterclaims alleging invalidity or unenforceability are commonplace. Grounds for a validity challenge could be an alleged failure to meet any of several statutory requirements, including novelty, non-obviousness (or inventive step), written description or enablement. In addition, patent validity challenges may, under certain circumstances, be based upon non-statutory obviousness-type double patenting, which, if successful, could result in a finding that the claims are invalid for obviousness-type double patenting or the loss of patent term if a terminal disclaimer is filed to obviate a finding of obviousness-type double patenting. Grounds for an unenforceability assertion could be an allegation that someone connected with prosecution of the patent withheld information material to patentability from the USPTO, or made a misleading statement, during prosecution.

Third parties may raise similar claims before administrative bodies in the United States or abroad, even outside the context of litigation. Such mechanisms include re-examination, post-grant review, *inter partes* review, interference proceedings, derivation proceedings, and equivalent proceedings in foreign jurisdictions (e.g., opposition proceedings). Such proceedings could result in the revocation or cancellation of or amendment to our patents in such a way that they no longer cover our current or future products or provide any competitive advantage. The outcome following legal assertions of invalidity and unenforceability is unpredictable. If a third party were to prevail on a legal assertion of invalidity or unenforceability, we could lose part or all of the patent protection on one or more of our current or future products, which could result in our competitors and other third parties using our technology to compete with us. Such a loss of patent protection could have a material adverse impact on our business, financial condition, results of operations, cash flows and prospects.

Interference proceedings, or other similar enforcement and revocation proceedings, provoked by third parties or brought by us may be necessary to determine the priority of inventions with respect to our patents or patent applications. An unfavorable outcome could require us to cease using the related technology or to attempt to license rights to it from the prevailing party. Our business could be harmed if the prevailing party does not

offer us a license on commercially reasonable terms. Our defense of litigation or interference proceedings may fail and, even if successful, may result in substantial costs and distract our management and other employees. We may not be able to prevent, alone or with our licensors, infringement, misappropriation or other violation of our intellectual property rights, particularly in countries where the laws may not protect those rights as fully as in the United States.

In an infringement proceeding, even one initiated by us, there is a risk that a court will decide that our patents are not valid and that we do not have the right to stop the other party from using the inventions they describe. There is also the risk that, even if the validity of such patents is upheld, the court will refuse to stop the other party on the ground that such other party's activities do not infringe our rights to these patents.

Some of our competitors may be able to sustain the costs of complex patent litigation more effectively than we can because they have substantially greater resources. In addition, any uncertainties resulting from the initiation and continuation of any litigation could have a material adverse effect on our ability to raise the funds necessary to continue our operations. In addition, patent holding companies that focus solely on extracting royalties and settlements by enforcing patent rights may target us, especially as we gain greater visibility and market exposure as a public company.

An adverse outcome in a litigation or proceeding involving our patents could limit our ability to assert our patents against competitors, affect our ability to receive royalties or other licensing consideration from our licensees, and may curtail or preclude our ability to exclude third parties from making, using and selling similar or competitive products. Any of these occurrences could have a material adverse effect on our business, financial condition, results of operations, cash flows and prospects.

If we are sued for infringing, misappropriating, or otherwise violating intellectual property rights of third parties, such litigation could be costly and time consuming and could prevent or delay us from developing or commercializing our current or future products.

Our products may infringe on, or be accused of infringing on, one or more claims of an issued patent or may fall within the scope of one or more claims in a published patent application that may be subsequently issued and to which we do not hold a license or other rights.

Because patent applications in the United States and many foreign jurisdictions are typically not published until 18 months after filing, or in some cases not at all, and publications in the scientific literature often lag behind actual discoveries, we cannot be certain that others have not filed patent applications for technology covered by our issued patents or our pending applications, or that we were the first to invent the technology. Others, including our competitors, may have filed, and may in the future file, patent applications covering technology similar to ours. Any such patent application may have priority over our patent applications or patents, which could further require us to obtain rights to issued patents by others covering such technologies. If another party has filed a U.S. patent application on inventions similar to ours, we may have to participate in an interference proceeding declared by the USPTO to determine priority of invention in the United States. The costs of these proceedings could be substantial, and it is possible that such efforts would be unsuccessful if, unbeknownst to us, the other party had independently arrived at the same or similar invention prior to our own invention, resulting in a loss of our U.S. patent position with respect to such inventions.

Additionally, pending patent applications that have been published can, subject to certain limitations, be later amended in a manner that could cover our current or future products or the use of our current or future products. After issuance, the scope of patent claims remains subject to construction based on interpretation of the law, the written disclosure in a patent and the patent's prosecution history. Our interpretation of the relevance or the scope of a patent or a pending application may be incorrect. In addition, third parties may obtain patents in the future and claim that use of our technologies infringes upon these patents. These third parties could bring

claims against us or our collaborators that would cause us to incur substantial expenses and, if successful against us, could cause us to pay substantial damages.

The life sciences industry has produced a proliferation of patents, and it is not always clear to industry participants, including us, which patents cover various types of products or methods of use. The coverage of patents is subject to interpretation by the courts, and the interpretation is not always uniform. If we are sued for patent infringement, we would need to demonstrate that our products or methods of use either do not infringe the patent claims of the relevant patent and/or that the patent claims are invalid or unenforceable, and we may not be able to do this. Proving invalidity, in particular, is difficult since it requires a showing of clear and convincing evidence to overcome the presumption of validity enjoyed by issued patents. Third parties have, and may in the future have, U.S. and non-U.S. issued patents and pending patent applications that may cover our current or future products. Such a third party may claim that we or our manufacturing or commercialization partners are using inventions covered by the third party's patent rights and may go to court or a tribunal to stop us from engaging in our normal operations and activities, including making or selling our current or future products. In the event that any of these patent rights were asserted against us, we believe that we have defenses against any such action, including that such patents would not be infringed by our current or future products and/or that such patents are not valid. However, if any such patent rights were to be asserted against us and our defenses to such assertion were unsuccessful, unless we obtain a license to such patents, we could be liable for damages, which could be significant and include treble damages and attorneys' fees if we are found to willfully infringe such patents, and we could be precluded from commercializing any future products that were ultimately held to infringe such patents, any of which could have a material adverse effect on our business, financial condition, results of operations, cash flows and prospects.

If we are found to infringe the patent rights of a third party, or in order to avoid potential claims, we or our collaborators may choose or be required to seek a license from a third party and be required to pay license fees or royalties or both. These licenses may not be available on reasonable terms, or at all. In particular, any of our competitors that control intellectual property that we are found to infringe may be unwilling to provide us a license under any terms. Even if we or our collaborators were able to obtain a license, the rights may be nonexclusive, which could result in our competitors gaining access to the same intellectual property. Ultimately, we could be prevented from commercializing a product, or be forced to cease some aspect of our business operations, if, as a result of actual or threatened patent infringement claims, we or our collaborators are unable to enter into licenses on acceptable terms. In addition, we could be found liable for monetary damages, including treble damages and attorneys' fees if we are found to have willfully infringed a patent. Further, if a patent infringement suit is brought against us or our third-party service providers and if we are unable to successfully obtain rights to required third-party intellectual property, we may be required to expend significant time and resources to redesign our current or future products, or to develop or license replacement technology, all of which may not be feasible on a technical or commercial basis, and may delay or require us to abandon our development, manufacturing or sales activities relating to our current or future products. A finding of infringement could prevent us from commercializing our future products or force us to cease some of our business operations, which could harm our business. Claims that we have misappropriated the confidential information or trade secrets of third parties could have a similar negative impact on our business. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations, cash flows and prospects.

Intellectual property litigation and other proceedings could cause us to spend substantial resources and distract our personnel from their normal responsibilities.

Even if resolved in our favor, intellectual property litigation or other legal proceedings relating to our, our licensors' or other third parties' intellectual property claims may cause us to incur significant expenses and could distract our personnel from their normal responsibilities. Patent litigation and other proceedings may also absorb significant management time. If not resolved in our favor, litigation may require us to pay any portion of our opponents' legal fees. Such litigation or proceedings could substantially increase our operating losses and reduce

the resources available for development activities or any future sales, marketing, or distribution activities. We may not have sufficient financial or other resources to conduct such litigation or proceedings adequately. Our competitors or other third parties may be able to sustain the cost of such litigation and proceedings more effectively than we can because of their substantially greater resources. Uncertainties resulting from our participation in patent litigation or other proceedings could have a material adverse effect on our ability to compete in the marketplace. Furthermore, because of the substantial amount of discovery required in certain jurisdictions in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. There could also be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, the perceived value of our current or future products or intellectual property could be diminished. Accordingly, the market price of our Class A common stock may decline. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could have a material adverse effect on our business, financial condition, results of operations, and prospects.

If we fail to comply with our obligations under any license agreements, disagree over contract interpretation, or otherwise experience disruptions to our business relationships with our licensors, we could lose intellectual property rights that are necessary to our business.

We rely, in part, on intellectual property and technology which we havein-licensed. We may also need to obtain additional licenses in the future to advance our research or allow commercialization of our future products and it is possible that we may be unable to do so at a reasonable cost or on reasonable terms, if at all. Moreover, such licenses may not provide exclusive rights to use such intellectual property and technology in all relevant fields of use and in all territories in which we may wish to develop or commercialize our future products.

In addition, our existing license agreements impose, and any future license agreements we enter into may impose, various development, commercialization, funding, milestone, royalty, diligence, sublicensing, insurance, patent prosecution and enforcement or other obligations on us. Our license agreements, and any future license agreement we enter into, may also impose restrictions on our ability to license certain of our intellectual property to third parties or to develop or commercialize certain current or future products or technologies. In spite of our best efforts, our counterparties may conclude that we have breached our obligations under our agreements, or that we have used the intellectual property licensed to us in an unauthorized manner, in which case, we may be required to pay damages and the counterparty may have the right to terminate the agreement. Any of the foregoing could result in us being unable to develop, manufacture and sell products that are covered by the licensed intellectual property or technology, or enable a competitor to gain access to the licensed intellectual property or technology.

We might not have the necessary rights or the financial resources to develop, manufacture or market our current or future products without the rights granted under our license agreements, and the loss of sales or potential sales in current or future products covered by such license agreements could have a material adverse effect on our business, financial condition, results of operations, cash flows and prospects.

Disputes may arise regarding intellectual property subject to license agreements, including:

- the scope of rights granted under the license agreement and other interpretation related issues;
- the extent to which our technology and processes infringe on intellectual property of the licensor that is not subject to the license agreement;
- the sublicensing of patent and other rights under our collaborative development relationships;
- our diligence obligations under the license agreement and what activities satisfy those diligence obligations;
- our financial obligations under the license agreement;

- the inventorship and ownership of inventions and know-how resulting from the joint creation or use of intellectual property by our licensors and us and our partners; and
- the priority of invention of patented technology.

In addition, the agreements under which we currently license intellectual property or technology to or from third parties are complex, and certain provisions in such agreements may be susceptible to multiple interpretations. The resolution of any contract interpretation disagreement that may arise could narrow what we believe to be the scope of our rights to the relevant intellectual property or technology, or increase what we believe to be our financial or other obligations under the relevant agreement, either of which could have a material adverse effect on our business, financial condition, results of operations, and prospects. Moreover, if disputes over intellectual property that we have licensed prevent or impair our ability to maintain our current licensing arrangements on commercially acceptable terms, we may be unable to successfully develop and commercialize the affected future products.

In some cases, we may not have primary control over prosecution, maintenance, enforcement and defense of patents and patent applications that we havein-licensed from third parties, and instead we rely on our licensors for these activities. We cannot be certain that such activities have been or will be conducted in compliance with applicable laws and regulations or in a manner consistent with the best interests of our business. If we do undertake any enforcement of our in-licensed patents or defense of any claims asserting the invalidity of such patents, such actions may be subject to the cooperation of our licensors or other third parties. If our licensors or other third parties fail to prosecute, maintain, enforce and defend intellectual property licensed to us, or lose their own rights to such intellectual property, the rights we have licensed may be impaired or eliminated and our ability to develop and commercialize any of our products that are subject to such rights could be adversely affected.

In-licensing or acquisition of third-party intellectual property is a competitive area and a number of more established companies are also pursuing strategies toin-license or acquire third-party intellectual property rights that we may consider attractive or necessary for our business. These companies may have a competitive advantage over us due to their size, cash resources and greater capabilities with respect to clinical development and commercialization. Furthermore, companies that perceive us as a competitor may be unwilling to assign or license rights to us. If we are unable to successfully obtain rights to required third-party intellectual property rights or maintain the existing intellectual property rights we have on reasonable terms or at all, we may have to abandon development of the relevant program or current or future product and our business, financial condition, results of operations, cash flows and prospects could suffer.

Changes to the patent law in the United States and other jurisdictions could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents, thereby impairing our ability to protect our technologies and current or future products.

As is the case with other life sciences companies, our success is heavily dependent on intellectual property, particularly patents. Obtaining and enforcing patents in the life sciences industry involves both technological and legal complexity and is therefore costly, time consuming and inherently uncertain. Changes in either the patent laws or in interpretations of patent laws in the United States and other countries may increase the uncertainties and costs surrounding the prosecution of patent applications and the enforcement or defense of issued patents.

For example, the Leahy-Smith America Invents Act (the “America Invents Act”), was signed into law on September 16, 2011, and many of the substantive changes became effective on March 16, 2013. The America Invents Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents, all of which could have a material adverse effect on our business, financial condition, results of operations, and prospects. Specifically, the America Invents Act reforms United States patent law in part by changing the U.S. patent system from a “first to invent”

system to a "first inventor to file" system. Under a "first inventor to file" system, assuming the other requirements for patentability are met, the first inventor to file a patent application generally will be entitled to the patent on an invention regardless of whether another inventor was the first to invent the invention. This will require us to be cognizant going forward of the time from invention to filing of a patent application and be diligent in filing patent applications. Circumstances may arise that could prevent us from promptly filing patent applications on our inventions and allow third parties to file patents claiming our inventions before we are able to do so. The America Invents Act also includes a number of significant changes that affect the way patent applications will be prosecuted and may also affect patent litigation. These include allowing third-party submission of prior art to the USPTO during patent prosecution and additional procedures to attack the validity of a patent by the USPTO administered post grant proceedings, including reexamination proceedings, *inter partes* review, post grant review and derivation proceedings. These adversarial proceedings at the USPTO review patent claims without the presumption of validity afforded to U.S. patents in lawsuits in U.S. federal courts, and use a lower burden of proof than used in litigation in U.S. federal courts. Therefore, it is generally considered easier for a competitor or third party to have a U.S. patent invalidated in a USPTO post-grant review or *inter partes* review proceeding than in a litigation in a U.S. federal court.

In addition, the patent positions of companies in the life sciences industry are particularly uncertain. Recent U.S. Supreme Court rulings have narrowed the scope of patent protection available in certain circumstances and weakened the rights of patent owners in certain situations. This combination of events has created uncertainty with respect to the validity and enforceability of patents, once obtained. Depending on future actions by the U.S. Congress, the federal courts, and the USPTO, the laws and regulations governing patents could change in unpredictable ways. In addition, the complexity and uncertainty of European patent laws have also increased in recent years. Complying with these laws and regulations could have a material adverse effect on our existing patent portfolio and our ability to protect and enforce our intellectual property in the future.

Obtaining and maintaining our patent protection depends on compliance with various procedural, documentary, fee payment and other requirements imposed by governmental patent agencies, and our patent protection could be reduced or eliminated for noncompliance with these requirements.

Periodic maintenance fees, renewal fees, annuity fees and various other governmental fees on patents and patent applications will be due to be paid to the USPTO and various government patent agencies outside the United States over the lifetime of our patents and patent applications and any patent rights we may own or license in the future. Additionally, the USPTO and various government patent agencies outside the United States require compliance with a number of procedural, documentary, fee payment and other similar provisions during the patent application process. In certain cases, an inadvertent lapse can be cured by payment of a late fee or by other means in accordance with rules applicable to the particular jurisdiction. However, there are situations in which noncompliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. If we or our licensors fail to maintain the patents and patent applications covering or otherwise protecting our current or future products, it could have a material adverse effect on our business. In addition, to the extent that we have responsibility for taking any action related to the prosecution or maintenance of patents or patent applications in-licensed from a third party, any failure on our part to maintain thein-licensed intellectual property could jeopardize our rights under the relevant license and may have a material adverse effect on our business, financial condition, results of operations, cash flows and prospects.

We may be subject to claims by third parties asserting that our employees, consultants, independent contractors or we have misappropriated their intellectual property, or claiming ownership of what we regard as our own intellectual property and proprietary technology.

Many of our employees were previously employed at universities or other life science, biotechnology or pharmaceutical companies, including our competitors or potential competitors. We try to ensure that our employees do not use the proprietary information or know-how of others in their work for us. We may, however,

be subject to claims that we or these employees have inadvertently or otherwise used or disclosed intellectual property, trade secrets or other proprietary information of any such employee's former employer or that patents and applications we have filed to protect inventions of these individuals, even those related to one or more of our current or future products, are rightfully owned by their former or concurrent employer. Litigation may be necessary to defend against these claims. Even if we are successful in defending ourselves, such litigation could result in substantial costs to us or be distracting to our management. If we fail to defend any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel or we could be required to obtain a license from such third party to commercialize our technology or products. Such a license may not be available on an exclusive basis or on commercially reasonable terms or at all.

In addition, while we typically require our employees, consultants and independent contractors who may be involved in the development of intellectual property to execute agreements assigning such intellectual property to us, we may be unsuccessful in executing such an agreement with each party who in fact develops intellectual property that we regard as our own, or such agreements may be breached or alleged to be ineffective, and the assignment may not be self-executing, which may result in claims by or against us related to the ownership of such intellectual property or may result in such intellectual property becoming assigned to third parties. If we fail in enforcing or defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights. Even if we are successful in prosecuting or defending against such claims, litigation could result in substantial costs and be a distraction to our senior management and scientific personnel. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations, cash flows and prospects.

We may not be able to protect our intellectual property and proprietary rights throughout the world.

Filing, prosecuting, and defending patents on current or future products in all countries throughout the world would be prohibitively expensive, and the laws of foreign countries may not protect our rights to the same extent as the laws of the United States. Consequently, we may not be able to prevent third parties from practicing our inventions in all countries outside the United States, or from selling or importing products made using our inventions in and into the United States or other jurisdictions. Third parties may use our technologies in jurisdictions where we have not obtained or are unable to adequately enforce patent protection to develop their own products and, further, may export otherwise infringing products to territories where we have patent protection but enforcement is not as strong as that in the United States. These products may compete with our products, and our patents or other intellectual property rights may not be effective or sufficient to prevent them from competing.

Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents, trade secrets, and other intellectual property protection, particularly those relating to biotechnology products, which could make it difficult for us to stop the infringement of our patents or marketing of competing products in violation of our intellectual property and proprietary rights generally. Proceedings to enforce our intellectual property and proprietary rights in foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business, could put our patents at risk of being invalidated or interpreted narrowly, could put our patent applications at risk of not issuing, and could provoke third parties to assert claims against us. We may not prevail in any lawsuits that we initiate, and the damages or other remedies awarded, if any, may not be commercially meaningful. Accordingly, our efforts to enforce our intellectual property and proprietary rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop or license.

Many countries have compulsory licensing laws under which a patent owner may be compelled to grant licenses to third parties. In addition, many countries limit the enforceability of patents against government agencies or government contractors. In these countries, the patent owner may have limited remedies, which could materially diminish the value of such patent. If we or any of our licensors is forced to grant a license to third

parties with respect to any patents relevant to our business, our competitive position may be impaired, and our business, financial condition, results of operations, cash flows and prospects may be adversely affected.

We rely on confidentiality agreements that, if breached, may be difficult to enforce and could have a material adverse effect on our business and competitive position.

Our policy is to enter agreements relating to thenon-disclosure and non-use of confidential information with third parties, including our contractors, consultants, advisors and research collaborators, as well as agreements that purport to require the disclosure and assignment to us of the rights to the ideas, developments, discoveries and inventions of our employees and consultants while we employ them. However, these agreements can be difficult and costly to enforce. Moreover, to the extent that our contractors, consultants, advisors and research collaborators apply or independently develop intellectual property in connection with any of our projects, disputes may arise as to the proprietary rights to the intellectual property. If a dispute arises, a court may determine that the right belongs to a third party, and enforcement of our rights can be costly and unpredictable. In addition, we rely on trade secrets and proprietary know-how that we seek to protect in part by confidentiality agreements with our employees, contractors, consultants, advisors or others. Despite the protective measures we employ, we still face the risk that:

- these agreements may be breached;
- these agreements may not provide adequate remedies for the applicable type of breach; or
- our trade secrets or proprietary know-how will otherwise become known.

Any breach of our confidentiality agreements or our failure to effectively enforce such agreements would have a material adverse effect on our business and competitive position.

If our trademarks and trade names are not adequately protected, we may not be able to build name recognition in our markets of interest and our business, financial condition, results of operations, cash flows and prospects may be adversely affected.

Our trademarks or trade names may be challenged, infringed, circumvented or declared generic or determined to be infringing on other marks. We may not be able to protect our rights to these trademarks and trade names or may be forced to stop using these names or marks which we need for name recognition by potential partners or customers in our markets of interest. During trademark registration proceedings, we may receive rejections. Although we would be given an opportunity to respond to those rejections, we may be unable to overcome such rejections. In addition, in the USPTO and in comparable agencies in many foreign jurisdictions, third parties are given an opportunity to oppose pending trademark applications and to seek to cancel registered trademarks. Opposition or cancellation proceedings may be filed against our trademarks, and our trademarks may not survive such proceedings. If we are unable to establish name recognition based on our trademarks and trade names, we may not be able to compete effectively and our business, financial condition, results of operations, cash flows and prospects may be adversely affected.

Intellectual property rights do not necessarily address all potential threats.

The degree of future protection afforded by our proprietary and intellectual property rights is uncertain because such rights offer only limited protection and may not adequately protect our rights or permit us to gain or keep our competitive advantage. For example:

- others may be able to develop products that are similar to, or better than, our current or future products in a way that is not covered by the claims of the patents we license or may own currently or in the future;
- we, or our licensing partners or current or future collaborators, might not have been the first to make the inventions covered by issued patents or pending patent applications that we license or may own currently or in the future;

- we, or our licensing partners or current or future collaborators, might not have been the first to file patent applications for certain of our or their inventions;
- our pending owned or in-licensed patent applications may not lead to issued patents;
- we may choose not to file a patent for certain trade secrets orknow-how, and a third party may subsequently file a patent covering such intellectual property;
- our competitors or other third parties might conduct research and development activities in countries where we do not have patent rights and then use the information learned from such activities to develop competitive products for sale in our major commercial markets;
- it is possible that there are prior public disclosures that could invalidate our or our licensors' patents;
- the patents of third parties or pending or future applications of third parties, if issued, may have an adverse effect on our business;
- any patents that we obtain may not provide us with any competitive advantages or may ultimately be found not to be owned by us, invalid or unenforceable; or
- we may not develop additional proprietary technologies that are patentable.

Should any of these events occur, they could significantly harm our business, financial conditions, results of operations, cash flows and prospects.

Risks Related to Our Indebtedness

Our existing indebtedness could adversely affect our business and growth prospects.

As of December 31, 2019, we had total current and long-term indebtedness outstanding of approximately $337.3 million, including term loans of $246.9 million and unamortized debt issuance costs of $9.6 million. Our indebtedness, or any additional indebtedness we may incur, could require us to divert funds identified for other purposes for debt service and impair our liquidity position. If we cannot generate sufficient cash flow from operations to service our debt, we may need to refinance our debt, dispose of assets or issue equity to obtain necessary funds. We do not know whether we will be able to take any of these actions on a timely basis, on terms satisfactory to us or at all.

Our indebtedness, the cash flow needed to satisfy our debt and the covenants contained in the First Lien Credit Agreement and Second Lien Credit Agreement have important consequences, including:

- limiting funds otherwise available for financing our capital expenditures by requiring us to dedicate a portion of our cash flows from operations to the repayment of debt and the interest on this debt;
- limiting our ability to incur or prepay existing indebtedness, pay dividends or distributions, dispose of assets, engage in mergers and consolidations, make acquisitions or other investments and make changes in the nature of the business, among other things;
- making us more vulnerable to rising interest rates, as certain of our borrowings, including borrowings under the First Lien Credit Agreement and Second Lien Credit Agreement, bear variable rates of interest; and
- making us more vulnerable in the event of a downturn in our business.

Our level of indebtedness may place us at a competitive disadvantage to our competitors that are not as highly leveraged. Fluctuations in interest rates can increase borrowing costs. Increases in interest rates may directly impact the amount of interest we are required to pay and reduce earnings accordingly. In addition, tax laws, including the disallowance or deferral of tax deductions for interest paid on outstanding indebtedness,

could have an adverse effect on our liquidity and our business, financial condition, results of operations, cash flows and prospects. Further, our First Lien Credit Agreement and Second Lien Credit Agreement contain customary affirmative and negative covenants and certain restrictions on operations that could impose operating and financial limitations and restrictions on us, including restrictions on our ability to enter into particular transactions and to engage in other actions that we may believe are advisable or necessary for our business.

We expect to use cash flow from operations to meet current and future financial obligations, including funding our operations, debt service requirements and capital expenditures. The ability to make these payments depends on our financial and operating performance, which is subject to prevailing economic, industry and competitive conditions and to certain financial, business, economic and other factors beyond our control.

Despite current indebtedness levels, we may incur substantially more indebtedness, which could further exacerbate the risks associated with our substantial indebtedness.

We may incur significant additional indebtedness in the future. We may also consider investments in joint ventures or acquisitions, which may increase our indebtedness. If new debt is added to our current indebtedness levels, the related risks that we face could intensify.

Variable rate indebtedness that we have incurred or may in the future incur will subject us to interest rate risk, which could cause our debt service obligations to increase significantly.

Certain of our borrowings, including certain borrowings under our First Lien Credit Agreement and Second Lien Credit Agreement, bear variable rates of interest. An increase in interest rates would increase our debt service obligations, which would have a negative impact on our net income and cash flows, including cash available for servicing our indebtedness.

The phase-out of the London Interbank Offered Rate ("LIBOR"), or the replacement of LIBOR with a different reference rate, may adversely affect interest rates.

Borrowings under our First Lien Credit Agreement and Second Lien Credit Agreement bear interest at rates determined using LIBOR as the reference rate. On July 27, 2017, the Financial Conduct Authority (the authority that regulates LIBOR) announced that it would phase out LIBOR by the end of 2021. It is unclear whether new methods of calculating LIBOR will be established such that it continues to exist after 2021, or if alternative rates or benchmarks will be adopted, and currently it appears highly likely that LIBOR will be discontinued or substantially modified by 2021. Changes in the method of calculating LIBOR, or the replacement of LIBOR with an alternative rate or benchmark, may adversely affect interest rates and result in higher borrowing costs. This could have a material adverse effect on our business, financial condition, results of operations, cash flows and prospects. We cannot predict the effect of the potential changes to LIBOR or the establishment and use of alternative rates or benchmarks. Furthermore, we may need to renegotiate our First Lien Credit Agreement or Second Lien Credit Agreement or incur other indebtedness, and changes in the method of calculating LIBOR, or the use of an alternative rate or benchmark, may negatively impact the terms of such indebtedness.

We may not be able to generate sufficient cash flow to service all of our indebtedness and may be forced to take other actions to satisfy our obligations under such indebtedness, which may not be successful.

Our ability to make scheduled payments or to refinance outstanding debt obligations depends on our financial and operating performance, which will be affected by prevailing economic, industry and competitive conditions and by financial, business and other factors beyond our control. We may not be able to maintain a sufficient level of cash flow from operating activities to permit us to pay the principal, premium, if any, and interest on our indebtedness. Any failure to make payments of interest and principal on our outstanding indebtedness on a timely basis would likely result in a reduction of our creditworthiness, which would also harm our ability to incur additional indebtedness.

If our cash flows and capital resources are insufficient to fund our debt service obligations, we may be forced to reduce or delay capital expenditures and acquisitions, sell assets, seek additional capital or seek to restructure or refinance our indebtedness. Any refinancing of our indebtedness could be at higher interest rates and may require us to comply with more onerous covenants. Refinancings may not be successful and may not permit us to meet our scheduled debt service obligations. In the absence of such cash flows and resources, we could face substantial liquidity problems and might be required to sell material assets or operations to attempt to meet our debt service obligations. The financing documents governing our First Lien Credit Agreement and Second Lien Credit Agreement include certain restrictions on our ability to conduct asset sales and/or use the proceeds from asset sales for certain purposes. We may not be able to consummate these asset sales to raise capital or sell assets at prices and on terms that we believe are fair and any proceeds that we do receive may not be adequate to meet any debt service obligations then due. If we cannot meet our debt service obligations, the holders of our indebtedness may accelerate such indebtedness and, to the extent such indebtedness is secured, foreclose on our assets. In such an event, we may not have sufficient assets to repay all of our indebtedness.

The terms of the financing documents governing our First Lien Credit Agreement and Second Lien Credit Agreement restrict our current and future operations, particularly our ability to respond to changes or to take certain actions.

The financing documents governing our First Lien Credit Agreement and Second Lien Credit Agreement contain a number of restrictive covenants that impose significant operating and financial restrictions on us and may limit our ability to engage in acts that may be in our long-term best interests, including restrictions on our ability to:

- incur additional indebtedness;
- incur liens;
- merge, dissolve, liquidate, amalgamate, consolidate or sell all or substantially all of our assets;
- declare or pay certain dividends, payments or distribution or repurchase or redeem certain capital stock;
- permit our subsidiaries to enter into agreements restricting their ability to pay dividends, make loans, incur liens and sell assets; and
- make certain investments.

These restrictions could limit, potentially significantly, our operational flexibility and affect our ability to finance our future operations or capital needs or to execute our business strategy.

We may be unable to refinance our indebtedness.

We may need to refinance all or a portion of our indebtedness before maturity. We cannot assure you that we will be able to refinance any of our indebtedness on commercially reasonable terms or at all. There can be no assurance that we will be able to obtain sufficient funds to enable us to repay or refinance our debt obligations on commercially reasonable terms, or at all.

Our failure to raise additional capital or generate cash flows necessary to expand our operations and invest in new technologies in the future could reduce our ability to compete successfully and harm our competitive position and results of operations.

We may need to raise additional funds, and we may not be able to obtain additional debt or equity financing on favorable terms or at all. If we raise additional equity financing, our security holders may experience significant dilution of their ownership interests. If we engage in additional debt financing, we may be required to accept terms that restrict our ability to incur additional indebtedness, force us to maintain specified liquidity or

other ratios or restrict our ability to pay dividends or make acquisitions. If we need additional capital and cannot raise it on acceptable terms, or at all, we may not be able to, among other things:

- develop and enhance our product offerings;
- continue to expand our organization;
- hire, train and retain employees;
- respond to competitive pressures or unanticipated working capital requirements; or
- pursue acquisition opportunities.

In addition, if we issue additional equity to raise capital, your interest in us will be diluted.

Risks Related to Our Organizational Structure

Our principal asset is our interest in Topco LLC, and, accordingly, we depend on distributions from Topco LLC to pay our taxes and expenses, including payments under the Tax Receivable Agreement. Topco LLC's ability to make such distributions may be subject to various limitations and restrictions.

We are a holding company and have no material assets other than our ownership of equity interests in Topco LLC. As such, we have no independent means of generating revenue or cash flow, and our ability to pay our taxes, satisfy our obligations under the Tax Receivable Agreement and pay operating expenses or declare and pay dividends, if any, in the future depends on the financial results and cash flows of Topco LLC and its subsidiaries and distributions we receive from Topco LLC. There can be no assurance that Topco LLC and its subsidiaries will generate sufficient cash flow to distribute funds to us or that applicable state law and contractual restrictions, including negative covenants in debt instruments of Topco LLC and its subsidiaries, will permit such distributions.

Topco LLC is treated as a partnership for U.S. federal income tax purposes and, as such, is not subject to any entity-level U.S. federal income tax. Certain wholly-owned subsidiaries of Topco LLC are taxed as corporations for U.S. federal and most applicable state, local income tax and foreign tax purposes. For U.S. federal income tax purposes, taxable income of Topco LLC is allocated to the LLC Unitholders, including us. Accordingly, we incur income taxes on our distributive share of any net taxable income of Topco LLC. Under the terms of the LLC Operating Agreement, Topco LLC is obligated to make tax distributions to LLC Unitholders, including us. In addition to tax and dividend payments, we also incur expenses related to our operations, including obligations to make payments under the Tax Receivable Agreement. Due to the uncertainty of various factors, we cannot estimate the likely tax benefits we may realize as a result of our purchase of LLC Units and LLC Unit exchanges, and the resulting amounts we are likely to pay out to LLC Unitholders pursuant to the Tax Receivable Agreement; however, we estimate that such payments may be substantial. Under the LLC agreement, tax distributions shall be made on a pro rata basis among the LLC Unitholders, and will be calculated without regard to any applicable basis adjustment under Section 743(b) of the Code.

We intend to cause Topco LLC to make cash distributions to the owners of LLC Units in amounts sufficient to (1) fund all or part of their tax obligations in respect of taxable income allocated to them and (2) cover our operating expenses, including payments under the Tax Receivable Agreement.

However, Topco LLC's ability to make such distributions may be subject to various limitations and restrictions, such as restrictions on distributions that would violate either any contract or agreement to which Topco LLC or its subsidiaries is then a party, including debt agreements, or any applicable law, or that would have the effect of rendering Topco LLC or its subsidiaries insolvent. In addition, recently enacted legislation that is effective for taxable years beginning after December 31, 2017 may impute liability for adjustments to a partnership's tax return on the partnership itself in certain circumstances, absent an election to the contrary.

Topco LLC may be subject to material liabilities pursuant to this legislation and related guidance if, for example, its calculations of taxable income are incorrect. If we do not have sufficient funds to pay tax or other liabilities or to fund our operations, we may have to borrow funds, which could materially adversely affect our liquidity and financial condition and subject us to various restrictions imposed by any such lenders. To the extent that we are unable to make payments under the Tax Receivable Agreement, such payments generally will be deferred and will accrue interest until paid. Nonpayment for a specified period, however, may constitute a breach of a material obligation under the Tax Receivable Agreement and therefore accelerate payments due under the Tax Receivable Agreement, unless, generally, such nonpayment is due to a lack of sufficient funds. See "—Risks Related to Our Class A Common Stock and This Offering," "Dividend Policy," "Organizational Structure—Tax Receivable Agreement" and "Organizational Structure—Amended and Restated Operating Agreement of Topco LLC."

Conflicts of interest could arise between our shareholders and MLSH 1, which may impede business decisions that could benefit our shareholders.

MLSH 1, which will be the only holder of LLC Units other than us upon consummation of this offering, has the right to consent to certain amendments to the LLC Operating Agreement, as well as to certain other matters. MLSH 1 may exercise these voting rights in a manner that conflicts with the interests of our shareholders. Circumstances may arise in the future when the interests of MLSH 1 conflict with the interests of our shareholders. As we control Topco LLC, we have certain obligations to MLSH 1 as an LLC Unitholder that may conflict with fiduciary duties our officers and directors owe to our shareholders. These conflicts may result in decisions that are not in the best interests of shareholders.

The Tax Receivable Agreement requires us to make cash payments to MLSH 1 and MLSH 2 in respect of certain tax benefits to which we may become entitled, and we expect that the payments we will be required to make will be substantial.

In connection with the consummation of this offering, we will enter into a Tax Receivable Agreement with MLSH 1 and MLSH 2. Pursuant to the Tax Receivable Agreement, we will be required to make cash payments to MLSH 1 and MLSH 2, collectively, equal to 85% of the tax benefits, if any, that we actually realize, or, in some circumstances, are deemed to realize, as a result of (i) certain increases in the tax basis of assets of Topco LLC and its subsidiaries resulting from purchases or exchanges of LLC Units, (ii) certain tax attributes of the Blocker Entities, Topco LLC and subsidiaries of Topco LLC that existed prior to this offering and (iii) certain other tax benefits related to our entering into the Tax Receivable Agreement, including tax benefits attributable to payments that we make under the Tax Receivable Agreement. Due to the uncertainty of various factors, we cannot precisely quantify the likely tax benefits we will realize as a result of the purchase of LLC Units and LLC Unit exchanges, and the resulting amounts we are likely to pay out to MLSH 1 and MLSH 2 pursuant to the Tax Receivable Agreement; however, we estimate that such payments may be substantial. See "Organizational Structure—Tax Receivable Agreement." Payments under the Tax Receivable Agreement will be based on the tax reporting positions that we determine, which tax reporting positions will be based on the advice of our tax advisors. Any payments made by us to MLSH 1 and MLSH 2 under the Tax Receivable Agreement will generally reduce the amount of overall cash flow that might have otherwise been available to us. To the extent that we are unable to make payments under the Tax Receivable Agreement, such payments generally will be deferred and will accrue interest until paid. Nonpayment for a specified period, however, may constitute a breach of a material obligation under the Tax Receivable Agreement and therefore accelerate payments due under the Tax Receivable Agreement, unless, generally, such nonpayment is due to a lack of sufficient funds. Furthermore, our future obligation to make payments under the Tax Receivable Agreement could make us a less attractive target for an acquisition, particularly in the case of an acquirer that cannot use some or all of the tax benefits that may be deemed realized under the Tax Receivable Agreement. The payments under the Tax Receivable Agreement are also not conditioned upon MLSH 1 maintaining a continued ownership interest in Topco LLC. See "Organizational Structure—Tax Receivable Agreement."

The actual amount and timing of any payments under the Tax Receivable Agreement will vary depending upon a number of factors, including the timing of exchanges by MLSH 1, the amount of gain recognized by MLSH 1, the amount and timing of the taxable income we generate in the future and the federal tax rates then applicable.

The amounts that we may be required to pay to MLSH 1 and MLSH 2 under the Tax Receivable Agreement may be accelerated in certain circumstances and may also significantly exceed the actual tax benefits that we ultimately realize.

The Tax Receivable Agreement provides that if (1) certain mergers, asset sales, other forms of business combination or other changes of control were to occur, (2) we breach any of our material obligations under the Tax Receivable Agreement or (3) at any time, we elect an early termination of the Tax Receivable Agreement, then the Tax Receivable Agreement will terminate and our obligations, or our successor's obligations, to make payments under the Tax Receivable Agreement would accelerate and become immediately due and payable. The amount due and payable in that circumstance is based on certain assumptions, including an assumption that we would have sufficient taxable income to fully utilize all potential future tax benefits that are subject to the Tax Receivable Agreement. See "Organizational Structure—Tax Receivable Agreement." We may need to incur debt to finance payments under the Tax Receivable Agreement to the extent our cash resources are insufficient to meet our obligations under the Tax Receivable Agreement as a result of timing discrepancies or otherwise.

As a result of a change in control, material breach or our election to terminate the Tax Receivable Agreement early, (1) we could be required to make cash payments to MLSH 1 and MLSH 2 that are greater than the specified percentage of the actual benefits we ultimately realize in respect of the tax benefits that are subject to the Tax Receivable Agreement and (2) we would be required to make an immediate cash payment equal to the anticipated future tax benefits that are the subject of the Tax Receivable Agreement discounted in accordance with the Tax Receivable Agreement, which payment may be made significantly in advance of the actual realization, if any, of such future tax benefits. In these situations, our obligations under the Tax Receivable Agreement could have a substantial negative impact on our liquidity and could have the effect of delaying, deferring or preventing certain mergers, asset sales, other forms of business combination, or other changes of control. There can be no assurance that we will be able to finance our obligations under the Tax Receivable Agreement.

Our organizational structure, including the Tax Receivable Agreement, confers certain benefits upon MLSH 1 and MLSH 2 that will not benefit the other common shareholders to the same extent as they will benefit MLSH 1 and MLSH 2.

Our organizational structure, including the Tax Receivable Agreement, confers certain benefits upon MLSH 1, as the only other LLC Unitholder, and MLSH 2 that will not benefit the other holders of our common stock to the same extent. We will enter into a Tax Receivable Agreement with MLSH 1 and MLSH 2, which will provide for the payment by us to MLSH 1 and MLSH 2, collectively, of 85% of the amount of tax benefits, if any, that we actually realize, or in some circumstances are deemed to realize, as a result of (i) certain increases in the tax basis of assets of Topco LLC and its subsidiaries resulting from purchases or exchanges of LLC Units, (ii) certain tax attributes of the Blocker Entities, Topco LLC and subsidiaries of Topco LLC that existed prior to this offering and (iii) certain other tax benefits related to our entering into the Tax Receivable Agreement, including tax benefits attributable to payments that we make under the Tax Receivable Agreement. Due to the uncertainty of various factors, we cannot estimate the likely tax benefits we will realize as a result of purchases of LLC Units and LLC Unit exchanges, and the resulting amounts we are likely to pay out to MLSH 1 and MLSH 2 pursuant to the Tax Receivable Agreement; however, we estimate that such payments may be substantial. See "Organizational Structure—Tax Receivable Agreement." Although we will retain 15% of the amount of such tax benefits, this and other aspects of our organizational structure may adversely impact the future trading market for the Class A common stock.

We may not be able to realize all or a portion of the tax benefits that are currently expected to result from the tax attributes covered by the Tax Receivable Agreement and from payments made under the Tax Receivable Agreement.

Our ability to realize the tax benefits that we currently expect to be available as a result of the attributes covered by the Tax Receivable Agreement, the payments made pursuant to the Tax Receivable Agreement, and the interest deductions imputed under the Tax Receivable Agreement all depend on a number of assumptions, including that we earn sufficient taxable income each year during the period over which such deductions are available and that there are no adverse changes in applicable law or regulations. Additionally, if our actual taxable income were insufficient or there were additional adverse changes in applicable law or regulations, we may be unable to realize all or a portion of the expected tax benefits and our cash flows and shareholders' equity could be negatively affected. See "Organizational Structure—Tax Receivable Agreement."

In certain circumstances, Topco LLC will be required to make distributions to us and MLSH 1 and the distributions may be substantial.

Topco LLC is treated as a partnership for U.S. federal income tax purposes and, as such, is not subject to U.S. federal income tax. Instead, taxable income is allocated to its members, including us. We intend to cause Topco LLC to make tax distributions quarterly to the LLC Unitholders (including us), in each case on a pro rata basis based on Topco LLC's net taxable income and without regard to any applicable basis adjustment under Section 743(b) of the Code. Funds used by Topco LLC to satisfy its tax distribution obligations will not be available for reinvestment in our business. Moreover, these tax distributions may be substantial, and will likely exceed (as a percentage of Topco LLC's income) the overall effective tax rate applicable to a similarly situated corporate taxpayer. As a result, it is possible that we will receive distributions significantly in excess of our tax liabilities and obligations to make payments under the Tax Receivable Agreement. While our Board may choose to distribute such cash balances as dividends on our Class A common stock, they will not be required to do so, and may in their sole discretion choose to use such excess cash for any purpose depending upon the facts and circumstances at the time of determination. See "Dividend Policy."

Unanticipated changes in effective tax rates or adverse outcomes resulting from examination of our income or other tax returns could adversely affect our operating results and financial condition.

We are subject to income taxes in the United States, Canada and the U.K. Our tax liabilities will be subject to the allocation of expenses in differing jurisdictions. Our future effective tax rates could be subject to volatility or adversely affected by a number of factors, including:

- changes in the valuation of our deferred tax assets and liabilities;
- expected timing and amount of the release of any tax valuation allowances;
- expiration of, or detrimental changes in, research and development tax credit laws; or
- changes in tax laws, regulations or interpretations thereof.

In addition, we may be subject to audits of our income, sales and other transaction taxes by U.S. federal, state and foreign authorities. Outcomes from these audits could have an adverse effect on our operating results and financial condition.

If we were deemed to be an investment company under the Investment Company Act of 1940, as amended (the "1940 Act"), applicable restrictions could make it impractical for us to continue our business as contemplated and could have a material adverse effect on our business, financial condition, results of operations, cash flows and prospects.

Under Sections 3(a)(1)(A) and (C) of the 1940 Act, a company generally will be deemed to be an "investment company" for purposes of the 1940 Act if it (1) is, or holds itself out as being, engaged primarily, or proposes to engage primarily, in the business of investing, reinvesting or trading in securities or (2) is engaged,

or proposes to engage, in the business of investing, reinvesting, owning, holding or trading in securities and it owns or proposes to acquire investment securities having a value exceeding 40% of the value of its total assets (exclusive of U.S. government securities and cash items) on an unconsolidated basis. We do not believe that we are an "investment company," as such term is defined in either of those sections of the 1940 Act.

As the sole managing member of Topco LLC, we will control and manage Topco LLC. On that basis, we believe that our interest in Topco LLC is not an "investment security" under the 1940 Act. Therefore, we have less than 40% of the value of our total assets (exclusive of U.S. government securities and cash items) in "investment securities." However, if we were to lose the right to manage and control Topco LLC, interests in Topco LLC could be deemed to be "investment securities" under the 1940 Act.

We intend to conduct our operations so that we will not be deemed to be an investment company. However, if we were deemed to be an investment company, restrictions imposed by the 1940 Act, including limitations on our capital structure and our ability to transact with affiliates, could make it impractical for us to continue our business as contemplated and could have a material adverse effect on our business, financial condition, results of operations, cash flows and prospects.

Risks Related to Our Class A Common Stock and This Offering

GTCR controls us, and its interests may conflict with ours or yours in the future.

Immediately following this offering, investment entities affiliated with GTCR will control approximately % of the voting power of our outstanding common stock, or % if the underwriters exercise in full their option to purchase additional shares, which means that, based on its percentage voting power controlled after the offering, GTCR will control the vote of all matters submitted to a vote of our shareholders. This control will enable GTCR to control the election of the members of the Board and all other corporate decisions. Even when GTCR ceases to control a majority of the total voting power, for so long as GTCR continues to own a significant percentage of our common stock, GTCR will still be able to significantly influence the composition of our Board and the approval of actions requiring shareholder approval. Accordingly, for such period of time, GTCR will have significant influence with respect to our management, business plans and policies, including the appointment and removal of our officers, decisions on whether to raise future capital and amending our charter and bylaws, which govern the rights attached to our common stock. In particular, for so long as GTCR continues to own a significant percentage of our common stock, GTCR will be able to cause or prevent a change of control of us or a change in the composition of our Board and could preclude any unsolicited acquisition of us. The concentration of ownership could deprive you of an opportunity to receive a premium for your shares of Class A common stock as part of a sale of us and ultimately might affect the market price of our Class A common stock.

In addition, in connection with this offering, we will enter into a Director Nomination Agreement with GTCR that provides GTCR the right to designate: (i) all of the nominees for election to our Board for so long as GTCR controls % or more of the voting power of our stock entitled to vote generally in the election of directors; (ii) a number of directors (rounded up to the nearest whole number) equal to % of the total directors for so long as GTCR controls at least % and less than % of the voting power; (iii) a number of directors (rounded up to the nearest whole number) equal to % of the total directors for so long as GTCR controls at least % and less than % of the voting power; (iv) a number of directors (rounded up to the nearest whole number) equal to % of the total directors for so long as GTCR controls at least % and less than % of the voting power; and (v) one director for so long as GTCR controls at least % and less than % of the voting power. The Director Nomination Agreement will also provide that GTCR may assign such right to a GTCR affiliate. The Director Nomination Agreement will prohibit us from increasing or decreasing the size of our Board without the prior written consent of GTCR. See "Certain Relationships and Related Party Transactions—Director Nomination Agreement" for more details with respect to the Director Nomination Agreement.

GTCR and its affiliates engage in a broad spectrum of activities, including investments in our industry generally. In the ordinary course of their business activities, GTCR and its affiliates may engage in activities where their interests conflict with our interests or those of our other shareholders, such as investing in or advising businesses that directly or indirectly compete with certain portions of our business or are suppliers or customers of ours. Our certificate of incorporation to be effective at or prior to the consummation of this offering will provide that none of GTCR, any of its affiliates or any director who is not employed by us (including any non-employee director who serves as one of our officers in both his or her director and officer capacities) or its affiliates will have any duty to refrain from engaging, directly or indirectly, in the same business activities or similar business activities or lines of business in which we operate. GTCR also may pursue acquisition opportunities that may be complementary to our business, and, as a result, those acquisition opportunities may not be available to us. In addition, GTCR may have an interest in pursuing acquisitions, divestitures and other transactions that, in its judgment, could enhance its investment, even though such transactions might involve risks to you or may not prove beneficial.

Upon listing of our shares of Class A common stock on The Nasdaq Global Select Market, we will be a "controlled company" within the meaning of the rules of NASDAQ and, as a result, we will qualify for, and intend to rely on, exemptions from certain corporate governance requirements. You will not have the same protections as those afforded to shareholders of companies that are subject to such governance requirements.

After completion of this offering, GTCR will continue to control a majority of the voting power of our outstanding common stock. As a result, we will be a "controlled company" within the meaning of the corporate governance standards of NASDAQ. Under these rules, a company of which more than 50% of the voting power for the election of directors is held by an individual, group or another company is a "controlled company" and may elect not to comply with certain corporate governance requirements, including:

- the requirement that a majority of our Board consist of independent directors;
- the requirement that we have a nominating and corporate governance committee that is composed entirely of independent directors with a written charter addressing the committee's purpose and responsibilities;
- the requirement that we have a compensation committee that is composed entirely of independent directors with a written charter addressing the committee's purpose and responsibilities; and
- the requirement for an annual performance evaluation of the nominating and corporate governance and compensation committees.

Following this offering, we intend to utilize these exceptions. As a result, we may not have a majority of independent directors on our Board, our compensation and nominating and corporate governance committees may not consist entirely of independent directors and our compensation and nominating and corporate governance committees may not be subject to annual performance evaluations. Accordingly, you will not have the same protections afforded to shareholders of companies that are subject to all of the corporate governance requirements of NASDAQ.

We may allocate the net proceeds from this offering in ways that you and other shareholders may not approve.

Our management will have broad discretion in the application of the net proceeds from this offering, including for any of the purposes described in the section titled "Use of Proceeds." Because of the number and variability of factors that will determine our use of the net proceeds from this offering, their ultimate use may vary substantially from their currently intended use. Our management might not apply our net proceeds in ways that ultimately increase the value of your investment, and the failure by our management to apply these funds effectively could harm our business. Pending their use, we may invest the net proceeds from this offering in short- and intermediate-term interest-bearing obligations, investment-grade instruments, certificates of deposit or

direct or guaranteed obligations of the United States government. These investments may not yield a favorable return to our shareholders. If we do not invest or apply the net proceeds from this offering in ways that enhance shareholder value, we may fail to achieve expected results, which could cause our stock price to decline.

As a result of becoming a public company, we will be obligated to develop and maintain proper and effective internal control over financial reporting in order to comply with Section 404 of the Sarbanes-Oxley Act. We may not complete our analysis of our internal control over financial reporting in a timely manner, or these internal controls may not be determined to be effective, which may adversely affect investor confidence in us and, as a result, the value of our Class A common stock.

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements in accordance with GAAP. We are in the very early stages of the costly and challenging process of compiling the system and processing documentation necessary to perform the evaluation needed to comply with Section 404 of the Sarbanes-Oxley Act. We may not be able to complete our evaluation, testing and any required remediation prior to becoming a public company or in a timely manner thereafter. If we are unable to assert that our internal control over financial reporting is effective, we could lose investor confidence in the accuracy and completeness of our financial reports, which would cause the price of our Class A common stock to decline, and we may be subject to investigation or sanctions by the SEC.

We will be required, pursuant to Section 404 of the Sarbanes-Oxley Act, to furnish a report by management on, among other things, the effectiveness of our internal control over financial reporting as of the end of the fiscal year that coincides with the filing of our second annual report on Form 10-K. This assessment will need to include disclosure of any material weaknesses identified by our management in our internal control over financial reporting. We will also be required to disclose changes made in our internal control and procedures on a quarterly basis. However, our independent registered public accounting firm will not be required to report on the effectiveness of our internal control over financial reporting pursuant to Section 404 of the Sarbanes-Oxley Act until the later of the year following our first annual report required to be filed with the SEC, or the date we are no longer an "emerging growth company" as defined in the JOBS Act if we take advantage of the exemptions contained in the JOBS Act. At such time, our independent registered public accounting firm may issue a report that is adverse in the event it is not satisfied with the level at which our controls are documented, designed or operating.

Additionally, the existence of any material weakness or significant deficiency would require management to devote significant time and incur significant expense to remediate any such material weaknesses or significant deficiencies and management may not be able to remediate any such material weaknesses or significant deficiencies in a timely manner. The existence of any material weakness in our internal control over financial reporting could also result in errors in our financial statements that could require us to restate our financial statements, cause us to fail to meet our reporting obligations and cause shareholders to lose confidence in our reported financial information, all of which could materially and adversely affect our business and stock price. To comply with the requirements of being a public company, we may need to undertake various costly and time-consuming actions, such as implementing new internal controls and procedures and hiring accounting or internal audit staff, which may adversely affect our business, financial condition, results of operations, cash flows and prospects.

We are an "emerging growth company" and we have elected and expect to elect to comply with reduced public company reporting requirements, which could make our Class A common stock less attractive to investors.

We are an "emerging growth company," as defined in the JOBS Act. For as long as we continue to be an emerging growth company, we are eligible for certain exemptions from various public company reporting requirements. These exemptions include, but are not limited to, (i) not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act, (ii) reduced disclosure obligations regarding

executive compensation in our periodic reports, proxy statements and registration statements, (iii) exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and shareholder approval of any golden parachute payments not previously approved and (iv) not being required to provide audited financial statements for the year ended December 31, 2017 or five years of Selected Consolidated Financial Data in this prospectus. We could be an emerging growth company for up to five years after the first sale of our Class A common stock pursuant to an effective registration statement under the Securities Act, which fifth anniversary will occur in 2025. However, if certain events occur prior to the end of such five-year period, including if we become a "large accelerated filer," our annual gross revenue exceeds $1.07 billion or we issue more than $1.0 billion of non-convertible debt in any three-year period, we would cease to be an emerging growth company prior to the end of such five-year period. We have made certain elections with regard to the reduced disclosure obligations regarding executive compensation in this prospectus and may elect to take advantage of other reduced disclosure obligations in future filings. As a result, the information that we provide to holders of our common stock may be different than you might receive from other public reporting companies in which you hold equity interests. We cannot predict if investors will find our Class A common stock less attractive as a result of reliance on these exemptions. If some investors find our Class A common stock less attractive as a result of any choice we make to reduce disclosure, there may be a less active trading market for our Class A common stock and the market price for our Class A common stock may be more volatile.

The JOBS Act also permits an emerging growth company like us to take advantage of an extended transition period to comply with new or revised accounting standards applicable to public companies. We are electing to take advantage of this extended transition period for complying with new or revised accounting standards provided for by the JOBS Act. We will therefore comply with new or revised accounting standards when they apply to private companies. As a result, our financial statements may not be comparable with companies that comply with public company effective dates for accounting standards.

The requirements of being a public company may strain our resources and distract our management, which could make it difficult to manage our business, particularly after we are no longer an "emerging growth company."

As a public company, we will incur legal, accounting and other expenses that we did not previously incur. We will become subject to the reporting requirements of the Securities Exchange Act of 1934, as amended (the "Exchange Act") and the Sarbanes-Oxley Act, the listing requirements of NASDAQ and other applicable securities rules and regulations. Compliance with these rules and regulations will increase our legal and financial compliance costs, make some activities more difficult, time-consuming or costly and increase demand on our systems and resources, particularly after we are no longer an "emerging growth company." The Exchange Act requires that we file annual, quarterly and current reports with respect to our business, financial condition, results of operations, cash flows and prospects. The Sarbanes-Oxley Act requires, among other things, that we establish and maintain effective internal controls and procedures for financial reporting. Furthermore, the need to establish the corporate infrastructure demanded of a public company may divert our management's attention from implementing our growth strategy, which could prevent us from improving our business, financial condition, results of operations, cash flows and prospects. We have made, and will continue to make, changes to our internal controls and procedures for financial reporting and accounting systems to meet our reporting obligations as a public company. However, the measures we take may not be sufficient to satisfy our obligations as a public company. In addition, these rules and regulations will increase our legal and financial compliance costs and will make some activities more time-consuming and costly. For example, we expect these rules and regulations to make it more difficult and more expensive for us to obtain director and officer liability insurance, and we may be required to incur substantial costs to maintain the same or similar coverage. These additional obligations could have a material adverse effect on our business, financial condition, results of operations, cash flows and prospects.

In addition, changing laws, regulations and standards relating to corporate governance and public disclosure are creating uncertainty for public companies, increasing legal and financial compliance costs and making some

activities more time consuming. These laws, regulations and standards are subject to varying interpretations, in many cases due to their lack of specificity, and, as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. This could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices. We intend to invest resources to comply with evolving laws, regulations and standards, and this investment may result in increased general and administrative expenses and a diversion of our management's time and attention from revenue-generating activities to compliance activities. If our efforts to comply with new laws, regulations and standards differ from the activities intended by regulatory or governing bodies due to ambiguities related to their application and practice, regulatory authorities may initiate legal proceedings against us and there could be a material adverse effect on our business, financial condition, results of operations, cash flows and prospects.

Provisions of our corporate governance documents could make an acquisition of us more difficult and may prevent attempts by our shareholders to replace or remove our current management, even if beneficial to our shareholders.

Our certificate of incorporation and bylaws to be effective at or prior to the consummation of this offering and the Delaware General Corporation Law (the "DGCL") contain provisions that could make it more difficult for a third party to acquire us, even if doing so might be beneficial to our shareholders. Among other things:

- these provisions allow us to authorize the issuance of undesignated preferred stock, the terms of which may be established and the shares of which may be issued without shareholder approval, and which may include supermajority voting, special approval, dividend, or other rights or preferences superior to the rights of shareholders;
- these provisions provide for a classified board of directors with staggered three-year terms;
- these provisions provide that, at any time when GTCR controls, in the aggregate, less than % in voting power of our stock entitled to vote generally in the election of directors, directors may only be removed for cause, and only by the affirmative vote of holders of at least % in voting power of all the then-outstanding shares of our stock entitled to vote thereon, voting together as a single class;
- these provisions prohibit shareholder action by written consent from and after the date on which GTCR controls, in the aggregate, less than % in voting power of our stock entitled to vote generally in the election of directors;
- these provisions provide that for as long as GTCR controls, in the aggregate, at least % in voting power of our stock entitled to vote generally in the election of directors, any amendment, alteration, rescission or repeal of our bylaws by our shareholders will require the affirmative vote of a majority in voting power of the outstanding shares of our capital stock and at any time when GTCR controls, in the aggregate, less than % in voting power of all outstanding shares of our stock entitled to vote generally in the election of directors, any amendment, alteration, rescission or repeal of our bylaws by our shareholders will require the affirmative vote of the holders of at least % in voting power of all the then-outstanding shares of our stock entitled to vote thereon, voting together as a single class; and
- these provisions establish advance notice requirements for nominations for elections to our Board or for proposing matters that can be acted upon by shareholders at shareholder meetings; provided, however, at any time when GTCR controls, in the aggregate, at least % in voting power of our stock entitled to vote generally in the election of directors, such advance notice procedure will not apply to GTCR.

We will opt out of Section 203 of the DGCL, which generally prohibits a Delaware corporation from engaging in any of a broad range of business combinations with any interested shareholder for a period of three years following the date on which the shareholder became an interested shareholder. However, our certificate of incorporation to be effective at or prior to the consummation of this offering will contain a provision that provides us with protections similar to Section 203, and will prevent us from engaging in a business combination

with a person (excluding GTCR and any of its direct or indirect transferees and any group as to which such persons are a party) who acquires at least % of our common stock for a period of three years from the date such person acquired such common stock, unless board or shareholder approval is obtained prior to the acquisition. See "Description of Capital Stock—Anti-Takeover Provisions." These provisions could discourage, delay or prevent a transaction involving a change in control of our company. These provisions could also discourage proxy contests and make it more difficult for you and other shareholders to elect directors of your choosing and cause us to take other corporate actions you desire, including actions that you may deem advantageous, or negatively affect the trading price of our Class A common stock. In addition, because our Board is responsible for appointing the members of our management team, these provisions could in turn affect any attempt by our shareholders to replace current members of our management team.

These and other provisions in our certificate of incorporation, bylaws and Delaware law could make it more difficult for shareholders or potential acquirers to obtain control of our Board or initiate actions that are opposed by our then-current Board, including actions to delay or impede a merger, tender offer or proxy contest involving our company. The existence of these provisions could negatively affect the price of our Class A common stock and limit opportunities for you to realize value in a corporate transaction.

For information regarding these and other provisions, see "Description of Capital Stock."

Our certificate of incorporation will designate the Court of Chancery of the State of Delaware as the exclusive forum for certain litigation that may be initiated by our shareholders, which could limit our shareholders' ability to obtain a favorable judicial forum for disputes with us.

Pursuant to our certificate of incorporation, which we will adopt at or prior to the consummation of this offering, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware will be the sole and exclusive forum for any claims in state court for (1) any derivative action or proceeding brought on our behalf, (2) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers or other employees to us or our shareholders, (3) any action asserting a claim against us arising pursuant to any provision of the DGCL, our certificate of incorporation or our bylaws or (4) any other action asserting a claim against us that is governed by the internal affairs doctrine; provided that for the avoidance of doubt, the forum selection provision that identifies the Court of Chancery of the State of Delaware as the exclusive forum for certain litigation, including any "derivative action," will not apply to suits to enforce a duty or liability created by the Securities Act, the Exchange Act or any other claim for which the federal courts have exclusive jurisdiction. Our certificate of incorporation will further provide that any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock is deemed to have notice of and consented to the provisions of our certificate of incorporation described above. See "Description of Capital Stock—Forum Selection." The forum selection clause in our certificate of incorporation may have the effect of discouraging lawsuits against us or our directors and officers and may limit our shareholders' ability to obtain a favorable judicial forum for disputes with us. Alternatively, if a court were to find the choice of forum provision contained in our amended and restated certificate of incorporation to be inapplicable or unenforceable, we may incur additional costs associated with resolving such action in other jurisdictions, which could have an adverse effect on our business, financial condition, results of operations, cash flows and prospects and result in a diversion of the time and resources of our employees, management and board of directors.

If you purchase shares of Class A common stock in this offering, you will suffer immediate and substantial dilution of your investment.

The initial public offering price of our Class A common stock is substantially higher than the net tangible book value per share of our Class A common stock. Therefore, if you purchase shares of our Class A common stock in this offering, you will pay a price per share that substantially exceeds our net tangible book value per share after this offering. Based on an assumed initial public offering price of $ per share, the mid-point of the price range set forth on the cover page of this prospectus, you will experience immediate dilution of $ per share, representing the difference between our pro forma net tangible book value per share at September 30,

2020 after giving effect to this offering and the initial public offering price. In addition, purchasers of Class A common stock in this offering will have contributed % of the aggregate price paid by all purchasers of our Class A common stock but will own only approximately % of our Class A common stock outstanding after this offering. See "Dilution" for more detail.

An active, liquid trading market for our Class A common stock may not develop, which may limit your ability to sell your shares.

Prior to this offering, there was no public market for our Class A common stock. Although we intend to apply to have our Class A common stock approved for listing on The Nasdaq Global Select Market under the trading symbol "MRVI," an active trading market for our Class A common stock may never develop or be sustained following this offering. The initial public offering price will be determined by negotiations between us and the underwriters and may not be indicative of market prices of our Class A common stock that will prevail in the open market after the offering. A public trading market having the desirable characteristics of depth, liquidity and orderliness depends upon the existence of willing buyers and sellers at any given time, such existence being dependent upon the individual decisions of buyers and sellers over which neither we nor any market maker has control. The failure of an active and liquid trading market to develop and continue would likely have a material adverse effect on the value of our Class A common stock. The market price of our Class A common stock may decline below the initial public offering price, and you may not be able to sell your shares of our Class A common stock at or above the price you paid in this offering, or at all. An inactive market may also impair our ability to raise capital to continue to fund operations by issuing additional shares of our Class A common stock or other equity or equity-linked securities and may impair our ability to acquire other companies or technologies by using any such securities as consideration.

Our operating results and stock price may be volatile, and the market price of our Class A common stock after this offering may drop below the price you pay.

Our quarterly operating results are likely to fluctuate in the future. In addition, securities markets worldwide have experienced, and are likely to continue to experience, significant price and volume fluctuations, including as a result of the COVID-19 pandemic. This market volatility, as well as general economic, market or political conditions, could subject the market price of our Class A common stock to wide price fluctuations regardless of our operating performance. Our operating results and the trading price of our Class A common stock may fluctuate in response to various factors, including:

- market conditions in our industry or the broader stock market;
- actual or anticipated fluctuations in our quarterly financial and operating results;
- introduction of new products or services by us or our competitors;
- issuance of new or changed securities analysts' reports or recommendations;
- sales, or anticipated sales, of large blocks of our stock;
- additions or departures of key personnel;
- regulatory or political developments;
- litigation and governmental investigations;
- changing economic conditions;
- investors' perception of us;
- events beyond our control such as weather, war and health crises such as theCOVID-19 pandemic; and
- any default on our indebtedness.

These and other factors, many of which are beyond our control, may cause our operating results and the market price and demand for our Class A common stock to fluctuate substantially. Fluctuations in our quarterly

operating results could limit or prevent investors from readily selling their shares of Class A common stock and may otherwise negatively affect the market price and liquidity of our shares of Class A common stock. In addition, in the past, when the market price of a stock has been volatile, holders of that stock have sometimes instituted securities class action litigation against the company that issued the stock. If any of our shareholders brought a lawsuit against us, we could incur substantial costs defending the lawsuit. Such a lawsuit could also divert the time and attention of our management from our business, which could significantly harm our profitability and reputation.

A significant portion of our total outstanding shares of Class A common stock are restricted from immediate resale but may be sold into the market in the near future. This could cause the market price of our Class A common stock to drop significantly, even if our business is doing well.

Sales of a substantial number of shares of our Class A common stock in the public market could occur at any time. These sales, or the perception in the market that the holders of a large number of shares of Class A common stock intend to sell shares, could reduce the market price of our Class A common stock. After this offering, we will have outstanding shares of Class A common stock based on the number of shares outstanding as of September 30, 2020. This includes shares of Class A common stock that we are selling in this offering, which may be resold in the public market immediately. Following the consummation of this offering, substantially all of the shares that are not being sold in this offering will be subject to a 180-day lock-up period provided under lock-up agreements executed in connection with this offering described in "Underwriters" and restricted from immediate resale under the federal securities laws as described in "Shares Eligible for Future Sale." All of these shares of Class A common stock will, however, be able to be resold after the expiration of the lock-up period, as well as pursuant to customary exceptions thereto or upon the waiver of thelock-up agreement by the representatives on behalf of the underwriters. We also intend to register shares of Class A common stock that we may issue under our equity compensation plans. Once we register these shares, they can be freely sold in the public market upon issuance, subject to the lock-up agreements. As restrictions on resale end, the market price of our stock could decline if the holders of currently restricted shares of Class A common stock sell them or are perceived by the market as intending to sell them.

Because we have no current plans to pay regular cash dividends on our Class A common stock following this offering, you may not receive any return on investment unless you sell your Class A common stock for a price greater than that which you paid for it.

We do not anticipate paying any regular cash dividends on our Class A common stock following this offering. Any decision to declare and pay dividends in the future will be made at the discretion of our Board and will depend on, among other things, our results of operations, financial condition, cash requirements, contractual restrictions and other factors that our Board may deem relevant. In addition, our ability to pay dividends is, and may be, limited by covenants of existing and any future outstanding indebtedness we or our subsidiaries incur, including under our First Lien Credit Agreement and Second Lien Credit Agreement. Therefore, any return on investment in our Class A common stock is solely dependent upon the appreciation of the price of our Class A common stock on the open market, which may not occur. See "Dividend Policy" for more detail.

If securities or industry analysts do not publish research or reports about our business, if they publish unfavorable research or reports, or adversely change their recommendations regarding our Class A common stock or if our results of operations do not meet their expectations, our stock price and trading volume could decline.

If a trading market for our Class A common stock develops, the trading market will be influenced by the research and reports that industry or securities analysts publish about us or our business. We do not have any control over these analysts. As a newly public company, we may be slow to attract research coverage. In the event we obtain securities or industry analyst coverage, if any of the analysts who cover us provide inaccurate or unfavorable research, issue an adverse opinion regarding our stock price or if our results of operations do not

meet their expectations, our stock price could decline. Moreover, if one or more of these analysts cease coverage of us or fail to publish reports on us regularly, we could lose visibility in the financial markets, which in turn could cause our stock price or trading volume to decline.

We may issue shares of preferred stock in the future, which could make it difficult for another company to acquire us or could otherwise adversely affect holders of our Class A common stock, which could depress the price of our Class A common stock.

Our certificate of incorporation will authorize us to issue one or more series of preferred stock. Our Board will have the authority to determine the preferences, limitations and relative rights of the shares of preferred stock and to fix the number of shares constituting any series and the designation of such series, without any further vote or action by our shareholders. Our preferred stock could be issued with voting, liquidation, dividend and other rights superior to the rights of our Class A common stock. The potential issuance of preferred stock may delay or prevent a change in control of us, discouraging bids for our Class A common stock at a premium to the market price, and materially adversely affect the market price and the voting and other rights of the holders of our Class A common stock.

FORWARD-LOOKING STATEMENTS

This prospectus contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995 that are subject to risks and uncertainties. All statements other than statements of historical fact included in this prospectus are forward-looking statements. Forward-looking statements give our current expectations and projections relating to our financial condition, results of operations, plans, objectives, future performance and business. You can identify forward-looking statements by the fact that they do not relate strictly to historical or current facts. These statements may include words such as "anticipate," "estimate," "expect," "project," "plan," "intend," "believe," "may," "will," "should," "can have," "likely" and other words and terms of similar meaning in connection with any discussion of the timing or nature of future operating or financial performance or other events. For example, all statements we make relating to our estimated and projected costs, expenditures, cash flows, growth rates and financial results, our plans and objectives for future operations, growth or initiatives, strategies or the expected outcome or impact of pending or threatened litigation are forward-looking statements. All forward-looking statements are subject to risks and uncertainties that may cause actual results to differ materially from those that we expected, including:

- our history of losses, the risk that we may continue to incur losses in the future and our ability to generate sufficient revenue to achieve or maintain profitability;
- the fluctuation of our operating results, which makes our future operating results difficult to predict and could cause our operating results to fall below expectations or any guidance we may provide;
- our dependence on a limited number of customers for a high percentage of our revenue;
- the use of certain of our products in the production of vaccines and therapies that represent relatively new and still-developing modes of treatment, which may experience unforeseen adverse events, negative clinical outcomes or increased regulatory scrutiny;
- the impact of COVID-19 and any pandemic, epidemic or outbreak of infectious disease;
- changes in economic conditions;
- our dependence on customers' spending on and demand for outsourced nucleic acid production, biologics safety testing and protein detection research products and services;
- competition with life science, pharmaceutical and biotechnology companies who are substantially larger than we are and potentially capable of developing new approaches that could make our products, services and technologies obsolete;
- the ability of our products and services to perform as expected and the reliability of the technology on which our products and services are based;
- the complexity of our products and the fact that they are subject to quality control requirements;
- our reliance on a limited number of suppliers or, in some cases, sole suppliers, for some of our raw materials and our inability to find replacements or immediately transition to alternative suppliers;
- our dependence on a stable and adequate supply of quality raw materials from our suppliers, and the risk of adverse impacts from price increases or interruptions of such supply;
- disruptions at our sites;
- our ability to manufacture in specific quantities;
- natural disasters, geopolitical unrest, war, terrorism, public health issues such as COVID-19 or other catastrophic events that could disrupt the supply, delivery or demand of products and services;
- our ability to secure additional financing for future strategic transactions;
- our reliance on third-party package delivery services and adverse impacts arising from significant disruptions of these services, damages or losses sustained during shipping or significant increases in prices;

- our ability to continue to hire and retain skilled personnel;
- our ability to successfully identify and implement distribution arrangements and marketing alliances;
- the market acceptance of our life science reagents;
- the market receptivity to our new products and services upon their introduction;
- our ability to implement our strategies for revenue growth;
- the accuracy of our estimates of market opportunity and forecasts of market growth included in this prospectus;
- product liability lawsuits;
- the application of privacy laws, security laws, regulations, policies and contractual obligations related to data privacy and security;
- our ability to efficiently manage our growth;
- the success of our acquisition growth strategy;
- the integrity of our internal computer systems;
- the impact of export and import control laws and regulations;
- risks related to Brexit;
- changes in political, economic or governmental regulations;
- financial, operating, legal and compliance risks associated with global operations;
- risks associated with our acquisitions;
- impacts from foreign currency exchange rates;
- the risk that our products could become subject to more onerous regulation in the future;
- our ability to use net operating loss and tax credit carryforwards;
- the fact that our activities are and will continue to be subject to extensive government regulation;
- the risk that we may be required to record a significant charge to earnings if our goodwill or other amortizable intangible assets become impaired;
- unfavorable accounting charges or effects driven by changes in accounting principles or guidance;
- impacts on our financial results from our revenue recognition and other factors;
- fluctuations in our effective tax rate;
- environmental risks;
- our ability to obtain, maintain and enforce intellectual property protection for our current and future products;
- our ability to protect the confidentiality of our proprietary information;
- risks associated with lawsuits to protect our patents or with respect to the infringement, misappropriations or other violations of intellectual property rights of third parties;
- risks associated with failures to comply with our obligations under license agreements;
- potential changes in patent law in the United States and other jurisdictions;
- our ability to obtain and maintain our patent protection;

- impact of claims by third parties that we or our employees, consultants or independent contractors have infringed, misappropriated or otherwise violated their intellectual property;
- our ability to protect our intellectual property and proprietary rights throughout the world;
- our reliance on confidentiality agreements;
- our ability to protect our trademarks and trade names;
- threats not related to intellectual property; and
- other risks addressed under the heading “Risk Factors” herein.

We derive many of our forward-looking statements from our operating budgets and forecasts, which are based on many detailed assumptions. While we believe that our assumptions are reasonable, we caution that it is very difficult to predict the impact of known factors, and it is impossible for us to anticipate all factors that could affect our actual results. Important factors that could cause actual results to differ materially from our expectations, or cautionary statements, are disclosed under the sections entitled “Risk Factors” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in this prospectus. All written and oral forward-looking statements attributable to us, or persons acting on our behalf, are expressly qualified in their entirety by these cautionary statements as well as other cautionary statements that are made from time to time in our other SEC filings and public communications. You should evaluate all forward-looking statements made in this prospectus in the context of these risks and uncertainties.

We caution you that the important factors referenced above may not contain all of the factors that are important to you. In addition, we cannot assure you that we will realize the results or developments we expect or anticipate or, even if substantially realized, that they will result in the consequences or affect us or our operations in the way we expect. The forward-looking statements included in this prospectus are made only as of the date hereof. We undertake no obligation to update or revise any forward-looking statement as a result of new information, future events or otherwise, except as otherwise required by law.

MARKET AND INDUSTRY DATA

Unless otherwise indicated, information in this prospectus concerning economic conditions, our industry, our markets and our competitive position is based on a variety of sources, including information from independent industry analysts and publications, as well as our own estimates and research. This information involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. While we are responsible for all disclosure in this prospectus, and we believe the information presented in this prospectus is generally reliable, forecasts, assumptions, expectations, beliefs, estimates and projects involve risk and uncertainties and are subject to change based on various factors, including those described under “Forward-Looking Statements” and “Risk Factors.”

USE OF PROCEEDS

We estimate, based upon an assumed initial public offering price of $ per share (which is the midpoint of the estimated public offering price range set forth on the cover page of this prospectus), we will receive net proceeds from this offering of approximately $ million (or $ million if the underwriters exercise their option to purchase additional shares in full, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

We intend to use such net proceeds as follows:

- $ million to acquire newly-issued LLC Units (or LLC Units if the underwriters exercise their option to purchase additional shares in full) in Topco LLC and $ million to acquire outstanding LLC Units (or LLC Units if the underwriters exercise their option to purchase additional shares in full) from MLSH 1, in each case at a purchase price per LLC Unit equal to the initial public offering price per share of Class A common stock in this offering, less underwriting discounts and commissions; and
- $ million to pay MLSH 2 as consideration for the Blocker Mergers.

In turn, Topco LLC intends to apply the balance of the proceeds it receives from us (including any additional proceeds it may receive from us if the underwriters exercise their option to purchase additional shares of Class A common stock) to pay expenses incurred in connection with this offering and the Organizational Transactions and for general corporate purposes.

Pending use of the net proceeds from this offering described above, we may invest the net proceeds in short- and intermediate-term interest-bearing obligations, investment-grade instruments, certificates of deposit or direct or guaranteed obligations of the United States government.

Assuming no exercise of the underwriters' option to purchase additional shares, each $1.00 increase or decrease in the assumed initial public offering price of $ per share (which is the midpoint of the estimated public offering price range set forth on the cover page of this prospectus) would increase or decrease the net proceeds to us from this offering by approximately $ million, assuming the number of shares of Class A common stock offered, as set forth on the cover page of this prospectus, remains the same, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

Each 1,000,000 increase or decrease in the number of shares of Class A common stock offered in this offering would increase or decrease the net proceeds to us from this offering by approximately $ million, assuming that the initial public offering price per share for the offering remains at $ (which is the midpoint of the estimated public offering price range set forth on the cover page of this prospectus), and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

DIVIDEND POLICY

We currently intend to retain all available funds and any future earnings to fund the development and growth of our business and to repay indebtedness and, therefore, we do not anticipate paying any cash dividends in the foreseeable future. Additionally, because we are a holding company, our ability to pay dividends on our Class A common stock may be limited by restrictions on the ability of our subsidiaries to pay dividends or make distributions to us. Any future determination to pay dividends will be at the discretion of our Board, subject to compliance with covenants in current and future agreements governing our and our subsidiaries' indebtedness, including our First Lien Credit Agreement and our Second Lien Credit Agreement, and will depend on our results of operations, financial condition, capital requirements and other factors that our Board deems relevant.

Under the terms of the LLC Operating Agreement, Topco LLC is obligated to make tax distributions to current and future unitholders, including us and shall be made on a pro rata basis among the LLC Unitholders based on Topco LLC's net taxable income and without regard to any applicable basis adjustment under Section 743(b) of the Code. These tax distributions may be substantial, and will likely exceed (as a percentage of Topco LLC's income) the overall effective tax rate applicable to a similarly situated corporate taxpayer. As a result, it is possible that we will receive distributions significantly in excess of our tax liabilities and obligations to make payments under the Tax Receivable Agreement. While our Board may choose to distribute such cash balances as dividends on our Class A common stock (subject to the limitations set forth in the preceding paragraph), they will not be required to do so, and may in its sole discretion choose to use such excess cash for any purpose depending upon the facts and circumstances at the time of determination.

CAPITALIZATION

The following table describes our cash and consolidated capitalization as of September 30, 2020:

- of Topco LLC and its subsidiaries on an actual historical basis;
- of Maravai LifeSciences Holdings, Inc. on a pro forma basis, after giving effect to the Organizational Transactions; and
- of Maravai LifeSciences Holdings, Inc. on a pro forma as adjusted basis, after giving effect to the Organizational Transactions and our sale of shares of Class A common stock in this offering at an assumed initial public offering price of $ per share (which is the midpoint of the estimated public offering price range set forth on the cover page of this prospectus) after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us (assuming no exercise of the underwriters' option to purchase additional shares).

You should read this table in conjunction with the unaudited condensed consolidated financial statements and the related notes, "Use of Proceeds," "Organizational Structure," "Unaudited Pro Forma Condensed Consolidated Financial Information" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" included elsewhere in this prospectus.

	As of September 30, 2020 (unaudited)		
(dollars in thousands, except share data and par value)	**Historical Topco LLC**	**Pro Forma for the Organizational Transactions**	**Pro Forma As Adjusted for the Organizational Transactions and the Offering**
Cash	$	$	$
Indebtedness:			
Credit Facilities(1)	$	$	$
Common units			
Class A common stock, $0.01 par value per share, million shares authorized; no shares issued and outstanding, on an actual basis; shares authorized, no shares issued and outstanding, on a pro forma basis; million shares authorized; shares issued and outstanding, on a pro forma as adjusted basis	—	—	
Class B common stock, $0.01 par value per share, million shares authorized; no shares issued and outstanding, on an actual basis; shares authorized; no shares issued and outstanding, on a pro forma basis; shares authorized; shares issued and outstanding, on a pro forma as adjusted basis	—	—	
Retained earnings (deficit)	—	—	
Total member's/shareholders' equity (deficit)			
Non-controlling interests(2)			
Total capitalization	$	$	$

(1) Includes (a) a first lien credit agreement (the "First Lien Credit Agreement") entered into on August 2, 2018 and providing for a $250.0 million first lien term loan facility (the "First Lien Term Loan") and a $50.0 million revolving credit facility (the "Revolving Credit Facility") and (b) a second lien credit agreement (the "Second Lien Credit Agreement" and, together with the First Lien Credit Agreement, the "Credit Agreements") providing for a $100.0 million second lien term loan facility (the "Second Lien Term

Loan" and, together with the First Lien Term Loan and the Revolving Credit Facility, the "Credit Facilities"). As of September 30, 2020, $ million was outstanding under the First Lien Term Loan, $ million under the Revolving Credit Facility and $ million under the Second Lien Term Loan.

(2) On a pro forma as adjusted basis, includes the Topco LLC interests not owned by us, which represents % of Topco LLC's LLC Units. MLSH 1 will hold the non-controlling economic interest in Topco LLC. Maravai LifeSciences Holdings, Inc. will hold % of the economic interest in Topco LLC.

A $1.00 increase or decrease in the assumed initial public offering price of $ per share (which is the midpoint of the price range set forth on the cover page of this prospectus) would increase or decrease each of cash, total shareholders' equity and total capitalization on a pro forma basis by approximately $ million, assuming the number of shares of Class A common stock offered, as set forth on the cover page of this prospectus, remains the same, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. Each 1,000,000 increase or decrease in the number of shares of Class A common stock offered in this offering would increase or decrease each of cash, total shareholders' equity and total capitalization on a pro forma basis by approximately $ million, based on an assumed initial public offering price of $ per share, which is the midpoint of the estimated public offering price range set forth on the cover page of this prospectus, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

The number of shares of Class A common stock to be outstanding after the completion of this offering, excludes shares of Class A common stock that may be issuable upon exercise of redemption and exchange rights held by MLSH 1 and shares of Class A common stock reserved for future issuance under the 2020 Plan.

DILUTION

Because MLSH 1 does not own any Class A common stock or other economic interests in Maravai LifeSciences Holdings, Inc., we have presented dilution in pro forma net tangible book value per share after this offering assuming that MLSH 1 had all of its LLC Units redeemed or exchanged for newly-issued shares of Class A common stock on a one-for-one basis (rather than for cash and based upon an assumed offering price of $ per share, which is the midpoint of the estimated public offering price range set forth on the cover page of this prospectus) and the cancellation for no consideration of all of its shares of Class B common stock (which are not entitled to receive distributions or dividends, whether cash or stock, from Maravai LifeSciences Holdings, Inc.) in order to more meaningfully present the dilutive impact to the investors in this offering. We refer to the assumed redemption or exchange of all LLC Units for shares of Class A common stock as described in the previous sentence as the "Assumed Redemption."

Dilution results from the fact that the initial public offering price per share of the Class A common stock is substantially in excess of the pro forma net tangible book value per share of Class A common stock after this offering. Net tangible book value (deficit) per share represents the amount of our total tangible assets less total liabilities, divided by the number of shares of Class A common stock outstanding. If you invest in our Class A common stock, your ownership interest will be immediately diluted to the extent of the difference between the initial public offering price per share of our Class A common stock and the pro forma net tangible book value per share of our Class A common stock after this offering.

Pro forma net tangible book value per share is determined at any date by subtracting our total liabilities from the total book value of our tangible assets and dividing the difference by the number of shares of Class A common stock, after giving effect to the Organizational Transactions, including the sale of shares of Class A common stock in this offering at the assumed initial public offering price of $ per share, which is the midpoint of the estimated public offering price range set forth on the cover page of this prospectus, and the Assumed Redemption. Our pro forma net tangible book value (deficit) as of September 30, 2020 was $ million, or $ per share of Class A common stock. This represents an immediate increase in our net tangible book value to MLSH 1 and MLSH 2 of $ per share and an immediate dilution to new investors in this offering of $ per share. We determine dilution by subtracting the pro forma net tangible book value per share after this offering from the amount of cash that a new investor paid for a share of Class A common stock. The following table illustrates this dilution:

Assumed initial public offering price per share		$
Pro forma net tangible book value (deficit) per share as of September 30, 2020 before this offering[1]	$	
Increase in net tangible book value per share attributable to the investors in this offering	$	
Pro forma net tangible book value (deficit) per share after this offering		$
Dilution in net tangible book value per share to the investors in this offering		$

(1) The computation of pro forma net tangible book value per share as of September 30, 2020 before this offering is set forth below:

(in thousands, except per share data)	
Book value of tangible assets	$
Less: total liabilities	$
Pro forma net tangible book value[a]	$
Shares of Class A common stock outstanding[a]	
Pro forma net tangible book value per share	$

(a) Gives pro forma effect to the Organizational Transactions (other than this offering) and the Assumed Redemption.

A $1.00 increase or decrease in the assumed initial public offering price of $ per share, which is the midpoint of the estimated public offering price range set forth on the cover page of this prospectus, would increase or decrease pro forma net tangible book value by $ million, or $ per share, and would increase or decrease the dilution per share to the investors in this offering by $ based on the assumptions set forth above.

The following table summarizes as of September 30, 2020, after giving effect to the Organizational Transactions (including this offering), the number of shares of Class A common stock purchased from us, the total consideration paid and the average price per share paid by MLSH 1 and MLSH 2 and by the purchasers in this offering, based upon an assumed initial public offering price of $ per share (the midpoint of the estimated public offering price range set forth on the cover page of this prospectus) and before deducting estimated underwriting discounts and commissions and offering expenses, after giving effect to the Assumed Redemption:

	Shares of Class A Common Stock Purchased		Total Consideration		
	Number	Percent	Amount	Percent	Average Price Per Share
Existing owners		%	$	%	$
Investors in this offering					
Total		100%	$	100%	$

The discussion and tables above assume no exercise of the underwriters' option to purchase additional shares. In addition, the discussion and tables above exclude shares of Class B common stock, because holders of the Class B common stock are not entitled to distributions or dividends, whether cash or stock, from Maravai LifeSciences Holdings, Inc. If the underwriters' option to purchase additional shares is exercised in full, after giving effect to the Assumed Redemption, MLSH 1 and MLSH 2 would own approximately % and the investors in this offering would own approximately % of the total number of shares of our Class A common stock outstanding after this offering. If the underwriters exercise their option to purchase additional shares in full, after giving effect to the Assumed Redemption, the pro forma net tangible book value (deficit) per share after this offering would be $ per share, and the dilution in the pro forma net tangible book value (deficit) per share to the investors in this offering would be $ per share.

The tables and calculations above are based on the number of shares of common stock outstanding as of September 30, 2020 (after giving effect to the Organizational Transactions), and exclude an aggregate of shares of Class A common stock reserved for issuance under our 2020 Plan that we expect to adopt in connection with this offering. To the extent that any new options or other equity incentive grants are issued in the future with an exercise price or purchase price below the initial public offering price, new investors will experience further dilution.

We may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent additional capital is raised through the sale of equity or equity-linked securities, the issuance of these securities could result in further dilution to our shareholders.

SELECTED CONSOLIDATED FINANCIAL DATA

The following tables present, as of the dates and for the periods indicated, the selected consolidated financial data for Topco LLC and its subsidiaries. Topco LLC is the predecessor of Maravai LifeSciences Holdings, Inc. for financial reporting purposes. The selected consolidated statement of operations data for each of the years ended December 31, 2018 and 2019 and the selected consolidated balance sheet data as of December 31, 2018 and 2019 presented below have been derived from the audited consolidated financial statements and notes of Topco LLC and its subsidiaries, included elsewhere in this prospectus. The selected condensed consolidated statement of operations data for each of the nine months ended September 30, 2019 and 2020 and the selected condensed consolidated balance sheet data as of September 30, 2020 presented below have been derived from the unaudited condensed consolidated financial statements and notes of Topco LLC and its subsidiaries, included elsewhere in this prospectus. In the opinion of management, such unaudited condensed consolidated financial statements and notes include all adjustments, consisting only of normal and recurring adjustments, necessary for a fair presentation of such financial data. The results of operations for the periods presented below are not necessarily indicative of the results to be expected for any future period and the results for any interim period are not necessarily indicative of the results that may be expected for a full fiscal year.

The information set forth below should be read together with the "Prospectus Summary—Summary Historical and Pro Forma Consolidated Financial Data," "Use of Proceeds," "Capitalization," "Unaudited Pro Forma Condensed Consolidated Financial Data," and "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the consolidated financial statements and the accompanying notes included elsewhere in this prospectus.

The selected consolidated financial data of Maravai LifeSciences Holdings, Inc. have not been presented as Maravai LifeSciences Holdings, Inc. is a newly incorporated entity, has had no business transactions or activities to date and had no material assets or liabilities during the periods presented in this section.

	Historical Topco LLC				Pro Forma Maravai LifeSciences Holdings, Inc.	
	Year Ended December 31,		Nine Months Ended September 30,		Year Ended December 31,	Nine Months Ended September 30,
Consolidated Statement of Operations Data:	**2018**	**2019**	**2019**	**2020**	**2019**	**2020**
			(Unaudited)		(Unaudited)	
	(in thousands, except per share and per unit data)					
Revenue	$ 123,833	$ 143,140	$	$	$	$
Operating Expenses:						
Cost of revenue	60,765	66,849				
Research and development	4,499	3,627				
Selling, general and administrative	41,194	48,354				
Change in estimated fair value of contingent consideration	939	322				
Total operating expenses	107,397	119,152				
Income from operations	16,436	23,988				
Other income (expense):						
Interest expense	(27,399)	(29,959)				
Loss on extinguishment of debt	(5,622)	—				
Other income	87	118				
Loss before income taxes	(16,498)	(5,853)				
Income tax expense (benefit)	417	(652)				
Net loss	$ (16,915)	$ (5,201)	$	$	$	$
Net loss attributable to noncontrolling interests	(12,443)	(731)				
Net loss attributable to Topco LLC member	$ (4,472)	$ (4,470)	$	$	$	$
Net loss per common unit attributable to Topco LLC member—basic and diluted	$ (17,727)	$ (8,481)	$	$	$	$
Weighted-average common units outstanding	1,000	1,000				
Per Share Data[1]:						
Pro forma weighted average shares of Class A common stock outstanding:						
Basic						
Diluted						
Pro forma net loss available to Class A common stock per share:						
Basic					$	$
Diluted					$	$
Selected Other Data:						
Adjusted EBITDA[2]	$ 53,000	$ 62,014	$	$	$	$
Adjusted Free Cash Flow[3]	$ 49,193	$ 42,101	$	$	$	$

	Historical Topco LLC			
	As of December 31,		As of September 30,	
	2018	2019	2019	2020
Consolidated Balance Sheet Data (at period end):			(Unaudited)	
Cash	$ 21,866	$ 24,700	$	$
Working capital(4)	17,883	30,990		
Total assets	539,676	577,796		
Long-term debt, less current portion	335,550	334,783		
Total liabilities	391,660	433,169		
Total member's/shareholders' equity	148,016	144,627		

(1) See the unaudited pro forma consolidated statement of operations in "Unaudited Pro Forma Consolidated Financial Information" for the description of the assumptions underlying the pro forma net loss per share calculations.

(2) Adjusted EBITDA is a supplemental measure of operating performance that is not prepared in accordance with GAAP and that does not represent, and should not be considered as, an alternative to net loss, as determined in accordance with GAAP. For a reconciliation of Adjusted EBITDA to net loss, the most directly comparable GAAP measure, see "Prospectus Summary—Summary Historical Financial and Other Data."

(3) Adjusted Free Cash Flow is a supplemental measure of operating performance that is not prepared in accordance with GAAP and that does not represent, and should not be considered as, an alternative to net loss, as determined in accordance with GAAP. For a reconciliation of Adjusted Free Cash Flow, see "Prospectus Summary—Summary Historical Financial and Other Data."

(4) We define working capital as current assets less current liabilities.

UNAUDITED PRO FORMA CONDENSED CONSOLIDATED FINANCIAL INFORMATION

The unaudited pro forma condensed consolidated balance sheet as of September 30, 2020 and the unaudited pro forma condensed consolidated statements of income for the nine months ended September 30, 2020 and the year ended December 31, 2019 present our financial position and results of operations after giving pro forma effect to:

(1) The Organizational Transactions described under "Organizational Structure," as if such transactions occurred on September 30, 2020 for the unaudited pro forma consolidated balance sheet and on January 1, 2019 for the unaudited pro forma consolidated statements of income;

(2) The effects of the Tax Receivable Agreement, as described under "Certain Relationships and Related Party Transactions—Tax Receivable Agreement;"

(3) A provision for corporate income taxes on the income attributable to Maravai LifeSciences Holdings, Inc. at a tax rate of %, inclusive of all U.S. federal, state, local and foreign income taxes; and

(4) This offering and the application of the estimated net proceeds from this offering as described under "Use of Proceeds."

Our historical consolidated financial information has been derived from the consolidated financial statements of Topco LLC and its subsidiaries and accompanying notes to the consolidated financial statements included elsewhere in this prospectus. Maravai LifeSciences Holdings, Inc. was formed on August 25, 2020 and has no material assets or results of operations until the completion of this offering. Therefore, its historical financial information is not included in the unaudited pro forma condensed consolidated financial information.

The unaudited pro forma condensed consolidated financial information has been prepared on the basis that we will be taxed as a corporation for U.S. federal and state income tax purposes and, accordingly, will become a taxpaying entity subject to U.S. federal, state and foreign income taxes. The presentation of the unaudited pro forma consolidated financial information is prepared in conformity with Article 11 of Regulation S-X and is based on currently available information and certain estimates and assumptions. The unaudited pro forma condensed consolidated financial information has been adjusted to give effect to events that are (i) directly attributable to the Organizational Transactions, (ii) factually supportable and (iii) with respect to the consolidated statements of operations, expected to have a continuing impact on the results of operations. See the accompanying notes to the Unaudited Pro Forma Condensed Consolidated Financial Information for a discussion of assumptions made.

The unaudited pro forma condensed consolidated financial information is not necessarily indicative of financial results that would have been attained had the described transactions occurred on the dates indicated above or that could be achieved in the future. The unaudited pro forma condensed consolidated financial information also does not give effect to the potential impact of any anticipated synergies, operating efficiencies or cost savings that may result from the transactions or any integration costs that result from the Organizational Transactions or any costs that do not have a continuing impact. Future results may vary significantly from the results reflected in the unaudited pro forma condensed consolidated statements of income and should not be relied on as an indication of our results after the consummation of this offering and the other transactions contemplated by such unaudited pro forma condensed consolidated financial information. However, our management believes that the assumptions provide a reasonable basis for presenting the significant effects of the transactions as contemplated and that the pro forma adjustments give appropriate effect to those assumptions and are properly applied in the unaudited pro forma condensed consolidated financial information.

As a public company, we will be implementing additional procedures and processes for the purpose of addressing the standards and requirements applicable to public companies. We expect to incur additional annual expenses related to these steps and, among other things, additional directors' and officers' liability insurance, director fees, costs to comply with the reporting requirements of the SEC, transfer agent fees, hiring of additional

accounting, legal and administrative personnel, increased auditing and legal fees and similar expenses. We have not included any pro forma adjustments relating to these costs.

For purposes of the unaudited pro forma condensed consolidated financial information, we have assumed that we will issue shares of Class A common stock at a price per share equal to the midpoint of the estimated public offering price range set forth on the cover of this prospectus, and, as a result, immediately following the completion of this offering, the ownership percentage represented by LLC Units not held by us will be %, and the net income attributable to LLC Units not held by us will accordingly represent % of our net income. Except as otherwise indicated, the unaudited pro forma consolidated financial information presented assumes no exercise by the underwriters of their option to purchase additional shares of Class A common stock.

As described in greater detail under "Certain Relationships and Related Party Transactions—Tax Receivable Agreement," in connection with the consummation of this offering, we will enter into the Tax Receivable Agreement with MLSH 1 and MLSH 2 that will provide for the payment by Maravai LifeSciences Holdings, Inc. to MLSH 1 and MLSH 2, collectively, of 85% of the amount of cash savings, if any, in U.S. federal, state and local income taxes (computed using simplifying assumptions to address the impact of state and local taxes) we actually realize (or under certain circumstances are deemed to realize in the case of an early termination payment by us, a change in control or a material breach by us of our obligations under the Tax Receivable Agreement, as discussed below) as a result of (i) certain increases in the tax basis of assets of Topco LLC and its subsidiaries resulting from purchases or exchanges of LLC Units, (ii) certain tax attributes of the Blocker Entities, Topco LLC and subsidiaries of Topco LLC that existed prior to this offering and (iii) certain other tax benefits related to our entering into the Tax Receivable Agreement, including tax benefits attributable to payments that we make under the Tax Receivable Agreement.

We expect to benefit from the remaining 15% of cash savings, if any, that we realize. As a result of the Organizational Transactions and the purchase of currently outstanding LLC Units from MLSH 1 with a portion of the net proceeds from this offering, we are recording a liability under the Tax Receivable Agreement of $ as described in more detail below. Due to the uncertainty in the amount and timing of future exchanges of LLC Units by LLC Unitholders and purchases of LLC Units from LLC Unitholders, the unaudited pro forma consolidated financial information assumes that no future exchanges or purchases of LLC Units have occurred and therefore no increases in tax basis in the Topco LLC assets or other tax benefits that may be realized thereunder have been assumed in the unaudited pro forma consolidated financial information. However, if MLSH 1 were to exchange or sell us all of its units, we would recognize a deferred tax asset of approximately $ million and a liability under the Tax Receivable Agreement of approximately $ million, assuming: (i) all exchanges or purchases occurred on the same day; (ii) a price of $ per share (the midpoint of the price range set forth on the cover page of this prospectus); (iii) a constant corporate tax rate of %; (iv) that we will have sufficient taxable income to fully utilize the tax benefits and (v) no material changes in tax law. These amounts are estimates and have been prepared for illustrative purposes only. The actual amount of deferred tax assets and related liabilities that we will recognize will differ based on, among other things, the timing of the exchanges, the price per share of our Class A common stock at the time of the exchange, and the tax rates then in effect.

For each 5% increase (decrease) in the amount of LLC Units exchanged by or purchased from MLSH 1 and MLSH 2 (or their transferees of LLC Units or other assignees), our deferred tax asset would increase (decrease) by approximately $ million and the related liability would increase (decrease) by approximately $ million, assuming that the price per share and corporate tax rate remain the same. For each $1.00 increase (decrease) in the assumed share price of $ per share, our deferred tax asset would increase (decrease) by approximately $ million and the related liability would increase (decrease) by approximately $ million, assuming that the number of LLC Units exchanged by or purchased from MLSH 1 and MLSH 2 (or their transferees of LLC Units and other assignees) and the corporate tax rate remain the same. These amounts are estimates and have been prepared for illustrative purposes only. The actual amount

of deferred tax assets and liability under the Tax Receivable Agreement that we will recognize will differ based on, among other things, the timing of the exchanges and purchases, the price of our shares of Class A common stock at the time of the exchange or purchase, and the tax rates then in effect.

The unaudited pro forma condensed consolidated financial information should be read together with "Organizational Structure," "Capitalization," "Selected Consolidated Financial Data," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the audited consolidated financial statements of Maravai Topco Holdings, LLC and subsidiaries and related notes thereto as well as the interim unaudited condensed consolidated financial statements of Maravai Topco Holdings, LLC and subsidiaries and related notes thereto included elsewhere in this prospectus.

UNAUDITED PRO FORMA CONDENSED CONSOLIDATED BALANCE SHEET
AS OF SEPTEMBER 30, 2020

(In thousands, except per share data)	Maravai Topco Holdings, LLC As Reported	Organizational Transactions and Offering Adjustments		Maravai LifeSciences Holdings, Inc. Pro Forma
Assets				
Current assets:				
Cash			(1)(2)	
Accounts receivable, net				
Inventory				
Prepaid expenses and other current assets				
Total current assets				
Property and equipment, net				
Goodwill				
Intangible assets, net				
Deferred tax asset			(3)(4)	
Other assets			(5)	
Total assets				
Liabilities and member's/stockholders' equity				
Current liabilities:				
Accounts payable			(5)	
Accrued expenses				
Deferred revenue				
Other current liabilities				
Current portion of long-term debt				
Total current liabilities				
Long-term debt, less current portion				
Deferred tax liabilities				
Facility financing obligations, less current portion				
Payable to related parties pursuant to the Tax Receivable Agreement			(4)	
Other long-term liabilities				
Total liabilities				
Member's equity:				
Class A common stock, par value $0.01 per share			(1)(6)	
Class B common stock, par value $0.01 per share			(2)	
Additional paid in capital			(8)	
Contributed capital				
Accumulated deficit				
Accumulated other comprehensive loss				
Total Topco LLC member's equity				
Noncontrolling interests			(7)	
Total member's / stockholder's equity				
Total liabilities and member's / stockholder's equity				

NOTES TO UNAUDITED PRO FORMA CONDENSED CONSOLIDATED BALANCE SHEET

(1) We estimate that the proceeds to us from this offering will be approximately $ million (or $ million if the underwriters exercise in full their option to purchase additional shares of Class A common stock), based on an assumed initial public offering price of $ per share, which is the midpoint of the estimated public offering price range set forth on the cover page of this prospectus, after deducting $ of assumed underwriting discounts and commissions and estimated offering expenses. We intend to use the net proceeds from this offering to (i) acquire LLC Units, together with an equal number of shares of Class B common stock, from existing LLC Unitholders, (ii) pay MLSH 2 $ million as consideration for the Blocker Mergers, and (iii) pay expenses incurred in connection with this offering. The remaining proceeds received from the sale of these shares will be used for general corporate purposes. For more information, see "Use of Proceeds."

(2) Reflects the issuance of Class B common stock to LLC Unitholders, on a one-to-one basis with the number of LLC Units they own, in exchange for cash consideration of $ million equal to the par value of the Class B common stock issued, as described in greater detail under "Organizational Structure."

(3) Maravai LifeSciences Holdings, Inc. is subject to U.S. federal, state, local and foreign income taxes and will file consolidated income tax returns for U.S. federal and certain state, local and foreign jurisdictions. This adjustment reflects the recognition of deferred taxes in connection with the Organizational Transactions assuming the federal rates currently in effect and the highest statutory rates apportioned to each state, local and foreign jurisdiction.

We have recorded a pro forma deferred tax asset adjustment net of valuation allowance of $ million. The net deferred tax asset includes (i) $ million related to temporary differences in the book basis as compared to the tax basis of Maravai LifeSciences Holdings, Inc.'s investment in Topco LLC, (ii) $ million related to tax benefits from future deductions attributable to payments under the Tax Receivable Agreement, as described further in note (4), (iii) $ million related to the book versus tax basis differences inside the corporations or limited liability companies owned by Topco LLC and (iv) $ million related to the tax loss carryforwards and credits from the merged Blocker Entities. A valuation allowance of $ million has been recorded for those deferred tax assets Maravai LifeSciences Holdings, Inc. has determined are not more likely than not to be realized. Maravai LifeSciences Holdings, Inc. has determined it is more likely than not the remaining $ million of deferred tax assets will result in ordinary income tax deductions that will be realized based on projections of future taxable income. Maravai LifeSciences Holdings, Inc. will continue to assess all positive and negative evidence and will adjust the valuation allowance to the extent it is more likely than not its assessment changes.

(4) Prior to the completion of this offering, we will enter into a Tax Receivable Agreement with MLSH 1 and MLSH 2. The agreement provides for the payment to MLSH 1 and MLSH 2, collectively, of 85% of the benefits, if any, that we realize as a result of (i) certain increases in the tax basis of assets of Topco LLC and its subsidiaries resulting from purchases or exchanges of LLC Units, (ii) certain tax attributes of the Blocker Entities, Topco LLC and subsidiaries of Topco LLC that existed prior to this offering and (iii) certain other tax benefits related to our entering into the Tax Receivable Agreement, including tax benefits attributable to payments that we make under the Tax Receivable Agreement. The Tax Receivable Agreement will be accounted for as a contingent liability due to related parties, with amounts accrued when considered probable and reasonably estimable. We will record a $ million liability based on the Company's estimate of the aggregate amount that it will pay to MLSH 1 and MLSH 2 under the tax receivable agreement as a result of the Organizational Transactions. As mentioned in note (1) above, we will record an increase of $ million in deferred tax assets, net of a valuation allowance of $ million, related to tax benefits from future deductions attributable to payments under the tax receivable agreement as a result of the Organizational Transactions. Additionally, we will record a decrease to additional paid-in capital of $ million, which is equal to the difference between the increase in deferred tax assets and the increase in liabilities due to existing owners under the tax receivable agreement as a result of the Organizational Transactions.

No adjustment has been made to reflect future exchanges by LLC Unitholders (or their transferees of LLC Units or other assignees) of LLC Units for cash or shares of our Class A common stock, as applicable.

(5) We are deferring certain costs associated with this offering. These costs primarily represent legal, accounting and other costs directly associated with this offering and are recorded in other assets in our combined consolidated balance sheet. Upon completion of this offering, these deferred costs will be charged against the proceeds from this offering with a corresponding reduction to additional paid-in capital.

(6) As part of the Organizational Transactions, the Blocker Entities will merge with and into Maravai LifeSciences Holdings, Inc. by providing existing owners of the Blocker Entities with shares of Class A common stock in exchange for full ownership interest in the Blocker Entities. As a result of the mergers, Maravai LifeSciences Holdings, Inc. will obtain LLC Units.

(7) As a result of the Organizational Transactions, the limited liability company agreement of Topco LLC will be amended and restated to, among other things, designate Maravai LifeSciences Holdings, Inc. as the sole managing member of Maravai Topco Holdings, LLC. As sole managing member, Maravai LifeSciences Holdings, Inc. will exclusively operate and control the business and affairs of Maravai Topco Holdings, LLC. The LLC Units owned by LLC Unitholders will be considered noncontrolling interests in the consolidated financial statements of Maravai LifeSciences Holdings, Inc. The adjustment to non-controlling interest of $ million reflects the proportional interest in the pro forma consolidated total equity of Maravai Topco Holdings, LLC owned by MLSH 1 and MLSH 2.

(8) The following table is a reconciliation of the adjustments impacting additionalpaid-in-capital:

Net proceeds from offering of Class A common stock	$
Purchase of LLC Units from MLSH 1	
Net adjustment from recognition of deferred tax asset and payable to related parties pursuant to the Tax Receivable Agreement	
Reclassification of costs incurred in this offering from other assets to additionalpaid-in capital	
Contributed capital reclassification	
Adjustment for non-controlling interest	
Net additional paid-in capital pro forma adjustment	$

UNAUDITED PRO FORMA CONDENSED CONSOLIDATED STATEMENT OF INCOME FOR THE NINE MONTHS ENDED SEPTEMBER 30, 2020

(In thousands, except per share data)	Maravai Topco Holdings, LLC As Reported	Organizational Transactions and Offering Adjustments		Maravai LifeSciences Holdings, Inc. Pro Forma
Revenue				
Expenses:				
Cost of revenue			(1)	
Research and development			(1)	
Selling, general and administrative			(1)	
Change in estimated fair value of contingent consideration				
Total operating expenses				
Income from operations				
Other income (expense):				
Interest expense				
Other income				
Loss before income taxes				
Income tax (benefit) expense			(2)	
Net loss				
Net loss attributable to noncontrolling interests			(3)	
Net loss attributable to the Topco LLC member				
Pro Forma Earnings Per Share				
Basic			(4)	
Diluted			(4)	
Pro Forma Number of Shares Used in Computing Earnings per Share				
Basic			(4)	
Diluted			(4)	

UNAUDITED PRO FORMA CONDENSED CONSOLIDATED STATEMENT OF INCOME
FOR THE YEAR ENDED DECEMBER 31, 2019

(In thousands, except per share data)	Maravai Topco Holdings, LLC As Reported	Organizational Transactions and Offering Adjustments		Maravai LifeSciences Holdings, Inc. Pro Forma
Revenue	**$ 143,140**			
Operating Expenses:				
Cost of revenue	66,849		(1)	
Research and development	3,627		(1)	
Selling, general and administrative	48,354		(1)	
Change in estimated fair value of contingent consideration	322			
Total operating expenses	119,152			
Income from operations	23,988			
Other income (expense):				
Interest expense	(29,959)			
Other income	118			
Loss before income taxes	(5,853)			
Income tax benefit	(652)		(2)	
Net loss	$ (5,201)			
Net loss attributable to noncontrolling interests	(731)		(3)	
Net loss attributable to the Topco LLC member	$ (4,470)			
Net loss per common unit attributable to Topco LLC member – basic and diluted	$ (1,572)			
Weighted-average common units outstanding	1,000			
Pro Forma Earnings Per Share				
Basic			(4)	
Diluted			(4)	
Pro Forma Number of Shares Used in Computing Earnings per Share				
Basic			(4)	
Diluted			(4)	

NOTES TO UNAUDITED PRO FORMA CONDENSED CONSOLIDATED STATEMENTS OF INCOME

(1) Reflects the issuance of stock options to purchase shares of Class A common stock granted to employees in connection with the offering, under the 2020 Plan. The foregoing amounts are based on an assumed initial public offering price of $ per share (which is the midpoint of the estimated public offering price range set forth on the cover page of this prospectus). The pro forma expense is based on such assumed initial public offering price of $ per share and was $ million for the nine months ended September 30, 2020 and $ million for the year ended December 31, 2019, respectively. Such options are expected to vest as follows: . Equity compensation up to $ million per year would be recognized as recurring compensation expense over the service period.

(2) Following the Organizational Transactions and offering, Maravai LifeSciences Holdings, Inc. will be subject to U.S. federal income taxes, in addition to state, local and foreign taxes. As a result, the pro forma statements of income reflect an adjustment to our provision for corporate income taxes to reflect a pro forma tax rate, which includes a provision for U.S. federal income taxes and assumes the highest statutory rates apportioned to each state, local and foreign jurisdiction. Topco LLC has been, and will continue to be, treated as a partnership for U.S. federal and state income tax purposes. As such, Topco LLC's profits and losses will flow through to its partners, including Maravai LifeSciences Holdings, Inc., and are generally not subject to tax at the Topco LLC level.

The pro forma adjustments for income tax expense represent tax expense (benefit) on income that will be taxable in jurisdictions after our Organizational Transactions that previously had not been taxable. The adjustment is calculated as pro forma income before income taxes multiplied by the ownership percentage of the controlling interest and multiplied by the pro forma tax rate.

	For the Year Ended December 31, 2019	For the Nine Months Ended September 30, 2020
Pro forma income before taxes	$	$
Historical net loss attributable to noncontrolling interest	$	$
Pro forma income before taxes attributable to Topco LLC	$	$
Ownership percentage of the controlling interest	$	$
Pro forma income before taxes attributable to the controlling interest	$	$
Pro forma tax rate	$	$
Pro forma income tax expense	$	$
Historical income tax expense	$	$
Pro forma income tax expense adjustment	$	$

(3) Following the Organizational Transactions, Maravai LifeSciences Holdings, Inc. will become the sole managing member of Topco LLC, and upon consummation of this offering, Maravai LifeSciences Holdings, Inc. will initially own approximately % of the economic interest in Topco LLC but will have % of the voting power and control the management of Topco LLC. The ownership percentage held by the noncontrolling interest will be approximately %. Net income attributable to the noncontrolling interest will represent approximately % of net income.

(4) The weighted average number of shares underlying the basic earnings per share calculation reflects only the shares of Class A common stock outstanding after the offering as they are the only outstanding shares which participate in distributions or dividends by Maravai LifeSciences Holdings, Inc. The net proceeds from the sale of shares of Class A common stock in the IPO will be used to (i) acquire LLC Units, together with an equal number of shares of Class B common stock, from existing LLC Unitholders, (ii) pay MLSH 2 $ million as consideration for the Blocker Mergers, and (iii) pay expenses incurred in connection with this offering. The remaining shares of Class A

common stock to be sold in the offering are not included in the pro forma basic and diluted net income per share calculations as the proceeds received from the sale of these shares will be used for general corporate purposes, see "Use of Proceeds." Pro forma diluted earnings per share is computed by adjusting pro forma net income attributable to Maravai LifeSciences Holdings, Inc. and the weighted average shares of Class A common stock outstanding to give effect to potentially dilutive securities that qualify as participating securities using the treasury stock method, as applicable. Shares of Class B common stock are not participating securities and therefore are not included in the calculation of pro forma basic earnings per share.

LLC Units, together with an equal number of shares of Class B common stock, may be exchanged, at our option, for shares of our Class A common stock or, at our election, for cash. After evaluating the potential dilutive effect under the if-converted method, the outstanding LLC Units for the assumed exchange of non-controlling interests were determined to be and thus were the computation of diluted earnings per share.

The diluted weighted average share calculation assumes that certain equity awards were issued and outstanding at the beginning of the period. The following table sets forth a reconciliation of the numerators and denominators used to compute pro forma basic and diluted earnings per share.

	For the Year Ended December 31, 2019	For the Nine Months Ended September 30, 2020
Earnings per share of common stock		
Numerator:		
Net income attributable to Maravai LifeSciences Holdings, Inc.'s shareholders (basic and diluted)	$	$
Denominator:		
Weighted average of shares of common stock outstanding (basic)		
Incremental common shares attributable to dilutive instruments		
Weighted average of shares of common stock outstanding (diluted)		
Basic earnings per share	$	$
Diluted earnings per share	$	$

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

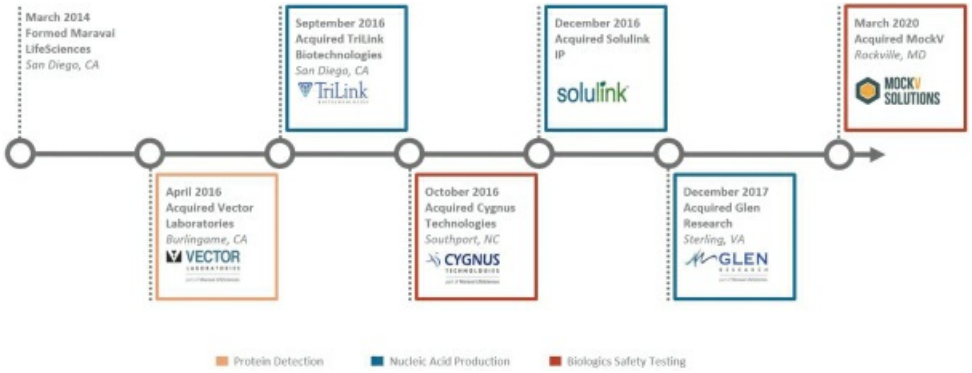
You should read the following discussion and analysis of financial condition and results of operations together with the section titled "Selected Consolidated Financial Data" and our consolidated financial statements and related notes included elsewhere in this prospectus. This discussion and analysis reflects our historical results of operations and financial position, and, except as otherwise indicated below, does not give effect to the Organizational Transactions or to the completion of this offering. See "Organizational Structure." This discussion and other parts of this prospectus contain forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those discussed in or implied by these forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those discussed in the section titled "Risk Factors." Please also see the section titled "Forward Looking Statements."

The following discussion contains references to calendar year 2018 and calendar year 2019, which represents the consolidated and combined financial results of our predecessor Maravai Topco Holdings, LLC ("Topco LLC") and subsidiaries for the years ended December 31, 2018 and December 31, 2019, respectively. Unless we state otherwise or the context otherwise requires, the terms "we," "us," "our," and "Maravai" refer to and similar references refer: (1) on or following the consummation of the Organizational Transactions, including this offering, to Maravai LifeSciences Holdings, Inc. and its consolidated subsidiaries, including Topco LLC, and (2) prior to the consummation of the Organizational Transactions, including this offering, to Topco LLC and its consolidated subsidiaries.

Overview

We are a leading life sciences company providing critical products to enable the development of drug therapies, diagnostics, novel vaccines and support research on human diseases. Our more than 5,000 customers as of August 31, 2020 include the top 20 global biopharmaceutical companies ranked by research and development expenditures according to industry consultants, and many other emerging biopharmaceutical and life sciences research companies, as well as leading academic research institutes and *in vitro* diagnostics companies. Our products address the key phases of biopharmaceutical development and include complex nucleic acids for diagnostic and therapeutic applications, antibody-based products to detect impurities during the production of biopharmaceutical products, and products to detect the expression of proteins in tissues of various species.

We have and will continue to build a transformative life sciences products company by acquiring businesses and accelerating their growth through capital infusions and industry expertise. Biomedical innovation is dependent on a reliable supply of reagents in the fields of nucleic acid production, biologics safety testing and protein labeling. From inventive startups to the world's leading biopharmaceutical, vaccine, diagnostics and gene and cell therapy companies, these customers turn to us to solve their complex discovery challenges and help them streamline and scale their supply chain needs beginning from research and development through clinical trials to commercialization.



Our primary customers are biopharmaceutical companies who are pursuing novel research and product development programs. Our customers also include a range of government, academic and biotechnology institutions.

As of August 31, 2020, we employed a team of over 300 employees, approximately 10% of whom have advanced degrees. We primarily utilize a direct sales model for our sales to our customers in North America. Our international sales, primarily in Europe and Asia Pacific, are sold through a combination of third-party distributors as well as via a direct sales model. For the year ended December 31, 2018, approximately 59.9% of our revenue was derived from customers in North America as compared to 58.7% for the year ended December 31, 2019.

We generated revenue of $123.8 million and $143.1 million for the years ended December 31, 2018 and 2019, respectively. Total revenue by segment was $60.0 million in nucleic acid production, $38.5 million in biologics safety testing and $25.3 million in protein detection for the year ended December 31, 2018, compared to $72.6 million, $44.4 million, and $26.1 million, respectively, for the year ended December 31, 2019.

Our research and development efforts are geared towards meeting our customers' needs. We incurred research and development expenses of $4.5 million and $3.6 million for the years ended December 31, 2018 and 2019, respectively. We intend to continue to invest in research and development and new products and technologies to support our customers' needs for the foreseeable future.

We focus a substantial portion of our resources supporting our core business segments. We are actively pursuing opportunities to expand our customer base both domestically and internationally by fostering strong relationships with both existing and new customers and distributors. Our management team has experience working with biopharmaceutical, vaccine, diagnostics and gene and cell therapy companies as well as academic and research scientists. We also intend to continue making investments in our overall infrastructure and business segments to support our growth. We incurred aggregate selling, general, and administrative expenses of $41.2 million and $48.4 million for the years ended December 31, 2018 and 2019, respectively.

Since our inception in 2016, we have incurred net losses in each year. Our net losses were $16.9 million and $5.2 million for the years ended December 31, 2018 and 2019, respectively. We expect our expenses will increase substantially in connection with our ongoing activities, as we:

- attract, hire and retain qualified personnel;
- invest in processes and infrastructure to enable manufacturing automation;
- support research and development to introduce new products and services;
- market and sell new and existing products and services;

- protect and defend our intellectual property;
- acquire businesses or technologies to support the growth of our business; and
- function as a public company.

Key Factors Affecting Our Results of Operations and Future Performance

We believe that our financial performance has been, and in the foreseeable future will continue to be, primarily driven by a number of factors as described below, each of which presents growth opportunities for our business. These factors also pose important challenges that we must successfully address in order to sustain our growth and improve our results of operations. Our ability to successfully address these challenges is subject to various risks and uncertainties, including those described under the heading "Risk Factors."

Drug Development Pipelines

Our financial performance has largely been driven by our customers accelerating their drug development pipelines for cell, gene and RNA therapies. A key factor to our future success will be, our ability to provide good manufacturing practices ("GMP") grade nucleic acids and associated pre-clinical and non-GMP compounds to these customers. Our GMP-grade nucleic acids are manufactured following certain voluntary GMP quality standards and customer specific requirements. We believe these products, including "GMP-grade" materials, are exempt from compliance with the current GMP regulations of the Food and Drug Administration ("FDA"). See "Business—Government Regulation." The mRNA and gene editing therapeutics that many of our customers are developing are early in their lifecycle. We expect to see an increase in demand for our GMP-grade nucleic acids to the extent that our customers have success in their early-phase clinical trials of these therapeutics. New U.S. Food and Drug Administration ("FDA") policies, and plans for maximizing the use of expedited programs, may advance the development of cell and gene therapies. Additionally, the COVID-19 pandemic has both fostered increased interest in mRNA as a therapeutic modality for this virus and directed significant resources to developing a base of knowledge for mRNA.

Demand for Outsourced GMP-grade RNA

We believe that growing numbers of RNA therapeutics companies expect to outsource production ofpre-clinical and GMP-grade RNA to trusted business partners. Companies are often driven to outsource due to the complex nature of the manufacturing process, faster speeds to market, recent availability of high-quality contract development and manufacturing organizations ("CDMO") partners, an influx of inexperienced and virtual biopharmaceutical companies, the need for redundancy of clinical and commercial supply and recent moves to onshore critical supply chains. We offer a number of products and services to meet this demand for outsourced pre-clinical and GMP-grade RNA.

Demand for Outsourced Biologics Safety Testing Products and Assay Development Services

We believe that many biopharmaceutical companies rely on outsourced providers for their biologics safety testing productsand assay development needs. Once process development has been completed, biopharmaceutical companies avoid changing biologics safety testing products or providers for fear of affecting the regulatory approval pathway of their therapeutic products. This supports revenue growth for the biologics safety testing products that have been adopted by these companies. We also have long-standing relationships with many of our customers, which are bolstered by the regulatory demands on our customers and the "designed-in" nature of our products and services. A successful partnership with a customer related to the development of their drug leads to repeat business as customers become comfortable with our products. The drug approval process is smoother when regulatory bodies are familiar with an impurity detection product vendor and most biopharmaceutical customers are not willing to risk a regulatory issue related to biologics safety testing for their drug program on an unproven vendor. It is therefore critical to our success that our products and services be "designed-in" at the outset, especially to the most promising product candidates.

COVID-19 and Other Public Health Crises

In late 2019, COVID-19 surfaced in Wuhan, China. Since then, COVID-19 has spread to multiple other regions and countries, including the San Francisco Bay Area, where our protein detection business is located and the San Diego, California and Washington, D.C. areas, where our nucleic acid production business is located and the Wilmington, North Carolina area, where our biologics safety testing products business is located. The COVID-19 pandemic is evolving, and to date has led to the implementation of various responses, including government imposed shelter-in-place orders, quarantines, travel restrictions and other public health safety measures, as well as reported adverse impacts on healthcare resources, facilities and providers, in California, across the United States and in many other countries throughout the world. In response to the spread of COVID-19, and in accordance with direction from state and local government authorities, we have restricted access to our facilities mostly to personnel and third parties who must perform critical activities that must be completed on-site, limited the number of such personnel that can be present at our facilities at any one time, and requested that some of our personnel work remotely. In the event that government authorities were to further modify current restrictions, our employees conducting research and development, or manufacturing activities may not be able to access our laboratory or manufacturing space, and our core activities may be significantly limited or curtailed, possibly for an extended period of time.

As a result of the COVID-19 pandemic, or similar pandemics and outbreaks, we have and may in the future experience severe disruptions, including:

- interruption of or delays in receiving products and supplies from the third parties we rely on to, among other things, manufacture components of our products, due to staffing shortages, production slowdowns or stoppages and disruptions in delivery systems, which may impair our ability to manufacture and sell our products and provide our services;
- limitations on our business operations by the local, state, or federal government that could impact our ability to manufacture, sell or deliver our products and services;
- on-site visit limitations and prohibitions imposed by customers that could impact our ability to engage in pre-sales activities, and to provide post-sale activities, such as training and service and support;
- delays in customers' purchasing decisions and negotiations with customers and potential customers;
- business disruptions caused by workplace, laboratory and office closures and an increased reliance on employees working from home, travel limitations, cyber security and data accessibility limits, or communication or mass transit disruptions; and
- limitations on employee resources that would otherwise be focused on the conduct of our activities, including because of sickness of employees or their families or the desire of employees to avoid contact with large groups of people.

Any of these factors could severely impact our research and development activities, manufacturing business operations and sales, or delay necessary interactions with local regulators, third-party vendors and other important contractors and customers. These and other factors arising from the COVID-19 pandemic could worsen in countries that are already afflicted with COVID-19, could continue to spread to additional countries, or could return to countries where the pandemic has been partially contained, and could further adversely impact our ability to conduct our business generally and have a material adverse impact on our consolidated operations and financial condition and results. For example, our protein detection segment experienced a decline in sales during the second quarter of 2020 relative to the same period in 2019 due to stay-at-home orders in the San Francisco Bay Area and the closure of many academic laboratories that are the main customers of this segment and the reduced operations of other customers. Prolonged closures or shutdowns as a result of the COVID-19 pandemic would continue to affect sales of our protein detection segment adversely.

The extent to which the pandemic may negatively impact our consolidated operations and results of operations or those of our third-party manufacturers, suppliers, partners or customers will depend on future developments, which are highly uncertain and cannot be predicted with confidence, such as the ultimate geographic spread of the disease, the duration of the pandemic, the extent of travel restrictions, additional or modified government actions, new information that will emerge concerning the severity and impact of COVID-19 and actions to contain the pandemic or treat its impact, such as social distancing, quarantines, lock-downs or business closures.

We have responded to the pandemic by leveraging our deep product portfolio and general scientific expertise to develop robustCOVID-19-related product and service offerings providing critical support for the development of therapeutics, vaccines and diagnostics. Our ongoing efforts to utilize our portfolio of products and services to enable solutions for this evolving pandemic may offset the impact of our customer site closures.

We remain fully operational as we abide by localCOVID-19 safety regulations across the world. To achieve this, we have many employees working remotely and have adopted significant protective measures for our employees on site, including staggered shifts, social distancing and hygiene best practices recommended by the Centers for Disease Control and Prevention (the "CDC") and local public health officials. In addition, we have taken additional steps to monitor and strengthen our supply chain to maintain an uninterrupted supply of our critical products and services.

Organizational Transactions

Maravai LifeSciences Holdings, Inc. was incorporated in August 2020 and formed for the purpose of this offering and has engaged to date only in activities in contemplation of this offering. Maravai LifeSciences Holdings, Inc. will be a holding company and its sole material asset will be a controlling ownership interest in Topco LLC. For more information regarding our reorganization and holding company structure, see "Organizational Structure—Organizational Transactions." Upon completion of this offering, all of our business will be conducted through Topco LLC and its consolidated subsidiaries, and the financial results of Topco LLC and its consolidated subsidiaries will be included in the consolidated financial statements of Maravai LifeSciences Holdings, Inc.

Topco LLC has been treated as a pass-through entity for U.S. federal and state income tax purposes and accordingly has not been subject to U.S. federal or state income tax. Certain wholly owned subsidiaries of Topco are taxed as corporations for U.S. federal and most applicable state, local income tax and foreign tax purposes. After consummation of this offering, Topco LLC will continue to be treated as a pass-through entity for U.S. federal and state income tax purposes and certain subsidiaries will continue to be taxed as corporations for U.S. federal and most applicable state, local income tax and foreign tax purposes. As a result of its ownership of LLC Units in Topco LLC, Maravai LifeSciences Holdings, Inc. will become subject to U.S. federal, state and local income taxes with respect to its allocable share of any taxable income of Topco LLC and will be taxed at the prevailing corporate tax rates. In addition to tax expenses, we also will incur expenses related to our operations and we will be required to make payments under the Tax Receivable Agreement with MLSH 1 and MLSH 2. Due to the uncertainty of various factors, we cannot estimate the likely tax benefits we will realize as a result of LLC Unit exchanges, and the resulting amounts we are likely to pay out to LLC Unitholders pursuant to the Tax Receivable Agreement; however, we estimate that such payments may be substantial. We intend to cause Topco LLC to make distributions in an amount sufficient to allow us to pay our tax obligations and operating expenses, including distributions to fund any ordinary course payments due under the Tax Receivable Agreement. See ''Organizational Structure—Amended and Restated Operating Agreement of Topco LLC'' and ''Organizational Structure—Tax Receivable Agreement."

How We Assess Our Business

We consider a variety of financial and operating measures in assessing the performance of our business. The key measures we use to determine how our business is performing are revenue and Adjusted EBITDA.

Adjusted EBITDA is a non-GAAP financial measure that we define as net loss adjusted for interest expense, provision for income taxes, depreciation, amortization and unit-based compensation expenses. Adjusted EBITDA reflects further adjustments to eliminate the impact of certain items, including certain non-cash and other items, that we do not consider representative of our ongoing operating performance. We also present Adjusted Free Cash Flow, which is a non-GAAP measure that we define as Adjusted EBITDA less capital expenditures.

Management uses Adjusted EBITDA to evaluate the financial performance of our business and the effectiveness of our business strategies. We present Adjusted EBITDA and Adjusted Free Cash Flow because we believe they are frequently used by analysts, investors and other interested parties to evaluate companies in our industry and they facilitate comparisons on a consistent basis across reporting periods. Further, we believe they are helpful in highlighting trends in our operating results because they exclude items that are not indicative of our core operating performance. Adjusted EBITDA is also used in the financial covenants for the First Lien Credit Agreement and Second Lien Credit Agreement.

Adjusted EBITDA and Adjusted Free Cash Flow have limitations as analytical tools and you should not consider them in isolation, or as substitutes for analysis of our results as reported under GAAP. We may in the future incur expenses similar to the adjustments in the presentation of Adjusted EBITDA. In particular, we expect to incur meaningful share-based compensation expense in the future. Other limitations include that Adjusted EBITDA and Adjusted Free Cash Flow do not reflect:

- all expenditures or future requirements for capital expenditures or contractual commitments;
- changes in our working capital needs;
- provision for income taxes, which may be a necessary element of our costs and ability to operate;
- the costs of replacing the assets being depreciated, which will often have to be replaced in the future;
- the non-cash component of employee compensation expense; and
- the impact of earnings or charges resulting from matters we consider not to be reflective, on a recurring basis, of our ongoing operations.

In addition, Adjusted EBITDA and Adjusted Free Cash Flow may not be comparable to similarly titled measures used by other companies in our industry or across different industries.

Components of Results of Operations

Revenue

Our revenue consists of both product and services revenue and, to a much lesser extent, revenue from royalties attributable to the out-licensing of our proprietary biological assets intellectual property that we may develop. We generated total consolidated revenue of $123.8 million and $143.1 million for the years ended December 31, 2018 and 2019, respectively, through the following segments: (i) nucleic acid production, (ii) biologics safety testing and (iii) protein detection.

Nucleic Acid Production Segment

Our nucleic acid production segment focuses on the manufacturing and sale of highly modified nucleic acids products to support the needs of customers' research, therapeutic and vaccine programs. This segment also provides research products for labeling and detecting proteins in cells and tissue samples.

Biologics Safety Testing Segment

Our biologics safety testing segment focuses on manufacturing and selling biologics safety and impurity tests and assay development services that are utilized by our customers in their biologic drug manufacturing activities.

Protein Detection Segment

Our protein detection segment products, which include a portfolio of labeling and visual detection reagents, are purchased by our scientific research customers for their tissue-based protein detection and characterization needs.

Costs of Revenue

Cost of revenue associated with our products and services primarily consists of manufacturing related costs incurred in the production process, including personnel and related costs, unit-based compensation from awards issued by our parent and sole member, MLSH 1, and by one of our subsidiaries, inventory write-downs, costs of materials, labor and overhead, packaging and delivery costs and allocated costs, including facilities, information technology, depreciation, and amortization of intangibles. Cost of revenue associated with our services primarily consists of personnel and related costs, unit-based compensation from awards issued by our parent and sole member, cost of materials and allocated costs, including facilities and information technology costs. Costs of services were not material to the years ended December 31, 2018 and 2019.

We expect cost of revenue to increase in future periods as our revenue grows.

Operating Expenses

Research and development. Research and development costs primarily consist of salaries, benefits, incentive compensation, unit-based compensation from awards issued by MLSH 1 and one of our subsidiaries, cost of supplies, and allocated facilities costs for employees engaged in research and development of products and services. We expense all research and development costs in the period in which they are incurred. Payment made prior to the receipt of goods or services to be used in research and development are recognized as prepaid assets until the goods are received or services are rendered.

We plan to continue to support our research and development efforts, including meeting our customers' customizable needs.

Selling, general and administrative. Our selling, general and administrative expenses primarily consist of salaries, benefits and unit-based compensation costs from awards issued by MLSH 1 and also one of our subsidiaries for employees in our commercial sales functions, marketing, executive, accounting and finance, legal and human resource functions as well as travel expenses, professional services fees, such as consulting, audit, tax and legal fees, general corporate costs and allocated costs, including facilities, information technology and amortization of intangibles.

We expect that our selling, general and administrative expenses will continue to increase after this offering, primarily due to increased headcount to support anticipated growth in the business, costs incurred in increasing our presence globally and increases in marketing activities to drive awareness and adoption of our products and services, and due to incremental costs associated with operating as a public company.

Other Income (Expense)

Other income (expense) consists primarily of interest related to borrowings under our long-term debt obligations. We also include foreign currency exchange gains and losses. During the year ended December 31, 2018, other income (expense) included the loss on extinguishment of debt, see Note 7 of Notes to Consolidated Financial Statements.

Non-Controlling Interest

Topco LLC's historical consolidated financial statements include a non-controlling interest related to a minority interest in one of our subsidiaries.

In connection with the Organizational Transactions, Maravai LifeSciences Holdings, Inc. will be appointed as the sole managing member of Topco LLC pursuant to the New LLC Agreement. Because we will manage and operate the business and control the strategic decisions and day-to-day operations of Topco LLC and will also have a substantial financial interest in Topco LLC, we will consolidate the financial results of Topco LLC, and a portion of our net income (loss) will be allocated to the non-controlling interest to reflect the entitlement of the non-controlling interest holders to Topco LLC's net income (loss). We will hold approximately % of the outstanding LLC Units of Topco LLC (or approximately % of the outstanding LLC Units of Topco LLC if the underwriters exercise their option to purchase additional shares in full), and the outstanding LLC Units of Topco LLC will be held by MLSH 1.

Income Tax Expense (Benefit)

Topco LLC is currently, and will through consummation of the Organizational Transactions, be treated as a partnership for U.S. federal and most applicable state and local income tax purposes. As a partnership, its taxable income or loss is passed through to and included in the tax returns of its members, including us. Certain wholly owned subsidiaries of Topco LLC are organized and treated as corporations for U.S. federal and most applicable state, local income tax and foreign tax purposes. Accordingly, the consolidated financial statements of Topco LLC included in this prospectus include a tax provision for federal, state, local and foreign income taxes.

For a description of the Tax Receivable Agreement, see "Organizational Structure—Tax Receivable Agreement."

Future Public Company Expenses

We expect our operating expenses to increase when we become a public company following this offering. We expect our accounting, legal and personnel-related expenses and directors' and officers' insurance costs reported within selling, general and administrative to increase as we establish more comprehensive compliance and governance functions, maintain and review internal controls over financial reporting in accordance with the Sarbanes-Oxley Act and prepare and distribute periodic reports as required by the rules and regulations of the SEC. As a result, our historical results of operations may not be indicative of our results of operations in future periods.

Results of Operations for the Years Ended December 31, 2018 and 2019

The results of operations presented below should be reviewed in conjunction with the consolidated financial statements and notes included elsewhere in the prospectus. The following tables set forth our results of operations for the periods presented:

	Year ended December 31,		Change		Percentage of Revenue	
in thousands except unit and per unit amounts	2018	2019	$	%	2018	2019
Revenue	$ 123,833	$ 143,140	$ 19,307	15.6%	100.0%	100.0%
Operating expenses:						
Cost of revenue(1)	60,765	66,849	6,084	10.0%	49.1%	46.7%
Research and development(1)	4,499	3,627	(872)	(19.4%)	3.6%	2.5%
Selling, general and administrative(1)	41,194	48,354	7,160	17.4%	33.3%	33.8%
Change in estimated fair value of contingent consideration	939	322	(617)	(65.7%)	0.8%	0.2%
Total operating costs and expenses	107,397	119,152	11,755	10.9%	86.7%	83.2%
Income from operations	16,436	23,988	7,552	45.9%	13.3%	16.8%
Other income (expense)	(32,934)	(29,841)	3,093	(9.4%)	(26.6%)	(20.8%)
Loss before income taxes	(16,498)	(5,853)	10,645	(64.5%)	(13.3%)	(4.1%)
Income tax expense (benefit)	417	(652)	(1,069)	(256.4%)	0.3%	(0.5%)
Net loss	$ (16,915)	$ (5,201)	$ 11,714	(69.3%)	(13.7%)	(3.6%)
Net loss attributable to noncontrolling interest	(12,443)	(731)	11,712	(94.1%)		
Net loss attributable to the Maravai Topco Holdings, LLC member	(4,472)	(4,470)	2	0.0%		
Net loss per common unit attributable to Maravai Topco Holdings, LLC member—basic and diluted	$ (17,727)	$ (8,481)				
Weighted average common units outstanding	1,000	1,000				
Non-GAAP measure:						
Adjusted EBITDA	$ 53,000	$ 62,014	9,014	17.0%	42.8%	43.3%
Adjusted Free Cash Flow	$ 49,193	$ 42,101	$ (7,092)	(14.4)%	39.7%	29.4%

(1) Amounts include unit-based compensation as follows:

	Year ended December 31,		Change	
in thousands	2018	2019	$	%
Cost of revenue	$ 38	$ 22	(16)	(42.1%)
Research and development	297	211	(86)	(29.0%)
Selling, general and administrative	1,786	1,446	(340)	(19.0%)
Total unit-based compensation expense	$2,121	$1,679	$(442)	(20.8%)

Revenue

Consolidated revenue by segment were as follows:

in thousands	Year ended December 31, 2018	Year ended December 31, 2019	Change $	Change %	Percentage of Revenue 2018	Percentage of Revenue 2019
Revenue						
Nucleic acid production	$ 60,057	$ 72,602	$ 12,545	20.9%	48.5%	50.7%
Biologics safety testing	38,492	44,416	5,924	15.4%	31.1%	31.0%
Protein detection	25,284	26,122	838	3.3%	20.4%	18.3%
Total revenue	$ 123,833	$ 143,140	$ 19,307	15.6%	100.0%	100.0%

Total revenue was $123.8 million for the year ended December 31, 2018 compared to $143.1 million for the year ended December 31, 2019, representing an increase of $19.3 million, or 15.6%.

Nucleic acid production revenue increased from $60.1 million for the year ended December 31, 2018 to $72.6 million for the year ended December 31, 2019, representing an increase of $12.5 million, or 20.9%. The increase in nucleic acid production was driven by increased demand for highly modified RNA products, particularly mRNA, as well as increased demand for our proprietary CleanCap® analogs, which principally serve the growing mRNA vaccine and therapeutic markets.

Biologics safety testing revenue increased from $38.5 million for the year ended December 31, 2018 to $44.4 million for the year ended December 31, 2019, representing an increase of $5.9 million, or 15.4%. The increase was driven by a continued increase in the number of bioproduction programs and customers that use our catalog of HCP ELISA kits.

Protein detection revenue increased from $25.3 million for the year ended December 31, 2018 to $26.1 million for the year ended December 31, 2019, representing an increase of $0.8 million, or 3.3%. The increase was driven by strong sales for lectins and glycobiology reagents, histology reagents and blocking reagents.

Adjusted EBITDA and Segment Information

Management has determined that adjusted earnings before interest, tax, depreciation, and amortization is the profit or loss measure used to make resource allocation decisions and evaluate segment performance. Adjusted EBITDA assists management in comparing the segment performance on a consistent basis for purposes of business decision-making by removing the impact of certain items that management believes do not directly reflect the core operations and, therefore, are not included in measuring segment performance. Corporate costs are managed on a standalone basis and not allocated to segments.

Following is financial information relating to the operating segments (in thousands):

As of and for the year ended December 31, 2018	Nucleic Acid Production	Biologics Safety Testing	Protein Detection	Corporate	Total
Revenue	$ 60,057	$ 38,492	$ 25,284	$ —	$ 123,833
Adjusted EBITDA	$ 16,751	$ 31,199	$ 13,846	$ (8,796)	$ 53,000

As of and for the year ended December 31, 2019	Nucleic Acid Production	Biologics Safety Testing	Protein Detection	Corporate	Total
Revenue	$ 72,602	$ 44,416	$ 26,122	$ —	$ 143,140
Adjusted EBITDA	$ 22,229	$ 36,371	$ 14,603	$ (11,189)	$ 62,014

There was no inter-segment activity for any of the periods presented and all of the revenue for each segment is from external customers.

We do not allocate assets to our reportable segments as they are not included in the review performed by our Chief Operating Decision Maker for purposes of assessing segment performance and allocating resources. Excluding approximately $0.3 million associated with a building in the United Kingdom, all of our long-lived assets are located within the United States.

A reconciliation of Adjusted EBITDA to net loss, the most directly comparable GAAP measure, is set forth below (in thousands):

	Year Ended December 31,	
	2018	2019
Net Loss	$ (16,915)	$ (5,201)
Add:		
Amortization	20,122	20,274
Depreciation	2,225	3,810
Interest expense	27,399	29,959
Income tax (benefit) expense	417	(652)
EBITDA	33,248	48,190
Acquisition contingent consideration[a]	939	322
Loss on extinguishment of debt[b]	5,622	—
Acquisition integration costs[c]	7,529	6,170
Amortization of purchase accounting inventory step-up[d]	2,967	1,856
Unit-based compensation[e]	2,121	1,679
GTCR management fees[f]	574	523
Merger and acquisition related expenses[g]	—	3,274
Adjusted EBITDA	$ 53,000	$ 62,014

(a) Refers to the change in fair value and settlement of earnout payments related to a 2017 acquisition.
(b) Refers to non-operating cash expense incurred on extinguishment of debt.
(c) Refers to incremental costs incurred to execute and integrate completed acquisitions.
(d) Refers to a non-cash charge related to the amortization expense of the step-up of inventory from purchase price accounting.
(e) Refers to non-cash expense associated with unit-based compensation.
(f) Refers to cash fees paid to GTCR, pursuant to the advisory services agreement that will terminate in connection with this offering.
(g) Refers to diligence, legal, accounting, tax and consulting fees incurred associated with an acquisition that was not consummated.

Adjusted Free Cash Flow

Adjusted Free Cash Flow, which is a non-GAAP measure that we define as Adjusted EBITDA less capital expenditures, is set forth below (in thousands):

	Year Ended December 31,	
	2018	2019
Adjusted EBITDA	$ 53,000	$ 62,014
Capital expenditures[a]	$ (3,807)	$ (19,913)
Adjusted Free Cash Flow	$ 49,193	$ 42,101

(a) We define capital expenditures as purchases of property and equipment and intangible assets, including patents, which are included in cash flows from investing activities, and accounts payable and accrued expenses.

Costs of Revenue

	Year ended December 31,		Change		Percentage of Revenue	
in thousands	2018	2019	$	%	2018	2019
Cost of revenue	$60,765	$66,849	$6,084	10.0%	49.1%	46.7%

Cost of revenue increased by $6.0 million from $60.8 million for the year ended December 31, 2018 to $66.8 million for the year ended December 31, 2019, or 10.0%. The increase in cost of revenue was primarily attributable to increases in direct product costs, personnel costs, and supplies and materials costs, as margins were generally consistent.

Research and Development

	Year ended December 31,		Change		Percentage of Revenue	
in thousands	2018	2019	$	%	2018	2019
Research and development	$4,499	$3,627	$(872)	(19.4%)	3.6%	2.5%

Research and development expenses decreased by $0.9 million from $4.5 million for the year ended December 31, 2018 compared to $3.6 million for the year ended December 31, 2019, or 19.4%. The decrease was primarily attributable to a $0.6 million decrease in personnel costs due to a reduction in headcount and a $0.3 million decrease in facilities and information technology allocation.

Selling, General and Administrative

	Year ended December 31,		Change		Percentage of Revenue	
in thousands	2018	2019	$	%	2018	2019
Selling, general and administrative	$41,194	$48,354	$7,160	17.4%	33.3%	33.8%

Selling, general and administrative expenses were $41.2 million for the year ended December 31, 2018 compared to $48.4 million for the year ended December 31, 2019, representing an increase of $7.2 million, or 17.4%. The increase was due to a $2.5 million increase in personnel costs as we increased our headcount, a $0.9 million increase in facility and information technology costs to support our increased headcount, a $2.4 million increase in reimbursable expenses passed through from GTCR associated with certain business development activities (See “Related Party Transactions”) offset partially by a decrease in professional services costs of $1.1 million. Professional services in 2018 included nonrecurring noncapitalized costs in connection with our debt refinancing and with certain system implementations.

Other Income (Expense)

in thousands	Year ended December 31, 2018	Year ended December 31, 2019	Change $	Change %	Percentage of Revenue 2018	Percentage of Revenue 2019
Other income (expense)						
Interest expense	$(27,399)	$(29,959)	$(2,560)	9.3%	(22.1%)	(20.9%)
Loss on extinguishment of debt	(5,622)	—	5,622	(100.0%)	(4.5%)	0.0%
Other income	87	118	31	35.6%	0.1%	0.1%
Total other income (expense)	$(32,934)	$(29,841)	$ 3,093	(9.4%)	(26.6%)	(20.8%)

Other income (expense) was $32.9 million for the year ended December 31, 2018 compared to $29.8 million for the year ended December 31, 2019, representing a decrease of $3.1 million, or 9.4%. The decrease was primarily attributable due to a $2.6 million increase in interest expense offset by a non-recurring loss on extinguishment of debt of $5.6 million recorded for the year ended December 31, 2018 in connection with the entry into the First Lien Credit Agreement and Second Lien Credit Agreement to refinance existing indebtedness.

Relationship with Our Sponsor

We have utilized GTCR, who upon completion of this offering will control the vote of all matters submitted to a vote of our shareholders, for certain services pursuant to an advisory services agreement. Under this agreement, GTCR provides us with financial and management consulting services in the areas of corporate strategy, budgeting for future corporate investments, acquisition and divestiture strategies and debt and equity financings. The advisory services agreement provides that we pay a $0.1 million quarterly management fee to GTCR for these services. We also reimburse GTCR for out-of-pocket expenses incurred while providing these services. The advisory services agreement also provides that certain of our subsidiaries pay placement fees to GTCR of 1.0% of the gross amount of debt or equity financings. The advisory services agreement will terminate in connection with this offering.

We paid GTCR $0.6 million in each of the years ended December 31, 2018 and 2019 for services in connection with the advisory services agreement. Following this offering, we may continue to engage GTCR from time to time, subject to compliance with our related party transactions policy.

During the year ended December 31, 2018, $52.0 million of capital distributions were made to the Class A unit holders of MLSC Holdings, LLC, including GTCR. No distributions were made to the Class A unit holders of MLSC Holdings, LLC during the year ended December 31, 2019.

Liquidity and Capital Resources

Overview

We have experienced losses in each fiscal year since our inception. However, we had positive cash flows from operations for the year ended December 31, 2019. For the year ended December 31, 2019, we had a consolidated net loss of $5.2 million and had an accumulated deficit of $42.4 million as of December 31, 2019.

We have relied on revenue derived from product and services sales and equity and debt financings to fund our operations to date, including our most recent $310.6 million refinancing of our 2017 Combined Debt Agreements (see Note 7 to the Consolidated Financial Statements) in 2018 which was used to repay our legacy credit facility, senior subordinated notes and term loan and make a $52.0 million distribution to our member. As of December 31, 2018, we had cash of $21.9 million and an accumulated deficit of $38.2 million as compared to cash of $24.7 million and $42.4 million of accumulated deficit as of December 31, 2019.

Our principal uses of cash have been to fund operations, acquisitions and capital expenditures, as well as make distributions to our member, interest payments and mandatory principal payments on our long-term debt.

Based on our current business plan, we believe the net proceeds from this offering, together with our existing cash and anticipated cash flows from operations will be sufficient to meet our working capital and capital expenditure needs over at least the next 12 months following the date of this prospectus.

We plan to utilize our existing cash on hand, together with cash generated from operations, primarily to fund our commercial and marketing activities associated with our products and services, continued research and development initiatives, and ongoing investments into our manufacturing facilities to create efficiencies and build capacity.

To the extent revenue from sales in our three business segments continue to grow, we expect our accounts receivable and inventory balances to increase. Any increase in accounts receivable and inventory may not be completely offset by increases in accounts payable and accrued expenses, which could result in greater working capital requirements. Moreover, following the closing of this offering, we expect to incur additional costs associated with operating as a public company, including expenses related to legal, accounting, regulatory, exchange listing and SEC compliance matters.

Our future capital requirements will depend on many factors including, but not limited to, our ability to successfully develop and launch new products and services, and to achieve a level of sales adequate to support our cost structure. If we are unable to execute on our business plan and adequately fund operations, or if the business plan requires a level of spending in excess of cash resources, we may seek additional equity, equity-linked or debt financing. If additional financings are required from outside sources, we may not be able to raise additional capital on terms acceptable to us or at all. If we are unable to raise additional capital when desired, our business, financial condition, results of operations and prospects could be adversely affected.

As a result of its ownership of LLC Units in Topco LLC, Maravai LifeSciences Holdings, Inc. will become subject to U.S. federal, state and local income taxes with respect to its allocable share of any taxable income of Topco LLC and will be taxed at the prevailing corporate tax rates. In addition to tax expenses, we also will incur expenses related to our operations and we will be required to make payments under the Tax Receivable Agreement with MLSH 1 and MLSH 2. Due to the uncertainty of various factors, we cannot precisely quantify the likely tax benefits we will realize as a result of LLC Unit exchanges and the resulting amounts we are likely to pay out to LLC Unitholders pursuant to the Tax Receivable Agreement; however, we estimate that such payments may be substantial. Assuming no changes in the relevant tax law, and that we earn sufficient taxable income to realize all tax benefits that are subject to the Tax Receivable Agreement, we expect that future payments under the Tax Receivable Agreement relating to the purchase by Maravai LifeSciences Holdings, Inc. of LLC Units from MLSH 1 in connection with this offering to be approximately $ million (or approximately $ million if the underwriters exercise their option to purchase additional shares, the proceeds of which will be used by Maravai LifeSciences Holdings, Inc. to acquire additional LLC Units from MLSH 1) and to range over the next 15 years from approximately $ million to $ million per year (or range from approximately $ million to $ million per year if the underwriters exercise their option to purchase additional shares) and decline thereafter. As a result, we expect that aggregate payments under the Tax Receivable Agreement over this 15-year period will range from approximately $ million to $ million (or range from approximately $ million to $ million if the underwriters exercise their option to purchase additional shares). These estimates are based on an initial public offering price of $ per share of Class A common stock, which is the midpoint of the estimated public offering price range set forth on the cover page of this prospectus. Future payments in respect of subsequent exchanges or financings would be in addition to these amounts and are expected to be substantial. The foregoing numbers are merely estimates and the actual payments could differ materially. We expect to fund these payments using cash on hand and cash generated from operations. See “Organizational Structure—Amended and Restated Operating Agreement of Topco LLC” and “Organizational Structure—Tax Receivable Agreement.”

Sources of Liquidity

Since our inception, we have financed our operations primarily from the issuance of capital units, borrowings under long-term debt agreements and, to a lesser extent, cash flow from operations.

First and Second Lien Credit Agreement

In August of 2018, Maravai Intermediate Holdings, LLC ("Intermediate"), a wholly-owned subsidiary of ours, along with its subsidiaries Vector Laboratories, TriLink BioTechnologies and Cygnus Technologies (the "Borrowers") entered into a First Lien Credit Agreement with lending institutions for term-loan borrowings (the "First Lien Term Loan") totaling $250.0 million and a Second Lien Credit Agreement for term loan borrowings (the "Second Lien Loan") totaling $100.0 million, to refinance a combined debt agreement entered into in 2017, including repayment of all outstanding senior secured credit facilities and senior subordinated notes outstanding and to allow for a $52.0 million distribution to our members. The First Lien Credit Agreement also provided for a revolving credit facility (the "Revolving Credit Facility") of $50.0 million for letters of credit and loans to be used for working capital and other general corporate financing purposes. Borrowings under the First Lien Credit Agreement and the Second Lien Credit Agreement are unconditionally guaranteed by Topco LLC, a wholly owned subsidiary of ours, along with the existing and future material domestic subsidiaries of Topco LLC (subject to certain exceptions) as specified in the respective guaranty agreements, and are secured by a lien and security interest in substantially all of the assets of existing and future material domestic subsidiaries of Topco LLC that are loan parties.

The First Lien Term Loan became repayable in quarterly payments of $0.6 million beginning December 31, 2018 and will remain repayable through June 30, 2025, with all remaining outstanding principal due on August 2, 2025. The First Lien Term Loan includes prepayment provisions that allow the Borrowers, at their option, to repay all or a portion of the principal amount at any time. The Revolving Credit Facility allows the Borrowers to repay and borrow from time to time until August 2023, at which time all amounts borrowed must be repaid. Subject to certain exceptions and limitations, we are required to repay borrowings under the First Lien Term Loan and Revolving Credit Facility with the proceeds of certain occurrences, such as the incurrence of debt, certain equity contributions, and certain asset sales or dispositions.

Borrowings under the First Lien Credit Agreement bear interest (a) in the case of the First Lien Term Loans, at the Borrowers' option either at (i) the Base Rate plus the applicable margin of 3.25% per annum or (ii) the Adjusted Eurocurrency Rate plus the margin of 4.25% per annum and (b) in the case of the Revolving Credit Facility, at the Borrowers' option, either at (i) the Base Rate plus the applicable margin of 3.25% per annum with a stepdown to 3.00% based on Intermediate's first lien net leverage ratio or (ii) the Adjusted Eurocurrency Rate plus the margin of 4.25% per annum with a stepdown to 4.00% based on Intermediate's first lien net leverage ratio. The Base Rate is defined as the greatest of (i) the rate last quoted by The Wall Street Journal as the "Prime Rate" in the United States, (ii) the Federal Funds Rate plus 0.50% per annum, (iii) the Adjusted Eurocurrency Rate for a one month interest period plus 1.00% per annum, (iv) solely with respect to the initial term loans, 2.00% per annum and (v) for any loans that are not initial term loans, 1.00% per annum. The "Adjusted Eurocurrency Rate" is defined as the greater of (a) with respect to the initial term loans the greater of (i) the Eurocurrency Rate for such interest period multiplied by the Statutory Reserve Rate (as such term is defined in the First Lien Credit Agreement), and (ii) 1.00% and (b) with respect to the Revolving Credit Facility, the Eurocurrency Rate for such interest period (which if negative will be deemed to be 0.00%) multiplied by the Statutory Reserve Rate. The "Eurocurrency Rate" is defined as the London Inter-bank Offered Rate ("LIBOR") as displayed by Reuters (which if negative will be deemed to be 0.00%).

As of December 31, 2018 and 2019, the interest rate on the First Lien Term Loan was 6.8125% and 6.0625%, respectively.

Accrued interest under the First Lien Credit Agreement is payable (a) quarterly in arrears with respect to Base Rate loans, (b) at the end of each interest rate period (or at each three-month interval in the case of loans

with interest periods greater than three months) with respect to Eurocurrency Rate loans, (c) on the date of any repayment or prepayment and (d) at maturity (whether by acceleration or otherwise). An annual commitment fee is applied to the daily unutilized amount under the Revolving Credit Facility at 0.50% per annum, with one stepdown to 0.375% per annum based on Intermediate's first lien net leverage ratio.

The Second Lien Credit Agreement includes voluntary prepayment provisions that allow the Borrowers, at their option, to repay all or a portion of the principal amount of the notes.

Borrowings under the Second Lien Credit Agreement bear interest, at the Borrowers' option, either at (a) the Base Rate plus the applicable margin of 7.00% per annum or (b) the Adjusted Eurocurrency Rate plus the margin of 8.00% per annum. The "Base Rate" is defined as the greatest of (i) the rate last quoted by The Wall Street Journal as the "Prime Rate" in the United States, (ii) the Federal Funds Rate plus 0.50% per annum, (iii) the Adjusted Eurocurrency Rate for a one month interest period plus 1% per annum, (iv) solely with respect to the initial term loans, 2.00% per annum and (v) for any loans that are not initial term loans, 1.00% per annum. The "Adjusted Eurocurrency Rate" is defined as (a) with respect to the initial term loans the greater of (i) the Eurocurrency Rate for such interest period multiplied by the Statutory Reserve Rate, and (ii) 1.00% and (b) with respect to the Revolving Credit Facility, the Eurocurrency Rate for such interest period (which if negative will be deemed to be 0%) multiplied by the Statutory Reserve Rate. The "Eurocurrency Rate" is defined as the London Inter-bank Offered Rate ("LIBOR") as displayed by Reuters (which if negative will be deemed to be 0%).

As of December 31, 2018 and 2019, the interest rate on the Second Lien Loan was 10.37888% and 9.73975%, respectively.

Accrued interest under the Second Lien Credit Agreement is payable (a) quarterly in arrears with respect to Base Rate loans, (b) at the end of each interest rate period (or at each three-month interval in the case of loans with interest periods greater than three months) with respect to Eurocurrency Rate Loans, (c) the date of any repayment or prepayment, and (d) at maturity (whether by acceleration or otherwise).

Debt Covenants

The First Lien Credit Agreement includes a financial covenant that requires that, if as of the end of any fiscal quarter the aggregate amount of letters of credit obligations and borrowings under the Revolving Credit Facility outstanding as of the end of such fiscal quarter (excluding cash collateralized letters of credit obligations and letter of credit obligations in an aggregate amount not in excess of $3.8 million at any time outstanding) exceed 35% of the aggregate amount of all Revolving Credit Commitments in effect as of such date, then the net leverage ratio of Intermediate shall not be greater than 7.50 to 1.00.

The First Lien Credit Agreement and Second Lien Credit Agreement also contain negative and affirmative covenants in addition to the financial covenant in the First Lien Credit Agreement, including covenants that restrict our ability to, among other things, incur or prepay certain indebtedness, pay dividends or distributions, dispose of assets, engage in mergers and consolidations, make acquisitions or other investments, and make changes in the nature of the business. The First Lien Credit Agreement and Second Lien Credit Agreement contain certain objective events of default, including, without limitation, nonpayment of principal, interest or other obligations, violation of the covenants, insolvency, court ordered judgments, and change of control. The First Lien Credit Agreement and Second Lien Credit Agreement also require Intermediate to provide audited consolidated financial statements to the lenders no later than 120 days after year-end.

The First Lien Credit Agreement also requires mandatory prepayments upon certain excess cash flow, subject to certain step-downs and threshold levels as defined and set forth in the terms of the First Lien Credit Agreement to commence with the fiscal year ending December 31, 2019. As of December 31, 2019, the terms of the excess cash flow prepayment provisions did not require any mandatory prepayment.

The Borrowers were in compliance with all of their covenants under the First Lien Credit Agreement and Second Lien Credit Agreement as of December 31, 2018 and 2019 and there were no events of default for the years ended December 31, 2019.

Interest Rate Cap Agreements

As of December 31, 2018 and 2019, we held four interest rate cap agreements with a financial institution to manage our variable interest rate risk on a portion of our borrowings under the First Lien Credit Agreement and Second Lien Credit Agreement. As of December 31, 2018 and 2019, the fair value and change in fair value of these interest rate cap agreements was not material.

Cash Flows

The following table summarizes our cash flows for the periods presented:

	Year Ended December 31,	
(in thousands)	**2018**	**2019**
Net cash (used in) provided by:		
Operating activities	$ (186)	$ 24,115
Investing activities	(3,451)	(17,148)
Financing activities	(9,167)	(4,167)
Effects of exchange rate changes on cash	(69)	34
Net (decrease) increase in cash	$ (12,873)	$ 2,834

Operating Activities

Net cash provided by operating activities for the year ended December 31, 2019 was $24.1 million, which was primarily attributable to a net loss of $5.2 million, non-cash depreciation and amortization of $24.1 million, non-cash amortization of deferred financing costs of $1.7 million, non-cash unit-based compensation of $1.7 million, a net cash inflow from the change in our operating assets and liabilities of $2.3 million, partially offset by a decrease in deferred income taxes of $1.2 million. The net change in our operating assets and liabilities reflects a decrease in accounts receivable of $1.9 million, a decrease in prepaid expenses and other current assets of $2.0 million, offset by an increase in accounts payable and accrued liabilities of $6.0 million.

Net cash used in operating activities for the year ended December 31, 2018 was $0.2 million, which was primarily attributable to a net loss of $16.9 millionnon-cash depreciation and amortization of $22.3 million, non-cash amortization of deferred financing costs of $1.5 million, non-cash unit-based compensation of $2.1 million, non-cash loss on debt refinancing of $5.6 million, an increase in deferred income taxes of $0.3 million, partially offset by a net cash outflow from the change in our operating assets and liabilities of $15.8 million. The net change in our operating assets and liabilities reflects a decrease of approximately $15.9 million, which was primarily attributable to the payment of an earn-out liability associated with the compensatory cost of a legacy acquisition of a business of $14.5 million.

Investing Activities

Net cash used in investing activities for the year ended December 31, 2019 was $17.1 million, which was primarily attributable to purchases of property and equipment of $17.1 million due to higher capital expenditures related to the buildout of our manufacturing facility in San Diego, California.

Net cash used in investing activities for the year ended December 31, 2018 was $3.5 million, primarily attributable to purchases of property and equipment of $3.5 million.

Financing Activities

Net cash used in financing activities for the year ended December 31, 2019 was $4.2 million, which was primarily attributable to principal repayments of long-term debt of $2.5 million and payment of contingent consideration of $1.3 million.

Net cash used in financing activities for the year ended December 31, 2018 was $9.2 million, which was primarily attributable to net proceeds of $310.6 million from long term debt borrowings offset by the repayment of the previous long term debt agreement of $255.0 million, a distribution to our member of $52.1 million, financing costs incurred of $6.7 million, and payment of contingent consideration of $5.8 million.

Contractual Obligations and Commitments

The following table summarizes our contractual obligations and commitments as of December 31, 2019:

	Payments due by period				
(in thousands)	Total	Less than 1 year	1 to 3 Years	3 to 5 Years	More than 5 years
Capital lease commitments(1)	$ 148	$ 74	$ 73	$ 1	$ —
Lease facility financing obligations(2)	44,105	2,116	7,954	8,880	25,155
Operating leases(3)	11,390	1,130	2,244	2,437	5,579
Debt obligations(4)	346,875	2,500	5,000	5,000	334,375
Total	$ 402,518	$ 5,820	$ 15,271	$ 16,318	$ 365,109

(1) Represents capital lease commitments. See Note 6 of Notes to Consolidated Financial Statements.
(2) Represents lease facility financing obligations. See Note 6 of Notes to Consolidated Financial Statements.
(3) Represents operating leases including the ground lease for our San Diego Facility and Southport Facility. See Note 6 of Notes to Consolidated Financial Statements.
(4) Represents long-term debt principal maturities, excluding interest. See Note 7 of Notes to Consolidated Financial Statements.

The First Lien Credit Agreement requires mandatory prepayments upon certain excess cash flow, subject to certain step-downs and threshold levels as defined and set forth in the terms of the First Lien Credit Agreement, to commence with the fiscal year ending December 31, 2019. As of December 31, 2019, the terms of the excess cash flow prepayment provisions did not require any mandatory prepayment.

Off-Balance Sheet Arrangements

As of December 31, 2019, we did not have any relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes.

Qualitative and Quantitative Disclosures About Market Risk

Interest Rate Risk

Our primary exposure to interest rate risk is associated with our variable rate long-term debt. The First Lien Credit Agreement and Second Lien Credit Agreement bear interest subject to the Base Rate or the Adjusted Eurocurrency Rate. Interest rates can fluctuate for a number of reasons, including changes in the fiscal and monetary policies or geopolitical events or changes in general economic conditions. This could adversely affect our cash flows. We seek to manage these risks through interest rate cap agreements.

As of December 31, 2018 and 2019, we had four interest rate cap agreements with a financial institution to manage our variable interest rate risk on a portion of our credit borrowings under the First Lien Credit Agreement and Second Lien Credit Agreement.

We had $337.3 million of outstanding borrowings under our long-term debt facilities as of December 31, 2019. During the years ended December 31, 2018 and, 2019, the effect of a hypothetical 100 basis point increase or decrease in overall interest rates would have changed our interest expense by approximately $3.2 million and $3.5 million, respectively, in each year.

We had cash of $21.9 million and $24.7 million as of December 31, 2018 and 2019, respectively. Our cash is held in cash demand deposits and are not subject to market risk.

Foreign Currency Risk

The majority of our revenue is denominated in U.S. dollars; however, approximately 40% and 41% of our revenue was derived from international sales in the years ended December 31, 2018 and 2019, respectively, primarily in Europe and Asia Pacific. However, only our sales in the United Kingdom are denominated in local currency. Our remaining international sales are denominated in the U.S. dollar. Our expenses are generally denominated in the currencies in which they are incurred, which is primarily in the United States and, to a lesser extent, the United Kingdom. As we expand our presence in international markets, to the extent we are required to enter into agreements denominated in a currency other than the U.S. dollar, results of operations and cash flows may increasingly be subject to fluctuations due to changes in foreign currency exchange rates and may be adversely affected in the future due to changes in foreign exchange rates. To date, we have not entered into any hedging arrangements with respect to foreign currency risk. As our international operations grow, we will continue to reassess our approach to manage our risk relating to fluctuations in currency rates.

Critical Accounting Policies and Estimates

We have prepared our consolidated financial statements in accordance with GAAP. Our preparation of these financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue, expenses and related disclosures in the consolidated financial statements. Our estimates are based on historical experience and on various other assumptions that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results could differ from these estimates under different assumptions or conditions and any such difference may be material.

While our significant accounting policies are described in more detail in Note 1 to our consolidated financial statements appearing elsewhere in this prospectus, we believe the following discussion addresses our most critical accounting policies, which are those that are most important to our financial condition and results of operations and require our subjective and complex judgments and estimates used in the preparation of our consolidated financial statements.

Revenue Recognition

We recognize revenue primarily from the sale of manufactured products, including products that can be purchased out of a catalogue and custom manufactured products, and the performance of services, including custom antibody and assay development contracts, antibody affinity extraction and stability and feasibility studies, which often result in the generation of report deliverables. We also have certain licensing and royalty arrangements. Our customers are primarily life science research pharmaceutical and biotechnology companies. We also sell to global and regional distribution partners and original equipment manufacturer (“OEM”) customers who incorporate our products into their products under their own brands.

We adopted the requirements of Accounting Standards Codification ("ASC") 606, *Revenue from Contracts with Customers* ("ASC 606"), effective January 1, 2019 using the modified retrospective method. Under the modified retrospective method, this guidance is applied to those contracts that were not completed as of January 1, 2019, with no restatement of contracts that were commenced and completed within fiscal years prior to January 1, 2019, and the prior period comparable financial information continues to be presented under the guidance of ASC 605, *Revenue Recognition* ("ASC 605"). The adoption of ASC 606 resulted in a cumulative effect adjustment of $0.3 million to reduce the opening accumulated deficit as of January 1, 2019. This adjustment primarily related to over-time recognition of revenue and associated costs for certain products for which revenue had previously been deferred and recognized at a point in time.

Under ASC 606, revenue is recognized when control of promised goods or services is transferred to a customer in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. To determine revenue recognition for our arrangements with customers, we perform the following five steps: (i) identify the contract(s) with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenue when (or as) the entity satisfies a performance obligation. The majority of our contracts include only one performance obligation. A performance obligation is a promise in a contract to transfer a distinct good or service to the customer and is defined as the unit of account for revenue recognition under ASC 606. We also recognize revenue from other contracts that may include a combination of products and services, the provision of solely services, or from license fee arrangements which may be associated with the delivery of product. Where there is a combination of products and services, we account for the promises as individual performance obligations if they are concluded to be distinct. Performance obligations are considered distinct if they are both capable of being distinct and distinct within the context of the contract. In determining whether performance obligations meet the criteria for being distinct, we consider a number of factors, such as the degree of interrelation and interdependence between obligations, and whether or not the good or service significantly modifies or transforms another good or service in the contract. As a practical expedient, we do not adjust the transaction price for the effects of a significant financing component if, at contract inception, the period between customer payment and the transfer of goods or services is expected to be one year or less. Contracts with customers are evaluated on a contract-by-contract basis as contracts may include multiple types of goods and services as described below.

Nucleic Acid Production

Nucleic acid production revenue is generated from the manufacture and sale of highly modified, complex nucleic acids products to support the needs of our customers' research, therapeutic and vaccine programs. The primary offering of products include: CleanCap®, mRNA and oligonucleotide contracts typically consist of a single performance obligation. We also sell nucleic acid products for labeling and detecting proteins in cells and tissue samples research. We recognize revenue from these products in the period in which the performance obligation is satisfied by transferring control to the customer. Revenue for nucleic acid catalog products is recognized at a point in time, generally upon shipment to the customer. Revenue for contracts for certain custom nucleic acid products, with an enforceable right to payment and a reasonable margin for work performed to date, is recognized over time, based on a cost-to-cost input method over the manufacturing period.

Biologics Safety Testing

Our biologics safety testing revenue is associated with the sale of bioprocess impurity detection kit products. We also enter into contracts that include custom antibody development, assay development and antibody affinity extraction services. These products and services enable the detection of impurities and contaminants that occur in the manufacturing of biologic drugs and other therapeutics. We recognize revenue from the sale of bioprocess impurity detection kits in the period in which the performance obligation is satisfied by transferring control to the customer. Custom antibody development contracts consist of a single performance obligation, typically with an enforceable right to payment and a reasonable margin for work performed to date. Revenue is recognized

utilizing a cost-based input method over the term of the contract. Where an enforceable right to payment does not exist, revenue is recognized at a point in time when control is transferred to the customer. Assay development service contracts, which generally occur over a short period of time and consist of a single performance obligation, revenue is recognized at a point in time when a successful antigen test and report is provided to the customer. Affinity extraction services consist of a single performance obligation to perform the extraction service and provide a summary report to the customer. Revenue is recognized either over time or at a point in time depending on contractual payment terms with the customer.

Protein Detection

We also manufacture and sell protein labeling and detection reagents used by researchers in protein labeling and detection. The contracts to sell these catalog products consist of a single performance obligation to deliver the reagent products. Revenue from these contracts is recognized at a point in time, generally upon shipment of the product to the customer.

We recognize royalty revenue related to certain out-licensing and royalty arrangements in the period the sales or usage occur using third-party evidence to estimate the amount to be recorded. To date this revenue has not been material to the consolidated financial statements.

We have elected the practical expedient to not disclose the unfulfilled performance obligations for contracts with an original length of one year or less. We had no material unfulfilled performance obligations for contracts with an original length greater than one year as of December 31, 2019.

We accept returns only if the products do not meet customer specifications and historically, our volume of product returns has not been significant. Further, no warranties are provided for promised goods and services other than assurance type warranties.

Revenue for an individual contract is recognized at the related transaction price, which is the amount we expect to be entitled to in exchange for transferring the products and/or services. The transaction price for product sales, which excludes sales taxes we collect, is calculated at the contracted product selling price. The transaction price for a contract with multiple performance obligations is allocated to the separate performance obligations on a relative standalone selling price basis. Standalone selling prices for products are determined based on the prices charged to customers, which are directly observable. Standalone selling price of services are mostly based on time and materials. Generally, payments from customers are due when goods and services are transferred. As most contracts contain a single performance obligation, the transaction price is representative of the standalone selling price charged to customers. Revenue is recognized only to the extent that it is probable that a significant reversal of the cumulative amount recognized will not occur in future periods. Since the adoption of ASC 606, variable consideration has not been material. For arrangements where the anticipated period between timing of transfer of goods and services and the timing of payment is one year or less, we have elected to not assess whether a significant financing component exists.

We have elected to account for shipping and handling activities related to contracts with customers as costs to fulfill the promise to transfer the associated products. Accordingly, revenue for shipping and handling is recognized at the same time that the related product revenue is recognized.

Contract assets are generated when contractual billing schedules differ from revenue recognition timing and we record contract receivable when it has an unconditional right to consideration. Contract liabilities are recorded when cash payments are received or due in advance of performance.

Applying the practical expedient, we recognize the incremental costs of obtaining contracts as an expense when incurred when the amortization period of the assets that otherwise would have been recognized is one year or less. These costs are included in sales and marketing and general and administrative expenses. The costs to fulfill the contracts are determined to be immaterial and are recognized as an expense when incurred.

Prior to January 1, 2019, revenue from the sale of products and services was recognized when all of the following conditions per ASC 605*Revenue Recognition* were met: (1) there was persuasive evidence of an arrangement; (2) the product or service had been delivered to the customer; (3) the collection of the fees was reasonably assured; and (4) the amount of fees to be paid by the customer was fixed or determinable.

When an arrangement involved multiple elements, the multiple elements, referred to as deliverables, were evaluated to determine whether they represent separate units of accounting in accordance with ASC 605-25, *Revenue Recognition—Multiple-Element Arrangements*. We performed this evaluation at the inception of an arrangement and as each item was delivered in the arrangement. Generally, we accounted for a deliverable separately if the delivered item has standalone value to the customer and delivery or performance of the undelivered item or service was probable and substantially in our control.

When multiple elements could be separated into separate units of accounting, arrangement consideration was allocated at the inception of the arrangement, based on each unit's relative selling price, and recognized based on the method most appropriate for that unit.

Inventory

Our inventories consist of raw materials, work in process and finished goods. Inventories are stated at the lower of cost (weighted average cost) or net realizable value. Inventory costs include materials, direct labor and manufacturing overhead, which are related to the purchase or production of inventories. We review our inventory at least quarterly for excess and obsolete inventory based on our estimates of expected sales volumes, production capacity and expiration of raw materials, work-in-process and finished products. Expected sales volumes are determined based on internal sales forecasts that consider both historical and projected sales. We write down inventory that has become obsolete, inventory that has a cost basis in excess of its expected net realizable value, and inventory in excess of expected manufacturing requirements. Any write-downs of inventories are charged to cost of revenue.

A change in the estimated timing or amount of demand for our products could result in additional provisions for excess inventory quantities on hand. Any significant unanticipated changes in demand or unexpected quality failures could have a significant impact on the value of inventory and reported operating results. During all periods presented in the accompanying consolidated financial statements, there have been no material adjustments related to a revised estimate of inventory valuations.

Goodwill

Goodwill represents the excess of consideration transferred over the estimated fair value of assets acquired and liabilities assumed in a business combination. We conduct a goodwill impairment analysis in the fourth quarter of each year, and more frequently if changes in facts and circumstances indicate that the fair value of our reporting units may be less than carrying amount. To analyze goodwill for impairment, we must assign our goodwill to individual reporting units. Identification of reporting units includes an analysis of the components that comprise each of our operating segments, which considers, among other things, the manner in which we operate our business and the availability of discrete financial information. Components of an operating segment are aggregated to form one reporting unit if the components have similar economic characteristics. We periodically review our reporting units to ensure that they continue to reflect the manner in which we operate our business.

Accounting guidance also permits an optional qualitative assessment for goodwill on a reporting unit by reporting unit basis to determine whether it is more likely than not that the carrying value of a reporting unit exceeds its fair value. If, after this qualitative assessment, we determine that it is not more likely than not that the fair value of a reporting unit is less than its carrying amount, then no further quantitative testing would be necessary. A quantitative assessment is performed if the qualitative assessment results in a more likely than not

determination or if a qualitative assessment is not performed. The quantitative assessment considers whether the carrying amount of a reporting unit exceeds its fair value, in which case an impairment charge is recorded to the extent the reporting unit's carrying value exceeds its fair value.

As of December 31, 2018 and 2019, we concluded that we operated as three reporting units and elected to perform a qualitative impairment test for our nucleic acid production and biologics safety testing reporting units and a quantitative impairment test for our protein detection reporting unit. The qualitative impairment test was elected for the nucleic acid production and biologics safety testing reporting units because of the growth in revenue and cash flows in excess of our initial projections and the quantitative impairment test was elected for the protein detection reporting unit as a result of lowering forecasted growth projections. The fair value of the protein detection reporting unit was determined using both an income approach and market approach. The income approach is a valuation technique under which we estimated future cash flows using the protein detection reporting unit's financial forecast from the perspective of an unrelated market participant. Using historical trending and internal forecasting techniques, we projected revenue and applied our fixed and variable cost experience rates to the projected revenue to arrive at the future cash flows. A terminal value was then applied to the projected cash flow stream. Future estimated cash flows were discounted to their present value to calculate the estimated fair value. The discount rate used was the value-weighted average of our estimated cost of capital derived using both known and estimated customary market metrics. In determining the estimated fair value of the protein detection reporting unit, we were required to estimate a number of factors, including projected operating results, terminal growth rates, economic conditions, anticipated future cash flows, the discount rate and the allocation of shared or corporate items. Our market approach model estimates the fair value of the protein detection reporting unit based on market prices paid in actual precedent transactions of similar businesses and market multiples of guideline public companies. This impairment assessment is sensitive to changes in forecasted cash flows, as well as our selected discount rate. Changes in the protein detection reporting unit's results, forecast assumptions and estimates could materially affect the estimation of its fair value.

As a result of our 2018 and 2019 qualitative and quantitative assessments, we concluded that goodwill was not impaired as of December 31, 2018 or 2019.

Valuation of Intangible Assets

In conjunction with our business combinations, we have recorded intangible assets primarily consisting of trade names, customer relationships, patents, and developed technology. Certain criteria are used in determining whether intangible assets acquired in a business combination must be recognized and reported separately. Finite-lived intangible assets are initially recognized at fair value, are subject to amortization and are subsequently stated at amortized cost. Our finite-lived intangible assets are amortized using a method that reflects the pattern in which the economic benefits of the intangible assets are consumed or otherwise used. If that pattern cannot be reliably determined, the intangible assets are amortized using the straight-line method over their estimated useful lives.

We periodically review our finite-lived intangible assets, to determine whether current events or circumstances indicate that such carrying amounts may not be recoverable. If such facts or circumstances are determined to exist, an estimate of the undiscounted future cash flows of these assets is compared to the carrying value the assets to determine whether impairment exists. If the assets are determined to be impaired, the loss is measured based on the difference between the fair value and carrying value of the assets. No impairment loss was recognized for finite-lived intangible assets during the years ended either December 31, 2018 or 2019.

Leases, Deferred Rent and Lease Facility Financing Accounting

We rent our office space and facilities under non-cancelable operating lease agreements and recognize related rent expense on a straight-line basis over the term of the lease. Our lease agreements contain rent holidays, scheduled rent increases and renewal options. Rent holidays and scheduled rent increases are included in the determination of rent expense to be recorded ratably over the lease term. We do not assume renewals in its

determination of the lease term unless they are deemed to be reasonably assured at the inception of the lease. We begin recognizing rent expense on the date that we obtain the legal right to use and control the leased space. Deferred rent consists of the difference between cash payments and the recognition of rent expense on a straight-line basis for the buildings we occupy.

Funding of leasehold improvements by our landlord is accounted for as a tenant improvement allowance and recorded as current and non-current deferred rent liabilities and amortized on a straight-line basis as a reduction of rent expense over the term of the lease.

In certain arrangements, we are involved in the construction of improvements to buildings we are leasing. To the extent we are involved with the structural improvements of the construction project or take construction risk, we are considered to be the owner of the building and related improvements for accounting purposes during the construction period. Therefore, we record the fair value of the building subject to the lease within property and equipment on the balance sheet, plus the amount of building improvements incurred and funded by us and/or the landlord as of the balance sheet date. We also record a corresponding lease financing obligation on our balance sheet representing the amounts financed by the lessor for the building and lessor financed improvements. Lessor financed improvement incentives due but not yet received are recorded as prepaid expense and other current assets on the balance sheet.

Once construction is completed, we consider the requirements for sale-leaseback accounting treatment, including evaluating whether all risks of ownership have been transferred back to the landlord, as evidenced by a lack of our continuing involvement in the leased property. If we conclude the arrangement does not qualify for sale-leaseback accounting treatment, the building and improvements remain on our balance sheet and are subject to depreciation and assessment of impairment. We bifurcate our lease payments into a portion allocated to the lease financing obligation and a portion allocated to the parcel of land on which the building has been built. The portion of the lease payments allocated to the land is treated for accounting purposes as operating lease payments, and therefore is recorded as rent expense in the consolidated statements of operations and comprehensive loss. The portion of the lease payments allocated to the lease financing obligation is further bifurcated into a portion allocated to interest expense and a portion allocated to reduce the lease financing obligation.

The interest rate used for the lease financing obligation represents our estimated incremental borrowing rate at the inception of the lease, adjusted to reduce any built-in loss. The initial recording of these assets and liabilities is classified as non-cash investing and financing items, respectively, for purpose of the consolidated statements of cash flows.

The most significant estimates used by us in accounting for the lease financing transaction and the impact of these estimates are as follows:

- *Incremental borrowing rate*. We estimate our incremental borrowing rate as the rate we would have incurred to borrow, based on our credit quality at the inception of the lease over a similar term, the funds necessary to purchase the leased building subject to the financing lease transaction. The incremental borrowing rate is used in determining allocating our rental payments between interest expense and a reduction of the outstanding lease financing obligation.
- *Land capitalization rate.* The land capitalization rate is the rate of return on the land underlying the lease properly considering expected income that the land would be expected to generate. The land lease capitalization rate is estimated using comparable market data for land capitalization rates for similar properties. The land capitalization rate is used in determining allocating our rental payments between interest expense and a reduction of the outstanding lease financing obligation.
- *Fair value of leased building and underlying land* The fair value of a leased building and underlying land subject to the lease financing transaction is based on comparable market data for similar properties as of the lease inception date. The fair value of the underlying land is used in determining allocating our rental payments between interest expense and a reduction of the outstanding lease financing obligation.

Prior to our October 2016 acquisition of MLSC, the Southport, North Carolina facility (the "Southport Facility") leased by a subsidiary of MLSC failed to qualify for sale and leaseback accounting. As a result, MLSC recognized during construction, and retained upon the completion of construction, the value of the Southport Facility and obligation on its balance sheet as a financing obligation. Pursuant to the business combination fair value guidance, upon acquisition of MLSC, we recorded the fair value of the building asset, which was estimated to be $2.2 million, and the related financing obligation of $2.2 million. We continue to recognize payments under the amended lease agreement as a reduction of the facility financing obligation using the effective interest method and the ground rent as operating lease expense. At the conclusion of the lease term, we will de-recognize both the then carrying values of the asset and financing obligation with any differences between the book value of the building asset and remaining facility financing obligation being recognized in operations at that time. For its existing arrangement for the Southport Facility, these differences are expected to be immaterial.

In July 2018, we entered into a non-cancelable lease for a new manufacturing facility (the "San Diego Facility Lease") and subsequently took possession of the space. The scope of the tenant improvements did not qualify under the lease accounting guidance as "normal tenant improvements" and we were the deemed owner of the leased building during the construction period for accounting purposes. In 2019, construction on the facility was substantially completed and the leased property was placed into service. We determined that the completed construction project did not qualify for sale-leaseback accounting due to non-recourse financing we provided to the lessor for reimbursed construction costs and has instead been accounted for as a financing transaction. The leased building for the San Diego Facility Lease and related improvements remains on our consolidated balance sheet as of December 31, 2019 and rental payments associated with the lease have been allocated to operating lease expense for the ground underlying the leased building and principal and interest payments on the lease financing obligation.

Unit-Based Compensation and Incentive Unit Valuation

Unit-based awards have been granted by our parent and also by one of our subsidiaries to certain executives and employees of our subsidiaries in the form of non-vested incentive units ("Incentive Units"). All awards of Incentive Units are measured based on the fair value of the award on the date of grant. We recognize compensation expense for these awards over the requisite service period. Forfeitures are recognized when they occur. Unit-based compensation expenses are classified in the consolidated statements of operations based on the job functions of the related employees. These Incentive Units are subject to service, market or performance conditions. For Incentive Units subject to performance conditions, we evaluate the probability of achieving each performance condition at each reporting date and recognize expense over the requisite service period when it is deemed probable that a performance condition will be met using the accelerated attribution method over the requisite service period. For Incentive Units that remain subject to performance conditions as of December 31, 2018 and 2019, we concluded that it was not yet probable that the performance conditions would be met. Accordingly, we have not recognized any compensation expense loss for Incentive Units that include a performance condition.

As there has been no public market for the Incentive Units granted by our parent or by our subsidiary, the grant date fair value of Incentive Unit awards has been determined by our board of directors with the assistance of management and an independent third-party valuation specialist. We believe our board of directors has the relevant experience and expertise to determine the fair value of our Incentive Units. The grant date fair value of Incentive Units was determined first by estimating our aggregate equity value using a weighting of discounted cash flows, comparable public companies, and comparable-transactions valuation methodologies. An Option-Pricing Method, which utilizes certain assumptions including volatility, time to liquidation, a risk-free interest rate, and an assumption for a discount for lack of marketability, was then used to allocate our total equity value to our different classes of equity according to their rights and preferences. A discount for lack of marketability was applied to determine the Incentive Unit equity values. In determining the fair value of the Incentive Units, the methodologies used to estimate our enterprise value were performed using methodologies, approaches, and assumptions consistent with the American Institute of Certified Public Accountants Accounting and Valuation

Guide, Valuation of Privately-Held-Company Equity Securities Issued as Compensation ("AICPA Accounting and Valuation Guide"). The assumptions we use in the valuation model are based on future expectations combined with management's judgment. In the absence of a public trading market, our board of directors, with input from management, exercised significant judgment and considered numerous objective and subjective factors to determine the fair value of the Incentive Units as of the date of each award, including the following factors:

- independent valuations performed at periodic intervals by an independent third-party valuation firm;
- our operating and financial performance, forecasts and capital resources;
- current business conditions;
- the hiring of key personnel;
- the status of research and development efforts;
- the likelihood of achieving a liquidity event for these incentive units, such as an initial public offering or sale of our company, given prevailing market conditions;
- any adjustment necessary to recognize a lack of marketability for the Incentive Units;
- trends and developments in our industry;
- the market performance of comparable publicly traded technology companies; and
- the U.S. and global economic and capital market conditions.

The dates of our valuation reports, which were prepared on a periodic basis, were not contemporaneous with the grant dates of our Incentive Unit awards. Therefore, we considered the amount of time between the valuation report date and the grant date to determine whether to use the latest Incentive Unit valuation report for the purposes of determining the fair value of our units for financial reporting purposes. If Incentive Units were granted a short period of time preceding the date of a valuation report, we assessed the fair value of such Incentive Unit award used for financial reporting purposes after considering the fair value reflected in the subsequent valuation report and other facts and circumstances on the date of grant as described below. The additional factors considered when determining any changes in fair value between the most recent valuation report and the grant dates included, when available, the prices paid in recent transactions involving our Incentive Units, as well as our operating and financial performance, current industry conditions and the market performance of comparable publicly traded companies. There were significant judgments and estimates inherent in these valuations, which included assumptions regarding our future operating performance, the time to completing an initial public offering or other liquidity event and the determinations of the appropriate valuation methods to be applied. If we had made different estimates or assumptions, our unit-based compensation expense, net loss and net loss per unit attributable to our member could have been significantly different from those reported in this prospectus.

In valuing our units, the executive committee determined the equity value of our business by taking a weighted combination of the value indications using the income approach and the market comparable approach valuation methods.

Income Approach

The income approach estimates value based on the expectation of future cash flows a company will generate, such as cash earnings, cost savings, tax deductions and the proceeds from disposition. These future cash flows are discounted to their present values using a discount rate derived from an analysis of the cost of capital of comparable publicly traded companies in our industry or similar lines of business as of each valuation date. This weighted-average cost of capital discount rate, or WACC, is adjusted to reflect the risks inherent in the business. The WACC used for these valuations was determined to be reasonable and appropriate given our debt and equity

capitalization structure at the time of each respective valuation. The income approach also assesses the residual value beyond the forecast period and is determined by taking the projected residual cash flow for the final year of the projection and applying a terminal exit multiple. This amount is then discounted by the WACC less the long-term growth rate.

Market Comparable Approach

The market comparable approach estimates value based on a comparison of the subject company to comparable public companies in a similar line of business. From the comparable companies, a representative market multiple is determined which is applied to our financial metrics to estimate the value of our parent or our subsidiary. To determine our peer group of companies, we considered life sciences tools companies and selected those most similar to us based on various factors, including, but not limited to, financial risk, company size, geographic diversification, profitability, growth characteristics and stage of life cycle.

In some cases, we considered the amount of time between the valuation date and the award grant date to determine whether to use the latest valuation determined pursuant to one of the methods described above or to use a valuation calculated by management between the two valuation dates.

In some cases, we considered the amount of time between the valuation date and the award grant date to determine whether to use the latest valuation determined pursuant to one of the methods described above or to use a valuation calculated by management between the two valuation dates.

Once we determined an equity value, we utilized the Black-Scholes Option Pricing Model ("BSOPM") to allocate the equity value to our options. BSOPM values our options by creating call options on the respective equity value, with exercise prices based on the liquidation preferences, participation rights and strike prices. This method is generally preferred when future outcomes are difficult to predict and dissolution or liquidation is not imminent.

As of December 31, 2019, the aggregate value of our vested and unvested Incentive Units was $ million and $ million, respectively, based on the estimated fair value for our unit of $ per Class A Common share, which is the midpoint of the estimated public offering price range set forth on the cover page of this prospectus. As of December 31, 2019, we had $3.7 million of unrecognized compensation expense related to Incentive Units not subject to a performance condition that is expected to be recognized over a weighted-average period of 1.9 years. For Incentive Units subject to a performance condition, unrecognized compensation expense was $4.1 million as of December 31, 2019.

Income Taxes

Our wholly-owned U.S. subsidiary, Maravai Life Sciences, Inc. ("Maravai Inc.") and its subsidiaries, are taxpaying entities in the U.S., Canada, and the U.K, and we provide current and deferred income taxes for these entities. We and our other subsidiaries are treated as pass-through entities for federal and state income tax purposes. The income or loss generated by these entities is not taxed at the LLC level. As required by U.S. tax law, income or loss generated by these LLCs passes through to their owners. As such, our tax provision consists solely of the activities of Maravai Inc. and its subsidiaries, which is taxed as a corporation for federal and state income tax purposes.

Our taxable subsidiaries account for income taxes under the asset and liability method of accounting. We recognize deferred tax assets and liabilities for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases, as well as for operating loss and tax credit carryforwards. We measure deferred tax assets and liabilities using enacted tax rates expected to apply to taxable income in the years in which we expect to recover or settle those temporary differences. We recognize the effect of a change in tax rates on deferred tax assets and liabilities in the results of

operations in the period that includes the enactment date. We reduce the measurement of a deferred tax asset, if necessary, by a valuation allowance if it is more likely than not that we will not realize some or all of the deferred tax asset.

We account for uncertain tax positions by recognizing the financial statement effects of a tax position only when, based upon technical merits, it is more likely than not that the position will be sustained upon examination.

Significant judgment is required in determining the accounting for income taxes. In the ordinary course of business, many transactions and calculations arise where the ultimate tax outcome is uncertain. Our judgments, assumptions and estimates relative to the accounting for income taxes take into account current tax laws, our interpretation of current tax laws, and possible outcomes of future audits conducted by foreign and domestic tax authorities. Although we believe that our estimates are reasonable, the final tax outcome of matters could be different from our assumptions and estimates used when determining the accounting for income taxes. Such differences, if identified in future periods, could have a material effect on the amounts recorded in our consolidated financial statements.

JOBS Act Accounting Election

We are an "emerging growth company" within the meaning of the JOBS Act. The JOBS Act permits an emerging growth company like us to take advantage of an extended transition period to comply with new or revised accounting standards applicable to public companies. We are electing to use this extended transition period and we will therefore comply with new or revised accounting standards when they apply to private companies. As a result, our financial statements may not be comparable with companies that comply with public company effective dates for accounting standards. We also intend to rely on other exemptions provided by the JOBS Act, including not being required to comply with the auditor attestation requirements of Section 404(b) of the Sarbanes-Oxley Act.

We will remain an emerging growth company until the earliest of (1) December 31, 2025, (2) the last day of the fiscal year in which we have total annual gross revenue of at least $1.07 billion, (3) the last day of the fiscal year in which we are deemed to be a "large accelerated filer" as defined in Rule 12b-2 under the Exchange Act, which would occur if the market value of our common stock held by non-affiliates exceeded $700.0 million as of the last business day of the second fiscal quarter of such year or (4) the date on which we have issued more than $1.0 billion in non-convertible debt securities during the prior three-year period.

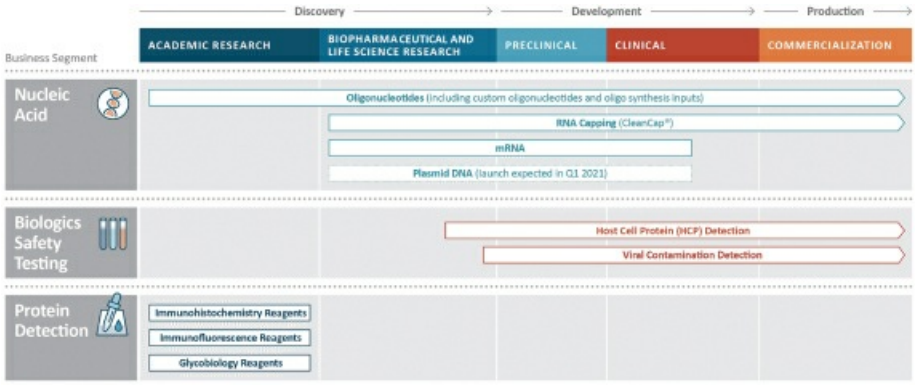
Recent Accounting Pronouncements

See Note 1 to our consolidated financial statements included elsewhere in this prospectus for more information.

BUSINESS

Overview

We are a leading life sciences company providing critical products to enable the development of drug therapies, diagnostics, novel vaccines and support research on human diseases. Our more than 5,000 customers as of August 31, 2020 include the top 20 global biopharmaceutical companies ranked by research and development expenditures according to industry consultants, and many other emerging biopharmaceutical and life sciences research companies, as well as leading academic research institutes and *in vitro* diagnostics companies. Our products address the key phases of biopharmaceutical development and include complex nucleic acids for diagnostic and therapeutic applications, antibody-based products to detect impurities during the production of biopharmaceutical products, and products to detect the expression of proteins in tissues of various species.



Our businesses principally address high growth market segments in biopharmaceutical development and manufacturing. We estimate that the market segments we serve are growing at a weighted average blended rate of 20% per annum. In particular, the field of cell and gene therapy has emerged as one of the fastest growing treatment modalities to address a host of human conditions. There are more than 400 cell and gene therapies in development or launched and sales in this category are expected to grow more than tenfold by 2024, according to industry consultants and management estimates. Our portfolio offers key products for each stage of the cell and gene therapy development lifecycle. For example, our mRNA products are used in drug development to assist in the production of immune-activating antigens; our CleanCap® technology is used to stabilize mRNA; and we expect our upcoming plasmid DNA products will be used as vectors in gene editing for cellular therapies. We also provide biologics safety testing technology used to ensure the safety of the biological drug manufacturing process and drug products. We estimate that more than of our revenue for the nine months ended September 30, 2020 were in support of vaccines and therapies in development, including biological drugs and cell and gene therapies. We have relationships with the following categories of customers (percentages represent the share of revenue in each category for the nine months ended September 30, 2020): developers of therapeutics and vaccines (%), other biopharmaceutical and life science research companies (%), academic institutions (%) and molecular diagnostic companies (%).

Our proprietary capabilities and products underpin the value we aim to provide to our customers. Among other capabilities, we are expert in RNA and mRNA products, which are challenging and often unstable molecules requiring significant chemical modifications to ensure their stability and efficacy in our customers' applications. Notably, according to research commissioned by us consisting of over 70 interviews with our current and former customers, our competitors and industry experts focused across our three business segments (the "Industry Analysis"), we believe CleanCap® is viewed as a leading solution to ensure the stability of mRNA. CleanCap® is a novel chemical approach to produce a cap analog, which, in addition to making mRNA more stable, aids in protein production and helps prevent an unwanted immune response to the mRNA. As of

September 30, 2020, CleanCap® had been used by approximately 109 customers and had been incorporated into several development programs, including six mRNA vaccine programs targeting immunization against the novel strain of coronavirus, SARS-CoV-2 ("COVID-19"), and will potentially be used in up to three additional COVID-19 mRNA vaccine programs. We estimate our mRNA and CleanCap® products have also been incorporated in at least 33 therapeutic programs in development as of September 30, 2020. These therapeutic programs address a number of disease states, including ornithine transcarbamylase deficiency, glycogen storage disorders, Alpha-1 antitrypsin deficiency, acute lymphoblastic leukemia, Hurler syndrome, ovarian cancer and cardiovascular disease. These therapeutic programs also use multiple therapeutic modalities, including CRISPR/Cas-9, transcription activator-like effector nuclease (TALENS), enzyme replacement therapies, allogeneic CAR-T cells and base editing. Should one or more of these programs proceed to commercialization, we believe we will continue to supply our customers and our products will likely be incorporated in customer regulatory filings.

mRNA is at the core of our capabilities. We developed our expertise in mRNA with a belief in its potential as a therapeutic modality. The first clinical trial for an mRNA therapeutic agent occurred in 2016. More than 30 clinical trials have occurred since then, principally focused on vaccines against viruses and cancer vaccines. With the COVID-19 pandemic, mRNA has shown its potential for more rapid vaccine design and manufacture when compared to traditional techniques involving culturing inactivated virus to elicit an immune response. According to the World Health Organization, there were 193 COVID-19 vaccine development programs as of October 2, 2020, with some lead candidates for approval in the RNA class and anticipated data readouts from certain RNA programs, including results of preclinical studies and Phase I/II and Phase III clinical trials. COVID-19 has helped highlight the potential advantage of mRNA as a treatment modality and directed significant resources to the developing base of knowledge about mRNA. We believe this knowledge will be directed at future vaccine programs as well as therapeutic agents for a host of human diseases. We are positioned to serve our biopharmaceutical customers in the fast-growing mRNA field across a range of clinical programs for a variety of diseases. Approximately % of our revenue was derived from products that support mRNA research for the nine months ended September 30, 2020.

Forming long-term partnerships with our customers is core to our strategy. We primarily serve our customers during the product development and process development phases. During product development, we collaborate with our customers to develop and synthesize nucleic acids, which in some cases comprise the APIs of our customers' products in development. We also provide our customers a host of chemically complex and highly specialized raw materials. Process development entails establishing production methods in anticipation of regulatory approval of biopharmaceutical products. Process development is a complex phase that establishes highly validated procedures and determines the investment in facilities and equipment required to bring biopharmaceutical products to market. These decisions impact the viability of our customers' products for the long term. During process development, we provide enzyme-linked immunosorbent assays ("ELISAs") that reduce the risk posed by impurities and contaminants in biological drugs, a critical step to ensure the safety of the drug product.

While we do not provide products that are themselves regulated as drugs or *in vitro* diagnostics, our customers frequently incorporate our products into their highly validated products and processes. For example, we provide oligonucleotides and antibody-based products used by *in vitro* diagnostic product manufacturers for their on-market products. Because of the extensive validation required for these products, these components are frequently purchased for the life of our customers' products and we believe they are unlikely to be substituted. In addition, our analytical tools are used in the design and development of manufacturing processes and often will be used throughout the life cycle of our customers' manufactured products. As a result, our customer relationships may span many years.

The nature of our products and their uses require that they be manufactured by highly trained personnel in state-of-the-art facilities following exacting procedures to ensure quality. We manufacture our nucleic acid products at our San Diego, California facility, one of four facilities we occupy in the United States. The facility was purpose-built to address our customers' needs for critical raw materials manufactured under certain good

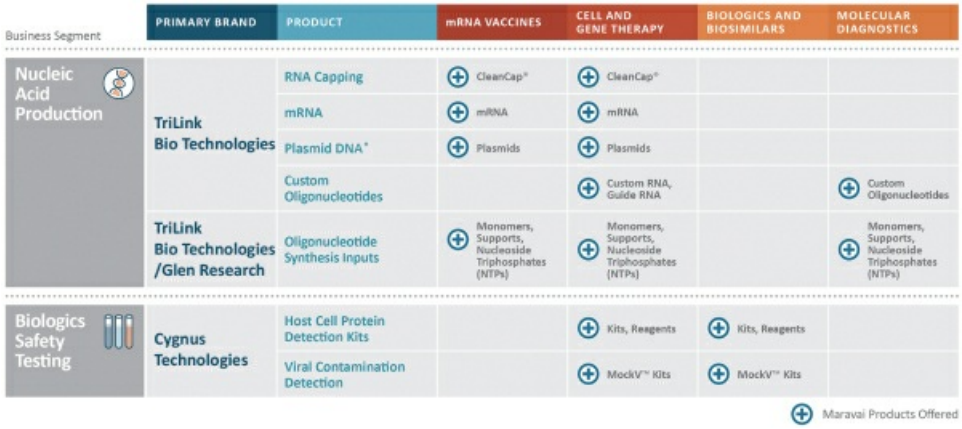
manufacturing practices ("GMP") conditions and APIs for investigational use. Our raw material products are manufactured following the voluntary quality standards of ISO 9001:2015. Our GMP-grade raw materials follow ISO 9001:2015 standards, additional voluntary GMP quality standards and customer specific requirements. Our API products are manufactured following the voluntary quality standards of ISO 9001:2015, the International Council for Harmonisation's GMP Guide, comparable GMP principles for the European Union and customer specific requirements. We believe our products are exempt from compliance with the current GMP ("cGMP") regulations of the Food and Drug Administration ("FDA"), as our products are further processed or incorporated into final drug products by our customers and we do not make claims related to their safety or effectiveness. As of September 30, 2020, we estimate that $ has been invested in our San Diego facility. Our other facilities are similarly designed for specific applications with quality systems to match our customers' requirements. All of our facilities meet applicable ISO standards. In addition, as of August 31, 2020, approximately 10% of our workforce have earned advanced degrees and all receive rigorous on-the-job training.

We built our business through a combination of acquisitions and subsequent investments in our acquired companies to grow their commercial capabilities, upgrade and expand their research and production facilities, deploy stringent quality systems, integrate their back-office functions, and develop the personnel and management to fuel continued growth. Today, we offer an integrated portfolio that enables innovation across the biopharmaceutical and academic markets. We completed our first acquisition in April 2016. The trailing twelve-month revenue of each of our acquired businesses at the time we acquired each of them totaled approximately $85.0 million. Since our first acquisition in 2016 and through the year ended December 31, 2019, our total revenue has increased by approximately 69%. Mergers, acquisitions and strategic partnerships that complement our capabilities in cell and gene therapy and biopharmaceutical production remain core to our strategy. Our strategy aims to augment our strong organic growth with the addition of synergistic products and capabilities.

Our Portfolio and Capabilities

We provide products that support our customers' needs from discovery through commercialization of their vaccines, therapeutic agents and *in vitro* diagnostic products. Our products are frequently incorporated into our customers' products, whether as research products or APIs used in development or research products incorporated as raw materials into on-market products. They may also be incorporated into the manufacturing process itself. We are therefore a critical part of our customers' supply chain and they frequently seek to maintain their supply relationship with us for the life of their products or development programs.

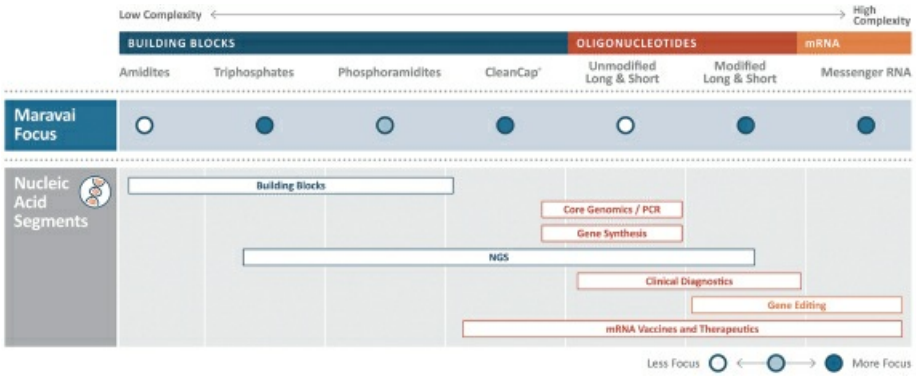
Our products address our customers' needs for nucleic acid production, biologics safety testing and protein detection, and our operations are aligned to these three segments. For the nine months ended September 30, 2020, we sold more than % of our products and services to biopharmaceutical customers and our products serve high growth applications in vaccines, cell and gene therapies, biological drugs and molecular diagnostics.



* Our plasmid DNA products are expected to launch in Q1 2021

Nucleic Acid Production (% of Revenue for the Nine Months Ended September 30, 2020)

We are a global provider of highly modified, complex nucleic acids and related products. We have recognized expertise in complex chemistries and products provided under exacting quality standards. Our core offerings include mRNA, long and short oligonucleotides, our proprietary CleanCap® capping technology and oligonucleotide building blocks. Our offerings address key customer needs for critical components, from research to GMP-grade materials. We market our nucleic acid products under the TriLink BioTechnologies and Glen Research brands.

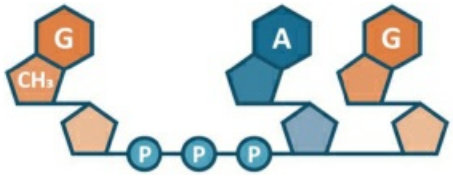


The growth in our nucleic acid production business segment has been fueled by the significant growth in biological drugs in development, many of which are addressing cell and gene therapies, and by the rapid rise in mRNA vaccines. mRNA as a treatment modality has been an area of acute interest for several years. The global

COVID-19 pandemic, however, has highlighted its potential advantages in speed of development and manufacturing, as well as cost. Of the estimated 193 COVID-19 vaccine development programs underway as of October 2, 2020, according to the World Health Organization, 25 are mRNA-based. Six of the 25 use our CleanCap® products and up to three more will potentially use our CleanCap® products. We further serve cell and gene therapies with our RNA and mRNA products and expect to supplement with our upcoming plasmid DNA capability. In addition to the vaccine programs above, our products have been incorporated in 33 therapeutic programs in development for CRISPR/Cas-9, CAR-T, base editing and enzyme replacement therapies, among others.

Our nucleic acid products fall into four broad categories: CleanCap®, mRNA, oligonucleotides and plasmid DNA. We expect to offer our plasmid DNA products in the first quarter of 2021.

CleanCap®. Our proprietary CleanCap® analogs principally serve the mRNA vaccine and therapeutic markets, including vaccine candidates in development for immunizing against COVID-19. Cap analogs are a component of mRNA that aids in protein production as well as making mRNA more stable inside cells. For mRNA to serve as a template to make a protein, it requires a special cap at the 5' (five prime) end of the molecule. The cap structure also affects the stability of the mRNA. The lack of a cap can result in activation of the innate immune system, which can affect the production of the desired protein or elicit undesired biological effects. We offer a suite of CleanCap® analogs that are specifically made for therapeutics and vaccines. Based on the Industry Analysis, we believe our cap analogs are critical features of several mRNA vaccines in development.



CleanCap® is a synthetic capping reagent composed of N7 Methyl (G) linked to a dimer at (A) and (G) through a triphosphate (P) linkage that is added during the transcription reaction and resulting in high levels of mRNA capping.

Traditionally, the 5' cap has been added in one of two ways. The cap can be added post mRNA synthesis by an enzymatic process. This enzymatic method has several drawbacks, including the high cost of the capping enzymes as well as the need to perform additional processing steps to the mRNA to remove enzymes and byproducts of the capping reaction. While capping efficiency is usually high, the extra processing steps typically result in mRNA of poorer quality and degradation often results. The second method is to add a synthetic cap analog into the transcription reaction such that the mRNA is transcribed and capped in a single step. Anti-reverse cap analog ("ARCA") is an example of a cap analog that is added to the transcription reaction. This avoids the workflow challenges of the enzymatic process, but typically results in lower yields.

Like ARCA, CleanCap® is a synthetic, chemically made mRNA 5' cap analog added to the transcription process in a single step. Unlike ARCA, however, CleanCap® results in significantly higher levels of capping efficiency, resulting in very low levels of uncapped mRNA, which in turn minimizes the risk of activation of the innate immune system. In addition, CleanCap®'s higher mRNA yields compared to ARCA result in lower cost of goods. When compared to enzymatic capping, CleanCap® removes the additional downstream purification steps required. We have developed a suite of CleanCap® analogs that are specifically designed for therapeutics and vaccines. CleanCap® products represented % of our nucleic acid production revenue for the nine months ended September 30, 2020.

mRNA. mRNA is an intermediary molecule that translates the genetic information stored in DNA into proteins. The genetic information stored in DNA is transferred to mRNA in a cellular process called transcription. This process occurs in the nucleus of cells. DNA, a double stranded molecule, is unwound and copied as mRNA by the enzyme RNA polymerase. mRNA is then transferred out of the nucleus to the cytosol, a component of the cytoplasm of a cell, where it serves as a blueprint for making cellular proteins by a multi-component organelle complex called the ribosome.

mRNA has traditionally been a difficult molecule for vaccine and therapeutic purposes. mRNA is inherently unstable compared to DNA and is susceptible to degradation by ubiquitous enzymes called RNases. mRNAs are also physically and chemically fragile and can degrade at elevated temperatures and under shear forces that occur during downstream manufacturing processes. We have developed manufacturing processes that overcome some of these obstacles, resulting in highly effective mRNA.

We develop and manufacture mRNA products to support vaccine and therapeutic programs from pre-clinical development through and including clinical phases, including scale-up and analytical development services. The mRNA molecules may serve as APIs for diverse applications, such as enzyme replacement therapies, gene editing therapies and vaccines. We offer both research grade material and material made under GMP conditions for early phase clinical trials. mRNA products represented % of our nucleic acid production revenue for the nine months ended September 30, 2020.

Oligonucleotides. The oligonucleotide product category supports broad customer applications, including therapeutics, *in vitro* diagnostics, next generation sequencing ("NGS") and CRISPR-based gene editing. Most of our TriLink BioTechnologies oligonucleotide products are custom manufactured DNA or RNA sequences, often highly modified and produced as research grade or under GMP conditions for use in development, clinical and commercial applications.

We also provide nucleoside triphosphates ("NTPs"). NTPs are the precursors to DNA and RNA. They are composed of a nitrogen base bound to either ribose or deoxyribose with three phosphate groups added to the sugar. We manufacture NTPs that are used in polymerase chain reactions ("PCR"), sequencing reactions and in the manufacture of mRNA. The NTPs can be unmodified, composed of the four standard bases, or modified, with a base altered to enhance a particular biological property, such as the ability to evade the innate immune system in therapeutic applications. TriLink BioTechnologies NTPs are used by customers in both research and clinical trial applications.

Our product offerings also include reagents that form the building blocks of oligonucleotides with our Glen Research products, including high quality specialty chemicals and amidites. The oligonucleotide products category represented % of our nucleic acid production revenue for the nine months ended September 30, 2020.

Plasmid DNA. We finished construction of a plasmid DNA manufacturing suite inside our newly built San Diego facility and manufacturing is expected to begin in the first quarter of 2021. Unlike genomic DNA, which constitutes the chromosome, plasmid DNA exists outside the chromosome and represents small circular double-stranded constructs. Plasmid DNA is frequently used as a vector for replicating nucleic acid products. Plasmid DNA is integral to the production of mRNA and our production of plasmid DNA will assist in ensuring the quality of the mRNA we produce.

Our nucleic acid customers are generally vaccine and therapeutic drug makers, who accounted for % of nucleic acid production revenue for the nine months ended September 30, 2020 and *in vitro* diagnostics and next-generation sequencing products manufacturers, who accounted for % of our nucleic acid production revenue over the same period.

Biologics Safety Testing (% of Revenue for the Nine Months Ended September 30, 2020)

We provide products and services under the Cygnus Technologies brand that ensure the purity of our customers' biopharmaceutical products, including biological drugs. For over 20 years, the Cygnus Technologies brand has been associated with products and services that enable the detection of impurities and contaminants present in bioproduction. Our biologics safety testing products are used during development and scale-up, during the regulatory approval process and throughout commercialization. We are recognized globally for the detection of HCPs and process-related impurities during bioproduction.

Our customers in this segment manufacture a broad range of biopharmaceutical products. These include monoclonal antibodies and recombinant proteins, both as novel biologics and biosimilars, and recombinant vaccines including vaccines to prevent COVID-19 and to treat cancer. We also provide products in support of the development of cell and gene therapies. Recombinant vaccines and cell and gene therapies rely on manufacturing of various viral vectors produced using recombinant nucleic acid and cell culture technologies. Viral vector manufacturing processes require rigorous analytics, including testing for process-related impurities such as HCPs, host cell DNA, purification leachates, growth media additives and enzymes used in viral vector purification processes.

ELISA is the benchmark method for monitoring levels of process-related impurities during the purification process and in product release testing. The advantages of well-developed ELISA kits include the ability to measure very low levels of impurities in the presence of high amounts of drug product, without requiring a high level of expertise to run, and are readily transferable across an organization from process development to manufacturing and quality control bioanalytical groups. Though relatively simple to run, these ELISA kits require a high level of expertise to design, develop and qualify.

Customers establishing biopharmaceutical manufacturing processes may use off-the-shelf or generic HCP kits provided by manufacturers like ourselves, or they may choose to design their own in-house assays for their specific processes. Some customers may choose to use generic assays early in development and migrate to process-specific assays later. The trend in recent years has been for customers to increasingly use generic assays throughout their development pathway, relying on our expertise and the established performance of our assays. If customers choose to develop their own assays, we offer custom services and bulk materials to assist them.

Our comprehensive catalog of Cygnus Technologies HCP ELISA kits covers 22 expression platforms and provides the specificity and sensitivity to detect impurities with reproducibility, which supports regulatory compliance. Our reputation for quality is recognized by the industry and global regulatory agencies, with Cygnus Technologies assays used as reference methods throughout the industry and to support manufacturing and quality control of commercialized biologics.

Our customers in this segment are biopharmaceutical companies, contract research organizations ("CROs"), contract development and manufacturing organizations ("CDMOs") and life science companies, which together accounted for % of our biologics safety testing revenue for the nine months ended September 30, 2020. International distributors and United States-based resellers accounted for % of this revenue. These customers largely serve the biopharmaceutical industry. Academia, hospitals and government accounts contributed % of our biologics safety testing revenue in the nine months ended September 30, 2020.

Cygnus Technologies product categories include HCP ELISA kits, other bioprocess impurity and contaminant ELISA kits, ancillary reagents and custom services.

HCP ELISA kits. HCP ELISAs are kits used to detect residual proteins from the expression system used in bioproduction. HCPs constitute a major group of process-related impurities produced using cell culture technology no matter what cell expression platform is used. HCPs pose potential health risks for patients and the risk of failure of safety endpoints for drug manufacturers. When present in the administered product, even at low levels, HCPs can induce an undesired immune response, interfere with drug efficacy and impact drug stability. HCPs are a critical quality attribute for biologics safety testing development and must be adequately removed during the downstream purification process.

HCP ELISA kits represented % of our biologics safety testing revenue in the nine months ended September 30, 2020.

Other impurity and contaminant kits. Products in this category include kits for measuring Protein A leachate, which results from the affinity purification method used for monoclonal antibody therapeutic agents; ELISA kits for measuring additives in growth media, such as bovine serum albumin; ELISA kits for measuring host cell DNA; and ELISA kits to detect and quantify residual endonuclease impurities in recombinant viral vector and vaccine preparations.

In addition, in 2020, Cygnus Technologies introduced the MockV™ Minute Virus of Mice (MVM) kit, a novel, proprietary viral clearance prediction tool that includes a non-infectious “mock virus particle” mimicking the physicochemical properties of live virus that may be present endogenously in the drug substance or introduced during bioproduction. The kit enables manufacturers to conduct viral clearance assessments easily and economically and to predict outcomes in-house ahead of costly and logistically challenging live viral clearance studies.

Other impurity and contaminant kits represented % of our biologics safety testing revenue for the nine months ended September 30, 2020 in the biologics safety testing segment.

Ancillary reagents. These products include antibodies, antigens, sample diluents and other auxiliary products necessary to optimize applications for customer processes. Ancillary reagents represented % of our biologics safety testing revenue for the nine months ended September 30, 2020.

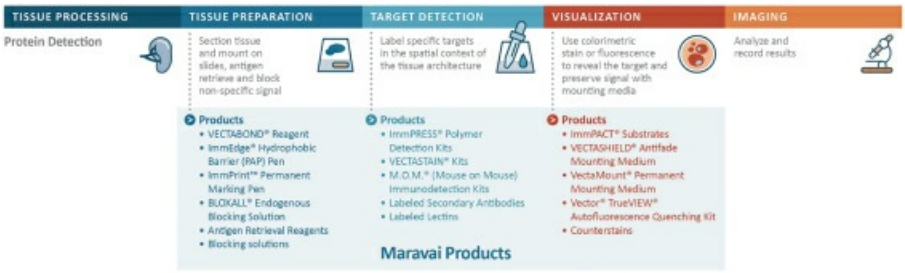
Custom services. We provide process-specific antibody and ELISA development, qualification and maintenance services. In addition, we have pioneered advanced orthogonal methods including antibody affinity extraction (AAE™) and mass spectrometry for HCP antibodies coverage analysis and HCP identification, which we provide as custom services. Custom services represented % of our biologics safety testing revenue for the nine months ended September 30, 2020.

Protein Detection (% of Revenue for the Nine Months Ended September 30, 2020)

We believe that we are a leader in labeling and detection reagents for immunohistochemistry, immunofluorescence and glycobiology, principally in research settings, with Vector Laboratories, the brand under which we market our protein detection products, having been cited over 350,000 times in scientific publications. Our products are used to detect the expression of proteins in tissue, which may indicate an ongoing disease process, with the use of antibody-based detection systems. We also manufacture lectins, proteins that preferentially bind to carbohydrates and which are used, for example, in the study of glycosylation, the process by which carbohydrates attach to proteins and lipids. Glycosylation is critical in a range of biological processes, including cell-to-cell adhesion, the performance of glycoprotein-based drugs and cancer. In addition, we manufacture bioconjugation reagents to allow rapid and quantifiable conjugation of all classes of biomolecules.

Our presence in protein detection dates to the founding of Vector Laboratories in 1976. Under the Vector Laboratories brand, we provide reagents to researchers worldwide investigating biological processes and the nature of disease in tissue, including oncology research applications. Our reagents span the immunohistochemistry and immunofluorescence workflows and include products for tissue preparation, tagging targets of interest via secondary antibodies, detection systems for visualizing proteins, enzyme substrates for chromogenic color development, secondary antibodies to amplify target signal, fluorescent dyes for use in live cell imaging, fluorophore-conjugated secondary antibodies and products for the identification and isolation of glycosylated targets.

Our expertise includes the development of a broad range of highly validated secondary antibodies, used for labeling targets of interest. We produce over 20 proprietary antibodies constituting over 180 different SKUs in different formats and quantities. We also offer a broad portfolio of over 35 distinct lectins making up nearly 140 SKUs addressing a broad set of applications. Our capabilities extend to assay development, protein purification and bioconjugation as well as development of critical related reagents such as mounting media and substrates.



We principally serve academic researchers worldwide in our protein detection segment. Our research customers generally rely on us to provide our catalog products in a timely fashion, often overnight, and to provide live technical support and responsive customer service. All protein detection products sold directly to academic researchers carry the Vector Laboratories brand. We also sell custom products to industry customers, whether as components to be integrated into their own products, or to be resold. We serve these customers with catalog products directly via Web, email and phone ordering; with custom or bulk products through direct sales; and through distributors and resellers. Direct catalog sales represented % of our protein detection revenue for the nine months ended September 30, 2020. Bulk and custom products sold directly accounted for % of our protein detection revenue and resellers and distributors together accounted for % of our protein detection revenue during the same period.

Our Competitive Strengths

We believe we are a leader in providing nucleic acid products and biologics safety testing products and services to biopharmaceutical customers worldwide. Our success is built on the ability of our proprietary technologies and products, provided under exacting quality standards, to reliably serve our customers' needs for critical raw materials.

Leading Supplier of Critical Solutions for Life Sciences from Discovery to Commercialization

We seek to be an important component of our customers' supply chain by providing inputs that are central to the performance of their products and processes throughout the product lifecycle. By collaborating with customers early in the development phase, our products frequently follow our customers' development path to commercialization and are likely to be incorporated as raw materials in their on-market products and processes. Our decades-long experience and track record, coupled with our ongoing investment in facilities and quality systems, allow our customers to rely on us for their critical products. Our approach is to be a trusted partner throughout the life cycle of our customers' products.

Innovation, Proprietary Technologies and Knowhow Underpin Our Portfolio

Our expertise in complex chemistries leads customers to seek our collaboration in designing complex products that meet high performance expectations. Based on the responses to the Industry Analysis, we believe the solutions we provide, in many cases, cannot be provided effectively by our competitors. In certain cases, like our CleanCap® technology, our knowhow is backed by intellectual property. In other cases, such as our HCP products, our antibodies are proprietary and therefore can only be supplied by us. We believe the proprietary nature of our knowhow and products solidifies our long-term customer relationships.

Products with Outstanding Quality Performance

We believe our products stand out when compared to our competitors' because they present innovative solutions to customer needs, as indicated by the responses to the Industry Analysis, while providing reliable performance and quality. CleanCap®, for example, offers advantages over competing technologies in yield, stability and safety. Our oligonucleotides address complex chemistry challenges, which we believe few competitors can address. The results of the Industry Analysis indicate that our HCP ELISAs have defined the market for impurity detection and we believe they have become a *de facto* standard in biologics safety testing. Similarly, our protein detection assays have been recognized for their performance for over 40 years.

Trusted Brands

Our TriLink BioTechnologies, Glen Research, Cygnus Technologies and Vector Laboratories brands are well known in their respective markets for consistent quality and performance. This brand recognition has been earned over decades. Our manufacturing processes, quality standards, technical support and high-touch customer service ensure that we maintain the reputation of our brands.

State-of-the-Art Manufacturing Facilities

Our biopharmaceutical customers manufacture their products to meet stringent quality standards and expect their critical suppliers to meet their exacting requirements. Our customers further expect that we have the production capacity to meet their needs in a timely manner. As of September 30, 2020, we estimated that $ million has been invested in our flagship San Diego facility and its five dedicated manufacturing suites to produce materials under GMP conditions, along with the required quality systems to meet requirements specified by our customers. We similarly invest in our other sites to ensure we meet our customers' expectations. We believe that the capacity to manufacture to stringent biopharmaceutical standards is constrained in the industry and our ability to meet this demand sets us apart from our competition.

Experienced Leaders and Talented Workforce

Our management includes experienced leaders with demonstrated records of success at Maravai and other highly regarded industry participants. In addition, as of August 31, 2020, approximately 10% of our workforce have advanced degrees. We believe the quality of our personnel is critical to ensuring the collaborative, long-standing relationships we maintain with many of our customers.

Our Markets

We participate in three distinct market segments: nucleic acid production, biologics safety testing and protein detection, which together represented approximately $8.4 billion in annual spending in 2019 and which are expected to grow at a 15% compound annual growth rate ("CAGR") through 2023. Of that combined market, we estimate our addressable portion represents approximately $3.6 billion. Our addressable segments as a whole, adjusted for the mix of products we offer, are expected to grow at a weighted average blended rate of 20% per annum through 2023, according to industry consultants and management estimates. We benefit from favorable industry dynamics in our broader market segments and specific growth drivers in our addressable market segments.

Business Segment	PRIMARY BRAND	PRODUCT	TOTAL MARKET SIZE (2019)	MARKET GROWTH (2019-2023 CAGR)	ADDRESSABLE MARKET SIZE[1] (2019)	ADDRESSABLE MARKET GROWTH[2] (2019-2023 CAGR)
Nucleic Acid Production	TriLink Biotechnologies and Glen Research	• RNA Capping (CleanCap®) • mRNA • Plasmid DNA • Oligonucleotides and Inputs	$3.5B	19%	$2.8B	28%
Biologics Safety Testing	Cygnus Technologies	• Host Cell Protein Detection • Viral Contamination Detection	$2.8B	12%	$575M	13%
Protein Detection	Vector Laboratories	• Immunohistochemistry	$2.2B	8%	$200M	6%
		TOTAL	$8.4B	15%	$3.6B	20%

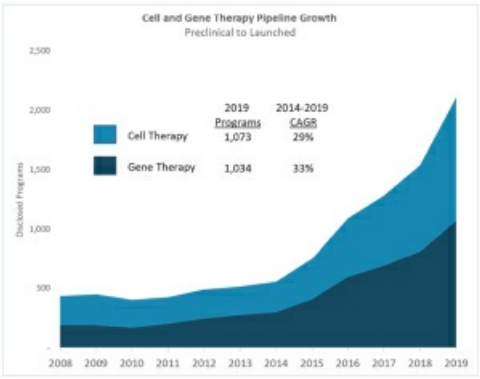
1 Includes products, use cases, and customer types relevant to Maravai

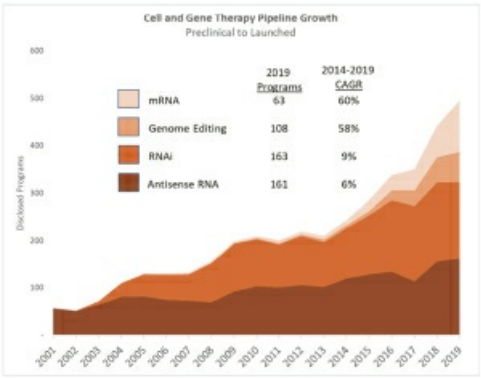
2 Growth rates weighted by revenue exposure to addressable market segments

Biopharmaceutical customers are increasingly relying on outside parties to provide important inputs and services for their clinical research and manufacturing, a development driving growth for suppliers with unique capabilities and the ability to manufacture at an appropriate scale to support customer programs. We believe that suppliers like ourselves, with this rare combination of capabilities, proprietary products and the required investment in manufacturing and quality systems, are benefiting from rapid growth as biopharmaceutical customers seek to partner with a small number of trusted suppliers.

In addition to the continued trend toward outsourcing, several market developments are driving increased growth, above the broader market growth rates, in our addressable market segments, including:

- **Pivot toward mRNA vaccines driven in part by COVID-19**. mRNA vaccine pre-clinical programs grew approximately 38% in 2019, before theCOVID-19 pandemic. That rate is estimated to increase to approximately 63% in 2020. The increased growth is being driven, in part, by 25 COVID vaccine programs using mRNA as of October 2, 2020, according to the World Health Organization. Six of the 25 involve our CleanCap® products and up to three more will potentially use our CleanCap® products. The mRNA vaccine technology is gaining prominence as a result of its faster development time, lower manufacturing costs and improved safety because of the lower risk of unwanted immune responses. RNA expertise is highly specialized and customers seek partners to provide these complex products. A small number of providers, like ourselves, can provide this RNA capability.
- **Rapid growth in development of cell and gene therapies**. Sales of cell and gene therapy drugs are expected to grow from $1 billion in 2019 to $25 billion by 2024 and recent approvals of Kymriah®, Yescarta® and Luxturna™ have added clinical credibility to cell and gene therapies. We support the development of cell and gene therapies with products used in gene editing and cell therapy research, and we are well positioned to supply materials for gene therapy with our launch of DNA plasmid products, which we expect in the first quarter of 2021.

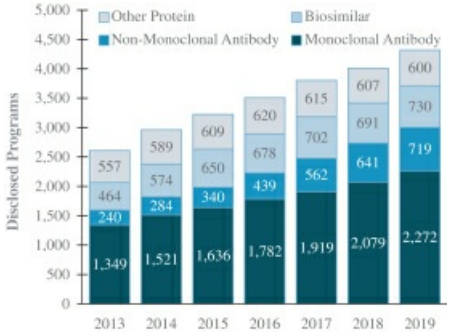




- **Large and growing pipeline of protein-based therapeutics**. In addition to cell and gene therapies, an increase in protein-based therapies is driving the need for impurity testing during process development and manufacturing.

Protein Therapy Pipeline Growth
CAGR = 9%

Protein Therapy Pipeline Mix
CAGR = 9%



Source: Industry consultants. Included proteins are biosimilars, antibodies, recombinant proteins, hormonal products and coagulation factors

- **Rise in molecular diagnostics driven by COVID-19**. The market for molecular diagnostics is growing dramatically because of demand for new tests related to COVID-19. This growth is driving demand for our products, particularly oligonucleotides and related inputs.
- **COVID-19 providing both short-term and expected long-term growth**. Several of our product categories are experiencing accelerated growth in 2020, notably our CleanCap® and oligonucleotides products. We expect the impact of COVID-19 on our growth to sustain in the longer-term as the entire mRNA category benefits from lessons learned during COVID-19. We expect research in other therapeutic categories to experience increased growth as research conducted for COVID-19 diffuses more broadly into other vaccines and therapies.

Anticipated COVID-19 Impact on Market Growth

Business Segment	Primary Brand	Product	Near Term (2020-2021)	Long Term (2022+)	Comments
Nucleic Acid Production	TriLink BioTechnologies	RNA Capping	⊕	⊕	• Significant growth from '19 to '20 driven by COVID mRNA programs • Success will grow R&D pipeline for non-COVID mRNA therapeutics, vaccines, & diagnostics in 2022+, sustaining significant category growth
		mRNA	⊕	⊕	
		Plasmid DNA*	⊖	⊖	• Minimal impact • Not a significant input to COVID vaccines, PCR diagnostics, etc.
		Custom Oligonucleotides	⊕	⊖	• Molecular diagnostics driving outsized near-term growth, likely to return to historic growth rates
	TriLink BioTechnologies /Glen Research	Oligonucleotide Synthesis Inputs	⊕	⊖	• Supporting commercialized efforts that rely on mRNA for vaccines & therapeutics, likely to return to secular category growth rates
Biologics Safety Testing	Cygnus Technologies	Host Cell Protein Detection	⊖	⊖	• Minimal impact • HCP tests & viral clearance growing from biologics & biosimilars market, not directly impacted by COVID vaccines & diagnostics
		Viral Contamination Detection	⊖	⊖	
Protein Detection	Vector Laboratories	Immunohistochemistry	⊗	⊖	• Market decline in '20 due to COVID-driven lab closures, expect post-COVID recovery

⊕ Strong Positive Impact ⊕ Moderate Positive Impact ⊖ Minimal Impact ⊗ Negative Impact

* Our plasmid DNA products are expected to launch in Q1 2021.

Nucleic Acid Production Market

The nucleic acid production market includes the production and synthesis of reagents for research and manufacturing of DNA andRNA-based biologics. Nucleic acid production is a $3.5 billion market expected to grow at 19% annually through 2023. Growth has generally accelerated in recent years with continued innovation in cell and gene therapy, including mRNA therapeutics and synthetic biology approaches. Our addressable portion of the market is $2.8 billion with expected growth of 28% annually through 2023. This higher growth rate is driven by our exposure to high growth sub-markets including RNA cap analog production and mRNA. Capping and mRNA growth is fueled by the continued growth of nucleic acid vaccines and therapies, which we expect will accelerate because of research into COVID-19. That research has highlighted the benefits of mRNA vaccines and therapies more broadly.

The field of mRNA-based drugs and vaccines has advanced dramatically within a few short years. Capacity to manufacture these products when approved, however, remains in short supply. Providers of technical expertise and manufacturing capabilities, like ourselves, with the facilities and quality systems demanded by biopharmaceutical customers, benefit from the demand created in the mRNA category.

COVID-19 is further accelerating growth in custom oligonucleotides and related inputs, which are used to manufacture diagnostic tests. New participants have entered the diagnostics market. Reference labs and hospitals have rapidly expanded their capacity. And demand for testing is increasing rapidly. These developments in turn lead to increased demand for our oligonucleotide products.

Biologics Safety Testing Market

The biologics safety testing market includes the detection and clearance of downstream bioprocessing product and process impurities. Biologics safety testing is a $2.8 billion market expected to grow at 12% annually through 2023. We participate in the HCP and other process related impurities and viral contamination segments of this market for biopharmaceutical vaccine and therapeutics manufacturing. These addressable segments account for $575 million of the market and are expected to grow at 13% annually through 2023. The growth in this market is driven by continued growth of biologics and biosimilars and increased outsourcing of process development.

Protein Detection Market

The protein detection market includes methods to detect and visualize proteins (antigens) in tissue sections to provide insight into gene expression, spatial relationships, and biomarker identification. Protein detection includes immunohistochemistry, immunofluorescence and glycobiology. Immunohistochemistry, our largest market within protein detection, is a $2.2 billion market, expected to grow at 8% annually through 2023. We participate in the immunohistochemistry segment of the academic and biopharmaceutical research market, which represents $200 million of annual expenditures expected to grow at 6% annually through 2023. This market has seen a temporary contraction in 2020 of approximately 15% given lab closures due to COVID-19, but is expected to return to historical numbers.

Our Strategy

Our customers strive to improve human health. Our goal is to provide them with products and services to accelerate their development efforts, from basic research through clinical trials and ultimately to commercialization for drugs, diagnostics and vaccines.

Supporting Biopharmaceutical Customers from Product Development Through Commercialization

Our customers include both emerging and established biopharmaceutical leaders developing novel therapies, diagnostics and vaccines. Emerging biopharmaceutical customers frequently seek the support we can offer in our

state-of-the-art facilities under our stringent quality standards, with the capabilities that result from the capital and process investments we have made over the last several years. We are capable of manufacturing reagents from research-grade to GMP-grade, which often exceeds the in-house capabilities of our pre-commercial customers. The results of the Industry Analysis indicate that our emerging and established customers also seek us out for our leading capabilities in nucleic acid chemistries and process control assays. We have expertise in complex chemistries, especially in highly modified nucleic acids and mRNA, and we believe we are a leader in applying these capabilities to the development of vaccines and therapeutics. We further support our customers as they transition from product development to commercialization by providing critical raw materials for their drugs. A core component of our strategy is the continued investment in facilities, quality standards and products and services that allow us to support our customers through the entire life cycle of their drugs.

Developing Proprietary Technologies that Deepen our Relationships with Our Customers

We are experts in nucleic acids and our scientists aim to develop proprietary enabling technologies that become integral to our customers' products. For example, CleanCap®, our proprietary chemical capping technology, has demonstrated its advantages in terms of the stability of the associated mRNA and its efficiency in protein production when compared to traditional capping technologies. This efficiency has led biopharmaceutical customers to employ CleanCap® in their vaccine and therapeutic programs. As those products proceed through development into commercialization, we believe CleanCap® will be a critical input in on-market vaccines and therapeutics, with 109 customers having used CleanCap® as of September 30, 2020 and six COVID-19 vaccine programs incorporating CleanCap® as of September 30, 2020, and we expect to supply our customers throughout their products' life cycle.

Forming Long-Term Partnerships for Critical Biopharmaceutical Components and Process Tests

Our products are frequently incorporated into regulated and highly validated therapeutic and diagnostic products and processes. Our biopharmaceutical customers expect us to provide them with consistent, high quality products that meet narrow specifications, and that we ensure their supply chain for such products for the length of their programs. In many cases, we may be the sole source of the products we provide. We therefore take seriously our responsibility to our biopharmaceutical partners, and by extension the patients they serve. Our emphasis on partnership generally leads to long-term relationships with our customers.

Focusing Our Efforts on High Growth End Markets

While biopharmaceutical research and *in vitro* diagnostics markets are experiencing strong growth, we target the highest growth segments within those markets. Our product portfolio is well positioned to serve the biologic, cell and gene therapy and mRNA vaccine and therapeutic end markets, which are currently experiencing above-market growth. By investing in technologies at the forefront of biopharmaceutical and *in vitro* diagnostics, we aim to remain focused on the highest-growth applications.

Acquiring Leading Life Sciences Businesses and Supporting Their Continued Development

We built our business by acquiring established and emerging companies with strong scientific foundations in our target markets and investing in their systems, processes and people to accelerate their growth and expand their technologies. We seek acquisitions that we believe meet, or could meet after being acquired and expanded, the following criteria:

- address our core target markets;
- have a demonstrated adherence to high quality standards;
- be leaders in their market niches;

- have differentiated or proprietary products and processes that provide clear value to our biopharmaceutical and other customers; and
- have a track record of attractive rates of growth and compelling returns on invested capital.

Our acquisition strategy is to invest significantly in our acquired businesses. We strive to rapidly integrate their information and financial systems. All of our companies share a common enterprise resource planning system and we implement our financial controls and reporting systems soon after acquisition. We seek opportunities to invest in their facilities and personnel to provide an operating foundation for growth. We also augment their commercial capabilities through a combination of sales and marketing resources dedicated to each business, supported by our global marketing infrastructure.

We will continue to seek a balance between driving growth organically and through acquisitions and we expect mergers and acquisitions to be an important pillar of our growth in the future.

Commercial

Our customers are biopharmaceutical companies, which represented % of our revenue for the nine months ended September 30, 2020; life sciences companies manufacturing tools for research (%); *in vitro* diagnostics companies (%); and academic researchers (%). Our biopharmaceutical customers include startups, established biotechnology companies and large pharmaceutical companies developing enzyme replacement therapies, gene editing therapies, *ex vivo* therapies and vaccines.

Our commercial function includes direct sales, marketing, customer service, technical support and distributor management. We serve customers through direct sales in each business segment, with a primary focus on our larger biopharmaceutical and other industry customers. We serve our academic customers via Web, email and phone ordering. We support all customers with live technical support and customer service.

We address customers outside the United States with a combination of direct sales and distributors. We serve many of our biopharmaceutical customers, especially in our nucleic acid production segment, via direct sales worldwide. Our distributors also sell our products in over 50 countries and provide customer service and local sales and marketing. As of August 31, 2020, our commercial organization included 57 employees and over 100 distributors.

Competition

We compete with a range of companies across our segments.

Nucleic Acid Production

Within nucleic acid production, we compete with four primary types of companies: (1) chemistry companies that create and produce the basic monomers, amidites, and supports that go into the creation of an oligonucleotide; (2) oligonucleotide manufacturers that specialize in custom oligonucleotide development of varying complexities and scales; (3) mRNA biotechnology companies that create fully processed mRNA and specialize in custom, complex orders; and (4) CDMO organizations that have the capability to accept work from large biopharmaceutical companies and serve as the outsourcing entity for the development and manufacturing of nucleic acid products. However, it is important to note that CDMOs seldom offer proprietary products.

For mRNA capping analogs, we compete principally with Thermo Fisher Scientific Inc. (“Thermo Fisher”) and Hongene Biotech Corporation, who offer alternatives to CleanCap®. Many biopharmaceutical companies produce capping solutions in-house using enzymatic or ARCA processes. However, given CleanCap®’s high yield and process efficiency, many customers who previously insourced these processes have begun to partner with us. Based on the Industry Analysis, we believe our products and services are more effective than those of

our competitors. Deep scientific expertise, intellectual property protection and specialty equipment serve as barriers to entry in this space.

For our mRNA offerings, we compete with Aldevron LLC,Bio-synthesis Inc., and System Biosciences, LLC, among others. Based on the Industry Analysis, we believe we have a reputation for our expertise in the RNA space with talented scientists who are constantly pushing the frontier of RNA science. This scientific expertise and the required high-cost equipment serve as barriers to entry. In addition to our expertise, we believe our GMP cleanroom manufacturing process differentiates us from competitors.

For custom oligonucleotides, we compete with a number of manufacturers. Custom oligonucleotide providers include those that provide complex, highly modified oligonucleotides and those that provide less complex offerings. In the custom oligonucleotide space, complexity is based on the length of the sequence and level of modification to the phosphate backbone. Large manufacturers like Integrated DNA Technologies, Inc., Thermo Fisher and EMD Millipore Corporation ("Millipore Sigma") serve less complex customer needs while TriLink BioTechnologies, LGC Biosearch Technologies, Inc. and GenScript Biotech Corporation serve more complex customer needs. In the custom oligonucleotide market, we have a reputation for accepting complex orders and delivering high purity products that reduce researcher re-work and save money. Quick turnaround times and the ability to produce at scale are essential requirements in this segment.

In the oligonucleotide synthesis inputs market, we compete against large distributor-manufacturers like Thermo Fisher and Millipore Sigma while also serving them as customers. The Glen Research brand has a long history in this industry, which drives customer loyalty, and has a reputation for high-fidelity technical service, focusing on supplying and sourcing highly modified inputs for its customers.

Biologics Safety Testing

For drugs in early development, we compete against other bioprocess impurity kit providers such as BioGenes GmbH ("BioGenes") or Enzo Life Sciences, Inc. ("Enzo"). Competitors generally offer fewer expression platforms (as few as one or two) compared to our offering of 21 expression platforms and a total of 78 ELISA impurity detection kits. As a drug successfully moves forward to validation and approval stages, a customer may either continue with an off-the-shelf kit or they may begin the process to develop a custom assay that is tailored to meet their specific host cell and manufacturing process needs. During the entire drug development process, and especially during this decision, we are partners with the manufacturer and provide our expertise to help them make the best bioprocess quality control and testing-related decisions.

If a drug manufacturer continues with an off-the-shelf assay from development to validation and approval, they will generally stay with the incumbent kit provider due to the extensive validation they have conducted. For custom assay development, our main competitors are BioGenes, Rockland Immunochemicals, Inc., and some CDMOs and CROs with custom assay development capabilities. The trend in recent years has been for CDMOs, CROs and large biopharmaceutical companies to focus on core competencies and outsource host cell protein assays or qualify off-the-shelf kits when possible.

Protein Detection

In the protein detection market, we compete against large life sciences manufacturers and niche tissue staining offerings. We compete in the research segment of this market against large life sciences manufacturers such as Thermo Fisher and Abcam plc, who compete across the value chain offering primary and secondary antibody detection, visual detection and labeling, slide processes and visualization and analysis. Additionally, we compete against niche tissue staining offerings such as Enzo and Jackson ImmunoResearch Laboratories, Inc. We are differentiated by our deep visual detection and labeling experience, our Vector Laboratories brand's sterling reputation established over more than 40 years, and the desire of our research customers to replicate past findings, many of which were completed using Vector Laboratories products.

Licenses and Collaborations

ProteinSimple Supply and Distribution Agreement

On August 12, 2019, we (through Cygnus Technologies) entered into a Supply and Distribution Agreement with ProteinSimple (the "ProteinSimple Agreement") for the supply of bioprocess impurity assays to be assembled in assay cartridges for use in automated analyzer instruments. Under the ProteinSimple Agreement, we supply to ProteinSimple, at no charge, certain reagents to be incorporated into ProteinSimple cartridges or sold directly by us. This collaboration with ProteinSimple is generally exclusive in the field of testing for bioprocess impurities using immunoassays on an automated analyzer for the United States, United Kingdom, Ireland and Europe.

The ProteinSimple Agreement contains non-exclusive licenses from each party to the other to permit the other party to fulfill its obligations and sell its products under the ProteinSimple Agreement. If any intellectual property is developed jointly or any intellectual property that covers both bioprocess impurity assays and automated immunoassay kits and instruments is developed solely by either party, we will own all intellectual property with respect to the bioprocess impurity assays and ProteinSimple will own all intellectual property with respect to automated immunoassay kits and instruments.

The ProteinSimple Agreement is in effect for an initial seven (7) year term with automatic renewal for successive two (2) year renewal terms unless either party elects not to renew. Beginning on the third anniversary of the date of the ProteinSimple Agreement, either Party may terminate the ProteinSimple Agreement on thirty (30) days' notice if Cygnus Technologies has not purchased certain minimum numbers of cartridge kits from ProteinSimple.

Broad Patent License Agreement

We (through TriLink BioTechnologies) entered into a Nonexclusive Patent License and Material Transfer Agreement with The Broad Institute, Inc. ("Broad") effective as of July 5, 2017, and amended on September 29, 2017 (the "Broad Patent License Agreement"). Broad, together with a consortium of educational institutions (including Harvard University and the Massachusetts Institute of Technology), owns and controls certain patent rights relating to genome editing technology, including the CRISPR-Cas9 gene editing processes and have a licensing program for use and commercialization of technologies and products covered by the underlying patent rights. Under the Broad Patent License Agreement, Broad grants to us a non-exclusive, royalty-bearing, non-transferable and non-sublicensable, worldwide license under the licensed patent rights to manufacture and sell products and to perform certain *in vitro* processes or services on a fee-for-service basis, in each case, solely as research tools for research purposes (excluding human, clinical or diagnostic uses). We must use diligent efforts to develop products, introduce products into the commercial market and make products reasonably available to the public. We are obligated to pay a mid-five figure annual license maintenance fee and royalties in the range of 5% to 10% on net sales of covered products and processes.

The term of the Broad Patent License Agreement extends through the expiration of the last to expire claim of any of the licensed patents. We are entitled to terminate the Broad Patent License Agreement for convenience at any time on at least three (3) months' written notice, in which case we must continue to pay license maintenance fees and royalties as noted above for the sale of products that are not covered by the specific claims of the licensed patent rights but are otherwise derived from such licensed patent rights or from products covered by such licensed patent rights. Broad may terminate the license for our uncured failure to make payments, for our uncured material breach or if we bring a patent challenge against any of the institutional rights holders.

LSU Patent License Agreement

We (through TriLink BioTechnologies) entered into a Patent License Agreement with the Board of Supervisors of Louisiana State University and Agricultural and Mechanical College and Dr. Edward

Darzynkiewicz (collectively, "LSU") effective as of July 7, 2010 (the "LSU Patent License Agreement"). Under the LSU Patent License Agreement, LSU grants to us a non-exclusive, royalty-bearing license under an issued U.S. patent and patents that claim priority thereto, directed to mRNA capping technology to make and sell reagents and kits for research use only (excluding use in humans or for diagnostic or therapeutic purposes) in the United States. We are required to use commercially reasonable efforts to commercialize the licensed products throughout the life of the LSU Patent License Agreement. We are obligated to pay a low four-figure annual license maintenance fee and royalties in the range of 5% to 10% on net sales of licensed products.

We must pay royalties to LSU until the expiration of the last to expire licensed patents. We are entitled to terminate the LSU Patent License Agreement for convenience at any time on at least sixty (60) days' written notice, subject to paying in full all amounts due up to the date of termination and cessation of any exercise of the licensed rights thereafter. LSU may terminate the license for our uncured failure to make payments or our uncured material breach.

AmberGen Agreement

We (through Glen Research) entered into an Agreement with AmberGen, Inc. ("AmberGen"), dated May 11, 2000 (the "AmberGen Agreement") under which AmberGen has appointed us the exclusive distributor of AmberGen's proprietary photocleavable product offered under the name PC Phosphoramidite on a worldwide basis. We are limited to selling the product for research use only and are required to use good faith efforts to discontinue distribution to buyers making use of the product than purposes other than laboratory research.

We are entitled under the AmberGen Agreement to purchase product from AmberGen at AmberGen's cost to manufacture the product. On a monthly basis, we are required to remit to AmberGen 50% of the gross profits on product sales for which payments were received in the preceding month.

The AmberGen Agreement was initially in effect for a five-year term but is now in a series of automaticone-year renewal terms. Either party may terminate the AmberGen Agreement on six months' written notice or immediately for material breach of the other party or, subject to a cure period, for certain bankruptcy-related events.

BTI Biosearch Dyes Agreement

We (through Glen Research) are a party to a Commercial Supply and License Agreement with Biosearch Technologies, Inc. ("BTI"), dated June 29, 2004, as amended on November 8, 2004 (the "BTI Biosearch Dyes Agreement"), under which BTI agrees to supply us with certain BTI dyes and we are granted a worldwide, non-exclusive license to sell certain BTI dyes and to use BTI's product-related trademarks to do so. The BTI dyes can only be sold for the customer's internal research and development use and inclusion in commercial kits or any commercial application is prohibited unless the customer has obtained a valid commercial license from BTI. The rights granted do not include sales to customers for use in human *in vitro* or clinical diagnosis. We are required to pay a per unit price for the licensed BTI products.

The BTI Biosearch Dyes Agreement was originally in effect for a term of three years and is now in a series of annual year-to-year renewals. Either party has the right to opt-out of such renewals upon 90 days' notice prior to the next renewal. Either party can terminate the agreement for convenience at any time on six months' written notice. Either party can terminate the agreement for the other party's uncured material breach or insolvency.

Manufacturing and Supply

We occupy facilities in San Diego, California, Burlingame, California, Southport, North Carolina and Sterling, Virginia. Except for our Sterling facility, all our facilities are engaged in the manufacture of reagents. Our San Diego facility, in particular, was designed and built by us in conjunction with the building owner to

contain fully functional chemical and biological manufacturing operations from material receiving to product distribution and has its own loading dock, manufacturing gas delivery system, solvent delivery and waste system, ISO 8 and ISO 7 designated customer manufacturing suites and integrated building management systems for required site control. Our San Diego facility, fully completed in early 2020, doubled our previous overall nucleic acid production manufacturing capacity and quintupled our previous capacity to manufacture products under certain GMP conditions.

We continue to invest in our San Diego facility with recent expansions allowing for the manufacture of plasmid DNA and creation of ISO Class 8 and ISO Class 7 clean rooms providing for an expansion of the scale at which we can manufacture CleanCap® and NTPs, supported by a pilot plant for development of large scale manufacturing processes.

Our Southport and Burlingame operations are engaged in the manufacture and processing of antibody, ELISA kits and related reagents. The facilities incorporate laboratory, manufacturing, bottling, shipping and waste handling capabilities. Our Sterling facility was designed to perform quality control, aliquoting, packaging and shipping and houses the appropriate space and systems.

Our supply chain relies on a network of specialized suppliers and transportation companies. We regularly review our supply chain for supplier quality and risks related to concentration of supply and we take appropriate action to manage these potential risks.

Government Regulation

We provide products used for basic research or as raw materials used by biopharmaceutical customers for further processing, and active pharmaceutical ingredients used for preclinical and clinical studies. The quality of our products is critical to researchers looking to develop novel vaccines and therapies and for biopharmaceutical customers who use our products as raw materials or who are engaged in preclinical studies and clinical trials. Biopharmaceutical customers are subject to extensive regulations by the Food and Drug Administration ("FDA") and similar regulatory authorities in other countries for conducting clinical trials and commercializing products for therapeutic, vaccine or diagnostic use. This regulatory scrutiny results in our customers imposing rigorous quality requirements on us as their supplier through supplier qualification processes and customer contracts.

Our nucleic acid and biologics safety testing segments produce materials used in research and biopharmaceutical production, clinical trial vaccines and vaccine support products. We produce materials in support of our customers' manufacturing businesses and to fulfill their validation requirements, as applicable. These customer activities are subject to regulation and consequently require these businesses to be inspected by the FDA and other national regulatory agencies under their respective cGMP regulations. These regulations result in our customers imposing quality requirements on us for the manufacture of our products, and maintain records of our manufacturing, testing and control activities. In addition, the specific activities of some of our businesses require us to hold specialized licenses for the manufacture, distribution and/or marketing of particular products.

All of our sites are subject to licensing and regulation, as appropriate under federal, state and local laws relating to:

- the surface and air transportation of chemicals, biological reagents and hazardous materials;
- the handling, use, storage and disposal of chemicals (including toxic substances), biological reagents and hazardous waste;
- the procurement, handling, use, storage and disposal of biological products for research purposes;
- the safety and health of employees and visitors to our facilities; and
- protection of the environment and general public.

Regulatory compliance programs at each of our businesses are managed by a dedicated group responsible for regulatory affairs and compliance, including the use of outside consultants. Our compliance programs are also managed by quality management systems, such as vendor supplier programs and training programs. Within each business, we have established Quality Management Systems ("QMS") responsible for risk based internal audit programs to manage regulatory requirements and client quality expectations. Our QMS program ensures that management has proper oversight of regulatory compliance and quality assurance, inclusive of reviews of our system practices to ensure that appropriate quality controls are in place and that a robust audit strategy confirms requirements for compliance and quality assurance.

Research Products

Our products and operations may be subject to extensive and rigorous regulation by the FDA and other federal, state, or local authorities, as well as foreign regulatory authorities. The FDA regulates, among other things, the research, development, testing, manufacturing, clearance, approval, labeling, storage, recordkeeping, advertising, promotion, marketing, distribution, post-market monitoring and reporting, and import and export of pharmaceutical drugs. Certain of our products are currently marketed as research use only ("RUO").

We believe that our products that are marketed as RUO products are exempt from compliance with GMP regulations under the FDCA. RUO products cannot make any claims related to safety, effectiveness or diagnostic utility and they cannot be intended for human clinical diagnostic use. In November 2013, the FDA issued a final guidance on products labeled RUO, which, among other things, reaffirmed that a company may not make any clinical or diagnostic claims about an RUO product. The FDA will also evaluate the totality of the circumstances to determine if the product is intended for diagnostic purposes. If the FDA were to determine, based on the totality of circumstances, that our products labeled and marketed for RUO are intended for diagnostic purposes, they would be considered medical products that will require clearance or approval prior to commercialization.

We do not make claims related to safety or effectiveness and they are not intended for diagnostic or clinical use. However, the quality of our products is critical to meeting customer needs, and we therefore voluntarily follow the quality standards outlined by the International Organization for Standardization for quality management systems (ISO 9001:2015) for the design, development, manufacture, and distribution of our products. Some biopharmaceutical customers desire extra requirements including quality parameters and product specifications, which are outlined in customer-specific quality agreements. These products are further processed and validated by customers for their applications. Customers qualify us as part of their quality system requirements, which can include a supplier questionnaire and on-site audits. Customers requalify us on a regular basis to ensure our quality system, processes and facilities continue to meet their needs and we are meeting requirements outlined in relevant customer agreements.

Active Pharmaceutical Ingredients (APIs) for Clinical Trials

We provide APIs to customers for use in preclinical studies through and including clinical trials. We hold a drug manufacturing license with the California Food and Drug Branch of the California Department of Public Health for manufacture of APIs for clinical use and are subject to inspection to maintain licensure. Manufacture of APIs for use in clinical trials is regulated under § 501(a)(2)(B) of the FDCA, but is not subject to the current GMP regulations in 21 CFR § 211 by operation of 21 CFR § 210. We follow the principles detailed in the International Council for Harmonisation (ICH) Q7, Good Manufacturing Practice Guide for Active Pharmaceutical Ingredients (Section 19, APIs For Use in Clinical Trials) in order to comply with the applicable requirements of the FDCA, and the comparable GMP principles for Europe; European Community, Part II, Basic Requirements for Active Substances Used as Starting Materials (Section 19, APIs For Use in Clinical Trials). APIs are provided to customers under customer contracts that outline quality standards and product specifications. As products advance through the clinical phases, requirements become more stringent and we work with customers to define and agree on requirements and risks associated with their product.

Customers' biopharmaceutical products early in their development have a high failure rate and often do not advance through the clinical stages to commercialization. Our customers are required to follow regulatory pathways that are not always known, which may cause additional unforeseen requirements placed on us as their contract manufacturer and delays in advancing to the next stage of product development. We also provide novel compounds for cell and gene therapy applications, which result in additional challenges for our customers attempting to obtain regulatory approval given that this field is relatively new and regulations are evolving. Customer clinical trials rely on approval from institutional review boards (IRBs) and patient and volunteer enrollment, which makes timelines unpredictable for advancing to the next stage in product development. Preclinical studies and clinical trials conducted by our customers are also expensive and data may be negative or inconclusive causing customers to abandon projects that were expected to continue. Regulatory requirements in both the United States and abroad are always evolving and compliance with future laws may require significant investment to ensure compliance.

Other Regulatory Requirements

Select agent and toxin. We have one product classified as a select agent and toxin. Pursuant to the Public Health Security and Bioterrorism Preparedness and Response Act of 2002, the United States Department of Health and Human Services ("HHS") and the United States Department of Agriculture ("USDA") have established regulatory requirements for the possession, use, and transfer of biological agents and toxins that have the potential to pose a severe threat to public health and safety, animal and plant health, and the safety of animal and plant products for their intended use. These requirements can be found at 42 CFR Part 73 (HHS), 7 CFR Part 33 1 (USDA-PPQ), and 9 CFR Part 121 (USDA-VS). The possession, use and transfer of the relevant biological agent and toxin in quantities greater than 1.0 gram is governed by the regulations of 42 CFR Part 73 (HHS), Possession, Use and Transfer of Select Agents and Toxins. Vector Laboratories is registered with the CDC for these activities, is subject to inspection by the CDC and maintains an approved biosecurity plan. The regulations include specific requirements for safety (e.g. handling), security (e.g. access control, inventory control) and emergency response (e.g. addressing spills during manufacture or broken containers).

Environmental laws and regulations. We believe that our operations comply in all material respects with applicable laws and regulations concerning environmental protection. There have been no material effects upon our earnings or competitive position resulting from compliance with applicable laws or regulations enacted or adopted relating to the protection of the environment. Our capital and operating expenditures for pollution control in 2019 were not material and are not expected to be material in 2020.

Intellectual Property

Our success depends in part on our ability to obtain and maintain intellectual property protection for our products and services, defend and enforce our intellectual property rights, preserve the confidentiality of our trade secrets, and operate without infringing, misappropriating or otherwise violating valid and enforceable intellectual property rights of others. We seek to protect the investments made into the development of our products and services by relying on a combination of patents, trademarks, copyrights, trade secrets, including know-how, and license agreements. We also seek to protect our proprietary products and services, in part, by requiring our employees, consultants, contractors and other third parties to execute confidentiality agreements and invention assignment agreements.

Patents. Our intellectual property strategy is focused on protecting through patents and other intellectual property rights our core products and services, including CleanCap®, and related instrumentation and applications. In addition, we protect our ongoing research and development into critical reagents for cell and gene therapy through patents and other intellectual property rights.

As of December 31, 2019, we solely owned 18 issued U.S. patents including two patents received in December 2019 for certain of our CleanCap® products, three pending U.S. non-provisional patent applications,

29 issued foreign patents and 10 pending foreign patent applications and co-own two issued U.S. patents and one issued foreign patent with third parties, the details of which are set out in the tables below. Two of the foregoing U.S. patent applications are national stage filings of two PCT patent applications that we solely own. Our patent portfolio generally includes patents and patent applications relating to compositions and methods for the production of oligonucleotides, nucleic acids and mock viral particles. Issued U.S. patents in our portfolio of company-owned patents are expected to expire between 2021 and 2035. In addition, certain patents related to our SoluLINK products expired in 2020 and certain other patents related to such products are due to expire in 2021 and 2022.

The following patents and patent applications (including expected 20 year expiration dates) relate to our CleanCap® related products and technology.

Patent and Patent Application Numbers	Form of Ownership	Expected Expiration Date	Description
US 10,494,399, US 10,519,189, US Patent App. No. 15/761,957, and foreign applications in certain jurisdictions claiming priority to PCT/US2016/052670	Owned	Sept. 20, 2036	Directed to compositions and methods for synthesizing 5'-capped RNAs

The following patents and patent applications (including expected 20 year expiration dates and any patent term adjustment) relate to our CleanTag® Library Prep related products and technology.

Patent Numbers	Form of Ownership	Expected Expiration Date	Description
US 8,728,725	Owned	Jan. 5, 2032	Directed to compositions and methods for ligation of nucleic acids
US 9,631,227	Owned	Nov. 10, 2030	Directed to compositions and methods for ligation of nucleic acids
AU Patent No. 2010270715	Owned	July 6, 2030	Directed to compositions and methods for ligation of nucleic acids
CA Patent No. 2,767,408	Owned	July 6, 2030	Directed to compositions and methods for ligation of nucleic acids
EP Patent No. 2451980 (validated in DE, ES, FR, GB, IT)	Owned	July 6, 2030	Directed to compositions and methods for ligation of nucleic acids
ES Patent No. 2521740	Owned	July 6, 2030	Directed to compositions and methods for ligation of nucleic acids
HK Patent No. 1220234	Owned	July 6, 2030	Directed to compositions and methods for ligation of nucleic acids
JP Patent No. 5903379	Owned	July 6, 2030	Directed to compositions and methods for ligation of nucleic acids
MX Patent No. 321180	Owned	July 6, 2030	Directed to compositions and methods for ligation of nucleic acids

NZ Patent No. 597535	Owned	July 6, 2030	Directed to compositions and methods for ligation of nucleic acids

The following patents and patent applications (including expected 20 year expiration dates and any patent term adjustment) relate to our CleanAmp® related products and technology.

Patent Numbers	Form of Ownership	Expected Expiration Date	Description
US 8,133,669	Owned	May 21, 2029	Directed to compositions and methods for nucleic acid replication
AU Patent No. 2009257815	Owned	May 21, 2029	Directed to compositions and methods for nucleic acid replication
CA Patent No. 2,725,239	Owned	May 21, 2029	Directed to compositions and methods for nucleic acid replication
CN Patent No. 102105481	Owned	May 21, 2029	Directed to compositions and methods for nucleic acid replication
EP Patent No. 2294076 (validated in DE, ES, FR, GB, IT)	Owned	May 21, 2029	Directed to compositions and methods for nucleic acid replication
ES Patent No. 2625938	Owned	May 21, 2029	Directed to compositions and methods for nucleic acid replication
GB Patent No. 2473778	Owned	May 21, 2029	Directed to compositions and methods for nucleic acid replication
HK Patent No. 1155456	Owned	May 21, 2029	Directed to compositions and methods for nucleic acid replication
IN Patent No. 318293	Owned	May 21, 2029	Directed to compositions and methods for nucleic acid replication
JP Patent No. 5712125	Owned	May 21, 2029	Directed to compositions and methods for nucleic acid replication
US 8,361,753	Owned	October 21, 2029	Directed to compositions and methods for nucleic acid amplification
AU Patent No. 2007268075	Owned	May 17, 2027	Directed to compositions and methods for nucleic acid amplification
CA Patent No. 2,653,841	Owned	May 17, 2027	Directed to compositions and methods for nucleic acid amplification
CN Patent No. 101517091	Owned	May 17, 2027	Directed to compositions and methods for nucleic acid amplification
DE Patent No. 602007013223	Owned	May 17, 2027	Directed to compositions and methods for nucleic acid amplification

EP Patent No. 2032714 (validated in DE, ES, FR, GB, IT)	Owned	May 17, 2027	Directed to compositions and methods for nucleic acid amplification
ES Patent No. 2360738	Owned	May 17, 2027	Directed to compositions and methods for nucleic acid amplification
HK Patent No. 1129045	Owned	May 17, 2027	Directed to compositions and methods for nucleic acid amplification
JP Patent No. 5558811	Owned	May 17, 2027	Directed to compositions and methods for nucleic acid amplification

The following patent (including expected 20 year expiration dates and any patent term adjustment) relates to our decanoic acid diester linker-related technology.

Patent Numbers	Form of Ownership	Expected Expiration Date	Description
US 6,320,041	Owned	April 13, 2021	Directed to compositions used for chemical joining molecules to oligonucleotide

The following patents and patent applications (including expected 20 year expiration dates and any patent term adjustment) relate to our SoluLINK® related products and technology.

Patent Numbers	Form of Ownership	Expected Expiration Date	Description
US 6,686,461	Owned	Feb. 28, 2021	Directed to methods and compositions for preparation, detection and immobilization of macromolecules including oligonucleotides
US 7,173,125	Owned	Jan. 29, 2022	Directed to methods and compositions for preparation, detection and immobilization of macromolecules including oligonucleotides
US 7,999,098	Owned	Jan. 29, 2022	Directed to methods and compositions for preparation, detection and immobilization of macromolecules including oligonucleotides
US 6,800,728	Owned	June 28, 2021	Directed to methods and compositions for crosslinking and immobilizing biomolecules, drugs and synthetic polymers

US 7,462,689	Owned	July 15, 2021	Directed to methods and compositions for crosslinking and immobilizing biomolecules, drugs and synthetic polymers
US 7,732,628	Owned	Sept. 6, 2023	Directed to methods and compositions for immobilizing biomolecules, drugs and synthetic polymers
US 7,102,024	Owned	Sept. 6, 2023	Directed to methods and compositions for immobilizing biomolecules
US 6,911,535	Owned	Mar. 31, 2022	Directed to methods for immobilizing biomolecules
US 8,541,555	Owned	April 8, 2031	Directed to methods and compounds used to label biomolecules
US 8,846,875	Owned	Feb. 11, 2031	Directed to methods, systems, and kits for preparing, purifying, and isolating oligonucleotide conjugates
EP Patent No. 1315699 (validated in FR, DE, GB)	Owned	Mar. 22, 2021	Directed to methods and compositions for crosslinking and immobilizing biomolecules, drugs and synthetic polymers
EP Patent No. 2295407 (validated in FR, DE, GB)	Owned	Mar. 22, 2021	Directed to methods and compositions for crosslinking and immobilizing biomolecules, drugs and synthetic polymers
EP Patent No. 2298736 (validated in FR, DE, GB)	Owned	Mar. 22, 2021	Directed to methods and compositions for crosslinking and immobilizing biomolecules, drugs and synthetic polymers

The following patents and patent applications (including expected 20 year expiration dates) relate to our immunofluorescence assay related products and technology.

Patent Application Numbers	Form of Ownership	Expected Expiration Date	Description
US Patent App. No. 15/970,100, and foreign applications in certain jurisdictions claiming priority to PCT/US2018/030799	Owned	May 3, 2038	Directed to kits and methods related to immunofluorescence assays
US Patent App. No. 16/195,208, and foreign applications in certain jurisdictions claiming priority to PCT/US2018/061807	Owned	Nov. 19, 2038	Directed to systems and methods for immunoassay detection

The following patents and patent applications (including expected 20 year expiration dates) relate to our immunofluorescence assay related products and technology.

Patent Numbers	Form of Ownership	Expected Expiration Date	Description
US 6,770,754	Owned	Nov. 29, 2021	Directed to compositions and methods related to oligonucleotide synthesis
US 7,491,817	Owned	Nov. 29, 2021	Directed to compositions and methods related to oligonucleotide synthesis
EP Patent No. 1404695 (validated in BE, CH, DE, FR, GB)	Owned	Nov. 29, 2021	Directed to compositions and methods related to oligonucleotide synthesis
EP Patent No. 2248820 (validated in BE, CH, DE, FR, GB)	Owned	Nov. 29, 2021	Directed to compositions and methods related to oligonucleotide synthesis

Patent Numbers	Form of Ownership	Expected Expiration Date	Description
US 8,394,948	Co-owned with Nelson Biotechnologies	Sept. 28, 2030	Directed to compositions and methods related to oligonucleotide synthesis

Patent Numbers	Form of Ownership	Expected Expiration Date	Description
US 7,144,995	Co-owned with Berry & Associates	June 1, 2024	Directed to compositions and methods related to fluorescent nitrogenous bases
EP Patent No. 1483280 (validated in CH, DE, FR, GB)	Co-owned with Berry & Associates	Mar. 6, 2023	Directed to compositions and methods related to fluorescent nitrogenous bases

PCT patent applications are not eligible to become an issued patent until, among other things, we file one or more national stage patent applications within, depending on the country, 30 to 32 months of the PCT application's priority date in the countries in which we seek patent protection. Moreover, we may own

provisional patent applications in the future, and provisional patent applications are not eligible to become issued patents until, among other things, we file a non-provisional patent application within 12 months of filing of one or more of related provisional patent applications. If we do not timely file any national stage patent applications or non-provisional patent applications, we may lose our priority date with respect to our PCT patent applications or provisional patent applications and any patent protection on the inventions disclosed in such patent applications. While we intend to timely file national stage patent applications relating to our PCT patent applications and non-provisional patent applications relating to our provisional patent applications, we cannot predict whether any such patent applications will result in the issuance of patents that provide us with any competitive advantage.

Individual issued patents extend for varying periods depending on the date of filing of the patent application or the date of patent issuance and the legal term of patents in the countries in which they are obtained. Generally, utility patents issued for applications filed in the United States are granted a term of 20 years from the earliest effective filing date of a non-provisional patent application. The duration of foreign patents varies in accordance with provisions of applicable local law, but typically is also 20 years from the earliest effective filing date. As a result, our patent portfolio may not provide us with sufficient rights to exclude others from commercializing products similar or identical to ours.

Trademarks. Our trademark portfolio is designed to protect the brands of our current and future products and includes U.S. trademark registrations for our company name, Maravai, and various product names, such as CleanCap®.

Trade Secrets. We also rely on trade secrets, including know-how, unpatented technology and other proprietary information, to strengthen our competitive position. We have determined that certain technologies, such as the production of antibodies for biologics safety testing, are better kept as trade secrets, rather than pursuing patent protection. To prevent disclosure of trade secrets to others, it is our policy to enter into nondisclosure, invention assignment and confidentiality agreements with parties who have access to trade secrets, such as our employees, collaborators, outside scientific collaborators, consultants, advisors and other third parties. These agreements also provide that all inventions resulting from work performed for us or relating to our business and conceived or completed during the period of employment or assignment, as applicable, are our exclusive property. In addition, we take other appropriate precautions, such as physical and technological security measures, to guard against misappropriation of our proprietary information by third parties.

We intend to pursue additional intellectual property protection to the extent we believe it would advance our business objectives. Notwithstanding these efforts, there can be no assurance that we will adequately protect our intellectual property or provide any competitive advantage. We cannot provide any assurance that any patents will be issued from our pending or any future patent applications or that any issued patents will adequately protect our products or technology. Our intellectual property rights may be invalidated, held unenforceable, circumvented, narrowed or challenged. In addition, the laws of various foreign countries where our products are distributed may not protect our intellectual property rights to the same extent as laws in the United States. Furthermore, it may be difficult to protect our trade secrets. While we have confidence in the measures we take to protect and preserve our trade secrets, they may be inadequate and can be breached, and we may not have adequate remedies for violations of such measures. In addition, our trade secrets may otherwise become known or be independently discovered by competitors. Moreover, our invention assignment agreements with employees, collaborators, outside scientific collaborators, consultants, advisors and other third parties may not be self-executing or otherwise provide meaningful protection for our intellectual property rights. If we do not adequately protect our intellectual property, third parties, including our competitors, may be able to use our technologies to produce and market products that compete with us and erode our competitive advantage. For more information regarding risks related to intellectual property, please see “Risk Factors —Risks Related to our Intellectual Property.”

Facilities

Our corporate headquarters are in San Diego, California, where we occupy approximately 119,000 square feet of leased space. We completed construction of the facility in 2020. In addition to housing our headquarters, the facility serves as the principal hub of operations for our nucleic acid production business and was purpose built to expand the capacity of this business segment while adding specialized capabilities in the form of clean rooms, air handling, waste and solvent handling, and GMP capabilities.

Our other facilities are in Burlingame, California, Southport, North Carolina and Sterling, Virginia. Across all of our facilities we have approximately 140,000 square feet of lab and production space. All facilities are leased. Our facility in Burlingame is subject to a lease that terminates in June 2022, at which time we intend to relocate the operations. A summary of our facilities is listed below.

We own a 3,000 square foot facility in Peterborough, United Kingdom, which previously housed our local sales office. The building is being marketed for sale.

Location	Approx. Square Footage	Products Produced	Lease Term
San Diego, CA	119,000	TriLink BioTechnologies branded reagents	May 2030
Burlingame, CA	65,000	Vector Laboratories branded reagents	June 2022
Southport, NC	20,000	Cygnus Technologies branded reagents	July 2027
Sterling, VA	21,000	Glen Research branded reagents	April 2025

Employees

As of August 31, 2020, we had 382 full-time employees. Among our employees, 43% identify as female and 57% identify as male. None of our employees is represented by a labor union, and none of our employees has entered into a collective bargaining agreement with us. We offer a highly competitive compensation and benefits program to attract and retain top talent.

Our talented employees drive our mission and share core values that both stem from and define our culture, which plays an invaluable role in our execution at all levels in our organization. Our culture is based on these shared core values which we believe contribute to our success and the continued growth of the organization. Our core values are used in candidate screening and in employee evaluations to help reinforce their importance in our organization:

- *Adaptability*. We stay agile, ready to shift or change our approach when challenges arise and open to new ideas and responsibilities.
- *Open Communication*. We focus on open source sharing with our focus on constant improvement as individuals and as an organization.
- *Quality Mindset*. We strive to eliminate errors with accurate work as a priority and seek opportunities to improve products/services.
- *Work Together*. We are accountable to our team and work to meet established deliverables with respect and appreciation of others' views.
- *Workplace Awareness.* We promote a safe and healthy work environment.
- *Reward.* We celebrate and recognize accomplishments, both individual and collectively.

Legal Proceedings

From time to time, we may be involved in various legal proceedings and subject to claims that arise in the ordinary course of business. Although the results of litigation and claims are inherently unpredictable and uncertain, we are not currently a party to any legal proceedings the outcome of which, if determined adversely to

us, are believed to, either individually or taken together, have a material adverse effect on our business, operating results, cash flows or financial condition. Regardless of the outcome, litigation has the potential to have an adverse impact on us because of defense and settlement costs, diversion of management resources, and other factors. See “Risk Factors—Risks Related to Our Intellectual Property—Intellectual property litigation and other proceedings could cause us to spend substantial resources and distract our personnel from their normal responsibilities” and “Risk Factors—Risks Related to Our Intellectual Property—If we are sued for infringing, misappropriating, or otherwise violating intellectual property rights of third parties, such litigation could be costly and time consuming and could prevent or delay us from developing or commercializing our current or future products.”

ORGANIZATIONAL STRUCTURE

Overview

Maravai LifeSciences Holdings, Inc. is a Delaware corporation formed to serve as a holding company that will hold an interest in Topco LLC. Maravai LifeSciences Holdings, Inc. has not engaged in any business or other activities other than in connection with its formation and this offering. Upon consummation of this offering and the application of the net proceeds therefrom, we will be a holding company, our sole asset will be an equity interest in Topco LLC and we will operate and control all of the business and affairs and consolidate the financial results of Topco LLC. Prior to the closing of this offering, the operating agreement of Topco LLC will be amended and restated to, among other things, modify its capital structure by replacing the membership interests currently held by Topco LLC's existing owner, MLSH 1, with a new class of LLC Units. We and MLSH 1 will also enter into an Exchange Agreement under which MLSH 1 (and certain permitted transferees thereof) may (subject to the terms of the Exchange Agreement) exchange its LLC Units for shares of our Class A common stock on a one-for-one basis, or, at our election, for cash, from a substantially concurrent public offering or private sale (based on the price of our Class A common stock in such public offering or private sale). MLSH 1 will also be required to deliver to us an equivalent number of shares of Class B common stock to effectuate an exchange. Any shares of Class B common stock so delivered will be cancelled. As MLSH 1 exchanges its LLC Units, our interest in Topco LLC will be correspondingly increased.

Upon completion of this offering, GTCR will control the voting power in Maravai LifeSciences Holdings, Inc. as follows: (i) approximately % (or approximately % if the underwriters exercise their option to purchase additional shares in full) through its control of MLSH 1 and (ii) approximately % through its control of MLSH 2.

Incorporation of Maravai LifeSciences Holdings, Inc.

Maravai LifeSciences Holdings, Inc. was incorporated in Delaware on August 25, 2020, and has not engaged in any business or other activities except in connection with its formation and the offering. Our certificate of incorporation will be amended and restated at or prior to the consummation of this offering. Our amended and restated certificate of incorporation will authorize two classes of common stock, Class A common stock and Class B common stock, each having the terms described in "Description of Capital Stock." In addition, our amended and restated certificate of incorporation will authorize shares of undesignated preferred stock, the rights, preferences and privileges of which may be designated from time to time by our Board.

Shares of our Class B common stock, which provide no economic rights, will be distributed to MLSH 1 in connection with this offering. Each share of our Class B common stock entitles its holder to one vote on all matters to be voted on by shareholders generally. See "Description of Capital Stock—Class B Common Stock." Holders of our Class A common stock and Class B common stock vote together as a single class on all matters presented to our shareholders for their vote or approval, except as otherwise required by applicable law.

Organizational Transactions

The following transactions, referred to collectively herein as the "Organizational Transactions," will each be completed prior to or in connection with the completion of this offering.

Immediately prior to the effectiveness of this Registration Statement, we will take the following actions:

- We will amend and restate the LLC Operating Agreement of Topco LLC to, among other things (i) modify its capital structure by replacing the membership interests currently held by Topco LLC's existing owners (beneficially owned through MLSH 1) with a new class of LLC Units held initially by MLSH 1 and Maravai LifeSciences Holdings, Inc. and (ii) appoint Maravai LifeSciences Holdings, Inc. as the sole managing member of Topco LLC.

- The Blocker Entities through which GTCR and Newstone hold a portion of their ownership interests in MLSH 1 will engage in a series of transactions that will result in each of these entities merging with and into Maravai LifeSciences Holdings, Inc., with Maravai LifeSciences Holdings, Inc. remaining as the surviving corporation. As a result of such transactions, MLSH 2 will exchange all of the equity interests in the Blocker Entities for shares of Maravai LifeSciences Holdings, Inc. Class A common stock.
- We will amend and restate the certificate of incorporation of Maravai LifeSciences Holdings, Inc. to, among other things, provide for Class A common stock and Class B common stock. See "Description of Capital Stock."
- We will issue shares of Class B common stock to MLSH 1, on a one-to-one basis with the number of LLC Units it owns, for nominal consideration.
- We expect to award options to purchase an aggregate of shares of Class A common stock with an exercise price set at the initial public offering price issued pursuant to the 2020 Plan.
- We will enter into the Exchange Agreement with MLSH 1 pursuant to which MLSH 1 will be entitled to exchange LLC Units, together with an equal number of shares of Class B common stock, for shares of Class A common stock on a one-for-one basis or, at our election, for cash, from a substantially concurrent public offering or private sale (based on the price of our Class A common stock in such public offering or private sale). See "—Exchange Agreement."
- We will enter into the Tax Receivable Agreement with MLSH 1 and MLSH 2 that will provide for the payment by Maravai LifeSciences Holdings, Inc. to MLSH 1 and MLSH 2, collectively, of 85% of the amount of cash savings, if any, in U.S. federal, state and local income taxes (computed using simplifying assumptions to address the impact of state and local taxes) we actually realize (or under certain circumstances are deemed to realize in the case of an early termination payment by us, a change in control or a material breach by us of our obligations under the Tax Receivable Agreement, as discussed below) as a result of (i) certain increases in the tax basis of assets of Topco LLC and its subsidiaries resulting from purchases or exchanges of LLC Units, (ii) certain tax attributes of the Blocker Entities, Topco LLC and subsidiaries of Topco LLC that existed prior to this offering and (iii) certain other tax benefits related to our entering into the Tax Receivable Agreement, including tax benefits attributable to payments that we make under the Tax Receivable Agreement. See "—Tax Receivable Agreement."

In connection with the completion of this offering, we will issue shares of our Class A common stock to the investors in this offering (or shares if the underwriters exercise their option to purchase additional shares in full) in exchange for net proceeds of approximately $ million (or approximately $ million if the underwriters exercise their option to purchase additional shares in full), after deducting underwriting discounts and commissions but before estimated offering expense payable by us.

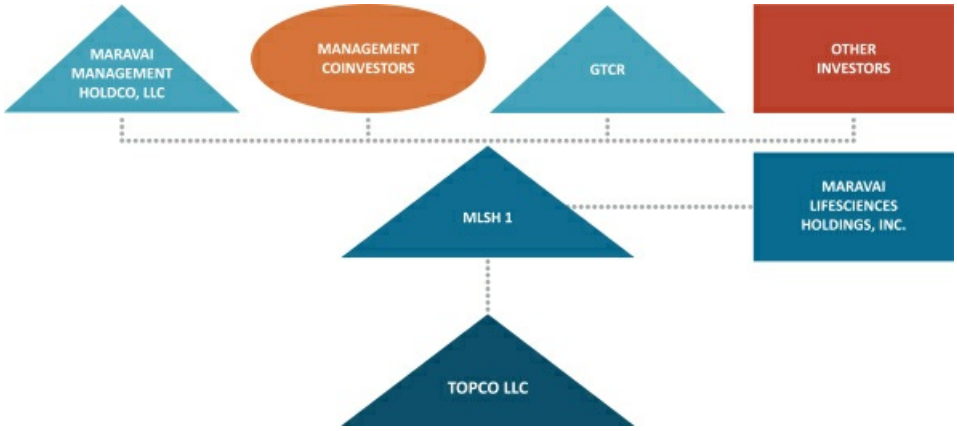
Immediately following the completion of this offering, we will take the following actions:

- We will use approximately $ million of the net proceeds of this offering to (i) acquire newly-issued LLC Units in Topco LLC and approximately $ million of the net proceeds of this offering to acquire outstanding LLC Units in Topco LLC from MLSH 1, in each case at a purchase price per LLC Unit equal to the initial offering price per share of Class A common stock in this offering, less underwriting discounts and commissions and (ii) pay $ million to MLSH 2 as consideration for the Blocker Mergers.
- Topco LLC will apply the proceeds it receives from us (including any additional proceeds it may receive from us if the underwriters exercise their option to purchase additional shares) to pay expenses incurred in connection with this offering and the Organizational Transactions and for general corporate purposes. Topco LLC will bear or reimburse us for all of the expenses of this offering, including the underwriters' discounts and commissions. See "Use of Proceeds."

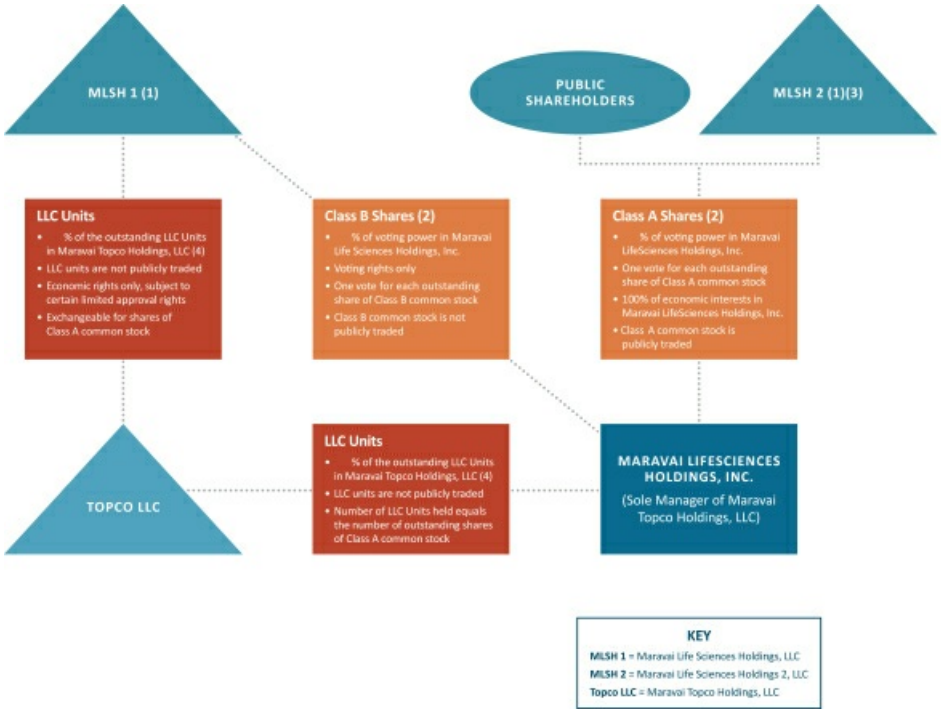
As a result of the Organizational Transactions:

- the investors in this offering will collectively own shares of our Class A common stock and we will hold LLC Units;
- MLSH 1 will own LLC Units and shares of Class B common stock;
- our Class A common stock will collectively represent approximately % of the voting power in us; and
- our Class B common stock will collectively represent approximately % of the voting power in us.

The diagram below depicts our historical organizational structure prior to the completion of the Organizational Transactions. This diagram is provided for illustrative purposes only and does not purport to represent all legal entities owned or controlled by us, or owning a beneficial interest in us.



The diagram below depicts our expected organizational structure immediately following completion of the Organizational Transactions. This diagram is provided for illustrative purposes only and does not purport to represent all legal entities owned or controlled by us, or owning a beneficial interest in us.



(1) Upon completion of this offering, GTCR will control the voting power in Maravai LifeSciences Holdings, Inc. as follows: (i) approximately % (or approximately % if the underwriters exercise their option to purchase additional shares in full) through its control of MLSH 1 and (ii) approximately % through its control of MLSH 2. See "Principal Shareholders" for additional information about MLSH 1 and MLSH 2.

(2) Shares of Class A common stock and Class B common stock will vote as a single class. Each outstanding share of Class A common stock and Class B Common stock will be entitled to one vote on all matters to be voted on by shareholders generally. The shares of Class B common stock have no economic rights. In accordance with the Exchange Agreement to be entered into in connection with the Organizational Transactions, MLSH 1 will be entitled to exchange LLC Units, together with an equal number of shares of Class B common stock, for shares of Class A common stock determined in accordance with the Exchange Agreement or, at our election, for cash from a substantially concurrent public offering or private sale (based on the price of our Class A common stock in such public offering or private sale).

(3) Upon completion of this offering, we expect to award options to purchase an aggregate of shares of Class A common stock with an exercise price set at the initial public offering price issued pursuant to the 2020 Plan.

(4) Assumes no exercise of the underwriters' option to purchase additional shares. If the underwriters exercise their option to purchase additional shares in full, (i) the holders of Class A common stock will have % of the voting power in Maravai LifeSciences Holdings, Inc., (ii) MLSH 1, through ownership of the Class B common stock, will have % of the voting power of Maravai LifeSciences Holdings, Inc., (iii) MLSH 1

will own % of the outstanding LLC Units in Topco LLC and (iv) Maravai LifeSciences Holdings, Inc. will own % of the outstanding LLC Units in Topco LLC.

Following the consummation of the Organizational Transactions, Maravai LifeSciences Holdings, Inc. will be a holding company and its sole asset will be its direct equity interest in Topco LLC. Maravai LifeSciences Holdings, Inc. will operate and control all of the business and affairs of Topco LLC and its subsidiaries. Accordingly, although Maravai LifeSciences Holdings, Inc. will initially own a minority economic interest in Topco LLC following the consummation of this offering, Maravai LifeSciences Holdings, Inc. will have 100% of the voting power and will control management of Topco LLC, subject to certain exceptions. The financial results of Topco LLC and its consolidated subsidiaries will be consolidated in our financial statements.

Our post-offering organizational structure will allow MLSH 1 to retain its equity ownership in Topco LLC, an entity that is classified as a partnership for United States federal income tax purposes, in the form of LLC Units. Investors in this offering will, by contrast, hold their equity ownership in Maravai LifeSciences Holdings, Inc., a Delaware corporation that is a domestic corporation for United States federal income tax purposes, in the form of shares of Class A common stock. We believe that MLSH 1 generally will find it advantageous to hold its equity interests in an entity that is not taxable as a corporation for United States federal income tax purposes. The LLC Unitholders, like Maravai LifeSciences Holdings, Inc., will be allocated their proportionate share of any taxable income of Topco LLC.

MLSH 1 will also hold shares of our Class B common stock. Although these shares of Class B common stock have only voting and no economic rights, they will allow MLSH 1 to exercise voting power over Maravai LifeSciences Holdings, Inc., the sole managing member of Topco LLC, at a level that is greater than their overall equity ownership of our business. Class B common stock is entitled to one vote per share. When MLSH 1 exchanges LLC Units for shares of our Class A common stock or, at our election, for cash from a substantially concurrent public offering or private sale (based on the price of our Class A common stock in such public offering or private sale), pursuant to the Exchange Agreement described below, it will also be required to deliver an equivalent number of shares of Class B common stock. Any shares of Class B common stock so delivered will be cancelled.

Amended and Restated Operating Agreement of Topco LLC

In connection with the completion of this offering, we will amend and restate Topco LLC's existing operating agreement, which we refer to as the "LLC Operating Agreement." The operations of Topco LLC, and the rights and obligations of the LLC Unitholders, will be set forth in the LLC Operating Agreement. The LLC Operating Agreement will be filed as an exhibit to the registration statement of which this prospectus forms a part.

Sole Manager

In connection with this offering, we will become a member and the sole managing member of Topco LLC. As the sole managing member, we will be able to control all of the day-to-day business affairs and decision-making of Topco LLC without the approval of any other member, unless otherwise stated in the LLC Operating Agreement. As such, through our officers and directors, we will be responsible for all operational and administrative decisions of Topco LLC and the day-to-day management of Topco LLC's business. Pursuant to the LLC Operating Agreement, we cannot be removed, under any circumstances, as the sole managing member of Topco LLC except by our election.

Compensation

We will not be entitled to compensation for our services as managing member. We will be entitled to reimbursement by Topco LLC for fees and expenses incurred on behalf of Topco LLC, including all expenses associated with this offering and maintaining our corporate existence.

Recapitalization

The LLC Operating Agreement recapitalizes the interests currently held by the existing owner of Topco LLC, MLSH 1, into a new single class of common membership units, which we refer to as the "LLC Units." The LLC Operating Agreement will also reflect a split of LLC Units such that one LLC Unit can be acquired with the net proceeds received in the initial offering from the sale of one share of our Class A common stock. Each LLC Unit will entitle the holder to a pro rata share of the net profits and net losses and distributions of Topco LLC. Holders of LLC Units will have no voting rights, except as expressly provided in the LLC Operating Agreement.

Distributions

The LLC Operating Agreement will require "tax distributions," as that term is defined in the LLC Operating Agreement, to be made by Topco LLC to its "members," as that term is defined in the LLC Operating Agreement. Tax distributions generally will be made quarterly to each member of Topco LLC, including us, on a pro rata basis among the LLC Unitholders based on Topco LLC's net taxable income and without regard to any applicable basis adjustment under Section 743(b) of the Code and at a tax rate that will be determined by us. The tax rate used to determine tax distributions will apply regardless of the actual final tax liability of any such member. Tax distributions will also be made only to the extent all distributions from Topco LLC for the relevant period were otherwise insufficient to enable each member to cover its tax liabilities as calculated in the manner described above. We expect Topco LLC may make distributions out of distributable cash periodically to the extent permitted by agreements governing indebtedness of Topco LLC and necessary to enable Topco LLC to cover its operating expenses and other obligations, including our tax liability and obligations under the Tax Receivable Agreement, as well as to make dividend payments, if any, to the holders of our Class A common stock.

Exchange Rights

The LLC Operating Agreement provides that MLSH 1 (and certain permitted transferees thereof) may, pursuant to the terms of the Exchange Agreement described below, exchange its LLC Units for shares of our Class A common stock on a one-for-one basis, or, at our election, for cash, from a substantially concurrent public offering or private sale (based on the price of our Class A common stock in such public offering or private sale). MLSH 1 will also be required to deliver to us an equivalent number of shares of Class B common stock to effectuate an exchange. As a holder surrenders or exchanges its LLC Units, our interest in Topco LLC will be correspondingly increased. See "—Exchange Agreement."

Issuance of LLC Units Upon Exercise of Options or Issuance of Other Equity Compensation

Upon the exercise of options issued by us, or the issuance of other types of equity compensation by us (such as the issuance of restricted or non-restricted stock, payment of bonuses in stock or settlement of stock appreciation rights in stock), we will be required to acquire from Topco LLC a number of LLC Units equal to the number of shares of Class A common stock being issued in connection with the exercise of such options or issuance of other types of equity compensation. When we issue shares of Class A common stock in settlement of stock options granted to persons that are not officers or employees of Topco LLC or its subsidiaries, we will make, or be deemed to make, a capital contribution to Topco LLC equal to the aggregate value of such shares of Class A common stock, and Topco LLC will issue to us a number of LLC Units equal to the number of shares of Class A common stock we issued. When we issue shares of Class A common stock in settlement of stock options granted to persons that are officers or employees of Topco LLC or its subsidiaries, we will be deemed to have sold directly to the person exercising such award a portion of the value of each share of Class A common stock equal to the exercise price per share, and we will be deemed to have sold directly to Topco LLC (or the applicable subsidiary of Topco LLC) the difference between the exercise price and market price per share for each such share of Class A common stock. In cases where we grant other types of equity compensation to employees of Topco LLC or its subsidiaries, on each applicable vesting date we will be deemed to have sold to

Topco LLC (or such subsidiary) the number of vested shares of Class A common stock at a price equal to the market price per share, Topco LLC (or such subsidiary) will deliver the shares to the applicable person, and we will be deemed to have made a capital contribution in Topco LLC equal to the purchase price for such shares in exchange for an equal number of LLC Units.

Maintenance of One-to-One Ratio of Shares of Class A Common Stock and LLC Units Owned by Maravai LifeSciences Holdings, Inc.

Our amended and restated certificate of incorporation and the LLC Operating Agreement will require that (1) we at all times maintain a ratio of one LLC Unit owned by us for each share of Class A common stock issued by us (subject to certain exceptions for treasury shares and shares underlying certain convertible or exchangeable securities), and (2) Topco LLC at all times maintains a one-to-one ratio between the number of shares of Class A common stock issued by us and the number of LLC Units owned by us.

Transfer Restrictions

The LLC Operating Agreement generally does not permit transfers of LLC Units by members, subject to limited exceptions. Any transferee of LLC Units must assume, by operation of law or written agreement, all of the obligations of a transferring member with respect to the transferred units, even if the transferee is not admitted as a member of Topco LLC.

Dissolution

The LLC Operating Agreement will provide that the unanimous consent of all members holding voting units will be required to voluntarily dissolve Topco LLC. In addition to a voluntary dissolution, Topco LLC will be dissolved upon a change of control transaction under certain circumstances, as well as upon the entry of a decree of judicial dissolution or other circumstances in accordance with Delaware law. Upon a dissolution event, the proceeds of a liquidation will be distributed in the following order: (1) first, to pay the expenses of winding up Topco LLC; (2) second, to pay debts and liabilities owed to creditors of Topco LLC, other than members; (3) third, to pay debts and liabilities owed to members; and (4) fourth, to the members pro rata in accordance with their respective percentage ownership interests in Topco LLC (as determined based on the number of LLC Units held by a member relative to the aggregate number of all outstanding LLC Units).

Confidentiality

Each member will agree to maintain the confidentiality of Topco LLC's confidential information. This obligation excludes information independently obtained or developed by the members, information that is in the public domain or otherwise disclosed to a member, in either such case not in violation of a confidentiality obligation or disclosures required by law or judicial process or approved by our chief executive officer.

Indemnification and Exculpation

The LLC Operating Agreement provides for indemnification of the manager, members and officers of Topco LLC and their respective subsidiaries or affiliates. To the extent permitted by applicable law, Topco LLC will indemnify us, as its managing member, its authorized officers, its other employees and agents from and against any losses, liabilities, damages, costs, expenses, fees or penalties incurred by any acts or omissions of these persons, provided that the acts or omissions of these indemnified persons are not the result of fraud, intentional misconduct or a violation of the implied contractual duty of good faith and fair dealing, or any lesser standard of conduct permitted under applicable law.

We, as the managing member, and the authorized officers and other employees and agents of Topco LLC will not be liable to Topco LLC, its members or their affiliates for damages incurred by any acts or omissions of

these persons, provided that the acts or omissions of these exculpated persons are not the result of fraud, or intentional misconduct.

Amendments

The LLC Operating Agreement may be amended with the consent of the holders of a majority in voting power of the outstanding LLC Units. Notwithstanding the foregoing, no amendment to any of the provisions that expressly require the approval or action of certain members may be made without the consent of such members and no amendment to the provisions governing the authority and actions of the managing member or the dissolution of Topco LLC may be amended without the consent of the managing member.

Tax Receivable Agreement

The purchase of LLC Units by us in connection with this offering is expected to result in the acquisition by us of a proportionate share of the existing tax basis of the assets of Topco LLC and its flow-through subsidiaries. Topco LLC (and each of its subsidiaries classified as a partnership for U.S. federal income tax purposes) intends to have in place for its taxable year in which this offering and the associated purchase of LLC Units occurs an election under Section 754 of the U.S. Internal Revenue Code of 1986, as amended (the "Code"). Accordingly, such purchase of LLC Units by us is expected to result in an adjustment in the tax basis of the assets of Topco LLC and its flow-through subsidiaries reflected in the proportionate share of such assets treated as acquired by us.

In addition, MLSH 1 may from time to time (subject to the terms of the Exchange Agreement) exercise a right to exchange LLC Units for shares of our Class A common stock on a one-for-one basis, or, at our election, for cash from a substantially concurrent public offering or private sale (based on the price of our Class A common stock in such public offering or private sale). We intend to treat such acquisitions of LLC Units as direct purchases of LLC Units from MLSH 1 for U.S. federal income and other applicable tax purposes, regardless of whether such LLC Units are surrendered by MLSH 1 to Topco LLC for redemption or sold to us upon the exercise of our election to acquire such LLC Units directly. Topco LLC (and each of its subsidiaries classified as a partnership for U.S. federal income tax purposes) intends to have in place an election under Section 754 of the Code effective for each taxable year in which an exchange of LLC Units for Class A common stock or cash occurs. As a result, an exchange of LLC Units is expected to result in (1) an increase in our proportionate share of the existing tax basis of the assets of Topco LLC and its flow-through subsidiaries and (2) an adjustment in the tax basis of the assets of Topco LLC and its flow-through subsidiaries reflected in that proportionate share ("Basis Adjustments").

Any increases in our share of tax basis as a result of the purchase of LLC Units or LLC Unit exchanges will generally have the effect of reducing the amounts that we would otherwise be obligated to pay thereafter to various tax authorities. Such basis increases may also decrease gains (or increase losses) on future dispositions of certain assets to the extent tax basis is allocated to those assets.

As a result of the mergers of the Blocker Mergers, we will succeed to the federal net operating losses ("NOL") and certain other existing tax attributes of the Blocker Entities. Subject to certain limitations, such NOLs and other attributes may be available to offset our taxable income in future years (and in certain circumstances, taxable income from prior years) in the manner described below.

An NOL occurs when a taxpayer's tax deductions exceed its taxable income within a given tax year. An NOL can be carried forward over future tax years and used to offset taxable income incurred in such future tax year. The 2017 tax reform legislation known as the Tax Cuts and Jobs Act of 2017 lifted the previous 20-year limitation on NOL carryforwards (allowing NOLs to be carried forward indefinitely), but limited NOLs to 80% of taxable income in any one tax period. Notably, among other changes, the Coronavirus Aid, Relief, and Economic Security Act (the "CARES Act") has temporarily removed this 80% limit for taxable years beginning

before 2021 to allow an NOL carryforward to fully offset a taxpayer's income, and additionally, to allow NOLs incurred in 2018, 2019, and 2020 to be carried back to offset taxable income up to five years prior to the taxable year in which the NOL was generated.

We intend to enter into a Tax Receivable Agreement with MLSH 1 and MLSH 2. The Tax Receivable Agreement provides for the payment by us to MLSH 1 and MLSH 2, collectively, of 85% of the amount of tax benefits, if any, that we actually realize, or in some circumstances are deemed to realize, as a result of (i) certain increases in the tax basis of assets of Topco LLC and its subsidiaries resulting from purchases or exchanges of LLC Units, (ii) certain tax attributes of the Blocker Entities, Topco LLC and subsidiaries of Topco LLC that existed prior to this offering and (iii) certain other tax benefits related to our entering into the Tax Receivable Agreement, including tax benefits attributable to payments that we make under the Tax Receivable Agreement (collectively, the "Tax Attributes"). The payment obligations under the Tax Receivable Agreement are not conditioned upon any LLC Unitholder maintaining a continued ownership interest in us or Topco LLC and the rights of MLSH 1 under the Tax Receivable Agreement are assignable. We expect to benefit from the remaining 15% of the tax benefits, if any, that we may actually realize.

For purposes of the Tax Receivable Agreement, the tax benefit deemed realized by us will generally be computed by comparing our actual cash income tax liability to the amount of such taxes that we would have been required to pay had there been no Tax Attributes; provided that, for purposes of determining the tax benefit with respect to state and local income taxes, we will use simplifying assumptions. The Tax Receivable Agreement will generally apply to each of our taxable years, beginning with the taxable year that the Tax Receivable Agreement is entered into. There is no maximum term for the Tax Receivable Agreement and the Tax Receivable Agreement will continue until all such tax benefits have been utilized or expired unless we exercise our right to terminate the Tax Receivable Agreement for an agreed-upon amount equal to the estimated present value of the remaining payments to be made under the agreement (calculated with certain assumptions, including as to utilization of the Tax Attributes).

The actual Tax Attributes, as well as any amounts paid to MLSH 1 and MLSH 2 under the Tax Receivable Agreement, will vary depending on a number of factors, including:

- *the timing of any future exchanges*—for instance, the increase in any tax deductions will vary depending on the fair value, which may fluctuate over time, of the depreciable or amortizable assets of Topco LLC and its flow-through subsidiaries at the time of each exchange;
- *the price of shares of our Class A common stock at the time of any future exchanges*—the Basis Adjustments are directly related to the price of shares of our Class A common stock at the time of future exchanges;
- *the extent to which such exchanges are taxable*—if an exchange is not taxable for any reason, increased tax deductions as a result of the Section 754 election mentioned above will not be available to generate payments under the Tax Receivable Agreement;
- *the amount and timing of our income*—the Tax Receivable Agreement generally will require us to pay 85% of the tax benefits as and when those benefits are treated as realized by us under the terms of the Tax Receivable Agreement. If we do not have taxable income in a particular taxable year, we generally will not be required (absent a change of control or other circumstances requiring an early termination payment) to make payments under the Tax Receivable Agreement for that taxable year because no tax benefits will have been actually realized. Nevertheless, any tax benefits that do not result in realized tax benefits in a given taxable year will likely generate tax attributes that may be utilized to generate tax benefits in future (and possibly previous) taxable years. The utilization of any such tax attributes will result in payments under the Tax Receivable Agreement; and
- *applicable tax rates*—the tax rates in effect at the time a tax benefit is recognized.

The payment obligations under the Tax Receivable Agreement are obligations of Maravai LifeSciences Holdings, Inc. and not of Topco LLC. Although the actual timing and amount of any payments that may be made under the Tax Receivable Agreement will vary, we expect that the aggregate payments that we will be required to make to MLSH 1 and MLSH 2 will be substantial. Any payments made by us under the Tax Receivable Agreement will generally reduce the amount of overall cash flow that might have otherwise been available to us or to Topco LLC and, to the extent that we are unable to make payments under the Tax Receivable Agreement for any reason, the unpaid amounts will be deferred and will accrue interest until paid by us. We anticipate funding ordinary course payments under the Tax Receivable Agreement from cash flow from operations of Topco LLC and its subsidiaries, available cash and/or available borrowings under the First Lien Credit Agreement and the Second Lien Credit Agreement.

We expect that the aggregate payments that we may make under the Tax Receivable Agreement will be substantial. Assuming no material changes in the relevant tax law, and that we earn sufficient taxable income to realize all tax benefits that are subject to the Tax Receivable Agreement, we expect that future payments under the Tax Receivable Agreement relating to the purchase by Maravai LifeSciences Holdings, Inc. of LLC Units from MLSH 1 in connection with this offering to be approximately $ million (or approximately $ million if the underwriters exercise their option to purchase additional shares (the proceeds of which will be used by Maravai LifeSciences Holdings, Inc. to acquire additional LLC Units from MLSH 1) and to range over the next 15 years from approximately $ to $ million per year (or range from approximately $ to $ million per year if the underwriters exercise their option to purchase additional shares) and decline thereafter. As a result, we expect that aggregate payments under the Tax Receivable Agreement over this 15-year period will range from approximately $ million to $ million (or range from approximately $ million to $ million if the underwriters exercise their option to purchase additional shares). These estimates are based on an initial public offering price of $ per share of Class A common stock, which is the midpoint of the estimated public offering price range set forth on the cover page of this prospectus. Future payments in respect of subsequent exchanges or financing would be in addition to these amounts and are expected to be substantial. The foregoing numbers are merely estimates—the actual payments could differ materially. It is possible that future transactions or events could increase or decrease the actual tax benefits realized and the corresponding Tax Receivable Agreement payments. There may be a material negative effect on our liquidity if, as a result of timing discrepancies or otherwise, the payments under the Tax Receivable Agreement exceed the actual benefits we realize in respect of the tax attributes subject to the Tax Receivable Agreement and/or distributions to Maravai LifeSciences Holdings, Inc. by Topco LLC are not sufficient to permit Maravai LifeSciences Holdings, Inc. to make payments under the Tax Receivable Agreement after it has paid taxes.

The Tax Receivable Agreement provides that if (1) certain mergers, asset sales, other forms of business combination, or other changes of control were to occur, (2) we materially breach any of our material obligations under the Tax Receivable Agreement or (3) we elect an early termination of the Tax Receivable Agreement, then the Tax Receivable Agreement will terminate and our obligations, or our successor's obligations, under the Tax Receivable Agreement will accelerate and become due and payable, based on certain assumptions, including an assumption that we would have sufficient taxable income to fully utilize all potential future tax benefits that are subject to the Tax Receivable Agreement and, to the extent applicable, that any LLC Units that have not been exchanged are deemed exchanged for the fair market value of our Class A common stock at the time of termination.

As a result of a change of control, material breach, or our election to terminate the Tax Receivable Agreement early, (1) we could be required to make cash payments to MLSH 1 and MLSH 2 that are greater than the specified percentage of the actual benefits we ultimately realize in respect of the tax benefits that are subject to the Tax Receivable Agreement and (2) we will be required to make an immediate cash payment equal to the present value of the anticipated future tax benefits that are the subject of the Tax Receivable Agreement, which payment may be made significantly in advance of the actual realization, if any, of such future tax benefits. In these situations, our obligations under the Tax Receivable Agreement could have a material adverse effect on our liquidity and could have the effect of delaying, deferring or preventing certain mergers, asset sales, other forms

of business combination, or other changes of control. There can be no assurance that we will be able to finance our obligations under the Tax Receivable Agreement.

Payments under the Tax Receivable Agreement will be based on the tax reporting positions that we determine. Although we are not aware of any issue that would cause the IRS to challenge a tax basis increase or the availability of Blocker Entities' NOLs, we will not be reimbursed for any cash payments previously made to MLSH 1 and MLSH 2 pursuant to the Tax Receivable Agreement if any tax benefits initially claimed by us are subsequently disallowed, in whole or in part, by the IRS or other applicable taxing authority. For example, if the IRS later asserts that we did not obtain a tax basis increase or disallows (in whole or in part) the availability of NOLs due to a potential ownership change under Section 382 of the Code, among other potential challenges, then we would not be reimbursed for any cash payments previously made to MLSH 1 and MLSH 2 pursuant to the Tax Receivable Agreement with respect to such tax benefits that we had initially claimed. Instead, any excess cash payments made by us pursuant to the Tax Receivable Agreement will be netted against any future cash payments that we might otherwise be required to make under the terms of the Tax Receivable Agreement. Nevertheless, any tax benefits initially claimed by us may not be disallowed for a number of years following the initial time of such payment or, even if challenged early, such excess cash payment may be greater than the amount of future cash payments that we might otherwise be required to make under the terms of the Tax Receivable Agreement. Accordingly, there may not be sufficient future cash payments against which to net. The applicable U.S. federal income tax rules are complex, and there can be no assurance that the IRS or a court will not disagree with our tax reporting positions. As a result, it is possible that we could make cash payments under the Tax Receivable Agreement that are substantially greater than our actual cash tax savings.

Under the Tax Receivable Agreement, we are required to provide MLSH 1 and MLSH 2 with a schedule setting forth the calculation of payments that are due under the Tax Receivable Agreement with respect to each taxable year in which a payment obligation arises within sixty (60) days after filing our U.S. federal income tax return for such taxable year. This calculation will be based upon the advice of our tax advisors. Payments under the Tax Receivable Agreement will generally be made within three (3) business days after this schedule becomes final pursuant to the procedures set forth in the Tax Receivable Agreement, although interest on such payments will begin to accrue at a rate of LIBOR plus basis points from the due date (without extensions) of such tax return. Any late payments that may be made under the Tax Receivable Agreement will continue to accrue interest at LIBOR plus basis points until such payments are made, generally including any late payments that we may subsequently make because we did not have enough available cash to satisfy our payment obligations at the time at which they originally arose.

Exchange Agreement

We will enter into the Exchange Agreement with MLSH 1. Under the Exchange Agreement, MLSH 1 (and certain permitted transferees thereof) may (subject to the terms of the Exchange Agreement) surrender their LLC Units to Topco LLC or, at our election, exchange its LLC Units for shares of our Class A common stock on a one-for-one basis, or, at our election, for cash from a substantially concurrent public offering or private sale (based on the price of our Class A common stock in such public offering or private sale). MLSH 1 will also be required to deliver to us an equivalent number of shares of Class B common stock to effectuate an exchange. Any shares of Class B common stock so delivered will be cancelled. As a holder surrenders or exchanges its LLC Units, our interest in Topco LLC will be correspondingly increased.

Registration Rights Agreement

We intend to enter into the Registration Rights Agreement with MLSH 1 and MLSH 2 in connection with this offering. The Registration Rights Agreement will provide MLSH 1 and MLSH 2 certain registration rights whereby, following our initial public offering and the expiration of any related lock-up period, MLSH 1 and MLSH 2 can require us to register under the Securities Act shares of Class A common stock owned by them or issuable to MLSH 1 upon exchange of its LLC Units. The Registration Rights Agreement will also provide for piggyback registration rights for MLSH 1 and MLSH 2. See "Certain Relationships and Related Party Transactions—Registration Rights Agreement."

MANAGEMENT

Our Executive Officers and Directors

Below is a list of the names, ages as of August 31, 2020, positions and brief accounts of the business experience of the individuals who serve as (i) our executive officers, (ii) our directors and (iii) our director nominees. Upon the completion of this offering, Messrs. Cunningham, Daverman, Hance, Lucier, Marker, Mihas and Prahalad are anticipated to be elected to our Board.

Name	Age	Position
Carl Hull	62	Chief Executive Officer and Director
Eric Tardif	51	President
Kevin Herde	49	Chief Financial Officer
Brian Neel	44	Chief Operating Officer, Nucleic Acid Production
Christine Dolan	52	Chief Operating Officer, Biologics Safety Testing
Lisa Sellers	48	Chief Operating Officer, Protein Detection
Sean Cunningham	45	Director Nominee
Benjamin Daverman	42	Director Nominee
Robert B. Hance	61	Director Nominee
Gregory T. Lucier	56	Director Nominee
Luke Marker	35	Director Nominee
Constantine Mihas	53	Director Nominee
Murali K. Prahalad	49	Director Nominee

Carl Hull has served as our Chief Executive Officer since March 2014. Mr. Hull brings over 35 years of sales, marketing and general management leadership in the diagnostics and life sciences industries. From 2009 to 2012, Mr. Hull was Chief Executive Officer of Gen-Probe Incorporated ("Gen-Probe"), a medical diagnostics company, and served as its Chief Operating Officer from 2007 to 2009. Under Mr. Hull's leadership, Gen-Probe took full advantage of its core molecular diagnostics and automation strengths and launched several highly innovative products including the PANTHER® molecular diagnostic system and APTIMA® HPV screening assay. During Mr. Hull's tenure, Gen-Probe extended its recognized leadership position in the most rapidly growing diagnostics market segment and the market capitalization of Gen-Probe doubled, creating nearly $2 billion in value for shareholders and culminating in a successful sale to Hologic in 2012. Prior to Gen-Probe, Mr. Hull had been in sales, marketing and management positions for Abbott Laboratories, Ventana Medical Systems, Inc. (acquired by Roche Holding AG), Applied Imaging Corp. (now part of Danaher Corporation) and Applied Biosystems Inc. (now part of Thermo Fisher Scientific Inc. ("Thermo Fisher")), all biomedical technology companies. Mr. Hull serves as Chairman of the Board for The Binding Site and is a member of the Board of Ortho Clinical Diagnostics, both leading human diagnostics companies. Mr. Hull holds an MBA from the University of Chicago and a BA in Political Science and International Relations from the Johns Hopkins University.

Eric Tardif has served as our President since he co-founded Maravai in 2014. Prior to co-founding Maravai, he led corporate development and corporate strategy at Gen-Probe Incorporated. Following the acquisition of Gen-Probe by Hologic, Inc. ("Hologic"), a medical technology company, in 2012, Mr. Tardif was promoted to lead corporate strategy for Hologic. Mr. Tardif began his career as an investment banker executing mergers and acquisitions at investment banking firms Merrill Lynch, Piper Jaffray and Morgan Stanley, with a focus on medical device companies, particularly in the life sciences tools and diagnostics segments. Mr. Tardif has a Master of Science in Finance from Boston College, an MBA from University of British Columbia and a BA in Business Administration from Major Bishops University.

Kevin Herde has served as our Chief Financial Officer since May 2017. Prior to joining Maravai, he served as Executive Vice President and Chief Financial Officer at Sorrento Therapeutics, Inc., a biopharmaceutical company, from April 2016 to May 2017 and as Vice President of Global Blood Screening at Hologic from January 2015 to February 2016. Mr. Herde also served as Vice President, Finance and Corporate Controller at Gen-Probe prior to its acquisition by Hologic in 2012. Mr. Herde began his career at KPMG LLC. Mr. Herde holds a BBA in Business Administration from University of San Diego and is a certified public accountant in California (inactive).

Brian Neel has served as the Chief Operating Officer for our Nucleic Acid Production business segment since October 2017. Prior to joining Maravai, Mr. Neel was Vice President of Operations of Codex DNA, Inc. (formerly Synthetic Genomics DNA) ("Codex"), a biological equipment company, from May 2016 to October 2017. Prior to joining Codex, Mr. Neel was Vice President of Operations of GenMark Diagnostics, Inc. ("Genmark"), a molecular diagnostics company, from 2014 to 2016. Prior to joining GenMark, Mr. Neel was the Site Manufacturing Operations Leader at Thermo Fisher Scientific (formerly Life Technologies) from January 2013 to June 2014. Prior to joining Thermo Fisher, Mr. Neel was a Global Operations Associate Director and Manufacturing Operations Leader at Life Technologies, Inc. ("Life Technologies"), a global life sciences company that was ultimately purchased by Thermo Fisher in 2014, for over eleven years. Mr. Neel holds a BS in Microbiology from the University of Missouri.

Christine Dolan has served as the Chief Operating Officer of our Biologics Safety Testing business segment since October 2017. Prior to joining Maravai, Ms. Dolan was a Senior Vice President of Product Development at Catalent, Inc. ("Catalent"), a biotechnology company, where Ms. Dolan worked for over eight years. Prior to joining Catalent, Ms. Dolan was a Director of Nuclear Operations and Global Quality Control and a Director of QC, Validation and Supply Chain Management at GE Healthcare, a medical technology company, for over three years. Prior to joining GE Healthcare, Ms. Dolan was a Director of QC and Materials Management at Amersham, where she worked for over ten years. Ms. Dolan has more than 25 years of global leadership experience and successful profit-and-loss management of diverse businesses in the pharmaceutical industry. Ms. Dolan holds a BS in Biology from Lenoir-Rhyne College.

Lisa Sellers has served as the Chief Operating Officer of our Protein Detection business segment since August 2020. With over 20 years of experience, Lisa is an experienced general manager and commercial executive. Prior to joining Maravai, Lisa was Vice President of Marketing at 10X Genomics, Inc. ("10X"). Prior to 10X, Lisa led global reagent and instrumentation businesses within Applied Biosystems, Life Technologies and then Thermo Fisher Scientific. While at Thermo Fisher, Lisa also led B2B business development and sales channels to supply and out-license a portfolio of genetic analysis products and IP to the molecular diagnostic market. Lisa received her PhD in Chemistry from the University of Colorado at Boulder and her BS in Chemistry from Santa Clara University.

Sean Cunningham will begin serving on our board upon the completion of this offering and has served as a member of MLSH 1's board since March 2016. Mr. Cunningham joined GTCR in 2001 where he is currently a Managing Director. He was previously a consultant with The Boston Consulting Group. Mr. Cunningham holds an MBA from the Wharton School at the University of Pennsylvania as well as a BA and BE in Engineering sciences from Dartmouth College. Mr. Cunningham served on the board of managers of MLSH 1 and will continue to serve until he is appointed as director in connection with the closing of the offering. We determined that Mr. Cunningham's directorship experience with similar companies and extensive experience in the healthcare and pharmaceutical industries qualifies him to serve as a director on the Board of Directors.

Benjamin Daverman will begin serving on our board upon the completion of this offering and has served as a member MLSH 1's board since March 2016. Mr. Daverman joined GTCR in 2008 where he is currently a Managing Director. Prior to joining GTCR, he worked as a Venture Capitalist at Alta Partners, a venture capital firm, as well as an Investment Banking Associate at JMP Securities and an analyst in the mergers and acquisitions group at J.P. Morgan (formerly Hambrecht & Quist), both investment banking firms. Mr. Daverman

holds an MBA from the Wharton School at the University of Pennsylvania and a BA in History from Colgate University. He also holds an MS in Biotechnology from the School of Engineering and Applied Science at the University of Pennsylvania. Mr. Daverman served on the board of managers of MLSH 1 and will continue to serve until he is appointed as director in connection with the closing of the offering. We determined that Mr. Daverman's extensive directorship experience with similar companies, and extensive experience in the healthcare, pharmaceutical and life sciences qualifies him to serve as a director on the Board of Directors.

Robert B. Hance will begin serving on our board upon the completion of this offering and has served as a member of MLSH 1's board since 2017. Mr. Hance is a medical device industry veteran with more than 25 years' experience and has served as the Chief Executive Officer of Regatta Medical, Inc. ("Regatta Medical"), a medical device company, since 2017. Prior to Regatta Medical from 2013 to 2016, Mr. Hance was Chief Executive Officer of Creganna Medical Devices, Inc. ("Creganna Medical"), a leading supplier to the minimally invasive medical device industry. Creganna Medical was sold to TE Connectivity Ltd. in 2016. From 2012 to 2013, Mr. Hance was an Entrepreneur-in-Residence within the FDA at the Center for Devices and Radiological Health. Prior to his FDA experience, Mr. Hance was President of Abbott Vascular, the cardiovascular device division of Abbott Laboratories, a biomedical company. Mr. Hance holds an MBA from Harvard Business School and a BS in Chemical Engineering from the Massachusetts Institute of Technology. Mr. Hance served on the board of managers of MLSH 1 and will continue to serve until he is appointed as director in connection with the closing of the offering. We determined Mr. Hance's extensive expertise in the medical device and life sciences industry qualifies him to serve as a director on the Board of Directors.

Gregory T. Lucier will begin serving on our board upon the completion of this offering and has served as a member of MLSH 1's board since January 2020. Mr. Lucier has served as the Chief Executive Officer of Corza Health, Inc. ("Corza Health"), a life sciences company, since 2018 and is a 25-year veteran of the healthcare industry. Prior to Corza Health, Mr. Lucier was Chairman and Chief Executive Officer of NuVasive, Inc. ("NuVasive") from 2015 to 2018. NuVasive is an innovative medical device company specializing in minimally invasive spine surgery. Prior to NuVasive, from 2003 to 2014, Mr. Lucier served as Chairman and CEO of Life Technologies. Mr. Lucier's early career included roles as a corporate officer of General Electric Company and as an executive at GE Medical Systems Information Technologies, Inc., a healthcare company. Mr. Lucier continues to serve as director and Chairman of NuVasive, as well as director of Catalent and Dentsply Sirona Inc., a global provider of professional dental products and technologies. He has an MBA from Harvard Business School and a BA in Industrial Engineering from Pennsylvania State University. Mr. Lucier served on the board of managers of MLSH 1 and will continue to serve until he is appointed as director in connection with the closing of the offering. We determined Mr. Lucier's extensive experience in the healthcare and medical device industry, in addition to his experience on multiple public and private boards of directors, qualifies him to serve as a director on the Board of Directors.

Luke Marker will begin serving on our board upon the completion of this offering and has served as a member of MLSH 1's board since 2016. Mr. Marker joined GTCR in 2009 and became a Vice President in 2014. Prior to joining GTCR, he worked in the investment banking division at Lehman Brothers and Barclays Capital. Mr. Marker holds an MBA with distinction from Harvard Business School and a BA in Mathematics and Economics from Kalamazoo College. Mr. Marker served on the board of managers of MLSH 1 and will continue to serve until he is appointed as director in connection with the closing of the offering. We determined that Mr. Marker's directorship experience with similar companies and extensive experience in the healthcare, pharmaceutical and life sciences industries qualifies him to serve as a director on the Board of Directors.

Constantine Mihas will begin serving on our board upon the completion of this offering and has served as a member MLSH 1's board since March 2016. Mr. Mihas joined GTCR in 2001 where he is currently a Managing Director and head of the Healthcare group. Prior to joining GTCR, Mr. Mihas was Chief Executive Officer and co-founder of Delray Farms, LLC ("Delray Farms"), a specialty food retailer. Prior to Delray Farms, Mr. Mihas was with McKinsey & Company, Inc., a consulting firm. Mr. Mihas holds an MBA with distinction from the Harvard Business School and a BS in Finance and Economics from the University of Illinois, Chicago.

Mr. Mihas served on the board of managers of MLSH 1 and will continue to serve until he is appointed as director in connection with the closing of the offering. We determined that Mr. Mihas' directorship experience with similar companies, deep business background, and extensive experience in the healthcare, pharmaceutical and life sciences industries qualifies him to serve as a director on the Board of Directors.

Murali K. Prahalad will begin serving on our board upon the completion of this offering and has served as a member MLSH 1's board since August 2016. Dr. Prahalad is currently the President and Chief Executive Officer of Iridia, Inc., a nanotechnology company, and was most recently the President and Chief Executive Officer of Epic Sciences, Inc., a medical diagnostics company, from August 2013 through April 2019. Dr. Prahalad has two decades of experience in the technology and life science industries. From 2007 through 2013, Dr. Prahalad served in multiple roles at Life Technologies, including as Vice President of Corporate Strategy. Before Life Technologies, Dr. Prahalad was Vice President of Business Development at Sequenom, Inc., a biotechnology company. Dr. Prahalad received a PhD in biochemistry and molecular pharmacology as well as an MS in medical sciences from Harvard University. He also holds a BS in Cellular and Molecular Biology and Economics from the University of Michigan. Mr. Prahalad served on the board of managers of MLSH 1 and will continue to serve until he is appointed as director in connection with the closing of the offering. We determined Dr. Prahalad's extensive experience in the technology and life sciences industry, in addition to his medical expertise and experience on boards of directors, qualifies him to serve as a director on the Board of Directors.

Family Relationships

There are no family relationships between any of our executive officers, directors or director nominees.

Corporate Governance

Board Composition and Director Independence

Our business and affairs are managed under the direction of our Board. Following completion of this offering, our Board will be composed of directors. Our certificate of incorporation will provide that the authorized number of directors may be changed only by resolution of our Board. In addition, the Director Nomination Agreement will prohibit us from increasing or decreasing the size of our Board without the prior written consent of GTCR. Our certificate of incorporation will also provide that our Board will be divided into three classes of directors, with the classes as nearly equal in number as possible. Subject to any earlier resignation or removal in accordance with the terms of our certificate of incorporation and bylaws, our Class I directors will be , and and will serve until the first annual meeting of shareholders following the completion of this offering, our Class II directors will be , and and will serve until the second annual meeting of shareholders following the completion of this offering and our Class III directors will be , and and will serve until the third annual meeting of shareholders following the completion of this offering. Upon completion of this offering, we expect that each of our directors will serve in the classes as indicated above. This classification of our Board could have the effect of increasing the length of time necessary to change the composition of a majority of the Board. In general, at least two annual meetings of shareholders will be necessary for shareholders to effect a change in a majority of members of the Board. In addition, our certificate of incorporation will provide that our directors may be removed with or without cause by the affirmative vote of at least a majority of the voting power of our outstanding shares of stock entitled to vote thereon, voting together as a single class for so long as GTCR beneficially owns 40% or more, in the aggregate, of the total number of shares of our common stock then outstanding. If GTCR's aggregate beneficial ownership falls below 40% of the total number of shares of our common stock outstanding, then our directors may be removed only for cause upon the affirmative vote of at least 66 2/3% of the voting power of our outstanding shares of stock entitled to vote thereon.

In addition, at any time when GTCR has the right to designate at least one nominee for election to our Board, GTCR will also have the right to have one of its nominated directors hold one seat on each Board

committee, subject to satisfying any applicable stock exchange rules or regulations regarding the independence of Board committee members. The listing standards of NASDAQ require that, subject to specified exceptions, each member of a listed company's audit, compensation and nominating and corporate governance committees be independent and that audit committee members also satisfy independence criteria set forth in Rule 10A-3 under the Exchange Act.

Our Board has also determined that , and meet the requirements to be independent directors. In making this determination, our Board considered the relationships that each such non-employee director has with Maravai and all other facts and circumstances that our Board deemed relevant in determining their independence, including beneficial ownership of our common stock.

Controlled Company Status

After completion of this offering, GTCR will continue to control a majority of the voting power in us. As a result, we will be a "controlled company." Under NASDAQ rules, a company of which more than 50% of the voting power for the election of directors is held by an individual, group or another company is a "controlled company" and may elect not to comply with certain corporate governance requirements, including the requirements that, within one year of the date of the listing of our common stock:

- we have a board of directors that is composed of a majority of "independent directors," as defined under the rules of such exchange;
- we have a compensation committee that is composed entirely of independent directors; and
- we have a nominating and corporate governance committee that is composed entirely of independent directors.

Following this offering, we intend to rely on this exemption. As a result, we may not have a majority of independent directors on our Board. In addition, our Compensation Committee and our Nominating and Corporate Governance Committee may not consist entirely of independent directors or be subject to annual performance evaluations. Accordingly, you may not have the same protections afforded to shareholders of companies that are subject to all of the NASDAQ corporate governance requirements.

Board Committees

Upon completion of this offering, our Board will have an Audit Committee and a Compensation and Nominating Committee. The composition, duties and responsibilities of these committees are as set forth below. In the future, our Board may establish other committees, as it deems appropriate, to assist it with its responsibilities.

Board Member	Audit Committee	Compensation and Nominating Committee
Carl Hull		
Sean Cunningham*		
Benjamin Daverman*		
Robert B. Hance*		
Gregory T. Lucier*		
Luke Marker*		
Constantine Mihas*		
Murali K. Prahalad*		

* *Denotes director nominee*

Audit Committee

Following this offering, our Audit Committee will be composed of and , with serving as chairman of the committee. We intend to comply with the audit committee requirements of the SEC and , which require that the Audit Committee be composed of at least one independent director at the closing of this offering, a majority of independent directors within 90 days following this offering and all independent directors within one year following this offering. We anticipate that, prior to the completion of this offering, our Board will determine that and meet the independence requirements of Rule 10A-3 under the Exchange Act and the applicable listing standards of NASDAQ. Our Board has determined that is an "audit committee financial expert" within the meaning of SEC regulations and applicable listing standards of . The Audit Committee's responsibilities upon completion of this offering will include:

- appointing, approving the compensation of, and assessing the qualifications, performance and independence of our independent registered public accounting firm;
- pre-approving audit and permissible non-audit services, and the terms of such services, to be provided by our independent registered public accounting firm;
- discusses on a periodic basis, or as appropriate, with management, our policies, programs and controls with respect to risk assessment and risk management;
- reviewing and discussing with management and the independent registered public accounting firm our annual and quarterly financial statements and related disclosures as well as critical accounting policies and practices used by us;
- is responsible for reviewing our management's discussion and analysis of financial condition and results of operations to be included in our annual and quarterly reports to be filed with the SEC;
- monitors the rotation of partners of the independent registered public accounting firm on our engagement team in accordance with requirements established by the SEC;
- reviews management's report on its assessment of the effectiveness of internal control over financial reporting and any changes thereto;
- reviewing the adequacy of our internal control over financial reporting;
- establishing policies and procedures for the receipt, retention, follow-up and resolution of accounting, internal controls or auditing matters, complaints and concerns;
- recommending, based upon the Audit Committee's review and discussions with management and the independent registered public accounting firm, whether our audited financial statements shall be included in our Annual Report on Form 10-K;
- monitoring our compliance with legal and regulatory requirements as they relate to our financial statements and accounting matters;
- preparing the Audit Committee report required by the rules of the SEC to be included in our annual proxy statement;
- annually reviews and assesses treasury functions including cash management process;
- investigates any matters received, and reports to the Board periodically, with respect to ethics issues, complaints and associated investigations;
- reviews the audit committee charter and the committee's performance at least annually;
- consults with management to establish procedures and internal controls relating to cybersecurity;
- reviewing all related party transactions for potential conflict of interest situations and approving all such transactions; and
- reviewing and discussing with management our earnings releases and scripts.

Compensation and Nominating Committee

Following this offering, our Compensation and Nominating Committee will be composed of and , with serving as chairman of the committee. The Compensation and Nominating Committee's responsibilities upon completion of this offering will include:

- annually reviewing and approving corporate goals and objectives relevant to the compensation of our chief executive officer;
- evaluating the performance of our chief executive officer in light of such corporate goals and objectives and determining and approving the compensation of our chief executive officer;
- reviewing and approving the compensation of our other executive officers;
- appointing, compensating and overseeing the work of any compensation consultant, legal counsel or other advisor retained by the compensation committee;
- conducting the independence assessment outlined in NASDAQ rules with respect to any compensation consultant, legal counsel or other advisor retained by the compensation committee;
- annually reviewing and reassessing the adequacy of the committee charter in its compliance with the listing requirements of NASDAQ;
- reviewing and establishing our overall management compensation, philosophy and policy;
- overseeing and administering our compensation and similar plans;
- reviewing and making recommendations to our Board with respect to director compensation;
- reviewing and discussing with management the compensation discussion and analysis to be included in our annual proxy statement or Annual Report on Form 10-K;
- developing and recommending to our Board criteria for board and committee membership;
- subject to the rights of GTCR under the Director Nomination Agreement as described in "Certain Relationships and Related Party Transactions—Director Nomination Agreement," identifying and recommending to our Board the persons to be nominated for election as directors and to each of our Board's committees;
- developing and recommending to our Board best practices and corporate governance principles;
- developing and recommending to our Board a set of corporate governance guidelines; and
- reviewing and recommending to our Board the functions, duties and compositions of the committees of our Board.

Compensation Committee Interlocks and Insider Participation

None of our executive officers currently serves, or in the past fiscal year has served, as a member of the Board or compensation committee of any entity that has one or more executive officers serving on our Board or Compensation and Nominating Committee.

Code of Business Conduct and Ethics

We have adopted a code of business conduct and ethics that applies to all of our employees, officers and directors, including those officers responsible for financial reporting. Upon the closing of this offering, our code of business conduct and ethics will be available on our website. We intend to disclose any amendments to the code, or any waivers of its requirements, on our website.

EXECUTIVE COMPENSATION

Unless we state otherwise or the context otherwise requires, in this Executive Compensation section the terms "Maravai LifeSciences," "we," "us," "our" and the "Company" refer to Topco LLC, for the period up to this offering, and for all periods following this offering, to Maravai LifeSciences Holdings, Inc.

We are currently considered an "emerging growth company" within the meaning of the Securities Act for purposes of the SEC's executive compensation disclosure rules. Accordingly, we are required to provide a Summary Compensation Table and an Outstanding Equity Awards at Fiscal Year-End Table, as well as limited narrative disclosures regarding executive compensation for our last completed fiscal year. Further, our reporting obligations extend only to the following "Named Executive Officers," who are the individuals who served as our principal executive officer during and the next two most highly compensated executive officers at the end of the fiscal year ended December 31, 2019. For the fiscal year ended December 31, 2019, our Named Executive Officers and their principal positions were as follows:

- Carl Hull, Chief Executive Officer of the Company;
- Kevin Herde, Chief Financial Officer of the Company; and
- Brian Neel, Chief Operating Officer, Nucleic Acid Production.

This discussion may contain forward-looking statements that are based on our current plans, considerations, expectations and determinations regarding future compensation programs. Actual compensation programs that we adopt in the future may differ materially from the currently planned programs summarized in this discussion.

Summary Compensation Table

Name and principal position	Year	Salary ($)	Option awards ($)(1)	Non-equity incentive plan compensation ($)(2)	All other compensation ($)(3)	Total ($)
Carl Hull, *Chief Executive Officer*	2019	485,417	1,743,000	600,000	—	2,828,417
Kevin Herde, *Chief Financial Officer*	2019	364,160	535,000	165,063	8,400	1,072,623
Brian Neel, *Chief Operating Officer, Nucleic Acid Production*	2019	314,673	428,000	142,436	8,400	893,509

(1) The amounts reported in the Option Awards column represent the grant date fair value of the incentive units in MLSH 1 granted to the Named Executive Officers as computed in accordance with Financial Accounting Standards Board Accounting Standards Codification Topic 718. The assumptions used in calculating the grant date fair value of the incentive units in MLSH 1 reported in the Option Awards column are set forth in Note 8 to the consolidated financial statements included elsewhere in this prospectus. The amounts reported in this column reflect the accounting cost for these incentive units and do not correspond to the actual economic value that may be received by the Named Executive Officers for the incentive units. See "Narrative Disclosure to Summary Compensation Table—Equity Incentives" below for additional details.

(2) The amounts reported in the Non-Equity Incentive Plan Compensation column reflect bonuses paid to the Named Executive Officers under the Bonus Plan (as defined below) with respect to the fiscal year ended December 31, 2019. Please see the section entitled "Narrative Disclosure to Summary Compensation Table—Employment Agreements" below for additional details.

(3) The amounts reported in the All Other Compensation column reflect 401(k) plan matching contributions made on behalf of the Named Executive Officers during the fiscal year ended December 31, 2019. See below under "Additional Narrative Disclosure—Retirement Benefits" for additional information regarding 401(k) plan contributions.

Narrative Disclosure to Summary Compensation Table

Employment Agreements

We have entered into employment agreements (styled as senior management agreements) with each of our Named Executive Officers that provide for annual base salary, target bonus opportunity, a purchase of capital units and an initial grant of incentive units in MLSH 1, paid vacation, reimbursement of reasonable business expenses and eligibility to participate in our benefit plans generally.

Messrs. Hull's, Herde's and Neel's annualized base salaries at the end of the 2019 fiscal year were $500,000, $367,787 and $317,369, respectively, and their target annual bonuses were 100%, 40% and 40% of base salary. For the 2019 fiscal year, Messrs. Hull, Herde and Neel received bonus payments of $600,000, $165,063 and $142,435, respectively, based in part on pre-established company performance metrics and based in part on individual achievement. The pre-established company performance metrics for the 2019 fiscal year consisted of adjusted revenue (weighted 30%), Adjusted EBITDA (weighted 50%), and achievement of corporate initiatives (weighted 20%). For the 2019 fiscal year, we achieved the pre-established company performance metrics at 102% of target. The company performance metric score was then adjusted based on individual achievement to yield total achievement scores, which corresponded to payouts of 120% of target for Mr. Hull and 112.2% of target for Messrs. Herde and Neel.

The employment agreements also provide for certain severance benefits upon a resignation by the applicable Named Executive Officer for "good reason" or upon a termination by Maravai LLC without "cause." Please see the section entitled "Additional Narrative Disclosure—Potential Payments Upon Termination or Change in Control" below for more details regarding the severance benefits provided to our Named Executive Officers under the employment agreements.

Equity Incentives

We have historically offered equity incentives to our Named Executive Officers through grants of incentive units in MLSH 1. Certain of these incentive unit awards are subject to time-based vesting requirements and are subject to accelerated vesting upon the occurrence of certain terminations of employment and certain change-in-control events, and the remaining incentive unit awards are subject to market and performance-based vesting requirements and terminate if such performance-based vesting requirements are not met upon certain change-in-control events. We do not anticipate that the consummation of this offering or any of the related transactions will trigger accelerated vesting of any of the incentive units in MLSH 1 that are subject to time-based vesting requirements, but we expect the vesting of the incentive units subject to performance-based vesting requirements to be accelerated in connection with this offering. See below under "—Additional Narrative Disclosure—Potential Payments Upon Termination or Change in Control" for additional information regarding the circumstances that could result in accelerated vesting of these awards and under "—Actions Taken in 2020 or in Connection with this Offering" for additional information regarding the expected acceleration of the units subject to performance-based vesting.

Outstanding Equity Awards at Fiscal Year-End

The following table summarizes, for each of the Named Executive Officers, the number of incentive units in MLSH 1 held as of December 31, 2019.

	Option Awards(1)			
Name	Number of securities underlying unexercised options (#) exercisable	Number of securities underlying unexercised options (#) unexercisable	Option exercise price ($)(8)	Option expiration date(8)
Carl Hull	336,000	139,000(2)	N/A	N/A
	14,000	86,000(3)	N/A	N/A
Kevin Herde	45,000	55,000(4)	N/A	N/A
	—	25,000(5)	N/A	N/A
Brian Neel	14,000	51,000(6)	N/A	N/A
	—	20,000(7)	N/A	N/A

(1) This table reflects information regarding incentive units in MLSH 1 granted to our Named Executive Officers that were outstanding as of December 31, 2019. For more information on these incentive units, see "Narrative Disclosure to Summary Compensation Table—Equity Incentives" above.

(2) Under the terms of the applicable incentive unit award documentation, (i) 75,000 of these incentive units will vest upon achievement of a certain multiple of pre-public offering investor proceeds over initial investments, so long as Mr. Hull remains employed through the date of such achievement, but these units are expected to become vested in connection with this offering; and (ii) 64,000 of these incentive units will vest on April 5, 2021, so long as Mr. Hull remains employed through such date, and vesting of such incentive units accelerates upon a qualifying sale of MLSH 1.

(3) Under the terms of the applicable incentive unit award documentation, (i) 30,000 of these incentive units will vest upon achievement of a certain multiple of investor proceeds over initial investments, so long as Mr. Hull remains employed through the date of such achievement, but these units are expected to become vested in connection with this offering; and (ii) 56,000 of these incentive units will vest in equal installments on June 20 of each of 2021, 2022, 2023 and 2024, so long as Mr. Hull remains employed through such dates, and vesting of such incentive units accelerates upon a qualifying sale of MLSH 1.

(4) Under the terms of the applicable incentive unit award documentation, (i) 25,000 of these incentive units will vest upon achievement of a certain multiple of investor proceeds over initial investments, so long as Mr. Herde remains employed through the date of such achievement, but these units are expected to become vested in connection with this offering; and (ii) 30,000 of these incentive units will vest in equal installments on May 30 of each of 2021 and 2022, so long as Mr. Herde remains employed through such dates, and vesting of such incentive units accelerates upon a qualifying sale of MLSH 1.

(5) Under the terms of the applicable incentive unit award documentation, these incentive units will vest in equal installments on December 13 of each of 2020, 2021, 2022, 2023 and 2024, so long as Mr. Herde remains employed through such dates, and vesting of such incentive units accelerates upon a qualifying sale of MLSH 1.

(6) Under the terms of the applicable incentive unit award documentation, (i) 30,000 of these incentive units will vest upon achievement of a certain multiple of investor proceeds over initial investments, so long as Mr. Neel remains employed through the date of such achievement, but these units are expected to become vested in connection with this offering; and (ii) 21,000 of these incentive units will vest in equal installments on October 16 of each of 2020, 2021 and 2022, so long as Mr. Neel remains employed through such dates, and vesting of such incentive units accelerates upon a qualifying sale of MLSH 1.

(7) Under the terms of the applicable incentive unit award documentation, these incentive units will vest in equal installments on December 13 of each of 2020, 2021, 2022, 2023 and 2024, so long as Mr. Neel remains employed through such dates, and vesting of such incentive units accelerates upon a qualifying sale of MLSH 1.
(8) These equity awards are not traditional options and, therefore, there is no exercise price or option expiration date associated with them.

Additional Narrative Disclosure

Retirement Benefits

We do not have a defined benefit pension plan or nonqualified deferred compensation plan. We currently maintain a retirement plan intended to provide benefits under Section 401(k) of the Code, pursuant to which employees, including the Named Executive Officers, can make voluntary pre-tax contributions. We match 50% of elective deferrals up to 6% of elective deferrals for all participants. These matching contributions are vested or vest based on the participant's length of service with us, becoming fully vested on the fourth anniversary of the participant's date of hire. All contributions under the plan are subject to certain annual dollar limitations, which are periodically adjusted for changes in the cost of living.

Potential Payments Upon Termination or Change in Control

A Named Executive Officer's outstanding incentive units in MLSH 1 that vest based on time will become 100% vested upon a "sale" of MLSH 1, which is generally the sale of (i) MLSH 1's equity securities pursuant to which an independent third party or parties acquires a majority of the equity securities or voting power to elect a majority of the board of directors of MLSH 1 or (ii) all or substantially all of MLSH 1's assets on a consolidated basis. We do not anticipate that the consummation of this offering or any of the related transactions will constitute a "sale" of MLSH 1 for this purpose.

Our Named Executive Officers' employment agreements provide that upon a termination by us for any reason other than for "cause" or upon a resignation by such Named Executive Officer for "good reason," each as defined therein, subject to the execution and delivery of a fully effective release of claims in favor of the Company and continued compliance with applicable restrictive covenants, Mr. Hull will receive salary continuation payments and COBRA premium reimbursement for 12 months, Mr. Herde will receive salary continuation payments and COBRA premium reimbursement for 6 months, and Mr. Neel will receive salary continuation payments and COBRA premium reimbursement for 3 months. The employment agreements also contain certain restrictive covenants, including provisions that create restrictions, with certain limitations, on our Named Executive Officers competing with MLSH 1 and its subsidiaries during the term of the Named Executive Officer's employment with the Company (and, if the Named Executive Officer's equity is repurchased, for the one-year period following termination of employment) and soliciting any customers or other business relations or soliciting or hiring employees of MLSH 1 and its subsidiaries, in each case, during the term of the Named Executive Officer's employment with the Company and for the one-year period following termination of employment.

Actions Taken in 2020 or in Connection with This Offering

Acceleration of Incentive Units Subject to Performance-Based Vesting

In connection with this offering, we expect the vesting of incentive units held by our Named Executive Officers that are subject to performance-based vesting requirements to be accelerated. See the "Outstanding Equity Awards at Fiscal Year-End Table" above for additional details regarding the incentive units subject to performance-based vesting that are held by our Named Executive Officers.

New Employment Agreements

In connection with this offering, we expect to enter into new employment agreements with our Named Executive Officers. The terms of the new employment agreements have not yet been determined.

2020 Employee Stock Purchase Plan

In order to incentivize our employees following the completion of this offering, we anticipate that our Board will adopt the 2020 Employee Stock Purchase Plan (the "ESPP"), the material terms of which are summarized below, prior to the completion of this offering. This summary is not a complete description of all of the provisions of the ESPP and is qualified in its entirety by reference to the ESPP, a copy of which will be filed as an exhibit to the registration statement of which this prospectus forms a part.

The ESPP authorizes the grant to employees of options that are intended to qualify for favorable U.S. federal tax treatment under Section 423 of the Code.

Shares Available for Awards; Administration

A total of shares of our Class A common stock will initially be reserved for issuance under the ESPP. In addition, the number of shares available for issuance under the ESPP will be increased annually on January 1 of each calendar year beginning in 2021 and ending in and including 2030, by an amount equal to the lesser of (A) % of the shares outstanding on the final day of the immediately preceding calendar year and (B) such smaller number of shares as is determined by our Board. In no event will more than shares of our Class A common stock be available for issuance under the ESPP. Our Board or a committee of our Board will administer and will have authority to interpret the terms of the ESPP and determine eligibility of participants. We expect that the compensation committee will be the initial administrator of the ESPP.

Eligibility

We expect that all of our employees and employees of any designated subsidiary, as defined in the ESPP, will be eligible to participate in the ESPP, other than those employees who . However, an employee may not be granted rights to purchase stock under our ESPP if the employee, immediately after the grant, would own (directly or through attribution) stock possessing 5% or more of the total combined voting power of all classes of our stock.

Grant of Rights

Stock will be offered under the ESPP during offering periods. Each offering will consist of a offering period commencing on . The plan administrator may, at its discretion, choose a different length of the offering period not to exceed 27 months. Employee payroll deductions will be used to purchase shares on each purchase date during an offering period. The purchase date for each offering period will be the final trading day in the offering period. The plan administrator may, in its discretion, modify the terms of future offering periods.

The ESPP permits participants to purchase Class A common stock through payroll deductions of up to 15% of their eligible compensation. The maximum number of shares that may be purchased by a participant during any offering period will be shares. In addition, no employee will be permitted to accrue the right to purchase stock at a rate in excess of $25,000 worth of shares during any calendar year during which such a purchase right is outstanding (based on the fair market value per share of our Class A common stock as of the first day of the offering period).

On the first trading day of each offering period, each participant will automatically be granted an option to purchase shares of our Class A common stock. The option will expire at the end of the applicable offering period,

and will be exercised at that time to the extent of the payroll deductions accumulated during the offering period. The purchase price of the shares, in the absence of a contrary designation, will be 85% of the lower of the fair market value of our Class A common stock on the first trading day of the offering period or on the purchase date. Participants may voluntarily end their participation in the ESPP at any time during a specified period prior to the end of the applicable offering period, and will be paid their accrued payroll deductions that have not yet been used to purchase shares of Class A common stock. Participation ends automatically upon a participant's termination of employment.

A participant may not transfer rights granted under the ESPP other than by will or the laws of descent and distribution, and rights granted under the ESPP are generally exercisable only by the participant.

Certain Transactions

In the event of certain transactions or events affecting our Class A common stock, the plan administrator will make equitable adjustments to the ESPP and outstanding rights. In the event of certain unusual or non-recurring events or transactions, including a change in control, the plan administrator may provide for (1) either the replacement of outstanding rights with other rights or property or termination of outstanding rights in exchange for cash, (2) the assumption or substitution of outstanding rights by the successor or survivor corporation or parent or subsidiary thereof, if any, (3) an adjustment to the number and type of shares of stock subject to outstanding rights, (4) the use of participants' accumulated payroll deductions to purchase stock on a new purchase date prior to the next scheduled purchase date and termination of any rights under ongoing offering periods or (5) the termination of all outstanding rights.

Plan Amendment

The plan administrator may amend, suspend or terminate the ESPP at any time. However, stockholder approval will be obtained for any amendment that increases the aggregate number or changes the type of shares that may be sold pursuant to rights under the ESPP or changes the corporations or classes of corporations whose employees are eligible to participate in the ESPP.

Omnibus Incentive Plan

In order to incentivize our employees following the completion of this offering, we anticipate that our Board will adopt the 2020 Plan, for employees, consultants and directors prior to the completion of this offering. This summary is not a complete description of all of the provisions of the 2020 Plan and is qualified in its entirety by reference to the 2020 plan, a copy of which will be filed as an exhibit to the registration statement of which this prospectus forms a part. Our Named Executive Officers will be eligible to participate in the 2020 Plan, which we expect will become effective upon the consummation of this offering. We anticipate that the 2020 Plan will provide for the grant of options, stock appreciation rights, restricted stock, restricted stock units, stock awards, dividend equivalents, other stock-based awards, cash awards and substitute awards intended to align the interests of service providers, including our Named Executive Officers, with those of our shareholders.

Securities to be Offered

Subject to adjustment in the event of certain transactions or changes of capitalization in accordance with the 2020 Plan, a total of shares of Class A common stock will initially be reserved for issuance pursuant to awards under the 2020 Plan. The total number of shares reserved for issuance under the 2020 Plan may be issued pursuant to incentive options. Shares of Class A common stock subject to an award that expires or is canceled, forfeited, exchanged, settled in cash or otherwise terminated without delivery of shares and shares withheld to pay the exercise price of, or to satisfy the withholding obligations with respect to, an award will again be available for delivery pursuant to other awards under the 2020 Plan.

The total number of shares reserved for issuance under the 2020 Plan will be increased on January 1 of each of the first 10 calendar years during the term of the 2020 Plan, by the lesser of (i) % of the total number of shares of Class A common stock outstanding on each December 31 immediately prior to the date of increase or (ii) such number of shares of Class A common stock determined by our Board or compensation committee.

Administration

The 2020 Plan will be administered by our Board, except to the extent our Board elects a committee of directors to administer the 2020 Plan (as applicable, the "Administrator"). The Administrator has broad discretion to administer the 2020 Plan, including the power to determine the eligible individuals to whom awards will be granted, the number and type of awards to be granted and the terms and conditions of awards. The Administrator may also accelerate the vesting or exercise of any award and make all other determinations and to take all other actions necessary or advisable for the administration of the 2020 Plan. To the extent the Administrator is not our Board, our Board will retain the authority to take all actions permitted by the Administrator under the 2020 Plan.

Eligibility

Our employees, consultants and non-employee directors, and employees, consultants and non-employee directors of our affiliates, will be eligible to receive awards under the 2020 Plan.

Non-Employee Director Compensation Limits

Under the 2020 Plan, in a single calendar year,a non-employee director may not be granted awards for such individual's service on our Board having a value in excess of $. Additional awards may be granted for any calendar year in which a non-employee director first becomes a director, serves on a special committee of our Board, or serves as lead director. This limit does not apply to cash fees or awards granted in lieu of cash fees.

Types of Awards

Options. We may grant options to eligible persons, except that incentive options may only be granted to persons who are our employees or employees of one of our subsidiaries, in accordance with Section 422 of the Code. The exercise price of an option generally cannot be less than 100% of the fair market value of a share of Class A common stock on the date on which the option is granted and the option must not be exercisable for longer than ten years following the date of grant. In the case of an incentive option granted to an individual who owns (or is deemed to own) at least 10% of the total combined voting power of all classes of our equity securities, the exercise price of the option must be at least 110% of the fair market value of a share of Class A common stock on the date of grant and the option must not be exercisable more than five years from the date of grant.

SARs. A stock appreciation right ("SAR") is the right to receive an amount equal to the excess of the fair market value of one share of Class A common stock on the date of exercise over the grant price of the SAR. The grant price of a SAR generally cannot be less than 100% of the fair market value of a share of Class A common stock on the date on which the SAR is granted. The term of a SAR may not exceed ten years. SARs may be granted in connection with, or independent of, other awards. The Administrator will have the discretion to determine other terms and conditions of an SAR award.

Restricted Share Awards. A restricted share award is a grant of shares of Class A common stock subject to the restrictions on transferability and risk of forfeiture imposed by the Administrator. Unless otherwise determined by the Administrator and specified in the applicable award agreement, the holder of a restricted share award will have rights as a shareholder, including the right to vote the shares of Class A common stock subject to the restricted share award or to receive dividends on the shares of Class A common stock subject to the restricted

share award during the restriction period. In the discretion of the Administrator, dividends distributed prior to vesting may be subject to the same restrictions and risk of forfeiture as the restricted shares with respect to which the distribution was made.

Restricted Share Units ("RSU"). An RSU is a right to receive cash, shares of Class A common stock or a combination of cash and shares of Class A common stock at the end of a specified period equal to the fair market value of one share of Class A common stock on the date of vesting. RSUs may be subject to the restrictions, including a risk of forfeiture, imposed by the Administrator.

Share awards. A share award is a transfer of unrestricted shares of Class A common stock on terms and conditions, if any, determined by the Administrator.

Dividend Equivalents. Dividend equivalents entitle a participant to receive cash, shares of Class A common stock, other awards or other property equal in value to dividends or other distributions paid with respect to a specified number of shares of Class A common stock. Dividend equivalents may be granted on a free-standing basis or in connection with another award (other than a restricted share award or a share award).

Other Share-Based Awards. Other share-based awards are awards denominated or payable in, valued in whole or in part by reference to, or otherwise based on or related to, the value of our shares of Class A common stock.

Cash Awards. Cash awards may be granted on a free-standing basis or as an element of, a supplement to, or in lieu of any other award.

Substitute Awards. Awards may be granted in substitution or exchange for any other award granted under the 2020 Plan or under another equity incentive plan or any other right of an eligible person to receive payment from us. Awards may also be granted under the 2020 Plan in substitution for similar awards held for individuals who become participants as a result of a merger, consolidation or acquisition of another entity by or with us or one of our affiliates.

Certain Transactions

If any change is made to our capitalization, such as a share split, share combination, share dividend, exchange of shares or other recapitalization, merger or otherwise, which results in an increase or decrease in the number of outstanding shares of Class A common stock, appropriate adjustments will be made by the Administrator in the shares subject to an award under the 2020 Plan. The Administrator will also have the discretion to make certain adjustments to awards in the event of a change in control, such as accelerating the vesting or exercisability of awards, requiring the surrender of an award, with or without consideration, or making any other adjustment or modification to the award that the Administrator determines is appropriate in light of such transaction.

Clawback

All awards granted under the 2020 Plan will be subject to reduction, cancelation or recoupment under any written clawback policy that we may adopt and that we determine should apply to awards under the 2020 Plan.

Plan Amendment and Termination

Our Administrator may amend or terminate any award, award agreement or the 2020 Plan at any time; however, shareholder approval will be required for any amendment to the extent necessary to comply with applicable law or exchange listing standards. The Administrator will not have the authority, without the approval of shareholders, to amend any outstanding option or share appreciation right to reduce its exercise price per share. The 2020 Plan will remain in effect for a period of 10 years (unless earlier terminated by our Board).

Non-Employee Director Compensation

The following table presents the total compensation for each person who served as anon-employee member of our Board during 2019. Other than as set forth in the table and described more fully below, we did not pay any compensation, reimburse any expense of, make any equity awards or non-equity awards to, or pay any other compensation to any of, the other non-employee members of our Board in 2019.

Name	Fees earned or paid in cash ($)(1)	Total ($)
Robert B. Hance(2)	30,000	30,000
Murali K. Prahalad(3)	30,000	30,000

(1) Messrs. Hance and Prahalad are entitled to Board fees of $10,000 per meeting attended in person and $5,000 per meeting attended telephonically. In the 2019 fiscal year, Mr. Hance attended three meetings in person and Mr. Prahalad attended two meetings in person and two meetings telephonically.

(2) As of December 31, 2019, Mr. Hance held 4,000 vested incentive units and 6,000 unvested incentive units (2,000 of which vested on January 1, 2020, and the other 4,000 of which will vest in equal installments, subject to Mr. Hance's continued service, on January 1 of 2021 and 2022) in MLSH 1.

(3) As of December 31, 2019, Mr. Prahalad held 6,000 vested incentive units and 4,000 unvested incentive units (half of which vested on August 3, 2020, and the other half of which will vest, subject to Mr. Prahalad's continued service, on August 3, 2021) in MLSH 1.

Non-Employee Director Compensation Policy

We do not currently have a formal policy with respect to compensating ournon-employee directors for service as directors. Each of Messrs. Hance, Lucier and Prahalad is subject to an investment and director compensation agreement with MLSH 1, pursuant to which they have been granted restricted incentive units in MLSH 1 and are entitled to director fees ($10,000 per meeting attended in person and $5,000 per meeting attended telephonically) and reimbursement of expenses incurred in connection with their service. Following the consummation of this offering, we anticipate that directors who are not also officers or employees of the Company or of GTCR will receive compensation for their service on our Board and committees thereof. The amount and form of such compensation has not yet been determined. Each non-employee director will be reimbursed for out-of-pocket expenses incurred in connection with attending Board and committee meetings.

PRINCIPAL SHAREHOLDERS

The following table sets forth information about the beneficial ownership of our Class A common stock and Class B common stock as of , 2020, after giving effect to the Organizational Transactions:

- each person or group known to us who beneficially owns more than 5% of our Class A common stock or Class B common stock immediately prior to this offering;
- each of our directors and director nominees;
- each of our Named Executive Officers; and
- all of our directors, director nominees and executive officers as a group.

The numbers of shares of Class A common stock and Class B common stock (together with the same amount of LLC Units) beneficially owned and percentages of beneficial ownership before this offering that are set forth below are based on the number of shares and LLC Units to be issued and outstanding prior to this offering after giving effect to the Organizational Transactions. See "Organizational Structure." The numbers of shares of Class A common stock and Class B common stock (together with the same amount of LLC Units) beneficially owned and percentages of beneficial ownership after the offering that are set forth below are based on shares of Class A common stock to be issued and outstanding immediately after the offering, assuming no exercise by the underwriters of their option to purchase additional shares. This number excludes shares of Class A common stock issuable in exchange for LLC Units and upon conversion of shares of our Class B common stock, each as described under "Organizational Structure" and "Certain Relationships and Related Party Transactions—Amended and Restated Operating Agreement." If all outstanding LLC Units were exchanged and all outstanding shares of Class B common stock were converted, we would have shares of Class A common stock outstanding immediately after this offering.

Concurrently with this offering, we will issue to the LLC Unitholders shares of Class B common stock. The number of shares of Class B common stock will depend in part on the price at which shares of Class A common stock are sold in this offering after the offering. For purposes of the presentation of the total number of shares of Class B common stock beneficially owned, we have assumed that the shares of Class A common stock will be sold at $ per share, which is the midpoint of the estimated initial public offering price range set forth on the cover page of this prospectus.

Unless otherwise noted below, the address for each beneficial owner listed on the table is 10770 Wateridge Circle Suite 200, San Diego, California, 92121. We have determined beneficial ownership in accordance with the rules of the SEC. Except as indicated by the footnotes below, we believe, based on the information furnished to us, that the persons and entities named in the tables below have sole voting and investment power with respect to all Class A common stock that they beneficially own, subject to applicable community property laws.

	Shares of Common Stock Beneficially Owned Prior to this Offering					Shares of Common Stock Beneficially Owned After this Offering			
Name of Beneficial Owner	Shares of Class A Common Stock	% of Class A Common Stock Outstanding	Shares of Class B Common Stock	% of Class B Common Stock Outstanding	% of Combined Voting Power(1)	Shares of Class A Common Stock	Shares of Class B Common Stock	% of Combined Voting Power Assuming the Underwriters' Option Is Not Exercised(1)	% of Combined Voting Power Assuming the Underwriters' Option Is Exercised in Full(1)
5% Shareholders:									
GTCR(2)									
Named Executive Officers, Directors and Director Nominees:									
Carl Hull									
Kevin Herde									
Brian Neel									
Sean Cunningham									
Benjamin Daverman									
Robert B. Hance									
Gregory T. Lucier									
Luke Marker									
Constantine Mihas									
Murali K. Prahalad									
All executive officers, directors and director nominees as a group (individuals)									

(1) Each share of Class A common stock and Class B common stock entitles the registered holder thereof to one vote and each share on all matters presented to shareholders for a vote generally, including the election of directors. The Class A common stock and Class B common stock will vote as a single class on all matters except as required by law or the certificate of incorporation.

(2) Represents shares of Class A common stock held directly by MLSH 2 and shares of Class B common stock held directly by MLSH 1. MLSH 1 and MLSH 2 are each managed by a board of managers. GTCR Fund XI/C LP controls the board of managers of MLSH 2. GTCR Fund XI/B LP and GTCR Co-Invest XI LP control the board of managers of MLSH 1. This number excludes shares of Class A common stock issuable in exchange for LLC Units held by MLSH 1. These shares of Class A common stock represent approximately % of the shares of Class A common stock that would be outstanding immediately after this offering if all outstanding LLC Units were exchanged and all outstanding shares of Class B common stock were converted at that time. GTCR Partners XI/A&C LP is the general partner of GTCR Fund XI/C LP. GTCR Partners XI/B LP is the general partner of GTCR Fund XI/B LP. GTCR Investment XI LLC is the general partner of each of GTCR Co-Invest XI LP, GTCR Partners XI/A&C LP and GTCR Partners XI/B LP. GTCR Investment XI LLC is managed by a board of managers (the "GTCR Board of Managers") consisting of Mark M. Anderson, Craig A. Bondy, Aaron D. Cohen, Sean L. Cunningham, Benjamin J. Daverman, David A. Donnini, Constantine S. Mihas and Collin E. Roche, and no single person has voting or dispositive authority over the Class A common stock or Class B common stock. Each of GTCR Partners XI/A&C LP, GTCR Investment XI LLC and the GTCR Board of Managers may be deemed to share beneficial ownership of the shares held of record by MLSH 2, each of GTCR Partners XI/B LP, GTCR Investment XI LLC and the GTCR Board of Managers may be deemed to share beneficial ownership of the shares held of record by MLSH 1 and each of the individual members of the GTCR Board of Managers disclaims beneficial ownership of the shares held of record by MLSH 1 and MLSH 2 except to the extent of his pecuniary interest therein. The address for each of MLSH 1, MLSH 2, GTCR Fund XI/C LP, GTCR Fund XI/B LP, GTCR Co-Invest XI LP, GTCR Partners XI/A&C LP, GTCR Partners XI/B LP and GTCR Investment XI LLC is 300 North LaSalle Street, Suite 5600, Chicago, IL, 60654, and their telephone number is (312) 382-2200.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

Policies for Approval of Related Party Transactions

Prior to completion of this offering, we intend to adopt a policy with respect to the review, approval and ratification of related party transactions. Under the policy, our Audit Committee is responsible for reviewing and approving related party transactions. In the course of its review and approval of related party transactions, our Audit Committee will consider the relevant facts and circumstances to decide whether to approve such transactions. In particular, our policy requires our Audit Committee to consider, among other factors it deems appropriate:

- the related person's relationship to us and interest in the transaction;
- the material facts of the proposed transaction, including the proposed aggregate value of the transaction;
- the impact on a director or a director nominee's independence in the event the related person is a director or an immediate family member of the director or director nominee;
- the benefits to us of the proposed transaction;
- if applicable, the availability of other sources of comparable products or services; and
- an assessment of whether the proposed transaction is on terms that are comparable to the terms available to an unrelated third party or to employees generally.

The Audit Committee may only approve those transactions that are in, or are not inconsistent with, our best interests and those of our shareholders, as the Audit Committee determines in good faith.

Amended and Restated Operating Agreement

In connection with the completion of this offering, we will amend and restate Topco LLC's existing operating agreement, which we refer to as the "LLC Operating Agreement." The operations of Topco LLC and the rights and obligations of the LLC Unitholders will be set forth in the LLC Operating Agreement. See "Organizational Structure—Amended and Restated Operating Agreement of Topco LLC."

Registration Rights Agreement

In connection with this offering, we intend to enter into a registration rights agreement with MLSH 1 and MLSH 2. MLSH 1 and MLSH 2 will be entitled to request that we register their shares of capital stock on a long-form or short-form registration statement on one or more occasions in the future, which registrations may be "shelf registrations." MLSH 1 and MLSH 2 will be entitled to participate in certain of our registered offerings, subject to the restrictions in the registration rights agreement. We will pay expenses in connection with the exercise of these rights. The registration rights described in this paragraph apply to (1) shares of our Class A common stock held by MLSH 1 and MLSH 2 and their affiliates, and (2) any of our capital stock (or that of our subsidiaries) issued or issuable with respect to the Class A common stock described in clause (1) with respect to any dividend, distribution, recapitalization, reorganization, or certain other corporate transactions ("Registrable Securities"). These registration rights are also for the benefit of any subsequent holder of Registrable Securities; provided that any particular securities will cease to be Registrable Securities when they have been sold in a registered public offering, sold in compliance with Rule 144 of the Securities Act or repurchased by us or our subsidiaries. In addition, with the consent of the company and holders of a majority of Registrable Securities, certain Registrable Securities will cease to be Registrable Securities if they can be sold without limitation under Rule 144 of the Securities Act.

Tax Receivable Agreement

We intend to enter into a Tax Receivable Agreement with MLSH 1 and MLSH 2 that will provide for the payment from time to time by us to MLSH 1 and MLSH 2, collectively, of 85% of the amount of the benefits, if

any, that we realize or, under certain circumstances, are deemed to realize as a result of (i) certain increases in the tax basis of assets of Topco LLC and its subsidiaries resulting from purchases or exchanges of LLC Units, (ii) certain tax attributes of the Blocker Entities, Topco LLC and subsidiaries of Topco LLC that existed prior to this offering and (iii) certain other tax benefits related to our entering into the Tax Receivable Agreement, including tax benefits attributable to payments that we make under the Tax Receivable Agreement. These payment obligations are obligations of Maravai LifeSciences Holdings, Inc. and not of Topco LLC. See "Organizational Structure—Tax Receivable Agreement."

Director Nomination Agreement

In connection with this offering, we will enter into a Director Nomination Agreement with GTCR. The Director Nomination Agreement will provide GTCR the right to designate: (i) all of the nominees for election to our Board for so long as GTCR controls % or more of the voting power of our stock entitled to vote generally in the election of directors; (ii) a number of directors (rounded up to the nearest whole number) equal to % of the total directors for so long as GTCR controls owns at least % and less than % of the voting power; (iii) a number of directors (rounded up to the nearest whole number) equal to % of the total directors for so long as GTCR controls at least % and less than % of the voting power; (iv) a number of directors (rounded up to the nearest whole number) equal to % of the total directors for so long as GTCR controls at least % and less than % of the voting power; and (v) one director for so long as GTCR controls at least % and less than % of the voting power. In each case, GTCR's nominees must comply with applicable law and stock exchange rules. In addition, GTCR shall be entitled to designate the replacement for any of its Board designees whose Board service terminates prior to the end of the director's term, regardless of GTCR's beneficial ownership at that time. GTCR shall also have the right to have its designees participate on committees of our Board proportionate to its stock ownership, subject to compliance with applicable law and stock exchange rules. The Director Nomination Agreement will also prohibit us from increasing or decreasing the size of our Board without the prior written consent of GTCR. This agreement will terminate at such time as GTCR controls less than % of the voting power.

Indemnification of Officers and Directors

Upon completion of this offering, we intend to enter into indemnification agreements with each of our officers, directors and director nominees. The indemnification agreements will provide the officers and directors with contractual rights to indemnification, expense advancement and reimbursement, to the fullest extent permitted under Delaware law. Additionally, we may enter into indemnification agreements with any new directors or officers that may be broader in scope than the specific indemnification provisions contained in Delaware law. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our officers and directors pursuant to the foregoing agreements, we have been advised that, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act, and is therefore unenforceable.

Relationship with GTCR

We have utilized GTCR, who upon completion of this offering will control the vote of all matters submitted to a vote of our shareholders, for certain services pursuant to an advisory services agreement. Under this agreement, GTCR provides us with financial and management consulting services in the areas of corporate strategy, budgeting for future corporate investments, acquisition and divestiture strategies and debt and equity financings. The advisory services agreement provides that we pay a $0.1 million quarterly management fee to GTCR for these services. We also reimburse GTCR for out-of-pocket expenses incurred while providing these services. The advisory services agreement also provides that we pay placement fees to GTCR of 1.0% of the gross amount of any debt or equity financings, including this offering.

We paid GTCR $0.6 million in each of the years ended December 31, 2019 and 2018. Following this offering, we may continue to engage GTCR from time to time, subject to compliance with our related party transactions policy.

During the year ended December 31, 2018, $52.0 million of capital distributions were made to the Class A unit holders of MLSC Holdings, LLC, including GTCR. No distributions were made to the Class A unit holders of MLSC Holdings, LLC during the year ended December 31, 2019.

Lease Arrangements

Cygnus Technologies, a subsidiary of Topco LLC., has an ongoing lease agreement for facilities in Southport, NC with an entity controlled by a close relative of the president of Cygnus Technologies. The close relative was also previously an employee of Cygnus Technologies who terminated their employment during the year ended December 31, 2018. The president of Cygnus Technologies also personally financed a loan to this entity, which was used to acquire the property leased by Cygnus Technologies. The lease terms are considered to be consistent with market rates.

Cygnus Technologies paid $0.2 million of rent under this lease agreement for each of the years ended December 31, 2019 and 2018.

Noncontrolling Interest

The noncontrolling interest in MLSC Holdings, LLC, the parent of Cygnus Technologies, represents equity interest that was retained by the shareholders of the MLSC Holdings, LLC entity prior to its acquisition by Maravai. The president of Cygnus Technologies is the majority owner of the noncontrolling interest.

DESCRIPTION OF CERTAIN INDEBTEDNESS

Set forth below is a summary of the terms of the agreements governing certain of our outstanding indebtedness. This summary is not a complete description of all of the terms of the agreements. The agreements setting forth the terms and conditions of certain of our outstanding indebtedness are filed as exhibits to the registration statement of which this prospectus forms a part.

First Lien Credit Agreement

On August 2, 2018, Maravai Intermediate Holdings, LLC ("Intermediate"), a wholly-owned subsidiary of ours, along with its subsidiaries Vector Laboratories, TriLink BioTechnologies and Cygnus Technologies (the "Borrowers"), entered into a first lien credit agreement (the "First Lien Credit Agreement") with JPMorgan Chase Bank, N.A. and certain other lenders, providing for a $250.0 million first lien term loan (the "First Lien Term Loan") and a $50.0 million revolving credit facility (the "Revolving Credit Facility"). The proceeds from borrowing under the First Lien Credit Agreement were used on August 2, 2018 to refinance outstanding senior secured credit facilities and senior subordinated notes, to make a distribution to the indirect equityholders of the Borrowers, to pay transaction costs and expenses and for general corporate purposes. As of September 30, 2020, $ million was outstanding under the First Lien Term Loan and $ million under the Revolving Credit Facility.

Interest Rates and Fees

Borrowings under the First Lien Credit Agreement bear interest (a) in the case of the First Lien Term Loans, at the Borrowers' option, either at (i) the Base Rate plus the applicable margin of 3.25% per annum or (ii) the Adjusted Eurocurrency Rate plus the margin of 4.25% per annum and (b) in the case of the Revolving Credit Facility, at the Borrowers' option, either at (i) the Base Rate plus the applicable margin of 3.25% per annum with a stepdown to 3.00% based on the Borrower's consolidated first lien net leverage ratio or (ii) the Eurocurrency Rate plus the margin of 4.25% per annum with a stepdown to 4.00% based on the Borrower's consolidated first lien net leverage ratio. The "Base Rate" is defined as the greatest of (i) the rate last quoted by The Wall Street Journal as the "Prime Rate" in the United States, (ii) the Federal Funds Rate plus 0.50% per annum, (iii) the Adjusted Eurocurrency Rate for a one month interest period plus 1% per annum, (iv) solely with respect to the initial term loans, 2.00% per annum and (v) for any loans that are not initial term loans, 1.00% per annum. The "Adjusted Eurocurrency Rate" is defined as, with respect to the initial term loans, the greater of (i) the Eurocurrency Rate for such interest period multiplied by the Statutory Reserve Rate (as such term is defined in the First Lien Credit Agreement), and (ii) 1.00%. The "Eurocurrency Rate" is defined as the London Inter-bank Offered Rate (LIBOR) as displayed by Reuters (which if negative will be deemed to be 0%). As of December 31, 2018 and 2019, the interest rate on the First Lien Term Loan was 6.8125% and 6.0625%, respectively.

Accrued interest under the First Lien Credit Agreement is payable (a) quarterly in arrears with respect to Base Rate loans, (b) at the end of each interest rate period (or at each three-month interval in the case of loans with interest periods greater than three months) with respect to Eurocurrency Rate loans, (c) on the date of any repayment or prepayment and (d) at maturity (whether by acceleration or otherwise). An annual commitment fee is applied to the daily unutilized amount under the Revolving Credit Facility at 0.50% per annum, with one stepdown to 0.375% per annum based on the Borrower's consolidated first lien net leverage ratio.

Voluntary and Mandatory Prepayments

The First Lien Term Loan contains prepayment provisions that allow the Borrowers, at their option, to prepay all or a portion of the principal amount at any time. Subject to certain exceptions and limitations and reinvestment rights, the Borrowers are required to repay borrowings under the First Lien Term Loan and Revolving Credit Facility with the proceeds of certain occurrences, such as the incurrence of debt and certain asset sales or dispositions. The First Lien Credit Agreement also requires mandatory prepayments to be

calculated commencing with the fiscal year ending December 31, 2019 upon certain excess cash flow as defined in the terms of the agreement. As of December 31, 2019, the terms of the excess cash flow prepayment provisions did not require any mandatory prepayment.

Final Maturity and Amortization

The First Lien Term Loan became repayable in quarterly payments of $0.6 million beginning December 31, 2018 and will remain repayable through June 30, 2025, with all remaining outstanding principal due at maturity on August 2, 2025.

Guarantees

Borrowings under the First Lien Credit Agreement are unconditionally guaranteed by Topco LLC, together with the existing and future material domestic subsidiaries of Topco LLC (subject to certain exceptions), as specified in the respective guaranty agreements.

Security

Borrowings under the First Lien Credit Agreement are secured by a first-priority lien and security interest in substantially all of the assets (subject to certain exceptions) of existing and future material domestic subsidiaries of Topco LLC that are loan parties.

Certain Covenants

The First Lien Credit Agreement requires that, as of the end of any fiscal quarter where the aggregate amount of letter of credit obligations and revolving credit loans under the Revolving Credit Facility outstanding as of such date (excluding cash collateralized letters of credit and letter of credit obligations in an aggregate amount not in excess of $3.8 million at any time outstanding) exceeds 35% of the aggregate amount of all revolving credit commitments under the Revolving Credit Facility in effect as of such date, the Borrower's consolidated first lien net leverage ratio shall not be greater than 7.50 to 1.00. The First Lien Credit Agreement also contains negative and affirmative covenants, including covenants that restrict the ability of the Borrowers and their subsidiaries to, among other things, incur or prepay existing certain indebtedness, pay dividends or distributions, dispose of assets, engage in mergers and consolidations, make acquisitions or other investments and make changes in the nature of the business. The First Lien Credit Agreement also requires Intermediate to provide audited consolidated financial statements to the lenders no later than 120 days after year-end.

The Borrowers were in compliance with all of its covenants under the First Lien Credit Agreement as of December 31, 2019.

Events of Default

The First Lien Credit Agreement contains certain objective events of default, including, without limitation, nonpayment of principal, interest or other obligations, violation of the covenants, insolvency, court-ordered judgments and change in control. There were no events of default for the year ended December 31, 2019.

Second Lien Credit Agreement

On August 2, 2018, Maravai Intermediate Holdings, LLC ("Intermediate"), a wholly-owned subsidiary of Topco LLC, along with its subsidiaries Vector Laboratories, TriLink BioTechnologies and Cygnus Technologies (the "Borrowers"), entered into a second lien credit agreement (the "Second Lien Credit Agreement") with Antares Capital LP and certain other lenders, providing for a $100.0 million second lien term loan (the "Second Lien Term Loan"). The proceeds from borrowing under the Second Lien Credit Agreement were used on

August 2, 2018 to refinance outstanding senior secured credit facilities and senior subordinated notes, to make a distribution to the indirect equityholders of the Borrowers, to pay transaction costs and expenses and for general corporate purposes. As of September 30, 2020, $ million was outstanding under the Second Lien Term Loan.

Interest Rates and Fees

Borrowings under the Second Lien Credit Agreement bear interest, at the Borrowers' option, either at (a) the Base Rate plus the applicable margin of 7.00% per annum or (b) the Adjusted Eurocurrency Rate plus the margin of 8.00% per annum. The "Base Rate" is defined as the greatest of (i) the rate last quoted by The Wall Street Journal as the "Prime Rate" in the United States, (ii) the Federal Funds Rate plus 0.50% per annum, (iii) the Adjusted Eurocurrency Rate for a one month interest period plus 1% per annum, (iv) solely with respect to the initial term loans, 2.00% per annum and (v) for any loans that are not initial term loans, 1.00% per annum. The "Adjusted Eurocurrency Rate" is defined as (a) with respect to the initial term loans the greater of (i) the Eurocurrency Rate for such interest period multiplied by the Statutory Reserve Rate, and (ii) 1.00% and (b) with respect to the Revolving Credit Facility, the Eurocurrency Rate for such interest period (which if negative will be deemed to be 0%) multiplied by the Statutory Reserve Rate. The "Eurocurrency Rate" is defined as the London Inter-bank Offered Rate (LIBOR) as displayed by Reuters (which if negative will be deemed to be 0%). As of December 31, 2018 and 2019, the interest rate on the First Lien Term Loan was 10.37888% and 9.73975%, respectively.

Accrued interest under the Second Lien Credit Agreement is payable (a) quarterly in arrears with respect to Base Rate loans, (b) at the end of each interest rate period (or at each three-month interval in the case of loans with interest periods greater than three months) with respect to Eurocurrency Rate Loans, (c) the date of any repayment or prepayment and (d) at maturity (whether by acceleration or otherwise).

Voluntary and Mandatory Prepayments

The Second Lien Term Loan includes voluntary prepayment provisions that allow the Borrowers, at their option, to repay all or a portion of the principal amount of the Second Lien Term Loan.

Subject to certain exceptions and limitations and reinvestment rights, the Borrowers are required to repay borrowings under the Second Lien Term Loan with the proceeds of certain occurrences, such as the incurrence of debt, and certain asset sales or dispositions. The Second Lien Credit Agreement also requires mandatory prepayments to be calculated commencing with the fiscal year ending December 31, 2019 upon certain excess cash flow as defined in the terms of the agreement. As of December 31, 2019, the terms of the excess cash flow prepayment provisions did not require any mandatory prepayment.

Final Maturity and Amortization

Borrowings under the Second Lien Term Loan mature on August 2, 2026.

Guarantees

Borrowings under the Second Lien Credit Agreement are unconditionally guaranteed by Topco LLC, together with the existing and future material domestic subsidiaries of Topco LLC (subject to certain exceptions), as specified in the respective guaranty agreements.

Security

Borrowings under the Second Lien Credit Agreement are secured by a second-priority lien and security interest in substantially all of the assets (subject to certain exceptions) of existing and future material domestic subsidiaries of Topco LLC that are loan parties.

Certain Covenants

The Second Lien Credit Agreement contains negative and affirmative covenants, including covenants that restrict the ability of the Borrowers and their subsidiaries to, among other things, incur or prepay certain indebtedness, pay dividends or distributions, dispose of assets, engage in mergers and consolidations, make acquisitions or other investments and make changes in the nature of the business. The Second Lien Credit Agreement also requires Intermediate to provide audited consolidated financial statements to the lenders on later than 120 days after year-end.

The Borrowers were in compliance with all of its covenants under the Second Lien Credit Agreement as of December 31, 2019.

Events of Default

The Second Lien Credit Agreement contains certain objective events of default, including, without limitation, nonpayment of principal, interest or other obligations, violation of the covenants, insolvency, court-ordered judgments and change in control. There were no events of default for the year ended December 31, 2019.

DESCRIPTION OF CAPITAL STOCK

The following is a description of the material terms of our amended and restated certificate of incorporation and amended and restated bylaws, each as will be in effect at or prior to the consummation of this offering. The following description may not contain all of the information that is important to you. To understand the material terms of our Class A common stock, you should read our amended and restated certificate of incorporation and amended and restated bylaws, copies of which are or will be filed with the SEC as exhibits to the registration statement, of which this prospectus is a part.

General

At or prior to the consummation of this offering, we will file our amended and restated certificate of incorporation (our "certificate"), and we will adopt our amended and restated by-laws (our "bylaws"). Our certificate will authorize capital stock consisting of:

- shares of Class A common stock, par value $0.01 per share;
- shares of Class B common stock, par value $0.01 per share; and
- shares of preferred stock, with a par value per share that may be established by the Board in the applicable certificate of designations.

We are selling shares of Class A common stock in this offering (shares if the underwriters exercise in full their option to purchase additional shares). All shares of our Class A common stock outstanding upon consummation of this offering will be fully paid and non-assessable. We are issuing shares of Class B common stock to MLSH 1 simultaneously with this offering (shares if the underwriters exercise in full their option to purchase additional shares of our Class A common stock). Upon completion of this offering, we expect to have shares of Class A common stock outstanding (shares if the underwriters exercise in full their option to purchase additional shares) and shares of Class B common stock outstanding (shares if the underwriters exercise in full their option to purchase additional shares).

The following summary describes the material provisions of our capital stock and is qualified in its entirety by reference to the certificate and our bylaws and to the applicable provisions of the DGCL. We urge you to read our certificate and our bylaws, which are included as exhibits to the registration statement of which this prospectus forms a part.

Certain provisions of our certificate and our bylaws summarized below may be deemed to have an anti-takeover effect and may delay or prevent a tender offer or takeover attempt that a shareholder might consider in its best interest, including those attempts that might result in a premium over the market price for the shares of common stock.

Class A Common Stock

Holders of shares of our Class A common stock are entitled to one vote for each share held of record on all matters submitted to a vote of shareholders. The holders of our Class A common stock do not have cumulative voting rights in the election of directors.

Holders of shares of our Class A common stock will vote together with holders of our Class B common stock as a single class on all matters presented to our shareholders for their vote or approval, except for certain amendments to our certificate of incorporation described below or as otherwise required by applicable law or the certificate.

Holders of shares of our Class A common stock are entitled to receive dividends when and if declared by our Board out of funds legally available therefor, subject to any statutory or contractual restrictions on the payment of dividends and to any restrictions on the payment of dividends imposed by the terms of any outstanding preferred stock.

Upon our dissolution or liquidation or the sale of all or substantially all of our assets, after payment in full of all amounts required to be paid to creditors and to the holders of preferred stock having liquidation preferences, if any, the holders of shares of our Class A common stock will be entitled to receive pro rata our remaining assets available for distribution.

Holders of shares of our Class A common stock do not have preemptive, subscription, redemption or conversion rights. There will be no redemption or sinking fund provisions applicable to the Class A common stock.

Class B Common Stock

Holders of shares of our Class B common stock are entitled to one vote for each share held of record on all matters submitted to a vote of shareholders. The holders of our Class B common stock do not have cumulative voting rights in the election of directors.

Holders of shares of our Class B common stock will vote together with holders of our Class A common stock as a single class on all matters presented to our shareholders for their vote or approval, except for certain amendments to our certificate of incorporation described below or as otherwise required by applicable law or the certificate.

Holders of our Class B common stock do not have any right to receive dividends or to receive a distribution upon dissolution or liquidation or the sale of all or substantially all of our assets. Additionally, holders of shares of our Class B common stock do not have preemptive, subscription, redemption or conversion rights. There will be no redemption or sinking fund provisions applicable to the Class B common stock. Any amendment of our certificate of incorporation that gives holders of our Class B common stock (1) any rights to receive dividends or any other kind of distribution, (2) any right to convert into or be exchanged for Class A common stock or (3) any other economic rights will require, in addition to shareholder approval, the affirmative vote of holders of our Class A common stock voting separately as a class.

Upon the consummation of this offering, MLSH 1 will own 100% of our outstanding Class B common stock.

Preferred Stock

Upon the consummation of this offering, we will have no shares of preferred stock outstanding.

Under the terms of our certificate that will become effective at or prior to the consummation of this offering, our Board is authorized to direct us to issue shares of preferred stock in one or more series without shareholder approval. Our Board has the discretion to determine the rights, preferences, privileges and restrictions, including voting rights, dividend rights, conversion rights, redemption privileges and liquidation preferences, of each series of preferred stock.

The purpose of authorizing our Board to issue preferred stock and determine its rights and preferences is to eliminate delays associated with a shareholder vote on specific issuances. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions, future financings and other corporate purposes, could have the effect of making it more difficult for a third party to acquire, or could discourage a third party from seeking to acquire, a majority of our outstanding voting stock. Additionally, the issuance of preferred stock may adversely affect the holders of our Class A common stock by restricting dividends on the Class A common stock, diluting the voting power of the Class A common stock or subordinating the liquidation rights of the Class A common stock. As a result of these or other factors, the issuance of preferred stock could have an adverse impact on the market price of our Class A common stock.

Forum Selection

Our certificate of incorporation will provide that, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware (or, if the Court of Chancery does not have jurisdiction, the United States District Court for the District of Delaware) will be the sole and exclusive forum for any state court action for (1) any derivative action or proceeding brought on our behalf, (2) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers or other employees to us or our shareholders, (3) any action asserting a claim against Maravai LifeSciences Holdings, Inc. or any director or officer thereof arising pursuant to any provision of the DGCL, our certificate of incorporation or our bylaws or (4) any other action asserting a claim against Maravai LifeSciences Holdings, Inc. or any director or officer thereof that is governed by the internal affairs doctrine; provided that, for the avoidance of doubt, the forum selection provision that identifies the Court of Chancery of the State of Delaware as the exclusive forum for certain litigation, including any "derivative action," will not apply to suits to enforce a duty or liability created by the Securities Act, the Exchange Act or any other claim for which the federal courts have exclusive jurisdiction. Any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock will be deemed to have notice of and to have consented to the provisions of our certificate of incorporation described above. Although we believe these provisions benefit us by providing increased consistency in the application of Delaware law for the specified types of actions and proceedings, the provisions may have the effect of discouraging lawsuits against us or our directors and officers. Alternatively, if a court were to find the choice of forum provision contained in our amended and restated certificate of incorporation to be inapplicable or unenforceable, we may incur additional costs associated with resolving such action in other jurisdictions, which could have an adverse effect on our business, financial condition, results of operations, cash flows and prospects and result in a diversion of the time and resources of our employees, management and board of directors.

Anti-Takeover Provisions

Our certificate, bylaws and the DGCL contain provisions, which are summarized in the following paragraphs, that are intended to enhance the likelihood of continuity and stability in the composition of our Board. These provisions are intended to avoid costly takeover battles, reduce our vulnerability to a hostile change of control and enhance the ability of our Board to maximize shareholder value in connection with any unsolicited offer to acquire us. However, these provisions may have an anti-takeover effect and may delay, deter or prevent a merger or acquisition of us by means of a tender offer, a proxy contest or other takeover attempt that a shareholder might consider in its best interest, including those attempts that might result in a premium over the prevailing market price for the shares of Class A common stock held by shareholders.

These provisions include:

Classified Board. Our certificate will provide that our Board will be divided into three classes of directors, with the classes as nearly equal in number as possible, and with the directors serving three-year terms. As a result, approximately one-third of our Board will be elected each year. The classification of the directors will have the effect of making it more difficult for shareholders to change the composition of our Board. Our certificate will also provide that, subject to any rights of holders of preferred stock to elect additional directors under specified circumstances, the number of directors will be fixed exclusively pursuant to a resolution adopted by our Board. Upon completion of this offering, we expect that our Board will have members.

Shareholder Action by Written Consent. Our certificate will preclude shareholder action by written consent at any time when GTCR controls, in the aggregate, less than % in voting power of our outstanding common stock.

Special Meetings of Shareholders. Our certificate and bylaws will provide that, except as required by law, special meetings of our shareholders may be called at any time only by or at the direction of our Board or the chairman of our Board; provided, however, at any time when GTCR controls, in the aggregate, at least 35% in voting power of our outstanding common stock, special meetings of our shareholders shall also be called by our Board or the chairman of our Board at the request of GTCR. Our bylaws will prohibit the conduct of any business at a special meeting other than as specified in the notice for such meeting. These provisions may have the effect of deferring, delaying or discouraging hostile takeovers, or changes in control or management of us.

Advance Notice Procedures. Our bylaws will establish advance notice procedures for shareholder proposals and nomination of candidates for election as directors, other than nominations made by or at the direction of our Board or a committee of our Board, and provided, however, that at any time when GTCR controls, in the aggregate, at least 10% of the voting power of our outstanding common stock, such advance notice procedure will not apply to GTCR. Shareholders at an annual meeting will only be able to consider proposals or nominations specified in the notice of meeting or brought before the meeting by or at the direction of our Board or by a shareholder who was a shareholder of record on the record date for the meeting, who is entitled to vote at the meeting and who has given our Secretary timely written notice, in proper form, of the shareholder's intention to bring that business before the meeting. Although the bylaws will not give our Board the power to approve or disapprove shareholder nominations of candidates or proposals regarding other business to be conducted at a special or annual meeting, the bylaws may have the effect of precluding the conduct of certain business at a meeting if the proper procedures are not followed or may discourage or deter a potential acquirer from conducting a solicitation of proxies to elect its own slate of directors or otherwise attempting to obtain control of us. These provisions do not apply to nominations by GTCR pursuant to the Director Nomination Agreement. See "Certain Relationships and Related Party Transactions—Director Nomination Agreement" for more details with respect to the Director Nomination Agreement.

Removal of Directors; Vacancies. Our certificate will provide that a director nominated by GTCR may be removed with or without cause by GTCR; provided, however, that at any time when GTCR controls less than 40% in voting power of our outstanding common stock, all directors, including those nominated by GTCR, may only be removed for cause, and only by the affirmative vote of holders of at least 66 2/3% in voting power of all the then-outstanding shares of capital stock of the company entitled to vote thereon, voting together as a single class. In addition, our certificate will also provide that, subject to the rights granted to one or more series of preferred stock then outstanding, any newly created directorship on our Board that results from an increase in the number of directors and any vacancies on our Board will be filled only by the affirmative vote of a majority of the remaining directors, even if less than a quorum, or by a sole remaining director (and not by the shareholders).

Supermajority Approval Requirements. Our certificate and bylaws will provide that our Board is expressly authorized to make, alter, amend, change, add to, rescind or repeal, in whole or in part, our bylaws without a shareholder vote in any matter not inconsistent with the laws of the State of Delaware and our certificate. For as long as GTCR controls, in the aggregate, at least 50% in voting power of our outstanding common stock, any amendment, alteration, rescission or repeal of our bylaws by our shareholders will require the affirmative vote of a majority in voting power of the outstanding shares of our stock entitled to vote on such amendment, alteration, change, addition, rescission or repeal. At any time when GTCR controls, in the aggregate, less than 50% in voting power of our outstanding common stock, any amendment, alteration, rescission or repeal of our bylaws by our shareholders will require the affirmative vote of the holders of at least 66 2/3% in voting power of all the then-outstanding shares of stock of the company entitled to vote thereon, voting together as a single class.

The DGCL provides generally that the affirmative vote of a majority of the outstanding shares entitled to vote thereon, voting together as a single class, is required to amend a corporation's certificate of incorporation, unless the certificate requires a greater percentage.

Our certificate will provide that the following provisions in our certificate may be amended, altered, repealed or rescinded only by the affirmative vote of the holders of at least 66 2/3% (as opposed to a majority threshold) in voting power of all the then-outstanding shares of stock entitled to vote thereon, voting together as a single class:

- the provision requiring a 66 2/3% supermajority vote for shareholders to amend our bylaws;
- the provisions providing for a classified board of directors (the election and term of our directors);
- the provisions regarding resignation and removal of directors;
- the provisions regarding entering into business combinations with interested shareholders;

- the provisions regarding shareholder action by written consent;
- the provisions regarding calling special meetings of shareholders;
- the provisions regarding filling vacancies on our Board and newly created directorships;
- the provision establishing the Court of Chancery of the State of Delaware as the exclusive forum for certain litigation;
- the provisions eliminating monetary damages for breaches of fiduciary duty by a director; and
- the amendment provision requiring that the above provisions be amended only with a 66 2/3% supermajority vote.

The combination of the classification of our Board, the lack of cumulative voting and the supermajority voting requirements will make it more difficult for our existing shareholders to replace our Board as well as for another party to obtain control of us by replacing our Board. Because our Board has the power to retain and discharge our officers, these provisions could also make it more difficult for existing shareholders or another party to effect a change in management.

Authorized but Unissued Shares. Our authorized but unissued shares of common stock and preferred stock will be available for future issuance without shareholder approval, subject to stock exchange rules. These additional shares of capital stock may be utilized for a variety of corporate purposes, including future public offerings to raise additional capital, corporate acquisitions and employee benefit plans. One of the effects of the existence of authorized but unissued common stock or preferred stock may be to enable our Board to issue shares of capital stock to persons friendly to current management, which issuance could render more difficult or discourage an attempt to obtain control of the company by means of a merger, tender offer, proxy contest or otherwise, and thereby protect the continuity of our management and possibly deprive our shareholders of opportunities to sell their shares of common stock at prices higher than prevailing market prices.

Business Combinations. Upon completion of this offering, we will not be subject to the provisions of Section 203 of the DGCL. In general, Section 203 prohibits a publicly held Delaware corporation from engaging in a "business combination" with an "interested shareholder" for a three-year period following the time that the person becomes an interested shareholder, unless the business combination is approved in a prescribed manner. A "business combination" includes, among other things, a merger, asset or stock sale or other transaction resulting in a financial benefit to the interested shareholder. An "interested shareholder" is a person who, together with affiliates and associates, owns, or did own within three years prior to the determination of interested shareholder status, 15% or more of the corporation's voting stock.

Under Section 203, a business combination between a corporation and an interested shareholder is prohibited unless it satisfies one of the following conditions: (1) before the shareholder became an interested shareholder, the Board approved either the business combination or the transaction which resulted in the shareholder becoming an interested shareholder; (2) upon consummation of the transaction which resulted in the shareholder becoming an interested shareholder, the interested shareholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the voting stock outstanding, shares owned by persons who are directors and also officers, and employee stock plans, in some instances; or (3) at or after the time the shareholder became an interested shareholder, the business combination was approved by the Board and authorized at an annual or special meeting of the shareholders by the affirmative vote of at least two-thirds of the outstanding voting stock which is not owned by the interested shareholder.

A Delaware corporation may "opt out" of these provisions with an express provision in its original certificate of incorporation or an express provision in its certificate of incorporation or bylaws resulting from a shareholders' amendment approved by at least a majority of the outstanding voting shares.

We will opt out of Section 203; however, our certificate will contain similar provisions providing that we may not engage in certain "business combinations" with any "interested shareholder" for a three-year period following the time that the shareholder became an interested shareholder, unless:

- prior to such time, our Board approved either the business combination or the transaction which resulted in the shareholder becoming an interested shareholder;
- upon consummation of the transaction that resulted in the shareholder becoming an interested shareholder, the interested shareholder owned at least 85% of our voting stock outstanding at the time the transaction commenced, excluding certain shares; or
- at or subsequent to that time, the business combination is approved by our Board and by the affirmative vote of holders of at least 66 2/3% of our outstanding voting stock that is not owned by the interested shareholder.

Under certain circumstances, this provision will make it more difficult for a person who would be an "interested shareholder" to effect various business combinations with us for a three-year period. This provision may encourage companies interested in acquiring us to negotiate in advance with our Board because the shareholder approval requirement would be avoided if our Board approves either the business combination or the transaction which results in the shareholder becoming an interested shareholder. These provisions also may have the effect of preventing changes in our Board and may make it more difficult to accomplish transactions which shareholders may otherwise deem to be in their best interests.

Our certificate of incorporation will provide that GTCR, and any of its direct or indirect transferees and any group as to which such persons are a party, do not constitute "interested shareholders" for purposes of this provision.

Limitations on Liability and Indemnification of Officers and Directors

The DGCL authorizes corporations to limit or eliminate the personal liability of directors to corporations and their shareholders for monetary damages for breaches of directors' fiduciary duties, subject to certain exceptions. Our certificate will include a provision that eliminates the personal liability of directors for monetary damages for any breach of fiduciary duty as a director, except to the extent such exemption from liability or limitation thereof is not permitted under the DGCL. The effect of these provisions will be to eliminate the rights of us and our shareholders, through shareholders' derivative suits on our behalf, to recover monetary damages from a director for breach of fiduciary duty as a director, including breaches resulting from grossly negligent behavior. However, exculpation will not apply to any director if the director has acted in bad faith, knowingly or intentionally violated the law, authorized illegal dividends or redemptions or derived an improper benefit from his or her actions as a director.

Our bylaws will provide that we must indemnify and advance expenses to our directors and officers to the fullest extent authorized by the DGCL. We also will be expressly authorized to carry directors' and officers' liability insurance providing indemnification for our directors, officers and certain employees for some liabilities. We believe that these indemnification and advancement provisions and insurance will be useful to attract and retain qualified directors and officers.

The limitation of liability, indemnification and advancement provisions that will be included in our certificate of incorporation and bylaws may discourage shareholders from bringing a lawsuit against directors for breaches of their fiduciary duty. These provisions also may have the effect of reducing the likelihood of derivative litigation against directors and officers, even though such an action, if successful, might otherwise benefit us and our shareholders. In addition, your investment may be adversely affected to the extent we pay the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions.

There is currently no pending material litigation or proceeding involving any of our directors, officers or employees for which indemnification is sought.

Corporate Opportunity Doctrine

Delaware law permits corporations to adopt provisions renouncing any interest or expectancy in certain opportunities that are presented to the corporation or its officers, directors or shareholders. Our certificate will, to the maximum extent permitted from time to time by Delaware law, renounce any interest or expectancy that we have in, or right to be offered an opportunity to participate in, specified business opportunities that are from time to time presented to certain of our officers, directors or shareholders or their respective affiliates, other than those officers, directors, shareholders or affiliates who are our or our subsidiaries' employees. Our certificate will provide that, to the fullest extent permitted by law, none of GTCR or any director who is not employed by us (including any non-employee director who serves as one of our officers in both his or her director and officer capacities) or its, his or her affiliates will have any duty to refrain from (1) engaging in a corporate opportunity in the same or similar lines of business in which we or our affiliates now engage or propose to engage or (2) otherwise competing with us or our affiliates. In addition, to the fullest extent permitted by law, in the event that GTCR or any non-employee director acquires knowledge of a potential transaction or other business opportunity which may be a corporate opportunity for itself, himself or herself or its, his or her affiliates or for us or our affiliates, such person will have no duty to communicate or offer such transaction or business opportunity to us or any of our affiliates and they may take any such opportunity for themselves or offer it to another person or entity. Our certificate will not renounce our interest in any business opportunity that is expressly offered to a non-employee director solely in his or her capacity as a director or officer of Maravai LifeSciences Holdings, Inc. To the fullest extent permitted by law, no business opportunity will be deemed to be a potential corporate opportunity for us unless we would be permitted to undertake the opportunity under our certificate, we have sufficient financial resources to undertake the opportunity and the opportunity would be in line with our business.

Dissenters' Rights of Appraisal and Payment

Under the DGCL, with certain exceptions, our shareholders will have appraisal rights in connection with a merger or consolidation of Maravai LifeSciences Holdings, Inc. Pursuant to the DGCL, shareholders who properly request and perfect appraisal rights in connection with such merger or consolidation will have the right to receive payment of the fair value of their shares of capital stock as determined by the Delaware Court of Chancery.

Shareholders' Derivative Actions

Under the DGCL, any of our shareholders may bring an action in our name to procure a judgment in our favor, also known as a derivative action, provided that the shareholder bringing the action is a holder of our shares of capital stock at the time of the transaction to which the action relates or such shareholder's stock thereafter devolved by operation of law.

Transfer Agent and Registrar

The transfer agent and registrar for our Class A common stock will be . Its address is .

Listing

We intend to apply to have our Class A common stock approved for listing on The Nasdaq Global Select Market under the trading symbol "MRVI."

SHARES ELIGIBLE FOR FUTURE SALE

Prior to this offering, there has been no public market for our Class A common stock. Future sales of substantial amounts of our Class A common stock in the public market (including shares of our Class A common stock issuable upon redemption or exchange of LLC Units), or the perception that such sales may occur, could adversely affect the prevailing market price of our Class A common stock. No prediction can be made as to the effect, if any, future sales of shares, or the availability of shares for future sales, will have on the prevailing market price of our Class A common stock from time to time. The number of shares available for future sale in the public market is subject to legal and contractual restrictions, some of which are described below. The expiration of these restrictions will permit sales of substantial amounts of our Class A common stock in the public market, or could create the perception that these sales may occur, which could adversely affect the prevailing market price of our Class A common stock. These factors could also make it more difficult for us to raise funds through future offerings of Class A common stock or other equity or equity-linked securities.

Sale of Restricted Shares

Upon completion of this offering, we will have shares of Class A common stock outstanding (shares if the underwriters exercise in full their option to purchase additional shares). Of these shares of Class A common stock, the shares of Class A common stock being sold in this offering, plus any shares sold upon exercise of the underwriters' option to purchase additional shares, will be freely tradable without restriction under the Securities Act of 1933, as amended (the "Securities Act"), except for any such shares which may be held or acquired by an "affiliate" of ours, as that term is defined in Rule 144 promulgated under the Securities Act ("Rule 144"), which shares will be subject to the volume limitations and other restrictions of Rule 144 described below. The remaining shares of Class A common stock (or shares of Class A common stock, including shares of Class A common stock issuable upon redemption or exchange of the LLC Units, as described below) will be "restricted securities," as that phrase is defined in Rule 144, and may be resold only after registration under the Securities Act or pursuant to an exemption from such registration, including, among others, the exemptions provided by Rule 144 and 701 under the Securities Act, which rules are summarized below. These remaining shares of Class A common stock that will be outstanding upon completion of this offering will be available for sale in the public market after the expiration of market stand-off agreements with us and the lock-up agreements described in "Underwriters," taking into account the provisions of Rules 144 and 701 under the Securities Act.

In addition, pursuant to the Exchange Agreement, MLSH 1 may from time to time after the consummation of this offering, exchange its LLC Units for shares of Class A common stock on a one-for-one basis, or, at our election, for cash, from a substantially concurrent public offering or private sale (based on the price of our Class A common stock in such public offering or private sale). MLSH 1 will also be required to deliver to us a number of shares of Class B common stock equivalent to the number of shares of Class A common stock being exchanged to effectuate an exchange. Any shares of Class B common stock so delivered will be cancelled. Upon consummation of this offering, MLSH 1 will hold LLC Units, all of which will be exchangeable for shares of our Class A common stock or, at our election, for cash from a substantially concurrent public offering or private sale (based on the price of our Class A common stock in such public offering or private sale). The shares of Class A common stock we issue upon such exchanges would be "restricted securities" as defined in Rule 144 unless we register such issuances. However, we intend to enter into a registration rights agreement with MLSH 1 that will require us to register these shares of Class A common stock, subject to certain conditions. See "—Registration Rights" and "Certain Relationships and Related Party Transactions—Registration Rights Agreement."

Under the terms of the LLC Operating Agreement, except pursuant to a valid exchange under the terms of the Exchange Agreement, all of the LLC Units received by MLSH 1 in the Organizational Transactions will be subject to restrictions on disposition.

Rule 144

Persons who became the beneficial owner of shares of our Class A common stock prior to the completion of this offering may not sell their shares until the earlier of (1) the expiration of a six-month holding period, if we have been subject to the reporting requirements of the Exchange Act and have filed all required reports for at least 90 days prior to the date of the sale, or (2) a one-year holding period.

At the expiration of the six-month holding period, a person who was not one of our affiliates at any time during the three months preceding a sale would be entitled to sell an unlimited number of shares of our Class A common stock provided current public information about us is available, and a person who was one of our affiliates at any time during the three months preceding a sale would be entitled to sell within any three-month period only a number of shares of Class A common stock that does not exceed the greater of either of the following:

- 1% of the number of shares of our Class A common stock then outstanding, which will equal approximately shares immediately after this offering, based on the number of shares of our Class A common stock outstanding after completion of this offering; or
- the average weekly trading volume of our Class A common stock during the four calendar weeks preceding the filing of a notice on Form 144 with respect to the sale.

At the expiration of the one-year holding period, a person who was not one of our affiliates at any time during the three months preceding a sale would be entitled to sell an unlimited number of shares of our Class A common stock without restriction. A person who was one of our affiliates at any time during the three months preceding a sale would remain subject to the volume restrictions described above.

Sales under Rule 144 by our affiliates are also subject to manner of sale provisions and notice requirements and to the availability of current public information about us. The sale of these shares, or the perception that sales will be made, could adversely affect the price of our Class A common stock after this offering.

Rule 701

In general, under Rule 701, any of our employees, directors, officers, consultants or advisors who acquired shares of capital stock from us in connection with a compensatory stock or option plan or other compensatory written agreement before the effective date of this offering are, subject to applicable lock-up restrictions, eligible to resell such shares in reliance upon Rule 144 beginning 90 days after the date of this prospectus. If such person is not an affiliate and was not our affiliate at any time during the preceding three months, the sale may be made subject only to the manner-of-sale restrictions of Rule 144. If such a person is an affiliate, the sale may be made under Rule 144 without compliance with holding period requirements under Rule 144, but subject to the other Rule 144 restrictions described above.

Stock Plans

We intend to file one or more registration statements on FormS-8 under the Securities Act to register shares of our Class A common stock issued or reserved for issuance under the 2020 Plan. The first such registration statement is expected to be filed soon after the date of this prospectus and will automatically become effective upon filing with the SEC. Accordingly, shares of Class A common stock registered under such registration statement will be available for sale in the open market following the effective date, unless such shares are subject to vesting restrictions with us, Rule 144 restrictions applicable to our affiliates or the lock-up restrictions described below.

Lock-Up Agreements

We, each of our officers and directors and other shareholders and optionholders owning substantially all of our Class A common stock and options or other securities to acquire Class A common stock have agreed that,

without the prior written consent of on behalf of the underwriters, we and they will not, subject to limited exceptions, directly or indirectly sell or dispose of any of the shares of Class A common stock or securities convertible into or exchangeable for, or that represent the right to receive, shares of common stock, including LLC Units, during the period from the date of the first public filing of the registration statement on Form S-1 filed in connection with this offering continuing through the date that is 180 days after the date of this prospectus. The lock-up restrictions and specified exceptions are described in more detail under "Underwriters." The representatives named above may, in their sole discretion, release all or any portion of the securities subject to these lock-up agreements. See "Underwriters."

Prior to the consummation of the offering, certain of our employees, including our executive officers, and/or directors may enter into written trading plans that are intended to comply with Rule 10b5-1 under the Exchange Act. Sales under these trading plans would not be permitted until the expiration of thelock-up agreements relating to the offering described above.

Following the lock-up periods set forth in the agreements described above, and assuming that the representatives of the underwriters do not release any parties from these agreements, all of the shares of our Class A common stock that are restricted securities or are held by our affiliates as of the date of this prospectus will be eligible for sale in the public market in compliance with Rule 144 under the Securities Act.

Registration Rights Agreement

We intend to enter into a Registration Rights Agreement with MLSH 1 and MLSH 2 in connection with this offering. The Registration Rights Agreement will provide MLSH 1 and MLSH 2 certain registration rights whereby, following our initial public offering and the expiration of any related lock-up period, MLSH 1 and MLSH 2 can require us to register under the Securities Act shares of Class A common stock (including shares issuable to MLSH 1 upon exchange of its LLC Units). The Registration Rights Agreement will also provide for piggyback registration rights for MLSH 1 and MLSH 2. See "Certain Relationships and Related Party Transactions—Registration Rights Agreement."

MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES TO NON-U.S. HOLDERS

The following discussion is a summary of the material U.S. federal income tax consequences toNon-U.S. Holders (as defined below) of the ownership and disposition of our Class A common stock issued pursuant to this offering, but does not purport to be a complete analysis of all potential tax consequences. The effects of other U.S. federal tax laws, such as estate and gift tax laws, and any applicable state, local or non-U.S. tax laws are not discussed. This discussion is based on the Code, Treasury regulations promulgated thereunder (the "Treasury Regulations"), judicial decisions, and published rulings and administrative pronouncements of the U.S. Internal Revenue Service (the "IRS"), in each case as in effect as of the date hereof. These authorities may change or be subject to differing interpretations. Any such change or differing interpretation may be applied retroactively in a manner that could adversely affect a Non-U.S. Holder of our common stock. We have not sought and will not seek any rulings from the IRS regarding the matters discussed below. There can be no assurance the IRS or a court will not take a contrary position to those discussed below regarding the tax consequences of the purchase, ownership and disposition of our Class A common stock.

This discussion is limited to Non-U.S. Holders that hold our Class A common stock as a "capital asset" within the meaning of Section 1221 of the Code (generally, property held for investment). This discussion does not address all U.S. federal income tax consequences relevant to a Non-U.S. Holder's particular circumstances, including the impact of the Medicare tax on net investment income or the alternative minimum tax, or the consequences to persons subject to special tax accounting rules as a result of any item of gross income with respect to our Class A common stock being taken into account in an applicable financial statement. In addition, it does not address consequences relevant to Non-U.S. Holders subject to special rules, including, without limitation:

- U.S. expatriates and former citizens or long-term residents of the U.S.;
- persons holding our common stock as part of a straddle or other risk reduction strategy or as part of a conversion transaction or other integrated investment;
- banks, insurance companies and other financial institutions;
- real estate investment trusts or regulated investment companies;
- brokers, dealers or certain electing traders in securities that mark their securities positions to market for tax purposes;
- "controlled foreign corporations," "passive foreign investment companies," and corporations that accumulate earnings to avoid U.S. federal income tax;
- partnerships or other entities or arrangements treated as partnerships for U.S. federal income tax purposes (and investors therein);
- tax-exempt organizations or governmental organizations;
- persons deemed to sell our common stock under the constructive sale provisions of the Code;
- "qualified foreign pension funds" (within the meaning of Section 897(I)(2) of the Code and entities, all of the interests of which are held by qualified foreign pension funds); and
- tax-qualified retirement plans.

If any partnership or arrangement classified as a partnership for U.S. federal income tax purposes holds our Class A common stock, the tax treatment of a partner in the partnership will depend on the status of the partner, the activities of the partnership and certain determinations made at the partner level. Accordingly, partnerships holding our Class A common stock and partners in such partnerships should consult their tax advisors regarding the U.S. federal income tax consequences to them.

INVESTORS SHOULD CONSULT THEIR TAX ADVISORS WITH RESPECT TO THE APPLICATION OF THE U.S. FEDERAL INCOME TAX LAWS TO THEIR PARTICULAR SITUATIONS AS WELL AS ANY TAX CONSEQUENCES OF THE OWNERSHIP AND DISPOSITION OF OUR CLASS A COMMON STOCK ARISING UNDER THE U.S. FEDERAL ESTATE OR GIFT TAX LAWS OR UNDER THE LAWS OF ANY STATE, LOCAL OR NON-U.S. TAXING JURISDICTION OR UNDER ANY APPLICABLE INCOME TAX TREATY.

Definition of a Non-U.S. Holder

For purposes of this discussion, a "Non-U.S. Holder" is any beneficial owner of our Class A common stock that is neither a "United States person" nor an entity treated as a partnership for U.S. federal income tax purposes. A United States person is any person that, for U.S. federal income tax purposes, is or is treated as any of the following:

- an individual who is a citizen or resident of the U.S.;
- a corporation, or an entity treated as a corporation for U.S. federal income tax purposes, created or organized under the laws of the U.S. any state thereof, or the District of Columbia;
- an estate, the income of which is subject to U.S. federal income tax regardless of its source; or
- a trust that (1) is subject to the primary supervision of a U.S. court and the control of one or more "United States persons" (within the meaning of Section 7701(a)(30) of the Code), or (2) has a valid election in effect to be treated as a United States person for U.S. federal income tax purposes.

Distributions

As described in the section entitled "Dividend Policy," we do not anticipate declaring or paying dividends to holders of our Class A common stock in the foreseeable future. However, if we do make distributions of cash or property on our Class A common stock, such distributions will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. Amounts not treated as dividends for U.S. federal income tax purposes will first constitute non-taxable returns of capital and be applied against and reduce a Non-U.S. Holder's adjusted tax basis in its Class A common stock, but not below zero. Any excesses will be treated as capital gains and will be treated as described below under "Sale or Other Taxable Disposition."

Subject to the discussion below on effectively connected income, backup withholding, and the Foreign Account Tax Compliance Act, dividends paid to aNon-U.S. Holder of our Class A common stock will be subject to U.S. federal withholding tax at a rate of 30% of the gross amount of the dividends (or such lower rate specified by an applicable income tax treaty, provided that the Non-U.S. Holder will be required to furnish to the applicable withholding agent prior to the payment of dividends a valid IRS Form W-8BEN or W-8BEN-E (or other applicable documentation) certifying qualification for the lower treaty rate in order to avoid withholding with respect to such tax). A Non-U.S. Holder that does not timely furnish the required documentation, but that qualifies for a reduced treaty rate, may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS. Non-U.S. Holders should consult their tax advisors regarding their entitlement to benefits under any applicable income tax treaty.

If dividends paid to a Non-U.S. Holder are effectively connected with the Non-U.S. Holder's conduct of a trade or business within the U.S. (and, if required by an applicable income tax treaty, the Non-U.S. Holder maintains a permanent establishment in the U.S. to which such dividends are attributable), theNon-U.S. Holder will be exempt from the U.S. federal withholding tax described above. To claim the exemption, the Non-U.S. Holder must furnish to the applicable withholding agent a valid IRS Form W-8ECI, certifying that the dividends are effectively connected with the Non-U.S. Holder's conduct of a trade or business within the U.S.

Any such effectively connected dividends will be subject to U.S. federal income tax on anet-income basis at the regular graduated rates. ANon-U.S. Holder that is a corporation also may be subject to a branch profits tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty) on its effectively connected earnings and profits (as adjusted for certain items), which will include such effectively connected dividends. Non-U.S. Holders should consult their tax advisors regarding any applicable tax treaties that may provide for different rules.

Sale or Other Taxable Disposition

Subject to the discussion below on backup withholding and the Foreign Account Tax Compliance Act, aNon-U.S. Holder generally will not be subject to U.S. federal income tax on any gain realized upon the sale or other taxable disposition of our Class A common stock unless:

- the gain is effectively connected with the Non-U.S. Holder's conduct of a trade or business within the U.S. (and, if required by an applicable income tax treaty, the Non-U.S. Holder maintains a permanent establishment in the U.S. to which such gain is attributable);
- the Non-U.S. Holder is a nonresident alien individual present in the U.S. for 183 days or more during the taxable year of the disposition and certain other requirements are met; or
- our common stock constitutes a U.S. real property interest (a "USRPI"), by reason of our status as a U.S. real property holding corporation (a "USRPHC") for U.S. federal income tax purposes.

Gain described in the first bullet point above generally will be subject to U.S. federal income tax on a net income basis at the regular graduated rates. ANon-U.S. Holder that is a corporation also may be subject to a branch profits tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty) on its effectively connected earnings and profits (as adjusted for certain items), which will include such effectively connected gain.

A Non-U.S. Holder described in the second bullet point above will be subject to U.S. federal income tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty) on any gain derived from the disposition, which may generally be offset by U.S. source capital losses of the Non-U.S. Holder (even though the individual is not considered a resident of the U.S.), provided the Non-U.S. Holder has timely filed U.S. federal income tax returns with respect to such losses.

With respect to the third bullet point above, we believe we currently are not, and do not anticipate becoming, a USRPHC. Because the determination of whether we are a USRPHC depends, however, on the fair market value of our USRPIs relative to the fair market value of our non-U.S. real property interests and our other business assets, there can be no assurance we currently are not a USRPHC or will not become one in the future. Even if we are or were to become a USRPHC, gain arising from the sale or other taxable disposition by a Non-U.S. Holder of our common stock will not be subject to U.S. federal income tax if our Class A common stock is "regularly traded on an established securities market," as defined by applicable Treasury Regulations, during the calendar year in which the disposition occurs, and such Non-U.S. Holder has owned, actually and constructively, five percent or less of our Class A common stock throughout the shorter of (1) the five-year period ending on the date of the sale or other taxable disposition and (2) the Non-U.S. Holder's holding period. If we were to become a USRPHC and our Class A common stock were not considered to be "regularly traded on an established securities market" during the calendar year in which the relevant disposition by a Non-U.S. Holder occurred, such Non-U.S. Holder (regardless of the percentage of stock owned) would be subject to U.S. federal income tax on a sale or other taxable disposition of our Class A common stock and a 15% withholding tax would apply to the gross proceeds from such disposition.

Non-U.S. Holders should consult their tax advisors regarding potentially applicable income tax treaties that may provide for different rules.

Information Reporting and Backup Withholding

Payments of dividends on our Class A common stock generally will not be subject to backup withholding, provided the applicable withholding agent does not have actual knowledge or reason to know the Non-U.S. Holder is a United States person and the Non-U.S. Holder either certifies its non-U.S. status, such as by furnishing a valid IRS Form W-8BEN, W-8BEN-E or W-8ECI, or otherwise establishes an exemption. However, information returns are required to be filed with the IRS in connection with any dividends on our Class A common stock paid to the Non-U.S. Holder, regardless of whether any tax was actually withheld. In addition, proceeds of the sale or other taxable disposition of our common stock within the U.S. or conducted through certain U.S.-related brokers generally will not be subject to backup withholding or information reporting if the applicable withholding agent receives the certification described above and does not have actual knowledge or reason to know that such Non-U.S. Holder is a United States person, or the Non-U.S. Holder otherwise establishes an exemption. If a Non-U.S. Holder does not provide the certification described above or the applicable withholding agent has actual knowledge or reason to know that such Non-U.S. Holder is a United States person, payments of dividends or of proceeds of the sale or other taxable disposition of our common stock may be subject to backup withholding at a rate currently equal to 24% of the gross proceeds of such dividend, sale, or taxable disposition. Proceeds of a disposition of our Class A common stock conducted through a non-U.S. office of a non-U.S. broker generally will not be subject to backup withholding or information reporting.

Copies of information returns that are filed with the IRS may also be made available under the provisions of an applicable treaty or agreement to the tax authorities of the country in which the Non-U.S. Holder resides or is established.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules may be allowed as a refund or a credit against a Non-U.S. Holder's U.S. federal income tax liability, provided the required information is timely furnished to the IRS.

Additional Withholding Tax on Payments Made to Foreign Accounts

Sections 1471 through 1474 of the Code and the Treasury regulations and administrative guidance promulgated thereunder (commonly referred to as the "Foreign Account Tax Compliance Act" or "FATCA") generally impose withholding at a rate of 30% in certain circumstances on dividends in respect of securities which are held by or through certain foreign financial institutions (including investment funds), unless any such institution (i) enters into, and complies with, an agreement with the IRS to report, on an annual basis, information with respect to interests in, and accounts maintained by, the institution that are owned by certain U.S. persons and by certain non-U.S. entities that are wholly or partially owned by U.S. persons and to withhold on certain payments, or (ii) if required under an intergovernmental agreement between the United States and an applicable foreign country, reports such information to its local tax authority, which will exchange such information with the U.S. authorities. An intergovernmental agreement between the United States and an applicable foreign country may modify these requirements. Accordingly, the entity through which shares of our Class A common stock are held will affect the determination of whether such withholding is required. Similarly, dividends in respect of our Class A common stock held by an investor that is a non-financial non-U.S. entity that does not qualify under certain exceptions will generally be subject to withholding at a rate of 30%, unless such entity either (i) certifies to the applicable withholding agent that such entity does not have any "substantial United States owners" or (ii) provides certain information regarding the entity's "substantial United States owners," which will in turn be provided to the U.S. Department of Treasury. Prospective investors should consult their tax advisors regarding the potential application of withholding under FATCA to their investment in our Class A common stock.

UNDERWRITERS

Under the terms and subject to the conditions in an underwriting agreement dated the date of this prospectus, the underwriters named below, for whom Morgan Stanley & Co. LLC, Jefferies LLC and Goldman Sachs & Co. LLC are acting as representatives, have severally agreed to purchase, and we have agreed to sell to them, severally, the number of shares of Class A common stock indicated below:

Name	Number of Shares
Morgan Stanley & Co. LLC	
Jefferies LLC	
Goldman Sachs & Co. LLC	
BofA Securities, Inc.	
Credit Suisse Securities (USA) LLC	
UBS Securities LLC	
Robert W. Baird & Co. Incorporated	
William Blair & Company, L.L.C.	
Total:	

The underwriters and the representatives are collectively referred to as the "underwriters" and the "representatives," respectively. The underwriters are offering the shares of Class A common stock subject to their acceptance of the shares from us and subject to prior sale. The underwriting agreement provides that the obligations of the several underwriters to pay for and accept delivery of the shares of Class A common stock offered by this prospectus are subject to the approval of certain legal matters by their counsel and to certain other conditions. The underwriters are obligated to take and pay for all of the shares of Class A common stock offered by this prospectus if any such shares are taken. However, the underwriters are not required to take or pay for the shares of Class A common stock covered by the underwriters' option to purchase additional shares described below.

The underwriters initially propose to offer part of the shares of Class A common stock directly to the public at the offering price listed on the cover page of this prospectus and part to certain dealers at a price that represents a concession not in excess of $ per share under the public offering price. After the initial offering of the shares of common stock, the offering price and other selling terms may from time to time be varied by the representative.

We have granted to the underwriters an option, exercisable for 30 days from the date of this prospectus, to purchase up to additional shares of Class A common stock at the public offering price listed on the cover page of this prospectus, less underwriting discounts and commissions. To the extent the option is exercised, each underwriter will become obligated, subject to certain conditions, to purchase about the same percentage of the additional shares of Class A common stock as the number listed next to the underwriter's name in the preceding table bears to the total number of shares of Class A common stock listed next to the names of all underwriters in the preceding table.

The following table shows the per share and total public offering price, underwriting discounts and commissions, and proceeds before expenses to us. These amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase additional shares.

	Per Share	Total	
		No Exercise	Full Exercise
Public offering price	$	$	$
Underwriting discounts and commissions to be paid by us	$	$	$
Proceeds, before expenses, to us	$	$	$

Perella Weinberg Partners LP ("Perella Weinberg"), a Financial Industry Regulatory Association, Inc. ("FINRA") member, is acting as our financial advisor in connection with the offering. We expect to pay Perella Weinberg, upon the successful completion of this offering, a fee of up to $ for its services. The services provided to us by Perella Weinberg include, among other things, an independent financial valuation analysis; assisting in drafting our positioning and investment thesis; assisting us in our interactions with the underwriters; and assisting us in crafting an appropriate aftermarket trading and investor relations strategy. Apart from Perella Weinberg's role as financial advisor in connection with this offering, we have had no other relationships with Perella Weinberg. Perella Weinberg will not sell or offer to sell any securities in this offering and will not identify, solicit or engage directly with potential investors in this offering. In addition, Perella Weinberg will not purchase any of the offered shares of Class A common stock.

The estimated offering expenses payable by us, exclusive of the underwriting discounts and commissions, are approximately $ million. We have agreed to reimburse the underwriters for expense relating to clearance of this offering with FINRA up to $.

The underwriters have informed us that they do not intend sales to discretionary accounts to exceed 5% of the total number of shares of Class A common stock offered by them.

We intend to apply to have our Class A common stock approved for listing on The Nasdaq Global Select Market under the trading symbol "MRVI."

We and all directors and officers and the holders of substantially all of our outstanding stock and stock options have agreed that, without the prior written consent of the representatives on behalf of the underwriters, we and they will not, and will not publicly disclose an intention to or cause any affiliate to, during the period ending 180 days after the date of this prospectus (the "restricted period"):

- offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend or otherwise transfer or dispose of, directly or indirectly, any shares of common stock or any securities convertible into or exercisable or exchangeable for shares of common stock, including LLC Units ("Lock-Up Securities");
- file or confidentially submit any registration statement with the Securities and Exchange Commission relating to the offering of any shares of common stock or any securities convertible into or exercisable or exchangeable for common stock; or
- enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of anyLock-Up Securities.

whether any such transaction described above is to be settled by delivery of common stock or such other securities, in cash or otherwise. In addition, we and each such person agrees that, without the prior written consent of the representatives on behalf of the underwriters, we or such other person will not, during the restricted period, make any demand for, or exercise any right with respect to, the registration of any shares of common stock or any security convertible into or exercisable or exchangeable for common stock.

The restrictions described in the immediately preceding paragraph to do not apply to:

- the sale of shares to the underwriters; or
- the issuance by Maravai LifeSciences Holdings, Inc. of shares of common stock upon the exercise of an option or a warrant or the conversion of a security outstanding on the date of this prospectus of which the underwriters have been advised in writing;
- transactions by any person other than us relating to shares of Class A common stock acquired in open market transactions after the completion of the offering of the shares; provided that no filing under Section 16(a) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), is required or voluntarily made in connection with subsequent sales of the Class A common stock or other securities acquired in such open market transactions; or

- facilitating the establishment of a trading plan on behalf of a shareholder, officer or director of Maravai LifeSciences Holdings, Inc. pursuant to Rule 10b5-1 under the Exchange Act for the transfer of shares of Class A common stock, provided that (i) such plan does not provide for the transfer of Class A common stock during the restricted period and (ii) to the extent a public announcement or filing under the Exchange Act, if any, is required of or voluntarily made by Maravai LifeSciences Holdings, Inc. regarding the establishment of such plan, such announcement or filing shall include a statement to the effect that no transfer of Class A common stock may be made under such plan during the restricted period.

The representatives, in their sole discretion, may release the common stock and other securities subject to the lock-up agreements described above in whole or in part at any time.

In order to facilitate the offering of the Class A common stock, the underwriters may engage in transactions that stabilize, maintain or otherwise affect the price of the Class A common stock. Specifically, the underwriters may sell more shares than they are obligated to purchase under the underwriting agreement, creating a short position. A short sale is covered if the short position is no greater than the number of shares available for purchase by the underwriters under the option to purchase additional shares described above. The underwriters can close out a covered short sale by exercising the option to purchase additional shares or purchasing shares in the open market. In determining the source of shares to close out a covered short sale, the underwriters will consider, among other things, the open market price of shares compared to the price available under the option to purchase additional shares. The underwriters may also sell shares in excess of the option to purchase additional shares, creating a naked short position. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the Class A common stock in the open market after pricing that could adversely affect investors who purchase in this offering. As an additional means of facilitating this offering, the underwriters may bid for, and purchase, shares of Class A common stock in the open market to stabilize the price of the Class A common stock. These activities may raise or maintain the market price of the Class A common stock above independent market levels or prevent or retard a decline in the market price of the Class A common stock. The underwriters are not required to engage in these activities and may end any of these activities at any time.

We and the underwriters have agreed to indemnify each other against certain liabilities, including liabilities under the Securities Act.

A prospectus in electronic format may be made available on websites maintained by one or more underwriters, or selling group members, if any, participating in this offering. The representatives may agree to allocate a number of shares of Class A common stock to underwriters for sale to their online brokerage account holders. Internet distributions will be allocated by the representatives to underwriters that may make Internet distributions on the same basis as other allocations.

The underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, investment research, principal investment, hedging, financing and brokerage activities. Certain of the underwriters and their respective affiliates have, from time to time, performed, and may in the future perform, various financial advisory and investment banking services for us, for which they received or will receive customary fees and expenses.

In addition, in the ordinary course of their various business activities, the underwriters and their respective affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers and may at any time hold long and short positions in such securities and instruments. Such investment and securities activities may involve our securities and instruments. The underwriters and their

respective affiliates may also make investment recommendations or publish or express independent research views in respect of such securities or instruments and may at any time hold, or recommend to clients that they acquire, long or short positions in such securities and instruments.

Pricing of the Offering

Prior to this offering, there has been no public market for our Class A common stock. The initial public offering price was determined by negotiations between us and the representatives. Among the factors considered in determining the initial public offering price were our future prospects and those of our industry in general, our sales, earnings and certain other financial and operating information in recent periods, and the price-earnings ratios, price-sales ratios, market prices of securities, and certain financial and operating information of companies engaged in activities similar to ours.

Selling Restrictions

European Economic Area and United Kingdom

In relation to each Member State of the European Economic Area and the United Kingdom (each a "Relevant State"), no shares of our Class A common stock have been offered or will be offered pursuant to this offering to the public in that Relevant State prior to the publication of a prospectus in relation to shares of our Class A common stock which has been approved by the competent authority in that Relevant State or, where appropriate, approved in another Relevant State and notified to the competent authority in that Relevant State, all in accordance with the Prospectus Regulation, except that offers of shares of our Class A common stock may be made to the public in that Relevant State at any time under the following exemptions under the Prospectus Regulation:

- to any legal entity which is a qualified investor as defined in the Prospectus Regulation;
- to fewer than 150 natural or legal persons (other than qualified investors as defined in the Prospectus Regulation), subject to obtaining the prior consent of the representatives for any such offer; or
- In any other circumstances falling within Article 1(4) of the Prospectus Regulation;

provided that no such offer of shares of our Class A common stock shall require us or any underwriter to publish a prospectus pursuant to Article 3 of the Prospectus Regulation or supplement a prospectus pursuant to Article 23 of the Prospectus Regulation.

For the purposes of this provision, the expression an "offer to the public" in relation to any shares of our Class A common stock in any Relevant State means the communication in any form and by any means of sufficient information on the terms of the offer and any shares of our Class A common stock to be offered so as to enable an investor to decide to purchase or subscribe for any shares of our Class A common stock, and the expression "Prospectus Regulation" means Regulation (EU) 2017/1129.

This selling restriction is in addition to any other selling restrictions set out below.

United Kingdom

Each underwriter has represented and agreed that:

(a) it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the Financial Services and Markets Act 2000 ("FSMA")) received by it in connection with the issue or sale of the shares of Class A common stock in circumstances in which Section 21(1) of the FSMA does not apply to the Company; and

(b) it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the shares of Class A common stock in, from or otherwise involving the United Kingdom.

In the United Kingdom, this prospectus is only addressed to and directed at qualified investors who are (i) investment professionals falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the Order); or (ii) high net worth entities and other persons to whom it may lawfully be communicated, falling within Article 49(2)(a) to (d) of the Order (all such persons together being referred to as "relevant persons"). Any investment or investment activity to which this prospectus relates is available only to relevant persons and will only be engaged with relevant persons. Any person who is not a relevant person should not act or rely on this prospectus or any of its contents.

Canada

The Class A common stock may be sold in Canada only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 Prospectus Exemptions or subsection 73.3(1) of the Securities Act (Ontario), and are permitted clients, as defined in National Instrument31-103 Registration Requirements, Exemptions, and Ongoing Registrant Obligations. Any resale of the Class A common stock must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory of these rights or consult with a legal advisor.

Pursuant to section 3A.3 of National Instrument 33-105 Underwriting Conflicts (NI 33-105), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

Hong Kong

The Class A common stock may not be offered or sold in Hong Kong by means of any document other than (i) in circumstances which do not constitute an offer to the public within the meaning of the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32 of the Laws of Hong Kong) ("Companies (Winding Up and Miscellaneous Provisions) Ordinance") or which do not constitute an invitation to the public within the meaning of the Securities and Futures Ordinance (Cap. 571 of the Laws of Hong Kong) ("Securities and Futures Ordinance"), (ii) to "professional investors" as defined in the Securities and Futures Ordinance and any rules made thereunder, or (iii) in other circumstances which do not result in the document being a "prospectus" as defined in the Companies (Winding Up and Miscellaneous Provisions) Ordinance, and no advertisement, invitation or document relating to the Class A common stock may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere), which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to shares of Class A common stock which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" in Hong Kong as defined in the Securities and Futures Ordinance and any rules made thereunder.

Japan

The shares of Class A common stock have not been and will not be registered under the Financial Instruments and Exchange Act of Japan (Act No. 25 of 1948, as amended) ("FIEA"). The shares of Class A common stock may not be offered or sold, directly or indirectly, in Japan or to or for the benefit of any resident of Japan (including any person resident in Japan or any corporation or other entity organized under the laws of Japan) or to others for reoffering or resale, directly or indirectly, in Japan or to or for the benefit of any resident of Japan, except pursuant to an exemption from the registration requirements of the FIEA and otherwise in compliance with any relevant laws and regulations of Japan.

Singapore

This prospectus has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the Class A common stock may not be circulated or distributed, nor may the Class A common stock be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor (as defined under Section 4A of the Securities and Futures Act, Chapter 289 of Singapore (the "SFA")) under Section 274 of the SFA, (ii) to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1) of the SFA, or any person pursuant to Section 275(1A) of the SFA, and in accordance with the conditions specified in Section 275 of the SFA or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA, in each case subject to conditions set forth in the SFA.

Where the shares of Class A common stock are subscribed or purchased under Section 275 of the SFA by a relevant person which is a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor, the securities (as defined in Section 239(1) of the SFA) of that corporation shall not be transferable for 6 months after that corporation has acquired the shares under Section 275 of the SFA except: (1) to an institutional investor under Section 274 of the SFA or to a relevant person (as defined in Section 275(2) of the SFA), (2) where such transfer arises from an offer in that corporation's securities pursuant to Section 275(1A) of the SFA, (3) where no consideration is or will be given for the transfer, (4) where the transfer is by operation of law, (5) as specified in Section 276(7) of the SFA, or (6) as specified in Regulation 32 of the Securities and Futures (Offers of Investments) (Shares and Debentures) Regulations 2005 of Singapore ("Regulation 32").

Where the shares of Class A common stock are subscribed or purchased under Section 275 of the SFA by a relevant person which is a trust (where the trustee is not an accredited investor (as defined in Section 4A of the SFA)) whose sole purpose is to hold investments and each beneficiary of the trust is an accredited investor, the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferable for 6 months after that trust has acquired the shares under Section 275 of the SFA except: (1) to an institutional investor under Section 274 of the SFA or to a relevant person (as defined in Section 275(2) of the SFA), (2) where such transfer arises from an offer that is made on terms that such rights or interest are acquired at a consideration of not less than S$200,000 (or its equivalent in a foreign currency) for each transaction (whether such amount is to be paid for in cash or by exchange of securities or other assets), (3) where no consideration is or will be given for the transfer, (4) where the transfer is by operation of law, (5) as specified in Section 276(7) of the SFA, or (6) as specified in Regulation 32.

Solely for the purposes of our obligations pursuant to Section 309B of the SFA, we have determined, and hereby notify all relevant persons (as defined in the Securities and Futures (Capital Markets Products) Regulations 2018 ("CMP Regulations")) that the shares of Class common stock are "prescribed capital markets products" (as defined in the CMP Regulations) and Excluded Investment Products (as defined in MAS Notice SFA 04-N12: Notice on the Sale of Investment Products and MAS NoticeFAA-N16: Notice on Recommendations on Investment Products).

Switzerland

This prospectus is not intended to constitute an offer or solicitation to purchase or invest in the Class A common stock. The Class A common stock may not be publicly offered, directly or indirectly, in Switzerland within the meaning of the Swiss Financial Services Act ("FinSA") and will not be listed on the SIX Swiss Exchange ("SIX") or on any other stock exchange or regulated trading venue (exchange or multilateral trading facility) in Switzerland. This document does not constitute a prospectus within the meaning of, and has been prepared without regard to, the disclosure standards for issuance prospectuses under art. 652a or art. 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectuses under art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading venue (exchange or multilateral trading facility) in Switzerland. Neither this document nor any other offering or marketing material relating to the Class A common stock constitutes a prospectus pursuant to the FinSA, and neither this document nor any other offering or marketing material relating to the Class A common stock or the offering may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this document nor any other offering or marketing material relating to the offering, the Company, or the Class A common stock have been or will be filed with or approved by any Swiss regulatory authority. In particular, this document will not be filed with, and the offer of Class A common stock will not be supervised by, the Swiss Financial Market Supervisory Authority FINMA (FINMA), and the offer of Class A common stock has not been and will not be authorized under the Swiss Federal Act on Collective Investment Schemes ("CISA"). The investor protection afforded to acquirers of interests in collective investment schemes under the CISA does not extend to acquirers of Class A common stock.

United Arab Emirates

The Class A common stock has not been, and are not being, publicly offered, sold, promoted or advertised in the United Arab Emirates (including the Dubai International Financial Centre) other than in compliance with the laws of the United Arab Emirates (and the Dubai International Financial Centre) governing the issue, offering and sale of securities. Further, this prospectus does not constitute a public offer of securities in the United Arab Emirates (including the Dubai International Financial Centre) and is not intended to be a public offer. This prospectus has not been approved by or filed with the Central Bank of the United Arab Emirates, the Securities and Commodities Authority or the Dubai Financial Services Authority.

LEGAL MATTERS

The validity of the issuance of our Class A common stock offered in this prospectus will be passed upon for us by Kirkland & Ellis LLP, Chicago, Illinois. Certain legal matters will be passed upon for the underwriters by Davis Polk & Wardwell LLP, Menlo Park, California.

EXPERTS

The financial statements of Maravai LifeSciences Holdings, Inc. at September 1, 2020 appearing in this Prospectus and Registration Statement have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their report thereon appearing elsewhere herein, and are included in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

The consolidated financial statements of Maravai Topco Holdings, LLC as of December 31, 2018 and 2019, and for each of the two years in the period ended December 31, 2019, appearing in this Prospectus and Registration Statement have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their report thereon appearing elsewhere herein, and are included in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-1 under the Securities Act to register our Class A common stock being offered in this prospectus. This prospectus, which forms part of the registration statement, does not contain all of the information included in the registration statement and the attached exhibits. You will find additional information about us and our Class A common stock in the registration statement. References in this prospectus to any of our contracts, agreements or other documents are not necessarily complete, and you should refer to the exhibits attached to the registration statement for copies of the actual contracts, agreements or documents.

The SEC maintains a website that contains reports, proxy statements and other information about companies like us, who file electronically with the SEC. The address of that website is http://www.sec.gov. This reference to the SEC's website is an inactive textual reference only and is not a hyperlink.

Upon the effectiveness of the registration statement, we will be subject to the reporting, proxy and information requirements of the Exchange Act, and will be required to file periodic reports, proxy statements and other information with the SEC. These periodic reports, proxy statements and other information will be available on the website of the SEC referred to above, as well as on our website, https://www.maravai.com. This reference to our website is an inactive textual reference only and is not a hyperlink. The contents of, or other information accessible through, our website are not part of this prospectus, and you should not consider the contents of our website in making an investment decision with respect to our Class A common stock. We will furnish our shareholders with annual reports containing audited financial statements and quarterly reports containing unaudited interim financial statements for each of the first three quarters of each year.

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholder and the Board of Directors of Maravai LifeSciences Holdings, Inc.

Opinion on the Financial Statements

We have audited the accompanying balance sheet of Maravai LifeSciences Holdings, Inc. (the Company) as of September 1, 2020 and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company at September 1, 2020 in conformity with U.S. generally accepted accounting principles.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audit. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB and in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audit included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audit also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audit provides a reasonable basis for our opinion.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 2020.

Redwood City, California
September 8, 2020

MARAVAI LIFESCIENCES HOLDINGS, INC.

BALANCE SHEET
As of September 1, 2020

ASSETS	
Cash	$10
Total assets	$10
Commitments and contingencies	
STOCKHOLDER'S EQUITY:	
Common stock, $0.01 par value per share, 1,000 shares authorized, issued and outstanding	$10
Total Stockholder's equity	$10

The accompanying notes are an integral part of the financial statement.

MARAVAI LIFESCIENCES HOLDINGS, INC.

NOTES TO FINANCIAL STATEMENT

1. Organization

Maravai LifeSciences Holdings, Inc. (the "Company") was formed as a Delaware corporation on August 25, 2020. The Company was formed for the purpose of completing a public offering and related transactions in order to carry on the business of Maravai Topco Holdings, LLC and its subsidiaries ("Topco LLC"). As the manager of Topco LLC, the Company is expected to operate and control all of the business and affairs of Topco LLC, and through Topco LLC, continue to conduct the business now conducted by these subsidiaries.

2. Summary of Significant Accounting Policies

Basis of Presentation and Accounting

The financial statement has been prepared in accordance with accounting principles generally accepted in the United States of America ("GAAP"). Separate statements of operations, comprehensive income, changes in stockholder's equity, and cash flows have not been presented because there have been no activities in this entity as of September 1, 2020.

Use of Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the balance sheet. Actual results could differ from those estimates.

3. Common Stock

On August 25, 2020, the Company was authorized to issue 1,000 shares of common stock, par value $0.01 per share, all of which have been issued or are outstanding. As of the balance sheet date, we issued, for $10.00, and had outstanding 1,000 shares all of which were owned by Maravai Life Sciences Holdings, LLC.

4. Subsequent Events

The Company has evaluated subsequent events through the date of the report of the Independent Registered Public Accounting Firm. The Company has concluded that no subsequent event has occurred that requires disclosure.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Member and the Board of Directors of Maravai Topco Holdings, LLC & Subsidiaries

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Maravai Topco Holdings, LLC & Subsidiaries (the Company) as of December 31, 2018 and 2019, the related consolidated statements of operations, comprehensive loss, changes in member's equity and cash flows for the years then ended, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2018 and 2019, and the results of its operations and its cash flows for the years then ended in conformity with U.S. generally accepted accounting principles.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB and in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Ernst & Young LLP

We have served as the Company's auditor since 2016.

Redwood City, California
September 8, 2020

MARAVAI TOPCO HOLDINGS, LLC & SUBSIDIARIES

CONSOLIDATED BALANCE SHEETS
(in thousands, except unit amounts)

	December 31, 2018	December 31, 2019
Assets		
Current assets:		
Cash	$ 21,866	$ 24,700
Accounts receivable, net	15,991	18,030
Inventory	14,308	14,202
Prepaid expenses and other current assets	1,637	3,620
Total current assets	53,802	60,552
Property and equipment, net	42,578	94,311
Goodwill	224,275	224,275
Intangible assets, net	218,127	197,853
Other assets	894	805
Total assets	$ 539,676	$ 577,796
Liabilities and member's equity		
Current liabilities:		
Accounts payable	$ 3,604	$ 7,478
Accrued expenses	11,147	18,515
Deferred revenue	1,087	841
Other current liabilities	207	228
Current portion of contingent consideration	2,000	—
Construction payable	15,374	—
Current portion of long-term debt	2,500	2,500
Total current liabilities	35,919	29,562
Long-term contingent consideration	1,678	—
Long-term debt, less current portion	335,550	334,783
Deferred tax liabilities	15,856	14,697
Lease facility financing obligation, less current portion	1,839	52,919
Other long-term liabilities	818	1,208
Total liabilities	391,660	433,169
Commitments and contingencies (Note 6)		
Member's equity		
Contributed capital, 1,000 units authorized, issued and outstanding	182,809	183,910
Accumulated deficit	(38,237)	(42,381)
Accumulated other comprehensive loss	(167)	(133)
Total member's equity attributable to Maravai Topco Holdings, LLC member	144,405	141,396
Noncontrolling interests	3,611	3,231
Total member's equity	148,016	144,627
Total liabilities and member's equity	$ 539,676	$ 577,796

The accompanying notes are an integral part of the consolidated financial statements

MARAVAI TOPCO HOLDINGS, LLC & SUBSIDIARIES

CONSOLIDATED STATEMENTS OF OPERATIONS
(in thousands except unit and per unit amounts)

	Year Ended December 31,	
	2018	2019
Revenue	$ 123,833	$ 143,140
Operating expenses		
Cost of revenue	60,765	66,849
Research and development	4,499	3,627
Selling, general and administrative	41,194	48,354
Change in estimated fair value of contingent consideration	939	322
Total operating expenses	107,397	119,152
Income from operations	16,436	23,988
Other income (expense)		
Interest expense	(27,399)	(29,959)
Loss on extinguishment of debt	(5,622)	—
Other income	87	118
Loss before income taxes	(16,498)	(5,853)
Income tax expense (benefit)	417	(652)
Net loss	(16,915)	(5,201)
Net loss attributable to noncontrolling interests	(12,443)	(731)
Net loss attributable to the Maravai Topco Holdings, LLC member	$ (4,472)	$ (4,470)
Net loss per common unit attributable to Maravai Topco Holdings, LLC member—basic and diluted	$ (17,727)	$ (8,481)
Weighted average common units outstanding	1,000	1,000

The accompanying notes are an integral part of the consolidated financial statements

MARAVAI TOPCO HOLDINGS, LLC & SUBSIDIARIES

CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS
Years Ended December 31, 2018 and 2019
(in thousands)

	Year Ended December 31,	
	2018	2019
Net loss	$ (16,915)	$ (5,201)
Other comprehensive loss		
Foreign currency translation adjustments, net of tax	(69)	34
Comprehensive loss	(16,984)	(5,167)
Comprehensive loss attributable to noncontrolling interests	(12,443)	(731)
Comprehensive loss attributable to Maravai Topco Holdings, LLC member	$ (4,541)	$ (4,436)

The accompanying notes are an integral part of the consolidated financial statements

MARAVAI TOPCO HOLDINGS, LLC & SUBSIDIARIES

CONSOLIDATED STATEMENTS OF MEMBER'S EQUITY
(in thousands except unit amounts)

	Units	Amount	Contributed Capital	Accumulated Deficit	Accumulated Other Comprehensive Loss	Noncontrolling Interests	Total Member's Equity
January 1, 2018	1,000	$ —	$ 233,379	$ (33,765)	$ (98)	$ 15,428	$ 214,944
Distributions to members	—	—	(52,056)	—	—	—	(52,056)
Repurchase of incentive units	—	—	(9)	—	—	—	(9)
Unit-based compensation	—	—	1,495	—	—	626	2,121
Net loss	—	—	—	(4,472)	—	(12,443)	(16,915)
Foreign currency translation adjustment	—	—	—	—	(69)	—	(69)
December 31, 2018	1,000	$ —	$ 182,809	$ (38,237)	$ (167)	$ 3,611	$ 148,016
Cumulative effect of adoption of ASC 606	—	—	—	326	—	—	326
Repurchase of incentive units	—	—	(227)	—	—	—	(227)
Unit-based compensation	—	—	1,328	—	—	351	1,679
Net loss	—	—	—	(4,470)	—	(731)	(5,201)
Foreign currency translation adjustment	—	—	—	—	34	—	34
December 31, 2019	1,000	$ —	$ 183,910	$ (42,381)	$ (133)	$ 3,231	$ 144,627

The accompanying notes are an integral part of the consolidated financial statements

MARAVAI TOPCO HOLDINGS, LLC & SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

	Year Ended December 31,	
	2018	2019
Operating activities		
Net loss	$ (16,915)	$ (5,201)
Adjustments to reconcile net loss to net cash (used in) provided by operating activities:		
Depreciation	2,225	3,810
Amortization of intangible assets	20,122	20,274
Provision of doubtful accounts	(415)	(152)
Amortization of deferred financing costs	1,498	1,734
Unit-based compensation	2,121	1,679
Loss on debt refinancing	5,622	—
Deferred income taxes	317	(1,159)
Change in estimated fair value of contingent consideration	939	322
Other	141	518
Changes in operating assets and liabilities:		
Accounts receivable	(4,146)	(1,888)
Inventory	2,311	106
Prepaid expenses and other current assets	(696)	(1,983)
Other non-current assets	(570)	—
Accounts payable	(871)	2,470
Accrued expenses	3,123	3,505
Earn-out liability	(14,547)	—
Other long-term liabilities	354	—
Deferred revenue	(799)	80
Net cash (used in) provided by operating activities	(186)	24,115
Investing activities		
Working capital adjustment for acquisition in prior year	160	—
Acquisition of patents	(70)	—
Purchases of property and equipment	(3,541)	(17,148)
Net cash used in investing activities	(3,451)	(17,148)
Financing activities		
Distributions to members	(52,056)	—
Proceeds from borrowings of long-term debt	310,630	—
Financing costs incurred	(6,711)	—
Repurchase of vested incentive units	(9)	(227)
Principal repayments of long-term debt	(254,987)	(2,500)
Payment of contingent consideration	(5,819)	(1,300)
Payments made on facility financing lease obligation and capital lease	(215)	(140)
Net cash used in financing activities	(9,167)	(4,167)
Effects of exchange rate changes on cash	(69)	34
Net (decrease) increase in cash, and restricted cash	(12,873)	2,834
Cash, beginning of period	34,739	21,866
Cash, end of period	$ 21,866	$ 24,700
Supplemental cash flow information		
Cash paid for interest	$ 25,678	$ 28,728
Cash paid for income taxes	$ 97	$ 802
Supplemental disclosures of non-cash investing and financing activities		
Property and equipment included in accounts payable and accrued expenses	$ 196	$ 2,765
Financing cost deducted from loan proceeds	$ 3,800	$ —
Building and improvements capitalized under lease financing transaction	$ 15,374	$ 51,200
Property and equipment under new capital lease	$ 87	$ 15

The accompanying notes are an integral part of the consolidated financial statements

MARAVAI TOPCO HOLDINGS, LLC & SUBSIDIARIES

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

1. Organization and Significant Accounting Policies

Organization and Description of Business

Maravai Topco Holdings, LLC ("Maravai," "we," "our" or the "Company") is a holding company focused on building a transformative life sciences products company by acquiring businesses and accelerating their growth through capital infusions and industry expertise. The Company was organized as a Delaware limited liability company ("LLC") on July 27, 2018, as a wholly-owned subsidiary of Maravai Life Sciences Holdings, LLC ("MLSH 1"). On this date, the Company acquired all of the equity interests of a subsidiary of MLSH 1 that held all of the operating subsidiaries of MLSH 1. This acquisition was a transfer between entities under common control in a manner consistent with the pooling-of-interest method of accounting. These consolidated and combined financial statements for the year-ended December 31, 2018 give effect to this transaction as if it had occurred at the beginning of the period presented. As this entity was considered to be the predecessor entity under common control and accordingly, the accompanying combined statement of operations, comprehensive loss, member's equity, and cash flows present the results of operations of MLSH 1 beginning on January 1, 2018.

The Company is headquartered in San Diego, California and has three principal businesses: Nucleic Acid Production, Biologics Safety Testing, and Protein Detection. Our Nucleic Acid Production business manufactures and sells products used in the fields of gene therapy, nucleoside chemistry, oligonucleotide therapy and molecular diagnostics, including reagents used in the chemical synthesis, modification, labelling and purification of deoxyribonucleic acid ("DNA") and ribonucleic acid ("RNA). Our Biologics Safety Testing business sells highly specialized analytical products for use in biologic manufacturing process development, including custom product-specific development antibody and assay development services. Our Protein Detection business sells innovative labeling and detection reagents for researchers in immunohistochemistry.

In October 2016, the Company acquired a controlling interest in MLSC Holdings, LLC ("MLSC"), the parent entity of one of our biologics safety testing operating companies, by purchasing approximately 70% of the equity interests of MLSC with the remaining 30% being recorded as noncontrolling interests in the consolidated financial statements of the Company.

Basis of Presentation

These consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America ("GAAP"). The consolidated financial statements include the accounts of the Company and its wholly-owned and majority-owned subsidiaries. All significant intercompany accounts and transactions have been eliminated in consolidation.

Use of Estimates

The preparation of consolidated financial statements in accordance with GAAP requires the Company to make estimates and assumptions that affect the reported amounts in the consolidated financial statements and accompanying notes. These estimates form the basis for judgments the Company makes about the carrying values of assets and liabilities that are not readily apparent from other sources. The Company bases its estimates and judgments on historical experience and on various other assumptions that the Company believes are reasonable under the circumstances. These estimates are based on management's knowledge about current events and expectations about actions the Company may undertake in the future. Significant estimates include, but are not limited to, revenue recognition, the net realizable value of inventory, expected future cash flows including growth rates, discount rates, terminal values and other assumptions and estimates used to evaluate the

recoverability of long-lived assets, estimated fair values of intangible assets and goodwill, amortization methods and periods, valuation of intangible assets, the fair value of leased buildings and other assumptions associated with lease financing transactions, the estimated fair value of our long-term debt, unit-based compensation, the valuation of our and MLSH 1's incentive units, allowance for doubtful accounts, and accounting for income taxes. Actual results could differ materially from those estimates.

Revenue Recognition

The Company adopted the requirements of Accounting Standards Codification ("ASC") 606, Revenue from Contracts with Customers ("ASC 606"), effective January 1, 2019 using the modified retrospective method. Under the modified retrospective method, this guidance is applied to those contracts that were not completed as of January 1, 2019, with no restatement of contracts that were commenced and completed within fiscal years prior to January 1, 2019, and the prior period comparable financial information continues to be presented under the guidance of ASC 605, Revenue Recognition ("ASC 605"). The adoption of ASC 606 resulted in a cumulative effect adjustment of $0.3 million to reduce the opening accumulated deficit as of January 1, 2019. This adjustment primarily related to over-time recognition of revenue and associated costs for certain custom products for which revenue had previously been deferred and recognized at a point in time.

The Company generates revenue from the sale of products and services and the performance of services in the fields of nucleic acid production, biologics safety testing, and protein detection. Under ASC 606, revenue is recognized when control of promised goods or services is transferred to a customer in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. To determine revenue recognition for its arrangements with customers, the Company performs the following five steps: (i) identify the contract(s) with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenue when (or as) the entity satisfies a performance obligation. The majority of the Company's contracts include only one performance obligation. A performance obligation is a promise in a contract to transfer a distinct good or service to the customer and is defined as the unit of account for revenue recognition under ASC 606. The Company also recognizes revenue from other contracts that may include a combination of products and services, the provision of solely services, or from license fee arrangements which may be associated with the delivery of product. Where there is a combination of products and services, the Company accounts for the promises as individual performance obligations if they are concluded to be distinct. Performance obligations are considered distinct if they are both capable of being distinct and distinct within the context of the contract. In determining whether performance obligations meet the criteria for being distinct, the Company considers a number of factors, such as the degree of interrelation and interdependence between obligations, and whether or not the good or service significantly modifies or transforms another good or service in the contract. As a practical expedient, we do not adjust the transaction price for the effects of a significant financing component if, at contract inception, the period between customer payment and the transfer of goods or services is expected to be one year or less. Contracts with customers are evaluated on a contract-by-contract basis as contracts may include multiple types of goods and services as described below.

Nucleic Acid Production

Nucleic acid production revenue is generated from the manufacture and sale of highly modified, complex nucleic acids products to support the needs of our of customers' research, therapeutic and vaccine programs. The primary offering of products include; CleanCap®, mRNA, and specialized oligonucleotides. Contracts typically consist of a single performance obligation. We also sell nucleic acid products for labeling and detecting proteins in cells and tissue samples research. The Company recognizes revenue from these products in the period in which the performance obligation is satisfied by transferring control to the customer. Revenue for nucleic acid catalog products is recognized at a single point in time, generally upon shipment to the customer. Revenue for contracts for certain custom nucleic acid products, with an enforceable right to payment and a reasonable margin for work performed to date, is recognized over time, based on a cost-to-cost input method over the manufacturing period.

Biologics Safety Testing

The Company's biologics safety testing revenue is associated with the sale of bioprocess impurity detection kit products. We also enter into contracts that include custom antibody development, assay development and antibody affinity extraction services. These products and services enable the detection of impurities and contaminants that occur in the manufacturing of biologic drugs and other therapeutics. The Company recognizes revenue from the sale of bioprocess impurity detection kits in the period in which the performance obligation is satisfied by transferring control to the customer. Custom antibody development contracts consist of a single performance obligation, typically with an enforceable right to payment and a reasonable margin for work performed to date. Revenue is recognized over time based on a cost-to-cost input method over the contract term. Where an enforceable right to payment does not exist, revenue is recognized at a point in time when control is transferred to the customer. Assay development service contracts consist of a single performance obligation, revenue is recognized at a point in time when a successful antigen test and report is provided to the customer. Affinity extraction services, which generally occur over a short period of time, consist of a single performance obligation to perform the extraction service and provide a summary report to the customer. Revenue is recognized either over time or at a point in time depending on contractual payment terms with the customer.

The Company also has certain licensing and royalty arrangements with an immaterial amount of revenue.

Protein Detection

The Company also manufactures and sells protein labeling and detection reagents to customers that are used for basic research and development. The contracts to sell these catalog products consist of a single performance obligation to deliver the reagent products. Revenue from these contracts is recognized at a point in time, generally upon shipment of the final product to the customer.

We recognize royalty revenue related to certain out-licensing and royalty arrangements in the period the sales or usage occur using third-party evidence to estimate the amount to be recorded. To date this revenue has not been material to the consolidated financial statements.

The Company has elected the practical exemption to not disclose the unfulfilled performance obligations for contracts with an original length of one year or less. The Company has no material unfulfilled performance obligations for contracts with an original length greater than one year at December 31, 2019.

The Company accepts returns only if the products do not meet customer specifications and historically, the Company's volume of product returns has not been significant. Further, no warranties are provided for promised goods and services other than assurance type warranties.

Revenue for an individual contract is recognized at the related transaction price, which is the amount the Company expects to be entitled to in exchange for transferring the products and/or services. The transaction price for product sales is calculated at the contracted product selling price. The transaction price for a contract with multiple performance obligations is allocated to the separate performance obligations on a relative standalone selling price basis. Standalone selling prices for products are determined based on the prices charged to customers, which are directly observable. Standalone selling price of services are mostly based on time and materials. Generally, payments from customers are due when goods and services are transferred. As most contracts contain a single performance obligation, the transaction price is representative of the standalone selling price charged to customers. Revenue is recognized only to the extent that it is probable that a significant reversal of the cumulative amount recognized will not occur in future periods. Since the adoption of ASC 606, variable consideration has not been material.

Sales taxes

Sales taxes collected by the Company are not included in the transaction price as revenue they are ultimately remitted to a governmental authority.

Shipping and handling costs

The Company has elected to account for shipping and handling activities related to contracts with customers as costs to fulfill the promise to transfer the associated products. Accordingly, revenue for shipping and handling is recognized at the same time that the related product revenue is recognized.

Contract costs

The Company recognizes the incremental costs of obtaining contracts as an expense when incurred when the amortization period of the assets that otherwise would have been recognized is one year or less. These costs are included in sales and marketing and general and administrative expenses. The costs to fulfill the contracts are determined to be immaterial and are recognized as an expense when incurred.

Contract balances

Contract assets are generated when contractual billing schedules differ from revenue recognition timing and the Company records contract receivable when it has an unconditional right to consideration. No contract assets balance was recorded as of January 1, 2019 and as of December 31, 2019, contract assets, which are included in prepaid and other current assets, totaled $0.8 million.

Contract liabilities are recorded when cash payments are received or due in advance of performance. Contract liabilities consist of customer deposits, which are included in accrued expenses, and deferred revenue, where the Company has unsatisfied performance obligations. As of January 1, 2019 and December 31, 2019, the contract liabilities were $0.5 million and $1.0 million, respectively, with the contract liabilities at December 31, 2019 expected to be recognized into revenue in the year ending December 31, 2020.

Disaggregation of Revenue

The following tables summarize the revenue by segment and region for the years ended December 31, 2018 and December 31, 2019, respectively (in thousands):

For the year ended December 31, 2018	Nucleic Acid Production	Biologics Safety Testing	Protein Detection	Total
North America	$ 44,883	$ 14,900	$ 14,393	$ 74,176
EMEA	9,880	11,443	6,522	27,845
Asia Pacific	5,249	11,928	4,097	21,274
Latin and Central America	45	221	272	538
Total revenue	$ 60,057	$ 38,492	$ 25,284	$ 123,833

For the year ended December 31, 2019	Nucleic Acid Production	Biologics Safety Testing	Protein Detection	Total
North America	$ 49,757	$ 18,984	$ 15,284	$ 84,025
EMEA	15,975	12,102	6,805	34,882
Asia Pacific	6,843	12,964	3,784	23,591
Latin and Central America	27	366	249	642
Total revenue	$ 72,602	$ 44,416	$ 26,122	$ 143,140

The following table provides a disaggregation of revenue for the year ended December 31, 2019 based on the pattern of revenue recognition:

	2019
Revenue recognized at a point in time	$ 133,091
Revenue recognized over time	10,049
Total revenue	$ 143,140

Prior to January 1, 2019, revenue from the sale of products and services was recognized when all of the following conditions per ASC 605*Revenue Recognition* were met: (1) there was persuasive evidence of an arrangement; (2) the product had been delivered to the customer; (3) the collection of the fees was reasonably assured; and (4) the amount of fees to be paid by the customer was fixed or determinable.

When an arrangement involved multiple elements, the multiple elements, referred to as deliverables, were evaluated to determine whether they represent separate units of accounting in accordance with ASC 605-25, Revenue Recognition—*Multiple-Element Arrangements*. The Company performed this evaluation at the inception of an arrangement and as each item was delivered in the arrangement. Generally, the Company accounted for a deliverable separately if the delivered item has stand alone value to the customer and delivery or performance of the undelivered item or service was probable and substantially in the Company's control.

When multiple elements could be separated into separate units of accounting, arrangement consideration was allocated at the inception of the arrangement, based on each unit's relative selling price, and recognized based on the method most appropriate for that unit.

Product sales

Revenue for manufacturing of products was recognized upon the delivery of the products in accordance with the terms of the contract, which specify transfer of title and risk of loss. Payments received from customers in advance of manufacturing their products was recorded as deferred revenue until the products were delivered.

Service revenue

The Company also enters into custom antibody and assay development contracts with customers. The Company performs a number of acts under these contracts for which the pattern of performance cannot be discerned and therefore the Company recognizes service revenue on a straight-line basis over the contractual term or expected term of the arrangement, whichever is longer. Payments received in advance of performing these services was recognized as deferred revenue. Revenue recognized at any point in time is limited to cash received and amounts contractually due.

Shipping and Handling Costs

Shipping and handling costs, which are charged to customers, are included in revenue. Shipping and handling charges included in revenue were approximately $2.8 million and $3.2 million and for the years ended December 31, 2018 and 2019, respectively. Freight and supplies costs directly associated with shipping products to customers are included as a component of cost of revenue.

Research and Development

Research and development ("R&D") expenses include personnel costs, including salaries, benefits and unit-based compensation for laboratory personnel, and costs of supplies. R&D costs are expensed as incurred. Payments made prior to the receipt of goods or services to be used in R&D are recognized as prepaid assets until the goods are received or services are rendered.

Advertising Costs

The Company expenses advertising costs as incurred. Advertising costs incurred were approximately $0.6 million and $1.1 million during the years ended December 31, 2018 and 2019, respectively.

Unit-Based Compensation

The Company's parent, MLSH 1, grants unit-based awards to certain executives of the Company in the form ofnon-vested units. Our controlled subsidiary, MLSC, grants unit-based awards only to certain employees of its subsidiaries (collectively, the "Incentive Units"). All awards of Incentive Units are measured based on the fair value of the award on the date of grant. The Company recognizes compensation expense for MLSH 1 awards in its consolidated financial statements as MLSH 1 is considered to be the economic interest holder in the Company. Compensation expense for the Incentive Units is recognized over their requisite service period. Forfeitures are recognized when they occur. These Incentive Units are subject to service, market and performance conditions. For Incentive Units subject to performance conditions, the Company evaluates the probability of achieving each performance condition at each reporting date and recognizes expense over the requisite service period when it is deemed probable that a performance condition will be met using the accelerated attribution method over the requisite service period. For Incentive Units that remain subject to performance conditions at December 31, 2018 and 2019, the Company concluded that it was not yet probable that the performance conditions would be met. Accordingly, the Company has not recognized any compensation expense in the accompanying consolidated statements of operations and comprehensive loss for Incentive Units that include a performance condition.

The grant date fair value of Incentive Unit awards has been determined by the Company's Board of Directors with the assistance of management and an independent third-party valuation specialist. The grant date fair value of Incentive Units was determined first by estimating an aggregate equity value using a weighting of discounted cash flows, comparable public companies, and comparable-transactions valuation methodologies. An Option-Pricing Method, which utilizes certain assumptions including volatility, time to liquidation, a risk-free interest rate, and an assumption for a discount for lack of marketability, was then used to allocate the total equity value of the Company to the different classes of equity according to their rights and preferences. In determining the fair value of the Incentive Units, the methodologies used to estimate the enterprise value of the Company were performed using methodologies, approaches, and assumptions consistent with the American Institute of Certified Public Accountants Accounting and Valuation Guide, Valuation of Privately-Held-Company Equity Securities Issued as Compensation ("AICPA Accounting and Valuation Guide").

Income Taxes

The Company's wholly-owned U.S. subsidiary, Maravai LifeSciences, Inc. ("Maravai Inc.") and its subsidiaries, are taxpaying entities in the U.S., Canada, and the U.K. Accordingly, the Company provides current and deferred income taxes for these entities. The Company and its other subsidiaries are treated as pass-through entities for federal and state income tax purposes and are not subject to income tax as the LLC member is responsible for the tax consequences of its proportionate share of the pass-through income or loss. As such, the Company's tax provision consists solely of the activities of Maravai Inc. and its subsidiaries, which is taxed as a corporation for federal and state income tax purposes.

The Company's taxable subsidiaries account for income taxes using the asset and liability method, under which deferred tax liabilities and assets are recognized for the expected future tax consequences of temporary differences between the consolidated financial statement carrying amounts and the tax basis of assets and liabilities and net operating loss and tax credit carryforwards. Deferred tax assets and liabilities are classified as noncurrent on the consolidated balance sheet. Valuation allowances are established when necessary to reduce deferred tax assets to the amount expected to be realized. The Company uses a recognition threshold and measurement attribute for the consolidated financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. A tax position is recognized when it is more likely than not that the

tax position will be sustained upon examination, including the resolution of any related appeals or litigation. A tax position that meets the more-likely-than-not recognition threshold is measured at the largest amount of benefit that is greater than a 50% likelihood of being realized upon ultimate settlement with a taxing authority. Interest and penalties related to unrecognized tax benefits are recognized in benefit from income taxes in the accompanying consolidated statements of operations and comprehensive loss. No such interest and penalties were recognized for any period presented.

The Tax Cuts and Jobs Act of 2017 ("2017 Tax Act") created a Global Intangible Low Taxed Income ("GILTI") provision which requires companies to include in its U.S. income tax return foreign subsidiary earnings in excess of an allowable return on the foreign subsidiary's tangible assets. The Company has elected to account for GILTI tax as a component of tax expense in the period in which it is incurred. For the years ended December 31, 2018 and 2019, the Company did not recognize income related to its foreign subsidiaries.

In May 2018, the FASB issued Accounting Standards Update ("ASU")2018-05—*Income Taxes (Topic 740), Amendments to SEC Paragraphs Pursuant to SECStaff Accounting Bulletin No. 118 (SEC Update)*. The amendment represents changes to certain SEC material in Topic 740 for the income tax accounting implications of the 2017 Tax Act. The ASU was effective upon issuance. As of December 22, 2018, the Company had completed its assessment and recorded an insignificant adjustment to the provisional amounts initially recognized within the one-year period provided by this ASU.

Noncontrolling Interests

Noncontrolling interests represent the portion of profit or loss, net assets and comprehensive loss that is not allocable to the member of Maravai. Noncontrolling interests arise from the Company's majority-owned subsidiary, MLSC, in which the Company holds a 70% ownership interest. MLSC is not liable, solely by reason of being a member, for the debts, obligations, or liabilities of the Company whether arising in contract or tort; under a judgment, decree, or order of a court; or otherwise. MLSC net income or loss is attributed to the noncontrolling interest using an attribution method, similar to the hypothetical liquidation at book value method, based on the distribution provisions of the MLSC Amended and Restated Limited Liability Company Agreement ("MLSC LLC Agreement").

During the year ended December 31, 2018, $52.0 million of capital distributions were made to the Class A unit holders of MLSC. The 2018 distribution was treated as a preferred return of capital per the terms of the MLSC LLC agreement, which will result in a reduction of future amounts that must be allocated to the Class A unit holders of MLSC, as controlling interest holders in MLSC, upon a liquidation of MLSC. No distributions were made to the Class A unit holders of MLSC during the year ended December 31, 2019.

Segment Information

The Company operates in three reportable segments. Operating segments are defined as components of an enterprise about which separate financial information is evaluated regularly by the chief operating decision maker in deciding how to allocate resources and assessing performance. The Company's chief operating decision maker ("CODM"), its Chief Executive Officer, allocates resources and assesses performance based upon discrete financial information at the segment level. Substantially all of our long-lived assets are located in the United States.

Cash

Cash consists of deposits held at financial institutions.

Accounts Receivable and Allowance for Doubtful Accounts

Accounts receivable primarily consist of amounts due from customers for product sales and services. Estimated allowances for doubtful accounts are provided for based on an evaluation of potential uncollectible accounts. The Company evaluates accounts receivable to determine collectability. Judgments and estimates are involved in performing this evaluation, which are based on the Company's assessment of a customer's ability to pay, credit quality of the customer, age of the receivable balance and current economic conditions. As of December 31, 2018 and 2019, the allowance for doubtful accounts was approximately $0.3 million and $0.1 million, respectively. Write-offs of accounts receivable and recoveries were not significant during either 2018 or 2019.

To manage credit risk certain Company subsidiaries require select customers to prepay for product prior to shipment. Such prepayments approximated $40,000 and $0.2 million as of December 31, 2018 and 2019, respectively, and were recorded within deferred revenue and subsequently recognized as revenue upon shipment.

Inventory

Inventories consist of raw materials, work in process and finished goods. Inventories are stated at the lower of cost (weighted average cost) or net realizable value. Inventory costs include materials, direct labor and manufacturing overhead, which are related to the purchase or production of inventories. The Company regularly monitors for excess and obsolete inventory based on its estimates of expected sales volumes, production capacity and expiration of raw materials, work-in-process and finished products excess and obsolete inventories and reduces the carrying value of inventory accordingly. The Company writes down inventory that has become obsolete, inventory that has a cost basis in excess of its expected net realizable value, and inventory in excess of expected manufacturing requirements. Any write-downs of inventories are charged to cost of revenue.

A change in the estimated timing or amount of demand for the Company's products could result in reduction to the recorded value of inventory quantities on hand. Any significant unanticipated changes in demand or unexpected quality failures could have a significant impact on the value of inventory and reported operating results. During all periods presented in the accompanying consolidated financial statements, there have been no material adjustments related to a revised estimate of our inventory valuations.

Property and Equipment

Property and equipment are stated at cost, less accumulated depreciation. Depreciation is computed using the straight-line method over the following estimated useful lives:

Assets	Useful Lives
Buildings	20-35 years
Building improvements	5-15 years
Furniture, fixtures, equipment and software	3-11 years

Leasehold improvements are amortized over the shorter of the related lease term or useful life.

Maintenance and repairs are charged to operations when incurred, while betterments or renewals are capitalized. When property and equipment are sold or otherwise disposed of, the asset account and related accumulated depreciation account are relieved, and any gain or loss is included in the results of operations.

As of December 31, 2018, property and equipment included a leased building which is recorded as construction in process during the period of construction at its fair value plus the cost of improvements incurred during the construction period. As of December 31, 2019, the construction was completed. As a result, the Company recorded constructions costs as an asset and construction costs incurred by the landlord as a financing

obligation on its consolidated balance sheet (Notes 5 and 6). The leased building is being depreciated over the lease term to a residual value that will approximate the remaining lease financing obligation at the end of the lease.

Internal-Use Software Costs

The Company capitalizes costs for acquired or developed software for internal use. Costs related to preliminary project activities and post implementation activities are expensed as incurred. Once it is probable the project will be completed, and the software will be used to perform the function intended, internal and external costs, if direct and incremental, are capitalized until the application is substantially complete and ready for use. Capitalized costs are included in property and equipment within furniture, fixtures, equipment, and software. The Company capitalized approximately $0.4 million and $0.7 million of software development costs in each of the years ended December 31, 2018 and 2019, respectively, and recognized amortization expense of $73,000 and $0.2 million for the years ended December 31, 2018 and 2019, respectively.

Goodwill

Goodwill represents the excess of consideration transferred over the estimated fair value of assets acquired and liabilities assumed in a business combination. The Company conducts a goodwill impairment analysis at least annually and more frequently if changes in facts and circumstances indicate that the fair value of the Company's reporting units may be less than carrying amount. The Company has three reporting units. For the years ended December 31, 2018 and 2019, the Company elected the qualitative assessment for two of its reporting units and a quantitative impairment test for its remaining reporting unit associated with its protein detection business. The qualitative impairment test was elected for these two reporting units because of the growth in revenue and cashflows in excess of our initial projections and quantitative impairment test was elected for the third reporting unit as a result of lowering forecasted growth projections. As a result of the 2018 and 2019 qualitative and quantitative assessments, the Company concluded that goodwill was not impaired at both December 31, 2018 and 2019.

Intangible Assets

The Company's finite-lived intangible assets represent purchased intangible assets and primarily consist of trade names, customer relationships, patents, and developed technology. Certain criteria are used in determining whether intangible assets acquired in a business combination must be recognized and reported separately. Finite-lived intangible assets are initially recognized at fair value, are subject to amortization and are subsequently stated at amortized cost. The Company's finite-lived intangible assets are amortized using a method that reflects the pattern in which the economic benefits of the intangible assets are consumed or otherwise used. If that pattern cannot be reliably determined, the intangible assets are amortized using the straight-line method over their estimated useful lives and are tested for impairment along with other long-lived assets. Amortization related to patents and developed technology is allocated to cost of revenue whereas amortization associated with trade names and customer relationships is allocated to selling, general and administrative expenses.

Impairment of Long-Lived and Intangible Assets

The Company periodically reviews long-lived assets, including property and equipment and finite-lived intangible assets, to determine whether current events or circumstances indicate that such carrying amounts may not be recoverable. If such facts or circumstances are determined to exist, an estimate of the undiscounted future cash flows of these assets is compared to the carrying value the assets to determine whether impairment exists. If the assets are determined to be impaired, the loss is measured based on the difference between the fair value and carrying value of the assets. No impairment loss was recognized for long-lived or finite-lived intangible assets during the years ended either December 31, 2018 or 2019.

Contingent Consideration

Contingent consideration relates to the potential payment for an acquisition that is contingent upon the achievement of the acquired entity meeting certain performance milestones. Contingent consideration resulting from the acquisition of a business is recorded at fair value on the acquisition date. Such contingent consideration is re-measured to its estimated fair value at each reporting date with the change in fair value recognized as an operating expense in the Company's consolidated statement of operations. Subsequent changes in the fair value of the contingent consideration are classified as an adjustment to cash flows from operating activities in the consolidated statement of cash flows because the change in fair value was is an input in determining net loss. Cash paid in settlement of contingent consideration liabilities are classified as cash flows from financing activities up to the acquisition date fair value with any excess classified as cash flows from operating activities.

Changes in the fair value of contingent consideration liabilities associated with the acquisition of a business can result from updates to assumptions such as the expected timing or probability of achieving customer related performance targets, specified sales milestones, changes in projected revenue or changes in discount rates. Significant judgment is used in determining those assumptions as of the acquisition date and for each subsequent reporting period. Therefore, any changes in the fair value will impact the Company's results of operations in such reporting period thereby resulting in potential variability in the Company's operating results until such contingencies are resolved.

Debt Issuance Costs

Costs incurred in connection with obtaining new debt financing are deferred and amortized over the life of the related financing. If such financing is settled or replaced prior to maturity with debt instruments that have substantially different terms, the settlement is treated as an extinguishment and the unamortized costs are charged to gain or loss on extinguishment of debt. If such financing is settled or replaced with debt instruments from the same lender that do not have substantially different terms, the new debt agreement is accounted for as a modification for the prior debt agreement and the unamortized costs remain capitalized, the new original issuance discount costs are capitalized, and any new third-party costs are charged to expense. Deferred costs are recognized as a direct reduction in the carrying amount of the debt instrument on the consolidated balance sheets and are amortized to interest expense over the term of the related debt using the effective interest method.

Foreign Currency

The Company translates the assets and liabilities of itsnon-U.S. dollar denominated functional currency subsidiaries into U.S. dollars using exchange rates in effect at the end of each period. Revenue and expenses for its foreign subsidiaries are translated using rates that approximate those in effect during the period. Translation gains and losses are recognized in accumulated other comprehensive loss within member's equity on the consolidated balance sheets. Foreign currency transaction gains and losses are included in net loss for the period. Foreign currency loss have not been material for the years ended December 31, 2018 and 2019.

Accumulated Other Comprehensive Loss

Comprehensive loss and its components encompass all changes in member's equity other than those with its members. Comprehensive loss for the Company consists of foreign currency translation adjustments. There were no reclassifications out of accumulated other comprehensive loss during the periods presented.

Fair Value of Financial Instruments

The Company defines fair value as the amount that would be received to sell an asset, or paid to transfer a liability, in an orderly transaction between market participants at the measurement date. The Company follows accounting guidance that has a three-level hierarchy for fair value measurements based upon the transparency of

inputs to the valuation of the asset or liability as of the measurement date. Instruments with readily available actively quoted prices, or for which fair value can be measured from actively quoted prices in an orderly market, will generally have a higher degree of market price transparency and a lesser degree of judgment used in measuring fair value. The three levels of the hierarchy are defined as follows:

Level 1—Observable inputs that reflect quoted prices (unadjusted) for identical assets or liabilities in active markets;

Level 2—Include other inputs that are directly or indirectly observable in the marketplace; and

Level 3—Unobservable inputs which are supported by little or no market activity.

As of December 31, 2018 and 2019, the carrying value of current assets and liabilities approximates fair value due to the short maturities of these instruments. The fair values of the Company's long-term debt approximate carrying value, excluding the effect of unamortized debt discount, as they are based on borrowing rates currently available to the Company for debt with similar terms and maturities (Level 2 inputs).

During 2017, the Company entered into two interest rate cap agreements to manage a portion of its variable interest rate risk on its amended credit agreement borrowings. During 2018, in connection with the Company's debt refinancing, the Company entered into two interest rate cap agreements bringing its total to four agreements as of both December 31, 2018 and 2019. The contracts entitle the Company to receive from the counterparty at specified dates the amount, if any, by which a specified market rate exceeds the cap strike interest rate, applied to the contracts notional principal amount of approximately $262.0 million. No principal payments are exchanged. The interest rate cap agreements have not been designated as a hedging relationship and are recognized on the consolidated balance sheet at fair value within non-current assets with changes in fair value recognized in the consolidated statements of operations and comprehensive loss. The fair value of the interest rate caps as of December 31, 2018 and 2019 were insignificant.

Leases, Deferred Rent, and Lease Facility Financing Obligation

The Company rents its office space and facilities under non-cancelable operating lease agreements and recognizes the related rent expense on a straight-line basis over the term of the lease. The Company's lease agreements contain rent holidays, scheduled rent increases, and renewal options. Rent holidays and scheduled rent increases are included in the determination of rent expense to be recorded ratably over the lease term. The Company does not assume renewals in its determination of the lease term unless they are deemed to be reasonably assured at the inception of the lease. The Company begins recognizing rent expense on the date that it obtains the legal right to use and control the leased space. Deferred rent consists of the difference between cash payments and the recognition of rent expense on a straight-line basis for the buildings the Company occupies.

In certain arrangements, the Company is involved in the construction of improvements to buildings it is leasing. To the extent the Company is involved with the structural improvements of the construction project or takes construction risk, the Company is considered to be the owner of the building and related improvements for accounting purposes during the construction period. The Company records the fair value of the building and related landlord and lessee funded improvements subject to the lease within property and equipment on the consolidated balance sheet. The Company also records a corresponding construction payable obligation on its consolidated balance sheet representing the amounts financed by the lessor for the building and lessor financed improvements. Once a construction project is complete, the Company considers the requirements for sale-leaseback accounting treatment. If the Company concludes the arrangement does not qualify for sale-leaseback accounting treatment, the building and related improvements remain on the Company's consolidated balance sheet and are subject to depreciation and assessment of impairment.

For such arrangements, at both pre and post the construction period, the Company bifurcates its lease payments into a portion allocated to the building and a portion allocated to the parcel of land on which the

building has been built considering their respective fair values. The land lease portion of the lease payments allocated to the land is treated for accounting purposes as operating lease payments, and therefore is recorded as rent expense in the consolidated statements of operations. The portion of the lease payments allocated to the building is further bifurcated into a portion allocated to interest expense and a portion allocated to reduce the lease financing obligation. The interest rate used for the lease financing obligation represents the Company's estimated incremental borrowing rate at the inception of the lease, adjusted to reduce any built-in loss.

Concentration of Credit Risk

Financial instruments that potentially subject the Company to significant concentrations of credit risk consist principally of cash and accounts receivable. The Company maintains the majority of its cash balances at multiple financial institutions that management believes are of high-credit quality and financially stable. Cash is deposited with major financial institutions in excess of Federal Deposit Insurance Corporation ("FDIC") insurance limits. At December 31, 2018 and 2019, the Company had approximately $20.5 million and $23.6 million in six major financial institutions, respectively, in excess of FDIC insurance limitations. The Company provides credit, in the normal course of business, to international and domestic distributors and customers, which are geographically dispersed. The Company attempts to limit its credit risk by performing ongoing credit evaluations of its customers and maintaining adequate allowances for potential credit losses. For the year ended December 31, 2018, no customer represented more than 10% of total consolidated revenue. For the year ended December 31, 2019, Thermo Fisher Scientific Inc., one of the global leaders in serving life sciences represented 10% of our revenue. The Company sells multiple products to Thermo Fisher Scientific Inc. across all three of the business segments. For the year ended December 31, 2018, one single customer represented 13% of total consolidated accounts receivable. For the year ended December 31, 2019, two customers accounted for 11% and 10% of total consolidated accounts receivable.

Net Loss per Common Unit Attributable to the Member

Basic net loss per common unit attributable to the member of Maravai is calculated by dividing the net loss, adjusted for the Company's noncontrolling interest by the weighted-average number of common units outstanding during the period. The noncontrolling interest is calculated pursuant to the terms of the MLSC LLC Agreement, the Company's majority-owned subsidiary, on a fully-distributed basis, taking into account the various classes of equity of MLSC, including the cumulative yields on MLSC's preferred units. Diluted net loss per common unit attributable to the member of Maravai is computed by using the weighted-average number of common units outstanding during the period and the potential dilutive common unit equivalents as determined under the two-class method. In periods in which the Company reports a net loss attributable to the member of Maravai, diluted net loss per common unit is the same as basic net loss per common unit attributable to the member of Maravai since dilutive common units are not assumed to have been issued if their effect is anti-dilutive. The Company reported a net loss attributable to the member of Maravai for the years ended December 31, 2018 and 2019.

Emerging Growth Company Status

The Company is an emerging growth company, as defined in the Jumpstart Our Business Startups Act of 2012 ("JOBS Act"). Under the JOBS Act, emerging growth companies can delay adopting new or revised accounting standards issued subsequent to the enactment of the JOBS Act, until such time as those standards apply to private companies. The Company has elected to use this extended transition period for complying with new or revised accounting standards that have different effective dates for public and private companies until the earlier of the date that it (i) is no longer an emerging growth company or (ii) affirmatively and irrevocably opts out of the extended transition period provided in the JOBS Act. As a result, these consolidated financial statements may not be comparable to companies that comply with the new or revised accounting pronouncements as of public company effective dates.

Recently Adopted Accounting Pronouncements

In August 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU")2016-15, *Statement of Cash Flows (Topic 230*) provides guidance on eight specific cash flow issues, thereby reducing the diversity in practice in how certain transactions are classified in the statement of cash flows. The amendments in ASU 2016-15 were effective for annual reporting periods beginning after December 15, 2018. The Company's adoption of this standard did not have an impact on the consolidated financial statements.

In October 2016, the FASB issued ASU2016-16, *Income Taxes—Intra-Entity Transfers of Assets Other Than Inventory.* ASU 2016-16 requires entities to recognize income tax consequences of an intra-entity transfer of an asset other than inventory when the transfer occurs. The amendments in ASU 2016-16 are effective for annual reporting periods beginning after December 15, 2018 and required a modified retrospective method of adoption. The Company's adoption of this standard did not have an impact on the consolidated financial statements.

Recent Issued Accounting Pronouncements

In February 2016, the FASB issued ASUNo. 2016-02, *Leases* ("Topic 842"), which supersedes the guidance in ASC 840,*Leases*. The new standard, as amended by subsequent ASUs on Topic 842 and recent extensions issued by the FASB in response to COVID-19, requires lessees to apply a dual approach, classifying leases as either finance or operating leases based on the principle of whether or not the lease is effectively a financed purchase by the lessee. This classification will determine whether lease expense is recognized based on an effective interest method or on a straight-line basis over the term of the lease. A lessee is also required to record a right-of-use asset and a lease liability for all leases with a term of greater than 12 months regardless of their classification. Leases with a term of 12 months or less will be accounted for similar to existing guidance for operating leases today. As a result of the Company having elected the extended transition period for complying with new or revised accounting standards pursuant to Section 107(b) of the JOBS Act, and assuming the Company continues to be considered an Emerging Growth Company, Topic 842 will be effective for the Company on January 1, 2022. The Company has not yet determined the full effects of Topic 842 on its consolidated financial statements but does expect that it will result in a substantial increase in its long-term assets and liabilities and enhanced disclosures.

In June 2016, the FASB issuedASU 2016-13*, Financial Instruments-Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments* which has been subsequently amended ("ASU 2016-13"). ASU 2016-13 revises the measurement of credit losses for most financial instruments measured at amortized cost, including trade receivables, from an incurred loss methodology to an expected loss methodology which results in earlier recognition of credit losses. Under the incurred loss model, a loss is not recognized until it is probable that the loss-causing event has already occurred. The new standard introduces a forward-looking expected credit loss model that requires an estimate of the expected credit losses over the life of the instrument by considering all relevant information including historical experience, current conditions, and reasonable and supportable forecasts that affect collectability. In addition, this standard also modifies the impairment model for available-for-sale debt securities, which are measured at fair value, by eliminating the consideration for the length of time fair value has been less than amortized cost when assessing credit loss for a debt security and provides for reversals of credit losses through income upon credit improvement. ASU 2016-13, is effective for the Company's January 1, 2023, with early adoption permitted. The Company is currently assessing the impact of adopting this standard on its consolidated financial statements and disclosures.

In June 2018, the FASB issued ASUNo. 2018-07, *Compensation—Stock Compensation (Topic 718): Improvements to Nonemployee Share-Based Payment Accounting.* ASU 2018-07 simplifies the accounting for share-based payment transactions in which a grantor acquires goods or services to be used or consumed in operations from a nonemployee. This standard is effective for annual periods beginning after December 15, 2019. The Company does not anticipate the adoption of this standard to have a material impact on its consolidated financial statements.

In August 2018, the FASB issued ASU No. 2018-13, *Fair Value Measurement (Topic 820)—Changes to the Disclosure Requirements for Fair Value Measurement* ("ASU 2018-13"). removed the following disclosure requirements: (1) the amount of and reasons for transfers between Level 1 and Level 2 of the fair value hierarchy; (2) the policy for timing of transfers between levels; and (3) the valuation processes for Level 3 fair value measurements. Additionally, this update added the following disclosure requirements: (1) the changes in unrealized gains and losses for the period included in other comprehensive income and loss for recurring Level 3 fair value measurements held at the end of the reporting period; (2) the range and weighted average of significant unobservable inputs used to develop Level 3 fair value measurements. For certain unobservable inputs, an entity may disclose other quantitative information (such as the median or arithmetic average) in lieu of the weighted average if the entity determines that other quantitative information would be a more reasonable and rational method to reflect the distribution of unobservable inputs used to develop Level 3 fair value measurements. ASU 2018-13 is effective for us on January 1, 2020, with early adoption permitted. The Company has not yet determined the potential effects of ASU 2018-13 on its consolidated financial statements and disclosures.

In August 2018, the FASB issued ASU No. 2018-15, *Intangibles—Goodwill and Other—Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract.* The ASU aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software. This new standard also requires customers to expense the capitalized implementation costs of a hosting arrangement that is a service contract over the term of the hosting arrangement. This ASU is effective for years beginning after December 15, 2020, with early adoption permitted. The Company has not yet determined the potential effects of this ASU on its consolidated financial statements.

In December 2019, the FASB issued Accounting Standard Update No. 2019-12*, Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes (ASU 2019-12)*, which eliminates certain exceptions related to the approach for intra-period tax allocation, the methodology for calculating income taxes in an interim period and the recognition of deferred tax liabilities for outside basis differences. It also clarifies and simplifies other aspects of the accounting for income taxes. This guidance is effective for fiscal years beginning after December 31, 2021, and interim periods within fiscal years beginning after December 15, 2022. Early adoption is permitted. The Company is currently evaluating but has not yet determined the potential impact of the new standard on its consolidated financial statements.

In July 2017, the FASB issued ASU 2017-11, *Earnings Per Share (Topic 260), Distinguishing Liabilities from Equity (Topic 480) and Derivatives and Hedging (Topic 815): I. Accounting for Certain Financial Instruments with Down Round Features; II. Replacement of the Indefinite Deferral for Mandatorily Redeemable Financial Instruments of Certain Nonpublic Entities and Certain Mandatorily Redeemable Noncontrolling Interests with a Scope Exception* ("ASU 2017-11"). Part I of this update addresses the complexity of accounting for certain financial instruments with down round features. Down round features are features of certain equity- linked instruments (or embedded features) that result in the strike price being reduced on the basis of the pricing of future equity offerings. Current accounting guidance creates cost and complexity for entities that issue financial instruments (such as warrants and convertible instruments) with down round features that require fair value measurement of the entire instrument or conversion option. Part II of this update addresses the difficulty of navigating Topic 480, *Distinguishing Liabilities from Equity*, because of the existence of extensive pending content in the FASB Accounting Standards Codification. This pending content is the result of the indefinite deferral of accounting requirements about mandatorily redeemable financial instruments of certain nonpublic entities and certain mandatorily redeemable noncontrolling interests. The amendments in Part II of this update do not have an accounting effect. The amendments in Part I of this update are effective for fiscal years beginning after December 15, 2019, and interim periods within fiscal years beginning after December 15, 2020. Early adoption is permitted for all entities, including adoption in an interim period. The Company is currently assessing the potential impact of adopting ASU 2017-11 on its consolidated financial statements and disclosures.

In January 2017, the FASB adopted ASU2017-04, *Intangibles-Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment*("ASU 2017-04") which simplifies how an entity is required to test goodwill for impairment by eliminating Step 2 from the goodwill impairment test. Step 2 measures a goodwill impairment loss by comparing the implied fair value of a reporting unit's goodwill with the carrying amount of that goodwill. The implied fair value for a reporting unit is determined in the same manner as the amount of goodwill recognized in a business acquisition of the reporting unit. Under the amendments in ASU 2017-04, an entity shall recognize an impairment charge for the amount by which the carrying amount of a reporting unit exceeds its fair value; however, the loss recognized should not exceed the total amount of goodwill allocated to that reporting unit. The updated guidance requires adoption on a prospective basis. ASU 2017-04 is currently effective for the Company beginning January 1, 2022. Early adoption is permitted. The adoption of this standard update is not expected to have a material impact on our consolidated financial statements; however, any goodwill impairment losses recognized subsequent to adoption will be measured following the updated standard.

2. Acquisitions

Glen Research Corporation

In December 2017, the Company expanded its Nucleic Acid Production business by acquiring 100% of the outstanding equity of Glen Research via a stock purchase agreement ("Glen Research Purchase Agreement"). Pursuant to the Glen Research Purchase Agreement, all outstanding equity of Glen Research was acquired for total purchase consideration of $22.5 million.

Pursuant to the Glen Research Purchase Agreement, additional payments to the former owners of Glen Research were dependent on Glen Research meeting or exceeding defined revenue targets in each of 2018 and 2019 (together referred to as "the Glen Earn-Out") and provided for a total maximum Glen Earn-Out payment of $4.0 million. As of December 31, 2018, the portion of the Glen Earn-Out relating to the 2018 defined revenue targets had been earned and therefore, was included in the current portion of contingent consideration in the related accompanying consolidated balance sheet. In addition, the fair value of the portion relating to the 2019 defined revenue targets, classified as long-term contingent consideration, was based on revised probabilities of this remaining contingent consideration being earned based on Glen Research revenue projections, expected payout term, and risk adjusted discount rates which were Level 3 inputs. The key quantitative assumption used in the determination of fair value as of December 31, 2018 included a discount rate of approximately 11%. During the year ended December 31, 2019, upon the achievement of 2019 defined revenue targets, the liability was revalued to reflect the maximum payout of $4.0 million under the provisions of the Glen Research Purchase Agreement. The change in fair value during 2018 and 2019, approximating $0.9 million and $0.3 million, respectively, has been reflected in the consolidated statement of operations within change in fair value contingent consideration. Upon achievement of the maximum $4.0 million payout, the outstanding liability is no longer considered a Level 3 liability under the fair value hierarch. During 2019, the first $2.0 million was paid to Glen Research, and the remaining $2.0 million, which is expected to be paid in 2020, has been reclassified to accrued expenses in our consolidated balance sheet (Note 4).

As of December 31, 2018, $2.1 million remained in the Indemnification Escrow account to secure the indemnification and certain other obligations of Glen Research, pursuant to the terms of the Purchase Agreement. The entire amount was released to the former owners in June 2019. Because these amounts held in escrow were not controlled by the Company, they were not included in the accompanying consolidated balance sheet at December 31, 2018.

TriLink BioTechnologies, LLC

In September 2016, and in connection with the establishment of the Nucleic Acid Production business, the Company acquired 100% of the outstanding equity of TriLink BioTechnologies via a securities purchase agreement ("TriLink Purchase Agreement") which was partially financed with $38.6 million in third-party lender financing.

In May 2018, the intellectual property escrow of approximately $1.0 million was released to the sellers and the indemnification escrow of approximately $0.9 million was released to the Company. Pursuant to the TriLink Purchase Agreement, additional payments to the former owners of TriLink BioTechnologies were dependent on TriLink BioTechnologies meeting or exceeding defined revenue targets in each of 2017 and 2018 (the "Earn-Out"). The TriLink Purchase Agreement provided for a total maximum Earn-Out payment of $20.0 million. The portion of the Earn-Out relating to these executives has been recognized as compensation expense in the post-acquisition period, as earned. The remaining portion of the Earn-Out was recorded as contingent consideration and the fair value therein was included as part of the purchase consideration.

The Earn-Out liability of $5.8 million was paid in full during 2018, satisfying all related obligations.

The TriLink Purchase Agreement also provided for additional payments to the former owners of TriLink BioTechnologies of up to $10.0 million (the "customer holdback"). During the year ended December 31, 2017, the maximum customer holdback amount of $10.2 million was earned, of which $9.7 million was paid and approximately $0.5 million held back for certain seller related liabilities for pre-acquisition employee benefits the Company agreed to pay. The balance of $0.5 million and $0.3 million remained outstanding as of December 31, 2018 and 2019, respectively, and has been included in accrued expenses on the consolidated balance sheet.

3. Goodwill and Intangible Assets

The Company's goodwill of $224.3 million as of December 31, 2018 and 2019, respectively, represents the excess of purchase consideration over the fair value of assets acquired and liabilities assumed. Given the lack of any triggering events being identified indicating that the fair value of the goodwill may be impaired, the Company completed its qualitative goodwill impairment analysis for the nucleic acid production and biologics safety testing reporting units during the fourth quarters of 2019 and 2018 and concluded it was not more-likely-than-not that the fair value of goodwill exceeded its carrying value and no further testing was required. Having identified triggering events for the protein detection reporting unit, the Company performed a quantitative analysis and also concluding that it was not more-likely-than-not that the fair value of goodwill exceeded its carrying value and no further testing was required. No asset impairment charges were recognized during either of the years ended December 31, 2018 or 2019.

The following is a rollforward of the Company's goodwill by segment (amount in thousands):

	Nucleic Acid Production	Biologics Safety Testing	Protein Detection	Total
Balance, January 1, 2018	$ 33,000	$ 119,928	$ 71,509	$ 224,437
Completion of purchase accounting for 2017 acquisition	(162)	—	—	(162)
Balance, December 31, 2018	$ 32,838	$ 119,928	$ 71,509	$ 224,275

During the year ended December 31, 2019, there was no change in the recorded segment goodwill balances.

Intangible assets are being amortized on a straight-line basis, which reflects the expected pattern in which the economic benefits of the intangible assets are being obtained, over an estimated useful life ranging from 5 to 15 years.

The components of finite-lived intangible assets and accumulated amortization are as follows:

	As of December 31, 2018				
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Estimated Useful Life	Weighted Average Remaining Amortization Period
		(in thousands)		(in years)	(in years)
Trade Names	$ 11,490	$ 2,801	$ 8,689	5-15	8.3
Patents and Developed Technology	169,313	27,472	141,841	5-14	11.5
Customer Relationships	83,290	15,693	67,597	10-14	10.8
Total	$264,093	$ 45,966	$218,127		11.1

	As of December 31, 2019				
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Estimated Useful Life	Weighted Average Remaining Amortization Period
		(in thousands)		(in years)	(in years)
Trade Names	$ 11,490	$ 4,093	$ 7,397	5-15	7.3
Patents and Developed Technology	169,313	40,134	129,179	5-14	10.5
Customer Relationships	83,290	22,013	61,277	10-14	9.8
Total	$264,093	$ 66,240	$197,853		10.1

The Company recognized $12.1 million and $12.2 million of amortization expense from intangible assets directly linked with revenue generating activities within cost of revenue in the consolidated statement of operations for the years ended December 31, 2018 and 2019, respectively. Amortization expense for intangible assets that are not directly related to sales generating activities of $8.0 was recorded to selling, general and administrative expenses for each of the years ended December 31, 2018 and 2019.

As of December 31, 2019, the estimated future amortization expense for finite-lived intangible assets is as follows (in thousands):

2020	$ 20,191
2021	20,079
2022	19,428
2023	19,230
2024	19,230
Thereafter	99,695
Total estimated amortization expense	$ 197,853

4. Fair Value Measurements

The table below presents the Company's liabilities measured at fair value on a recurring basis aggregated by the level in the fair value hierarchy for the year ended December 31, 2018:

	Fair Value Measurements			
	Level 1	Level 2	Level 3	Total
Liabilities:				
Contingent consideration liabilities	$ —	$ —	$3,678	$3,678
Total	$ —	$ —	$3,678	$3,678

There were no material assets or liabilities measured at fair value on a recurring basis as of December 31, 2019.

The Company assesses the fair value of contingent consideration to be settled in cash related to acquisitions using probability weighted models for the various contractual earn-outs. These are Level 3 measurements. Significant unobservable inputs used in the estimated fair values of these contingent consideration liabilities include probabilities of achieving customer related performance targets, specified sales milestones, changes in projected revenue and risk adjusted discount rates.

The following table provides a reconciliation of liabilities measured at fair value on a recurring basis using significant unobservable inputs (Level 3) for the years ended December 31, 2018 and 2019 (in thousands):

	Contingent Consideration
Balance at January 1, 2018	$ 8,558
Change in fair value	939
Settlement	(5,819)
Balance at December 31, 2018	$ 3,678
Change in fair value	322
Settlement	(2,000)
Transfer out of Level 3 fair value hierarchy	(2,000)
Balance at December 31, 2019	$ —

During the year ended December 31, 2019, upon the achievement of the maximum liability threshold of $4.0 million, as defined in the 2017 asset purchase agreement, the total contingent purchase consideration was no longer based on significant unobservable inputs. During 2019 the first $2.0 million was paid to Glen Research, and the remaining $2.0 million, which is expected to be paid in the second half of 2020, has been reclassified out of the Level 3 fair value hierarchy to other current liabilities in our consolidated balance sheet as of December 31, 2019.

5. Balance Sheet Components

Inventory

Inventory consists of the following at December 31 (in thousands):

	2018	2019
Raw materials	$ 4,766	$ 5,037
Work in process	4,495	6,083
Finished goods	5,047	3,082
	$ 14,308	$ 14,202

Property and equipment

Property and equipment consists of the following at December 31 (in thousands):

	2018	2019
Land	$ 8,514	$ 8,516
Buildings	7,604	7,685
Buildings capitalized under lease finance obligations	2,165	61,202
Leasehold improvements	2,092	2,990
Furniture, fixtures, and equipment	8,663	12,887
Software	1,035	1,742
Total	30,073	95,022
Less accumulated depreciation	(4,289)	(8,099)
Total	25,784	86,923
Construction in-progress	1,419	7,388
Building and related construction in-progress improvements capitalized under a lease financing transaction (Note 6)	15,375	—
Property and equipment, net	$ 42,578	$ 94,311

Depreciation expense totaled approximately $2.2 million and $3.8 million for the years ended December 31, 2018 and 2019, respectively.

Accrued expenses

Accrued expenses consisted of the following at December 31 (in thousands):

	2018	2019
Employee related	$ 6,560	$ 7,660
Professional services	337	3,199
Sales and use tax liability	2,074	3,030
Accrued interest	826	475
Consideration payable	—	2,000
Other	1,350	2,151
Total accrued expenses	$ 11,147	$ 18,515

6. Commitments and Contingencies

Lease Commitments

The Company leases five facilities, including office, laboratory and manufacturing space under long-term non-cancelable operating leases. The leased facilities have initial terms of two to twelve years, and two leases have multiple five-year renewal terms and the other leases having three-year and five-year renewal terms. The Company also has capital leases for office equipment within initial terms of two to three years expiring in 2023.

Rent expense for each of the years ended December 31, 2018 and 2019 was approximately $2.0 and $2.5 million, respectively.

Prior to the Company's October 2016 acquisition of MLSC, the Southport, North Carolina facility (the "Southport Facility") leased by a subsidiary of MLSC failed to qualify for sale and leaseback accounting. As a result, MLSC recognized during construction, and retained upon the completion of construction, the value of the Southport Facility and obligation on its balance sheet as a financing obligation. Pursuant to the business combination fair value guidance, upon acquisition of MLSC, the Company recorded the fair value of the building asset, which was estimated to be $2.2 million, and the related financing obligation of $2.2 million.

In 2017, the Company amended its initial lease with the current related party landlord (Note 11) to include the lease of additional space as well as an adjustment of the base rent for the existing space. The Company continues to recognize payments under the amended lease agreement as a reduction of the facility financing obligation using the effective interest method and the ground rent as operating lease expense as notes in the schedule below. As a result of the amendment, the Company anticipates the repayment of the financing obligation by September 2024. The fair value of the leased property established at acquisition continues to be depreciated over the building's estimated useful life of thirty-five years. At the conclusion of the lease term, the Company will de-recognize both the then carrying values of the asset and financing obligation with any differences between the book value of the building asset and remaining facility financing obligation being recognized in operations at that time. For its existing arrangement for the Southport Facility, these differences are expected to be immaterial. Payments on these lease obligations for the years ended December 31, 2018 and 2019 were approximately $0.3 million. For the years ended December 31, 2018 and 2019, rent expense associated with the ground lease for the Southport Facility was not significant.

In July 2018, the Company entered into a lease for a new manufacturing facility (the "San Diego Facility Lease"). The lease included tenant improvement provisions for construction prior to occupancy. Construction on this new manufacturing facility was in progress as of December 31, 2018. As of December 31, 2018, the Company evaluated the extent of its financial and operational involvement in the tenant improvements of the new facility related to the San Diego Facility Lease to determine whether it was considered the owner of the construction project under GAAP. The Company concluded that it was deemed to be the owner of the facility for accounting purposes (even though it did not meet the definition for legal purposes) during the construction period. As of December 31, 2018, the Company recognized the fair value of the building, additional construction costs incurred to date, and related construction payable liability of approximately $15.4 million in the accompanying consolidated balance sheet. The fair value of the leased building of $11.8 million included in fixed assets was estimated using a market approach that utilized comparable observable sales for similar assets (Level 2 inputs). As of December 31, 2018, the Company had also recognized building improvements totaling $3.6 million for additions to the leased building incurred by the Company during the construction period.

During 2018, the Company recognized $0.4 million of rent expense in the consolidated statement of operations associated with the ground lease for this new manufacturing facility. During 2018, the Company was not required to recognize interest expense on the cost of the construction payable due to its short-term nature. The allocation of the San Diego Facility Lease payment to ground lease rent expense and principal and interest expense on the lease financing obligation was estimated using income and market approaches that utilized comparable observable sales for similar assets, land capitalization rates and an estimate of the Company's incremental borrowing rate (Level 2 and Level 3 inputs).

In 2019, upon completion of the construction, the Company evaluated the lease and concluded that the completed construction project failed to qualify for sale and leaseback accounting primarily due to the $8.0 million of non-recourse financing the Company provided to the lessor by reimbursing them for the $8.0 million of construction costs. The Company has accounted for the lease as a financing lease transaction. The leased building and related improvements remain on the Company's balance sheet as of December 31, 2019 and rental payments associated with the San Diego Facility Lease have been allocated to operating lease expense for the ground underlying the leased building and principal and interest payments on the Lease Facility Financing Obligation. The Company recorded the fair value of the building asset and improvements, which was estimated to be $59.0 million and the related lease facility financing obligation of $51.2 million. The difference between the gross asset value and the lease facility financing obligation represents the approximate $8.0 million of building improvement costs reimbursed by the Company.

The Company recognizes payments under the lease agreement as a reduction of the lease facility financing obligation using the effective interest method and the ground rent as operating lease expense as reflected in the schedule below. The allocation of the San Diego Facility Lease payment to ground lease rent expense and principal and interest expense on the lease facility financing obligation was estimated using income and market

approaches that utilized comparable observable sales for similar assets, land capitalization rates, and an estimate of the Company's incremental borrowing rate (Level 2 and Level 3 inputs). The fair value of the leased property, less its expected residual value, is depreciated over the term of the lease. At the conclusion of the lease term, the Company will de-recognize both the then carrying values of this asset and lease facility financing obligation with any differences between the book value of the asset and remaining lease facility financing obligation being recognized in operations at that time. For the Company's arrangement for the San Diego Facility Lease these differences are expected to be immaterial. Payments on the San Diego Facility Lease obligation for the year ended December 31, 2019 were approximately $0.9 million. For the years ended December 31, 2018 and 2019, the Company recognized rent expense associated with the ground lease for the San Diego Facility Lease of approximately $0.4 million and $0.8 million, respectively, in the consolidated statement of operations.

As of December 31, 2019, minimum annual payments under the Company's non-cancelable lease agreements, capital lease agreements, and lease financing obligations are as follows (in thousands):

	Capital Leases	Lease Facility Financing Obligations	Operating Leases
2020	$ 74	$ 2,116	$ 1,130
2021	52	3,853	1,091
2022	21	4,101	1,153
2023	1	4,401	1,203
2024	—	4,479	1,234
2025 and beyond	—	25,155	5,579
Total minimum payments	148	44,105	$ 11,390
Less: amount representing interest	(42)	(30,566)	
Present value of future minimum lease payments	106	13,539	
Residual value of lease facility financing obligation	—	39,558	
Less: short-term capital lease and lease facility financing obligations	(50)	(178)	
Long-term capital lease and lease facility financing obligations	$ 56	$ 52,919	

Operating leases in the table above includes future minimum lease payments for the ground lease for the Southport Facility and San Diego Facility Lease.

Legal Proceedings

The Company is involved in various legal proceedings arising in the normal course of business. The Company accrues for a loss contingency when it determines that it is probable, after consultation with counsel, that a liability has been incurred and the amount of such loss can be reasonably estimated. The Company believes that the results of any such contingencies, either individually or in the aggregate, will not have a material adverse effect on the Company's financial position, results of operations or cash flows.

Indemnification Agreements

In the ordinary course of business, we may provide indemnification of varying scope and terms to vendors, lessors, customers and other parties with respect to certain matters including, but not limited to, losses arising out of breach of such agreements or from intellectual property infringement claims made by third parties. These indemnities include indemnities to our directors and officers to the maximum extent permitted under applicable state laws. The maximum potential amount of future payments that we could be required to make under these indemnification agreements is, in many cases, unlimited. We have not incurred any material costs as a result of such indemnifications and are not currently aware of any indemnification claims.

7. Long-Term Debt

As of December 31, 2017, the Company had term loan and revolving obligations outstanding under an amended and restated credit agreement as well as senior subordinated notes outstanding under an amended and restated note purchase agreement. Additionally, as of December 31, 2017, a subsidiary of MLSC also had a separate term loan and revolving loan obligations outstanding under an amended note purchase agreement. These four outstanding agreements (collective referred to as the "2017 Combined Debt Agreements") remained outstanding until August 2, 2018.

In August 2018, Maravai Intermediate Holdings, LLC ("Intermediate"), a wholly-owned subsidiary of the Company, along with its subsidiaries (the "borrowers"), entered into a First Lien Credit Agreement (the "First Lien Agreement") and a Second Lien Credit Agreement (the "Second Lien Agreement") (collectively referred to as the "First and Second Lien Agreements") with lending institutions for term-loan borrowings ("First Lien Term Loan") totaling $250.0 million and for loans ("Second Lien Loan") totaling $100.0 million, (collectively referred to as the "First and Second Lien Loans") to refinance the 2017 Combined Debt Agreements (the "refinancing"), including repayment of all outstanding senior secured credit facilities and subordinated notes outstanding, and to allow for a $52.0 million distribution to the member of the Company. The First Lien Credit Agreement also provides for a revolving credit facility (the "Revolving Credit Facility") of $50.0 million for letters of credit and loans to be used for working capital and other general corporate financing purposes. Borrowings under the First and Second Lien Loans are unconditionally guaranteed by the Company, immediate parent of Intermediate, along with the existing and future domestic subsidiaries of the Company (subject to certain exceptions) as specified in the respective guaranty agreements, and are secured by a lien and security interest in substantially all of the assets of existing and future domestic subsidiaries of the Company that are loan parties.

The refinancing of the previous debt agreements was evaluated for modification and extinguishment accounting. Certain lenders participated in the Company's debt structure prior to the refinancing as well as in the Company's debt structure after the refinancing. For these lenders, to the extent that it was concluded that the present value of cash flows under the terms of the First and Second Lien Loans differed by less than 10% from the present value of the remaining cash flows of the previous debt agreements, the refinancing was accounted for as a modification of the related outstanding debt balances and for the remaining of these lenders, whose cash flows changed by greater than 10% on a present value basis, the refinancing was accounted for as an extinguishment of the related debt. Certain prior lenders did not participate in the refinancing and the repayment of their related outstanding debt balances has been accounted for as an extinguishment of debt. Proceeds of borrowings from new lenders was accounted for as a new debt financing. As part of the refinancing, the Company incurred various costs including a $4.0 million original issue discount, $6.6 million in third-party debt issuance costs, and a $1.6 million prepayment penalty related to the senior subordinated notes. Of this $12.2 million of costs, the entire $4.0 million original issue discount, $4.8 million of third-party debt issuance costs, and $0.8 million of the prepayment penalty has been capitalized in the accompanying balance sheet within long-term debt, which is subject to amortization over the term of the refinanced debt as an adjustment to interest expense using the effective interest method. Of the remaining $2.6 million of costs incurred, $0.9 million was associated with the extinguished debt and included in the loss on extinguishment of debt in the accompanying consolidated statement of operations for the year ended December 31, 2018 and $1.7 million was related to the modified debt and immediately expensed to interest expense in the accompanying consolidated statement of operations for the year ended December 31, 2018. In addition, immediately prior to the refinancing, the Company had $7.1 million of unamortized issuance costs and discounts associated with the previous debt agreements, of which $4.7 million related to the extinguished debt and has been included in the loss on extinguishment of debt in the accompanying consolidated statement of operations for the year ended December 31, 2018 and $2.4 million related to the modified debt, which remains capitalized in the accompanying consolidated balance sheet as a component of long-term debt subject to amortization over the term of the refinanced debt. The First Lien Term Loan is repayable in quarterly payments of $0.6 million beginning December 31, 2018 through June 30, 2025, with all remaining outstanding principal due in August 2025. The First Lien Term Loan includes prepayment provisions that allow the Company, at our option, to repay all or a portion of the principal amount at

any time. During the first twelve months after August 2018, prepayments are subject to a 1.00% prepayment premium. The Revolving Credit Facility allows the Borrowers to repay and borrow from time to time until August 2023, at which time all amounts borrowed must be repaid. Subject to certain exceptions and limitations, the Company is required to repay borrowings under the First Lien Term Loan and Revolving Credit Facility with the proceeds of certain occurrences, such as the incurrence of debt, certain equity contributions, and certain asset sales or dispositions.

Borrowings under the First Lien Credit Agreement bear interest (a) in the cash of the First Lien Term Loans, at the Borrowers' option either at (i) the Base Rate plus the applicable margin of 3.25% per annum based on the Company's net leverage ratio or (ii) The Adjusted Eurocurrency Rate plus the margin of 4.25% per annum and (b) in the case of the Revolving Credit Facility, at the Borrowers' option, either at (i) the Base Rate plus the applicable margin of 3.25% per annum with a stepdown to 3.00% based on the Company's first lien net leverage ratio or (ii) the Adjusted Eurocurrency Rate plus the margin of 4.25% per annum with a stepdown to 4.00% based on the Company's first lien net leverage ratio. The Base Rate is defined as the greatest of (a) the rate last quoted by The Wall Street Journal as the "Prime Rate" in the United States, (ii) the Federal Funds Rate plus 0.50% per annum, and (iii) the Adjusted Eurocurrency Rate for a one month interest period plus 1.00% per annum, (iv) solely with respect to the initial term loan. The Adjusted Eurocurrency Rate is defined as the greater of (a) with respect to the initial term loans the greater of (i) the Eurocurrency Rate for such interest period multiplied by the Statutory Reserve Rate (as such term is defined in the First Lien Credit Agreement), and (ii) 1.00% and (b) with respect to the Revolving Credit Facility, the Eurocurrency Rate for such interest period (which if negative will be deemed to be 0%) multiplied by the Statutory Reserve Rate. The "Eurocurrency Rate" is defined as the London Inter-bank Offered Rate (LIBOR) as displayed by Reuters (which if negative will be deemed to be 0.00%).

At December 31, 2018 and 2019, the interest rate on the First Lien Term Loan was 6.8125% and 6.0625%, respectively.

Accrued interest under the First Lien Credit Agreement is payable (a) quarterly in arrears with respect to Base Rate loans, (b) at the end of each interest rate period (or at each three-month interval in the case of loans with interest periods greater than three months) with respect to Eurocurrency Rate loans, (c) on the date of any repayment or prepayment, and (d) at maturity (whether by acceleration or otherwise). An annual commitment fee is applied to the daily unutilized amount under the Revolving Credit Facility at 0.50% per annum, with one stepdown to 0.375% per annum based on the Company's first lien net leverage ratio.

The Second Lien Credit Agreement includes voluntary prepayment provisions that allows the Borrowers, at their option, to repay all or a portion of the principal amount of the notes (ii) between August 2, 2019 and August 2, 2020, subject to a prepayment premium of 1.00% of the principal amount repaid.

If a change of control (as defined in the Amended and Restated Note Purchase Agreement) occurs, the Company must repay the outstanding principal amount plus a premium (calculated the same as redemption premium) and accrued and unpaid interest.

Borrowings under the Second Lien Credit Agreement bear interest, at the Company's option either at (a) the Base Rate plus the applicable margin of 7.0% per annum or (b) Adjusted Eurocurrency Rate plus the margin of 8.00% per annum. The "Base Rate" is defined as the greatest of (i) the rate last quoted by The Wall Street Journal as the "Prime Rate" in the United States, (ii) the Federal Funds Rate plus 0.50%, and (iii) Adjusted Eurocurrency Rate for a one month interest period plus 1% per annum, (iv) soley with respective to the initial term loans, 2.00% per annum and (v) for any loans that are not initial term loans, 1.00% per annum. The "Adjusted Eurocurrency Rate" is defined as (a) with respect to the initial term loans the greater of (i) the Eurocurrency Rate for such interest period multiplied by the Statutory Reserve Rate, and (ii) 1.00% and (b) with respect to the Revolving Credit Facility, the Eurocurrency Rate for such interest period (which if negative will be deemed to be 0%) multiplied by the Statutory Reserve Rate. The "Eurocurrency Rate" is defined as the London Inter-bank Offered Rate (LIBOR) as displayed by Reuters (which if negative will be deemed to be 0%).

At December 31, 2018 and 2019, the interest rate on the Second Lien Loan was 10.4% and 9.7%, respectively.

Accrued interest on Borrowings under the Second Lien Credit Agreement is payable (a) quarterly in arrears with respect to Base Rate loans, (b) at the end of each interest rate period (or at each three-month interval in the case of loans with interest periods greater than three months) with respect to Eurocurrency Rate Loans, (c) the date of any repayment or prepayment, and (iv) at maturity (whether by acceleration or otherwise).

Debt Covenants

The First Lien Credit Agreement requires that, as of the end of each fiscal quarter the net leverage ratio of Intermediate shall not be greater than 7.50 to 1.00.

The First and Second Lien Credit Agreements also contain negative and affirmative covenants in addition to the financial covenant in the First Lien Credit Agreement, including covenants that restrict the ability of the Company and its subsidiaries ability to, among other things, incur or prepay existing indebtedness, pay dividends or distributions, dispose of assets, engage in mergers and consolidations, make acquisitions or other investments, and make changes in the nature of the business. The First and Second Lien Credit Agreements contain certain objective events of default, including, without limitation, nonpayment of principal, interest or other obligations, violation of the covenants, insolvency, court ordered judgments, and change in control. The First and Second Lien Credit Agreements also require the Company to provide audited consolidated financial statements to the lenders no later than 120 days after year-end.

The First Lien Credit Agreement also requires mandatory prepayments to be calculated in 2019 upon certain excess cash flow as defined in the terms of the agreement to be paid beginning in 2020. As of December 31, 2019, no mandatory prepayment was required.

The Borrowers were in compliance with all of their debt covenants under the First and Second Lien Credit Agreements as of December 31, 2018 and 2019 and there were no events of default for the years ended December 31, 2019.

The Company's total debt at December 31 consisted of (in thousands):

	2018	2019
Term Loans	$ 249,375	$ 246,875
Senior Notes	100,000	100,000
Unamortized debt issuance costs	(11,325)	(9,592)
Total long-term debt	338,050	337,283
Less: current portion	(2,500)	(2,500)
Total long-term debt, less current portion	$ 335,550	$ 334,783

As of December 31, 2019, the aggregate future principal maturities of the Company's debt obligations for each of the next five years, based on contractual due dates, are as follows (in thousands):

2020	$ 2,500
2021	2,500
2022	2,500
2023	2,500
2024	2,500
Thereafter	334,375
Total debt	$ 346,875

Interest Rate Cap Agreements

As of December 31, 2018 and 2019, the Company has entered into four interest rate cap agreements with a financial institution to manage its variable interest rate risk on a portion of its credit borrowings under the First and Second Lien Agreements. As of December 31, 2018 and 2019, the fair value of the Company's interest rate cap agreements were insignificant and were included in other non-current assets in the accompanying consolidated balance sheets. The change in fair value during the years ended December 31, 2018 and 2019 was also insignificant and was recognized as other income (expense) in the accompanying consolidated statement of operations.

8. Member's Equity

Pursuant to the Company's limited liability company agreement, the Company has established a single class of common units with MLSH 1 as its sole member. The Company is authorized to issue up to 1,000 common units. All authorized 1,000 common unites have been issued and are outstanding. MLSH 1 as the member, is not obligated to make capital contributions to the Company. The Company's profits and losses shall be allocated to MLSH 1 as determined by the Board of Directors. MLSH 1, as the member of the Company, is not liable, solely by reason of being a member, for the debts, obligations, or liabilities of the Company whether arising in contract or tort under judgment, decree, or other of a court; or otherwise. The Company will dissolve only upon the written consent of MLSH 1. The Company's common units have no conversion rights and no explicit redemption rights. No capital contributions were received by the Company from MLSH 1 in 2018 or 2019

Pursuant to the Company's limited liability company agreement, distributions to MLSH 1 shall be made at the discretion of the Company's the Board of Directors.

The Company's Board of Directors approved and distributions were made to MLSH 1 in the amount of $52.1 million during the year-ended December 31, 2018. No distributions were made to MLSH 1 during the year ended December 31, 2019

MLSC Incentive Units

The Company's majority-owned subsidiary, MLSC, is authorized and at the discretion of the MLSC Board, under its Limited Liability Company Agreement ("MLSC LLC Agreement"), as amended in October 2016, to issue common units that can be designated as Incentive Units. The Incentive Units may be subject to either a combination of service, market or performance vesting conditions. Vested Incentive Units are treated as common units for purposes of distributions.

During the year ended December 31, 2017, MLSC awarded 1,820,000 incentive units ("MLSC Incentive Units") to several employees of its subsidiary, of which 364,000 included performance condition vesting. Awards which vest based solely on a service condition provide for cliff-vesting over five years. The MLSC Incentive Units that include performance conditions tied to the achievement of certain cash distribution multiples provide for full vesting upon meeting the performance condition. No compensation cost has been recorded for the MLSC Incentive Units with performance conditions as achieving the cash distribution multiples performance condition associated with these awards was not considered probable.

All vested MLSC Incentive Units are subject to repurchase for fair value at MLSC's option upon a voluntary or involuntary separation event that is not deemed to be for cause and only after seven months have passed since the separation event. During 2018 and 2019, the Company repurchased 12,000 and 160,000, respectively, MLSC Incentive Units for $0.2 million and an insignificant amount, respectively.

MLSC Incentive Unit activity during the periods indicated is as follows:

	Number of Unvested MLSC Incentive Units	Weighted Average Grant Date Fair Value Per Unit
Balance as of January 1, 2018	2,539,800	$ 0.88
MLSC Units forfeited	(340,000)	0.90
MLSC Units vested	(729,200)	0.87
Balance as of December 31, 2018	1,470,600	$ 0.87
MLSC Units vested	(649,200)	0.87
Balance as of December 31, 2019	821,400	$ 0.88

No MLSC Incentive Units were granted in 2018 or 2019.

Unit-based compensation expense for the years ended December 31, 2018 and 2019 was approximately $0.6 million and $0.4 million, respectively.

As of December 31, 2018 and 2019, there were 2,905,000 and 2,745,000 and MLSC Incentive Units outstanding, respectively, of which 1,470,600 and 821,400 remained unvested, respectively. The total fair value of the MLSC Incentive Units that vested in 2018 and 2019 was approximately $0.6 million in each of the periods. At December 31, 2018, and 2019, 12.1 million additional MLSC units were available for grant.

MLSH 1 Incentive Units

The Company has entered into agreements with certain executives and board members whereby those employees and board members were granted incentive units in MLSH 1, the Company's parent and sole member ("MLSH 1 Incentive Units"). All MLSH 1 Incentive Unit awards are subject to a market condition which is subject to the achievement of a certain investment return threshold that increases on a compounding basis annually and a service condition subject to their continued employment. Certain MLSH 1 Incentive Unit awards also contain performance conditions tied to the consummation of a business acquisition. Other MLSH 1 Incentive Unit awards contain a performance condition tied to the achievement of certain cash distribution multiples. The fair value of MLSH 1 Incentive Unit awards is measured at the grant date and is recognized as expense over the requisite service period for the awards.

During the years ended December 31, 2018 and 2019, all MLSH 1 Incentive Unit awards with performance conditions were subject solely to the achievement of defined cash distribution multiples. No compensation cost has been recorded for the MLSH 1 Incentive Unit awards with performance conditions as achieving the cash distribution multiples performance condition associated with these awards was still not considered probable.

Total compensation cost recognized by the Company during each of the years ended December 31, 2018 and 2019, for all MLSH 1 Incentive Unit awards, was approximately $1.5 million and $1.3 million and, respectively.

During the year ended December 31, 2018, a total of 23,000 MLSH 1 Incentive Unit awards were granted of which 3,000 included performance condition vesting. During the year ended December 31, 2019, a total of 169,500 MLSH 1 Incentive Unit awards were granted of which 34,500 included performance condition vesting. The MLSH 1 Incentive Unit awards that include market and service conditions provide for cliff-vesting generally over four or five years. The MLSH 1 Incentive Unit awards that include market and performance conditions provide for full vesting upon meeting the performance condition. No compensation cost has been recorded for the MLSH 1 Incentive Unit awards with performance conditions as achieving performance conditions associated with these awards was still not considered probable.

All vested MLSH 1 Incentive Unit awards are subject to repurchase for fair value at the Company's option upon a voluntary or involuntary separation event that is not deemed to be for cause. No MLSH 1 Incentive Unit awards were repurchased in 2018. During 2019, MLSH 1 repurchased 1,000 MLSH 1 Incentive Unit awards for an insignificant amount.

MLSH 1 Incentive Unit award activity during the periods indicated is as follows:

	Number of Unvested MLSH 1 Incentive Unit awards	Weighted Average Grant Date Fair Value
Balance as of January 1, 2018	975,500	$ 8.37
MLSH 1 Incentive Unit awards granted	23,000	10.53
MLSH 1 Incentive Unit awards forfeited	(35,000)	6.69
MLSH 1 Incentive Unit awards vested	(168,500)	6.33
Balance as of December 31, 2018	795,000	$ 8.91
MLSH 1 Incentive Unit awards granted	169,500	18.60
MLSH 1 Incentive Unit awards forfeited	(6,500)	11.68
MLSH 1 Incentive Unit awards vested	(170,900)	6.38
Balance as of December 31, 2019	787,100	$ 11.53

As of December 31, 2018 and 2019, there were 1,215,000 and 1,377,500 MLSH 1 Incentive Unit awards outstanding of which and 795,000 and 787,100 had not yet vested, respectively. The fair value of the units underlying the MLSH 1 Incentive Unit awards was estimating using the aggregate implied equity value of MLSH 1 using a weighting of discounted cash flow analysis, comparable public company analysis and comparable transactions analysis. An Option-Pricing Method ("OPM") was then used to allocate the total equity value of MLSH 1 to the different classes of equity according to their rights and preferences. To apply the OPM, volatility was estimated based on the historical volatility of similar public companies' stock price over a preceding period commensurate with the expected term of the MLSH 1 Incentive Unit awards. The Company estimated the expected term of the MLSH 1 Incentive Unit awards was estimated considering the timing and probabilities of a liquidity event. The risk-free interest rate for the expected term of the MLSH 1 Incentive Unit awards was based on the U.S. Treasury yield curve in effect at the time of grant. Compensation expense related to the MLSH 1 Incentive Unit awards during the years ended December 31, 2018 and 2019 were $0.4 million and an insignificant amount, respectively.

The following table sets forth the compensation expense related to both the MLSC Incentive Units and MLSH 1 Incentive Unit awards included in the accompanying consolidated statements of operations for the year ended December 31, (in thousands):

	2018	2019
Cost of revenue	$ 38	$ 22
Research and development	297	211
Selling, general and administrative	1,786	1,446
	$ 2,121	$ 1,679

At December 31, 2018 and 2019, there was $2.8 million and $3.7 million of total unrecognized compensation cost related to unvested MLSH 1 Incentive Units and MLSC Incentive Unit awards not subject to a performance condition that is expected to be recognized over a weighted average period of 2.5 and 1.9 years, respectively.

As of December 31, 2018 and 2019, there was $3.6 million and $4.1 million, respectively, of unrecognized compensation cost associated with the total of all MLSH 1 Incentive Units and MLSC Incentive Unit awards subject to a performance condition.

9. Income Taxes

The Company and a number of its subsidiaries are treated as flow-through entities for federal income tax purposes. The income or loss generated by these entities are not taxed at the LLC level. As required by U.S. tax law, income or loss generated by these LLCs flows through to MLSH 1, the Company's sole member. As such, the Company's income tax provision consists solely of the activities of its taxable subsidiaries which are taxed as corporations for federal income tax purposes.

The components of loss from operations for the Company's taxable subsidiaries before provision for income taxes for the years ended December 31, are as follows (in thousands):

	2018	2019
U.S.	$ (2,471)	$ (2,484)
International	(206)	(272)
	$ (2,677)	$ (2,756)

Income tax expense (benefit) consisted of the following for the years ended December 31 (in thousands):

	2018	2019
Current tax expense		
Federal	$ 87	$ 505
State	6	2
International	—	—
	93	507
Deferred tax expense (benefit)		
Federal	847	(1,224)
State	(554)	65
International	31	—
	324	(1,159)
Total income tax expense (benefit)	$ 417	$ (652)

A reconciliation between the Company's effective tax rate and the applicable U.S. federal statutory income tax rate as of December 31 (in thousands) is summarized as follows:

	2018	2019
Federal statutory rate	21.0%	21.0%
State and local taxes, net of federal benefits	20.5%	(2.4%)
Deferred tax revaluation	(52.1%)	(0.1%)
One-time transition tax	(4.3%)	—
Stock based compensation	(2.4%)	(1.7%)
Research and development credit	2.9%	1.9%
Intercompany sale of inventory	1.0%	1.2%
Uncertain tax positions	(0.6%)	5.4%
Other	(1.6%)	(1.6%)
Effective tax rate	(15.6%)	23.7%

Deferred tax assets and liabilities as of December 31 (in thousands) are summarized as follows:

	2018	2019
Deferred tax assets:		
Interest limitation	$ 1,331	$ 2,333
Tax loss and credit carryforwards	982	455
Accruals	458	454
Inventories	362	19
Other	109	—
Total deferred tax assets	3,242	3,261
Valuation allowance	(1,565)	(1,561)
Total deferred tax assets, net of valuation allowance	$ 1,677	$ 1,700
Deferred tax liabilities:		
Intangibles	$ (14,127)	$ (13,007)
Property and equipment	(3,089)	(3,064)
Transaction costs	(303)	(326)
Other	(14)	—
Total deferred tax liabilities	(17,533)	(16,397)
Total net deferred tax liabilities	$ (15,856)	$ (14,697)

The Company's valuation allowance primarily relates to Internal Revenue Code ("IRC") 163(j) interest expense and insignificant foreign NOL carryforwards. As of December 31, 2018 the Company recorded a full valuation allowance against its IRC 163(j) interest expense carryforward based on negative evidence associated with the Company's projection of income and financing plans. As of December 31, 2019, the Company only recorded a partial valuation allowance against IRC 163(j) due to expected future income generated by the sale of land, building and related building improvements in 2020 (Note 14). The net change in valuation allowance was insignificant for the year ended December 31, 2019 due to increases in the IRC 163(j) and foreign NOL carryforwards offset by the release in valuation allowance on the 163(j) carryforward due to expected future taxable income.

Based on its previous indefinite reinvestment assertion, the Company has not historically provided deferred taxes on earnings in certain non-U.S. subsidiaries because such earnings were intended to be indefinitely reinvested in its international operations. With the introduction of a modified territorial tax system in the 2017 Tax Act, the Company has reviewed its previously stated intent and no longer indefinitely reinvests the undistributed earnings of its foreign operations. For the years ending December 31, 2018 and 2019, the amount of undistributed foreign earnings was $1.4 million and $1.2 million, respectively. The Company believes any unrecorded liabilities related with these earnings are not material.

As of December 31, 2018, the Company had U.S. Federal NOL carryforwards of $2.7 million. As of December 31, 2019, the Company had no U.S. Federal NOL carryforwards. As of December 31, 2018 and 2019, the Company had state NOL carryforwards of $2.4 million and $1.4 million, respectively, available to reduce future taxable income. State NOL carryforwards to future periods begin to expire in 2034. As of December 31, 2018 and 2019, the Company had no U.S. Federal Research and Development tax credit carryforwards. As of December 31, 2018 and 2019, the Company had California Research and Development Tax Credit carryforwards of $0.1 million and $0.1 million, respectively, the California Research and Development Tax Credits are not subject to expiration.

On June 29, 2020, Assembly Bill 85 ("A.B. 85") was signed into California law. A.B. 85 provides for a three-year suspension of the use of net operating losses for medium and large businesses and a three-year cap on the use of business incentive tax credits to offset no more than $5.0 million of tax per year. A.B. 85 suspends the use of net operating losses for taxable years 2020, 2021 and 2022 for certain taxpayers with taxable income of $1.0 million or more. The carryover period for any net operating losses that are suspended under this provision will be extended.

A.B. 85 also requires that business incentive tax credits including carryovers may not reduce the applicable tax by more than $5.0 million for taxable years 2020, 2021 and 2022. The Company is currently assessing the impact of adopting this standard on its consolidated financial statements but does not expect the impact to be material.

The Company had foreign NOL carryforwards of $1.0 million and $1.3 million for the years ending December 31, 2018 and 2019, respectively. Substantially all of the foreign NOLs do not have an expiration date.

In response to the COVID-19 pandemic, the Coronavirus Aid, Relief and Economic Security Act ("CARES Act") and the Families First Coronavirus Response Act ("FFCR Act") were signed into law in March 2020. The CARES Act lifts certain deduction limitations originally imposed by the 2017 Tax Act. Corporate taxpayers may carryback NOLs originating during 2018 through 2020 for up to five years, which was not previously allowed under the 2017 Tax Act. The CARES Act also eliminates the 80% of taxable income limitations by allowing corporate entities to fully utilize NOL carryforwards to offset taxable income in 2018, 2019 or 2020. Taxpayers may generally deduct interest up to the sum of 50% of adjusted taxable income plus business interest income (30% limit under the 2017 Tax Act) for tax years beginning January 1, 2019 and 2020. The CARES Act allows taxpayers with alternative minimum tax credits to claim a refund in 2020 for the entire amount of the credits instead of recovering the credits through refunds over a period of years, as originally enacted by the 2017 Tax Act. The CARES Act and FFCR Act also included provisions related to refundable payroll tax credits, deferment of employer side social security payments.

In addition, the CARES Act raises the corporate charitable deduction limit to 25% of taxable income and makes qualified improvement property generally eligible for 15-year cost-recovery and 100% bonus depreciation. The CARES Act will be applicable to the Company in 2020 and is expected to affect the Company's ability to utilize certain tax credit carryforwards related to the deduction of interest that were limited under the 2017 Tax Act. The expected impact on the 2020 consolidated financial statements approximates $1.0 million. The Company is also evaluating other effects the CARES Act and FFCR Act will have on its consolidated financial statements.

As of December 31, 2018 and 2019, the Company had $0.1 million and $0.2 million, respectively, of unrecognized tax benefits, all of which would affect its effective tax rate if recognized. We do not expect any significant increases or decreases to our unrecognized tax benefits in the next twelve months. The Company recognizes interest as a component of income tax expense.

The aggregate changes in the balance of the Company's unrecognized tax benefits, as of December 31, were as follows (in thousands):

	2018	2019
Balance, beginning of year	$106	$136
Gross increases based on tax positions related to current year	34	5
Gross increase based on tax positions related to prior years	—	105
Gross decreases based on tax positions related to prior years	(4)	(38)
Balance, end of year	$136	$208

The Company files income tax returns in the U.S. federal jurisdiction, California, Canada, and the United Kingdom and is not under audit by any taxing authority in any of these jurisdictions. In the normal course of business the Company is subject to examination by taxing authorities throughout the world. With a few exceptions, the Company is no longer subject to U.S. federal, state, and local, or non-U.S. income tax examinations for years before 2015 except for utilization of net operating loss carryforwards.

10. Net Loss per Common Unit Attributable to the Member of Maravai

Net loss per common unit attributable to our member for the years ended December 31, 2018 and 2019 is based on the weighted average number of common units outstanding during the period. The members' equity of MLSC is

comprised of Class A and Class B preferred units, MLSC Incentive Units and common units, each with participation rights. The MLSC preferred units are entitled to cumulative dividends of 8% compounded annually, up to an additional 4%, also compounded annually, to the extent of remaining unallocated earnings. The preferred unitholders of MLSC are required, however, to share a portion of the additional 4% in dividends with the holders of MLSC Incentive Units based on a formula defined in the MLSC LLC Agreement. The Company determined that vested MLSC Incentive Units and MLSC Class A and B Preferred Units are participating securities under the two-class method at the MLSC subsidiary level, however, they do not have a contractual obligation to share in losses, and therefore no undistributed losses have been allocated to them. MLSH 1 Incentive Units are granted by the parent of the Company, and as a result, do not represent potential common units of the Company.

Diluted net loss per common unit attributable to our member is computed by adjusting the net loss and the weighted-average number of common units outstanding to give effect to potentially dilutive securities. The Company has issued potentially dilutive instruments in the form of MLSC Incentive Units granted to employees and officers of MLSC. The Company did not include these MLSC Incentive Units in its calculation of diluted loss per unit during the years ended December 31, 2018 and 2019, because to include them would be anti-dilutive due to the Company's net loss during such periods.

The following table sets forth the computation of basic and diluted net loss per common unit attributable to our member for the years ended December 31 (in thousands, except units and per unit amounts):

	2018	2019
Net loss per common unit—basic and diluted:		
Net Loss	$ (16,915)	$ (5,201)
Less: preferred unit dividends attributable to noncontrolling interest	(5,259)	(5,680)
Add: loss attributable to common noncontrolling interest	4,446	2,400
Net loss attributable to the Company common unitholder	$ (17,728)	$ (8,481)
Weighted average common units outstanding	1,000	1,000
Net loss per common unit—basic and diluted:	$ (17,727.35)	$ (8,481.36)

The following common unit equivalents have been excluded from the calculations of diluted net loss per common unit for the years ended December 31 because their inclusion would be antidilutive:

	2018	2019
Time-based incentive units	2,896,000	2,896,000
Performance-based incentive units	249,000	249,000
	3,145,000	3,145,000

11. Segments

Operating segments are defined as components of an enterprise about which separate financial information is available that is evaluated regularly by the chief operating decision maker, or decision-making group, in deciding how to allocate resources and in assessing performance. When determining the reportable segments, the Company aggregated operating segments based on their similar economic and operating characteristics. Segment results are presented in the same manner as we present our operations internally to make operating decisions and assess performance. The accounting policies for the segments are the same as those described in Significant Accounting Policies (Note 1). The Company's financial performance is reported in three segments. A description of each segment follows:

- *Nucleic Acid Production*: focuses on the manufacturing and sale of highly modified nucleic acids products to support the needs of customers' research, therapeutic and vaccine programs. This segment also provides research products for labeling and detecting proteins in cells and tissue samples.

- *Biologics Safety Testing*: focuses on manufacturing and selling biologics safety and impurity tests and assay development services that are utilized by our customers in their biologic drug manufacturing spectrum.
- *Protein Detection*: focuses on manufacturing and selling labeling and visual detection reagents to scientific research customers for their tissue-based protein detection and characterization needs.

The Company has determined that adjusted earnings before interest, tax, depreciation, and amortization ("Adjusted EBITDA") is the profit or loss measure that the CODM uses to make resource allocation decisions and evaluate segment performance. Adjusted EBITDA assists management in comparing the segment performance on a consistent basis for purposes of business decision-making by removing the impact of certain items that management believes do not directly reflect the core operations and, therefore, are not included in measuring segment performance. The Company defines Adjusted EBITDA as net income before interest, taxes, depreciation and amortization, certain non-cash items, and other adjustments that we do not consider in our evaluation of ongoing operating performance from period to period. Corporate costs are managed on a standalone basis and not allocated to segments.

Following is financial information relating to the operating segments (in thousands):

As of and for the year ended December 31, 2018	Nucleic Acid Production	Biologics Safety Testing	Protein Detection	Corporate	Total
Revenue	$ 60,057	$ 38,492	$ 25,284	$ —	$ 123,833
Adjusted EBITDA	$ 16,751	$ 31,199	$ 13,846	$ (8,796)	$ 53,000

As of and for the year ended December 31, 2019	Nucleic Acid Production	Biologics Safety Testing	Protein Detection	Corporate	Total
Revenue	$ 72,602	$ 44,416	$ 26,122	$ —	$ 143,140
Adjusted EBITDA	$ 22,229	$ 36,371	$ 14,603	$ (11,189)	$ 62,014

There was no inter-segment activity for any of the periods presented and all of the revenue for each segment is from external customers.

The Company does not allocate assets to its reportable segments as they are not included in the review performed by the CODM for purposes of assessing segment performance and allocating resources. Excluding approximately $0.3 million associated with a building in the United Kingdom, all of the Company's long-lived assets are located within the United States.

A reconciliation of Adjusted EBITDA to net loss, the most directly comparable GAAP measure, is set forth below (in thousands):

	Year Ended December 31,	
	2018	2019
Net Loss	$ (16,915)	$ (5,201)
Add:		
Amortization	20,122	20,274
Depreciation	2,225	3,810
Interest expense	27,399	29,959
Income tax expense (benefit)	417	(652)
EBITDA	33,248	48,190
Acquisition contingent consideration	939	322
Loss on extinguishment of debt	5,622	—
Acquisition integration costs	7,529	6,170
Amortization of purchase accounting inventory step-up	2,967	1,856
Unit-based compensation	2,121	1,679
GTCR management fees	574	523
Merger and acquisition related expenses	—	3,274
Adjusted EBITDA	$ 53,000	$ 62,014

12. Employee Benefit Plans

The Company sponsors a 401(k) plan (the "Maravai LifeSciences 4019k) Plan") that stipulates that eligible employees can elect to contribute to the 401(k) Plan, subject to certain limitations, on a pretax basis. The Company provides for a match of up to 50% of employee contributions up to the first 6% of salary. The Company match vest over a four-year term. In February 2019, a retirement saving plan of one of our subsidiaries was closed and all funds in the plan were rolled over into the Maravai LifeSciences 401(k) Plan.

The Company also maintains a non-qualified Long-Term Incentive Plan ("LTIP") for legacy employees of one of their subsidies which is not subject to the Employee Retirement Income Security Act of 1974.

Total contributions by the Company to these plans were approximately and $1.0 million and $1.2 million for the years ended December 31, 2018 and 2019, respectively.

13. Related Party Transactions

MLSH 1 has an advisory services agreement with GTCR, LLC, MLSH 1's majority owner. Under this agreement GTCR provides the Company financial and management consulting services in the areas of corporate strategy, budgeting for future corporate investments, acquisition and divestiture strategies and debt and equity financings. The advisory services agreement provides that the Company pay placement fees to GTCR of 1.0% of the gross amount of any debt or equity financings. During the years ended December 31, 2018 and 2019, no placement fees were incurred. The advisory services agreement provides that the Company pay a $0.1 million quarterly management fee to GTCR commencing on the date of the first acquisition. For each of the years ended December 31, 2018 and 2019, the Company incurred approximately $0.5 million in management fees to GTCR which were paid in full as of December 31, 2019 and 2018, respectively.

The Company also reimburses GTCR for out-of-pocket expenses incurred while providing the above professional services. During the years ended December 31, 2018 and 2019, the Company incurred out-of-pocket expenses to GTCR of $0.1 million and $2.4 million, respectively. Of these balances, the amounts included in accrued expense at December 31, 2019 approximated $2.4 million. The amounts included in accounts payable and accrued expenses were insignificant as of December 31, 2018 and 2019.

The noncontrolling interest in MLSC represents equity interest that was retained by the shareholders of the MLSC entity prior to its acquisition by the Company. The President of Cygnus Technologies is the majority owner of the noncontrolling interest.

The Company leases a facility (Note 6), which is owned by an entity controlled by a close relative of the President of one of its subsidiaries. The close relative was also previously an employee of the Company who terminated their employment during the year ended December 31, 2018. The President of this subsidiary also personally financed a loan to this entity which was used to acquire the property leased by the Company. For the years ending December 31, 2018 and 2019, the Company paid $0.2 million in lease payments for the leased facility.

14. Subsequent Events

The Company has evaluated subsequent events through the date of the report of the Independent Registered Public Accounting Firm.

In January 2020, the Company completed the sale of land, building and related building improvements specific to its facility in Burlingame, California for approximately $25.2 million, net of tax. Simultaneously, with the close of the transaction, the Company leased the property for a two-and-a-half-year period. The future lease obligations under the lease, which were excluded from the future lease obligation table above in Note 6, approximate $3.1 million.

In March 2020, the Company acquired MockV Solutions, Inc. (“MockV”), a private entity, for total gross cash consideration equal to $3.0 million minus debt, transaction expenses, and half of the amount required to maintain the patents between signing and closing, plus cash held by MockV at the time of the acquisition. The acquisition also provides for the possibility of future contingent consideration up to $9.0 million, based on the entity’s achievement of long-term sales targets at various points of measurement, as defined by the purchase agreement.

In March 2020, the Company drew down approximately $15.0 million on its existing Revolving Credit Facility to provide financing for the acquisition of MockV and other operating uses.

In March 2020, the World Health Organization declared the global novel coronavirus disease 2019(“COVID-19”), outbreak a pandemic. While certain impacts of COVID-19 have been favorable to sale of the Company’s products and services, Company cannot at this time predict the specific extent, duration, or full impact that the COVID-19 outbreak will have on its financial condition and operations. The impact of theCOVID-19 coronavirus outbreak on the financial performance of the Company may depend on future developments, including the duration and spread of the outbreak and related governmental advisories and restrictions. In addition, the Company could see some limitations on employee resources that would otherwise be focused on our operation, including but not limited to sickness of employees or their families, the desire of employees to avoid contact with large groups of people, and increased reliance on working from home.

In September 2020, the Company amended its San Diego Facility lease agreement to provide for additional manufacturing and office space. The amended lease agreement provides for tenant improvements for construction prior to occupancy, rent concessions, and escalating rent payments over the life of the lease which now expires in May 2023. The total future minimum lease payments under the amended lease agreement are $55.6 million, with the option to renew subject to certain conditions.


maravai
LifeSciences

PART II
INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution

The following table sets forth all costs and expenses, other than the underwriting discounts and commissions payable by us, in connection with the offer and sale of the securities being registered. All amounts shown are estimates except for the Securities and Exchange Commission ("SEC") registration fee and the FINRA filing fee.

	Amount to be Paid
SEC registration fee	$ *
FINRA filing fee	*
listing fee	*
Advisory fees payable to Perella Weinberg Partners LP	*
Printing expenses	*
Legal fees and expenses	*
Accounting fees and expenses	*
Transfer agent fees and registrar fees	*
Miscellaneous expenses	*
Total expenses	$ *

* To be provided by amendment.

Item 14. Indemnification of Directors and Officers

Section 102(b)(7) of the DGCL allows a corporation to provide in its certificate of incorporation that a director of the corporation will not be personally liable to the corporation or its shareholders for monetary damages for breach of fiduciary duty as a director, except where the director breached the duty of loyalty, failed to act in good faith, engaged in intentional misconduct or knowingly violated a law, authorized the payment of a dividend or approved a stock repurchase in violation of Delaware corporate law or obtained an improper personal benefit. Our certificate of incorporation will provide for this limitation of liability.

Section 145 of the DGCL ("Section 145") provides that a Delaware corporation may indemnify any person who was, is or is threatened to be made party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of such corporation), by reason of the fact that such person is or was an officer, director, employee or agent of such corporation or is or was serving at the request of such corporation as a director, officer, employee or agent of another corporation or enterprise. The indemnity may include expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding, provided that such person acted in good faith and in a manner he reasonably believed to be in or not opposed to the corporation's best interests and, with respect to any criminal action or proceeding, had no reasonable cause to believe that his conduct was illegal. A Delaware corporation may indemnify any persons who are, were or are threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation by reason of the fact that such person is or was a director, officer, employee or agent of another corporation or enterprise. The indemnity may include expenses (including attorneys' fees) actually and reasonably incurred by such person in connection with the defense or settlement of such action or suit, provided that such person acted in good faith and in a manner he reasonably believed to be in or not opposed to the corporation's best interests, provided that no indemnification is permitted without judicial approval if the officer, director, employee or agent is adjudged to be liable to the corporation. Where an officer or director is successful on the merits or otherwise in the defense of any action referred to above, the corporation must indemnify him against the expenses which such officer or director has actually and reasonably incurred.

Section 145 further authorizes a corporation to purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation or enterprise, against any liability asserted against him and incurred by him in such capacity, or arising out of his status as such, whether or not the corporation would otherwise have the power to indemnify him under Section 145.

Our bylaws will provide that we will indemnify our directors and officers to the fullest extent authorized by the DGCL and must also pay expenses incurred in defending any such proceeding in advance of its final disposition upon delivery of an undertaking by or on behalf of an indemnified person to repay all amounts so advanced if it should be determined ultimately that such person is not entitled to be indemnified under this section or otherwise.

Upon completion of this offering, we intend to enter into indemnification agreements with each of our executive officers and directors. The indemnification agreements will provide the executive officers and directors with contractual rights to indemnification, expense advancement and reimbursement, to the fullest extent permitted under the DGCL.

The indemnification rights set forth above shall not be exclusive of any other right which an indemnified person may have or hereafter acquire under any statute, provision of our certificate of incorporation or bylaws, agreement, vote of shareholders or disinterested directors or otherwise.

We will maintain standard policies of insurance that provide coverage (1) to our directors and officers against loss arising from claims made by reason of breach of duty or other wrongful act and (2) to us with respect to indemnification payments that we may make to such directors and officers. The proposed form of Underwriting Agreement to be filed as Exhibit 1.1 to this Registration Statement provides for indemnification of our directors and officers by the underwriters party thereto against certain liabilities arising under the Securities Act of 1933 (the "Securities Act") or otherwise.

Item 15. Recent Sales of Unregistered Securities

Set forth below is information regarding securities sold by us within the past three years that were not registered under the Securities Act. Also included is the consideration, if any, received by us for such securities and information relating to the section of the Securities Act, or rule of the SEC, under which exemption from registration was claimed.

Since January 1, 2017, we have made sales of the following unregistered securities:

- On August 25, 2020, Maravai LifeSciences Holdings, Inc. issued 1,000 shares of its Class A common stock to Maravai LifeSciences Holdings, LLC for $10.00. The issuance of such shares of Class A common stock was not registered under the Securities Act of 1933, as amended, the Securities Act, because the shares were offered and sold in a transaction exempt from registration under Section 4(a)(2) of the Securities Act.

The offers and sales of the above securities were deemed to be exempt from registration under the Securities Act in reliance upon Section 4(a)(2) of the Securities Act or Regulation D promulgated thereunder, or Rule 701 promulgated under Section 3(b) of the Securities Act, as transactions by an issuer not involving any public offering or pursuant to benefit plans and contracts relating to compensation as provided under Rule 701. The recipients of the above securities represented their intentions to acquire the securities for investment only and not with a view to or for sale in connection with any distribution thereof. Appropriate legends were placed upon any stock certificates issued in these transactions. All recipients had adequate access, through their relationships with us, to information about us. The sales of these securities were made without any general solicitation or advertising.

Item 16. Exhibits and Financial Statement Schedules

(i) Exhibits

Exhibit Number	Description
1.1*	Form of Underwriting Agreement
3.1*	Form of Amended and Restated Certificate of Incorporation of Maravai LifeSciences Holdings, Inc. to be in effect at or prior to the consummation of this offering
3.2*	Form of Amended and Restated Bylaws of Maravai LifeSciences Holdings, Inc. to be in effect upon the closing of this offering
4.1*	Form of Class A Common Stock Certificate
4.2*	Registration Rights Agreement
5.1*	Opinion of Kirkland & Ellis LLP
10.1*+	Maravai LifeSciences Holdings, Inc. 2020 Omnibus Incentive Plan
10.2+§	Senior Management Agreement, dated as of March 18, 2014, among Maravai Life Sciences Holdings, LLC, Maravai Life Sciences, Inc. and Carl Hull
10.3+§	Amended and Restated Senior Management Agreement, dated as of August 4, 2015, among Maravai Life Sciences Holdings, LLC, Maravai Life Sciences, Inc. and Eric Tardif
10.4+§	Senior Management Agreement, dated as of May 30, 2017, among Maravai Life Sciences Holdings, LLC, Maravai Life Sciences, Inc. and Kevin M. Herde
10.5+§	Senior Management Agreement, dated as of December 27, 2017, among Maravai Life Sciences Holdings, LLC, TriLink Biotechnologies, LLC and Brian Neel
10.6+§	Senior Management Agreement, dated as of December 27, 2017, among MLSC Holdings, LLC, Cygnus Technologies, LLC and Christine Dolan
10.7*+	Form of Securities Grant Agreement
10.8*	Form of Tax Receivable Agreement
10.9*	Form of Exchange Agreement
10.10*	Form of Amended and Restated Operating Agreement of Topco LLC
10.11*+	Maravai LifeSciences Holdings, Inc. 2020 Employee Stock Purchase Plan
10.12*	Form of Director and Officer Indemnification Agreement
10.13§	First Lien Credit Agreement, dated as of August 2, 2018, among Maravai Intermediate Holdings, LLC, Cygnus Technologies, LLC, Trilink Biotechnologies, LLC, Vector Laboratories, Inc., Maravai Topco Holdings, LLC and JPMorgan Chase Bank, N.A.
10.14§	Second Lien Credit Agreement, dated as of August 2, 2018, among Maravai Intermediate Holdings, LLC, Cygnus Technologies, LLC, Trilink Biotechnologies, LLC, Vector Laboratories, Inc., Maravai Topco Holdings, LLC and Antares Capital LP
10.15§	Distribution Agreement, dated January 14, 2019, between Cygnus Technologies, LLC and Beijing XMJ Scientific Co. Ltd.
10.16§	Lease Agreement, dated as of January 10, 2020, between Shac Ingold Apartments LLC, and Vector Laboratories, Inc., as amended

Exhibit Number	Description
10.17§	Lease Agreement, dated as of September 23, 2019, between TransDulles Center, Inc., and Glen Research Corporation, as amended
10.18§	Lease Agreement, dated as of July 13, 2018, between 10770 Wateridge Investors LLC, and Trilink Biotechnologies, LLC, as amended
10.19§	Lease Agreement, dated as of October 6, 2016, between Arame, LLC, and Cygnus Technologies, LLC, as amended
10.20	Second Amended and Restated Advisory Agreement, dated September 15, 2016, between GTCR Management XI LP, Vector Laboratories, Inc. and TriLink Biotechnologies, LLC
10.21+§	Investment and Director Compensation Agreement, dated as of January 1, 2017, between Maravai Life Sciences Holdings, LLC, and Robert B. Hance
10.22+§	Investment and Director Compensation Agreement, dated as of January 8, 2020, between Maravai Life Sciences Holdings, LLC, and Gregory T. Lucier
10.23+§	Investment and Director Compensation Agreement, dated as of August 10, 2016, between Maravai Life Sciences Holdings, LLC, and Murali K. Prahalad
21.1*	List of subsidiaries of Maravai LifeSciences Holdings, Inc.
23.1*	Consent of Independent Registered Public Accounting Firm, as to Maravai LifeSciences Holdings, Inc.
23.2*	Consent of Independent Registered Public Accounting Firm, as to Maravai Topco Holdings, LLC
23.3*	Consent of Kirkland & Ellis LLP (included in Exhibit 5.1)
24.1*	Powers of Attorney (included on signature page)

* Indicates to be filed by amendment.
\+ Indicates a management contract or compensatory plan or agreement.
§ Exhibits and schedules have been omitted pursuant to Item 601(a)(5) of Regulation S-K and will be provided on a supplemental basis to the Securities and Exchange Commission upon request.

(ii) Financial statement schedules

No financial statement schedules are provided because the information called for is not applicable or is shown in the financial statements or notes.

Item 17. Undertakings

The undersigned registrant hereby undertakes to provide to the underwriters at the closing specified in the underwriting agreement certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.

Insofar as indemnification for liabilities under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered hereunder, the registrant will, unless in the

opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

The undersigned registrant hereby undertakes that:

(1) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this Registration Statement in reliance upon Rule 430A and contained in the form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this Registration Statement as of the time it was declared effective; and

(2) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at the time shall be deemed to be the initial bona fide offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of San Diego, State of California, on , 2020.

Maravai LifeSciences Holdings, Inc.

By: _____
Name: Carl Hull
Title: Chief Executive Officer

***

POWER OF ATTORNEY

The undersigned director and officers of Maravai LifeSciences Holdings, Inc. hereby appoint each of and , asattorney-in-fact for the undersigned, with full power of substitution and resubstitution, for and in the name, place and stead of the undersigned, to sign and file with the Securities and Exchange Commission under the Securities Act of 1933 any and all amendments (including post-effective amendments) and exhibits to this registration statement on Form S-1 (or any other registration statement for the same offering that is to be effective upon filing pursuant to Rule 462(b) under the Securities Act of 1933) and any and all applications and other documents to be filed with the Securities and Exchange Commission pertaining to the registration of the securities covered hereby, with full power and authority to do and perform any and all acts and things whatsoever requisite and necessary or desirable, hereby ratifying and confirming all that said attorney-in-fact, or his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
_____ Carl Hull	Chief Executive Officer and Director (Principal Executive Officer)	, 2020
_____ Kevin Herde	Chief Financial Officer (Principal Financial and Accounting Officer)	, 2020

Exhibit 10.2

EXECUTION VERSION

SENIOR MANAGEMENT AGREEMENT

THIS SENIOR MANAGEMENT AGREEMENT (this "Agreement") is made as of March 18, 2014, by and among Maravai Life Sciences Holdings, LLC, a Delaware limited liability company (the "Company"), Maravai Life Sciences, Inc., a Delaware corporation ("Employer"), and Carl W. Hull ("Executive"). Capitalized terms used but not otherwise defined herein shall have the meanings set forth in Section 10 of this Agreement, or if not defined herein, the meanings in the LLC Agreement.

The Company and Executive desire to enter into an agreement pursuant to which Executive will purchase from the Company, and the Company will sell and issue to Executive, in each case on the terms and subject to the conditions contained herein, the Executive Capital Units (as defined below) and the Executive Incentive Units (as defined below).

The Company, Employer and Executive also mutually desire to enter into an agreement containing the terms and conditions pursuant to which Employer will employ Executive.

The execution and delivery of this Agreement by the Company and Executive is a condition to the purchase of Common Units by the Investors pursuant to the Unit Purchase Agreement. Certain provisions of this Agreement are intended for the benefit of, and will be enforceable by, the Investors.

NOW, THEREFORE, in consideration of the mutual covenants contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties to this Agreement hereby agree as follows:

PROVISIONS RELATING TO EXECUTIVE SECURITIES

1. Purchase and Sale of Executive Securities.

(a) Initial Closing. Upon execution of this Agreement (the "Closing"), Executive will purchase from the Company, and the Company will sell to Executive, (i) 70,178 of the Company's Capital Units (the "Executive Capital Units") at a price of $0.05937259 per Unit and (ii) 475,000 of the Company's Incentive Units (the "Executive Incentive Units") at no cost per Unit. Such Executive Incentive Units shall be Series 1 Incentive Units and shall be subject to the vesting requirements described herein. Each Executive Incentive Unit shall have an initial Capital Contribution for such Executive Incentive Unit equal to zero and an initial Participation Threshold of $0.05937259. The Participation Threshold with respect to each Executive Incentive Unit is subject to adjustment from time to time as set forth in the LLC Agreement. The Company will deliver to Executive a copy of the certificate(s) representing such Executive Securities, and Executive will deliver to the Company (x) a cashier's or certified check or wire transfer of immediately available funds in an aggregate amount equal to $4,166.65 as payment for such Executive Securities, (y) an executed counterpart signature page to each of the Securityholders Agreement and the Registration Agreement as an "Executive" thereunder, and (z) an executed counterpart signature page to the LLC Agreement. Both the Executive Capital Units and Executive Incentive Units are Common Units.

(b) Subsequent Closings. If, from time to time after the Closing, the Investors make subsequent Capital Contributions to the Company in respect of Common Units acquired by the Investors pursuant to the Unit Purchase Agreement (each such subsequent Capital Contribution, a "Subsequent Contribution"), Executive will, concurrently with each such Subsequent Contribution, make an additional Capital Contribution to the Company in respect of the Executive Capital Units, by wire transfer of funds or certified or cashier's check, in an amount equal to (A) $2,500,000, multiplied by (B) a fraction (x) the numerator of which will be the Capital Contributions to the Company to be made by the Investors in respect of Common Units in connection with such Subsequent Contribution and (y) the denominator of which will be $300,000,000; provided, that in no event shall the aggregate amount of all Capital Contributions to the Company made by Executive hereunder (including at the Closing and pursuant to this Section 1(b)) exceed $2,500,000. In connection with any such Subsequent Contribution pursuant to this Section 1(b), the Company will update the Unit Ledger to the LLC Agreement to reflect such additional Capital Contribution. To the extent that, after the date hereof, any Person (other than any Investor) assumes or otherwise agrees to perform all or part of the obligations of the Investors under Section 1(b)(ii) of the Unit Purchase Agreement, any Capital Contribution made by such Person in connection with a Subsequent Contribution shall be treated as having been made by the Investors for purposes of this Section 1(b).

(c) 83(b) Election. Within 30 days after the acquisition of Executive Securities at the Initial Closing, Executive will make an effective election (an "83(b) Election") with the Internal Revenue Service under Section 83(b) of the Internal Revenue Code of 1986, as amended, and the regulations promulgated thereunder in the form of Exhibit A attached hereto.

(d) Certificates. Until released upon the occurrence of a Sale of the Company, all certificates evidencing Executive Securities shall be held, subject to the other terms of this Agreement and the Securityholders Agreement, by the Company for the benefit of Executive and the other holder(s) of Executive Securities. Upon the occurrence of a Sale of the Company, subject to the provisions of the LLC Agreement (including Section 12.1 thereof), the Company will return all certificates in its possession evidencing Executive Securities to the record holders thereof or, subject to Section 1(g), to the appropriate acquirer thereof.

(e) Representations and Warranties. In connection with the purchase and sale of the Executive Securities and any additional Capital Contribution made by Executive, Executive represents and warrants to the Company and Employer that:

(i) Executive possesses all requisite capacity, power and authority to enter into and perform his obligations under this Agreement;

(ii) this Agreement constitutes the legal, valid and binding obligation of Executive, enforceable in accordance with its terms, and the execution, delivery and performance of this Agreement by Executive does not and will not conflict with, violate or cause a breach of any agreement, contract or instrument to which Executive is a party or any judgment, order or decree to which Executive is subject;

(iii) Except as set forth on Exhibit B attached hereto, Executive is neither party to, nor bound by, any other employment agreement, consulting agreement,

intention of, distribution thereof in violation of the Securities Act, or any applicable state securities laws, and the Executive Securities will not be disposed of in contravention of the Securities Act or any applicable state securities laws;

(vi) Executive is an "accredited investor" within the meaning of Rule 501 of Regulation D of the Securities and Exchange Commission and is an executive officer of the Company and/or Employer, is sophisticated in financial matters and is able to evaluate the risks and benefits of the investment in the Executive Securities;

(vii) Executive is able to bear the economic risk of his investment in the Executive Securities for an indefinite period of time because the Executive Securities have not been registered under the Securities Act or applicable state securities laws and are subject to substantial restrictions on Transfer set forth herein and in the LLC Agreement, and, therefore, cannot be sold unless subsequently registered under the Securities Act and applicable state securities laws, or an exemption from such registration is available, and in compliance with such restrictions on Transfer;

(viii) Executive has had an opportunity to ask questions and receive answers concerning the terms and conditions of the Transaction Documents (in particular, with respect to the distribution provisions set forth in the LLC Agreement) and the offering of Executive Securities and has had full and free access and opportunity to inspect, review, examine and inquire about all financial and other information concerning the Company and Employer as he has requested;

(ix) Executive understands and agrees that (A) the investment in the Company involves a high degree of risk, (B) in the future the Executive Securities may significantly increase or decrease in value, and (C) no guarantees or representations have been made or can be made with respect to the future value of the Executive Securities or the future profitability or success of the Company;

(x) Executive acknowledges and agrees that (A) the Company and its Subsidiaries may incur in the future a substantial amount of senior or other indebtedness and (B) there may be additional issuances of Common Units or other Equity Securities after the date hereof and the equity interests of Executive may be diluted in connection with any such issuance, subject to the terms of the LLC Agreement and the Securityholders Agreement;

(xi) Executive has had an opportunity to consult with his own tax counsel as to the U.S. federal, state, local and foreign tax consequences of the transactions contemplated by the Transaction Documents and independent legal counsel regarding his rights and obligations under the Transaction Documents and fully understands the terms and conditions contained herein and therein. Executive is not relying on the Company or Employer or any of their or their Subsidiaries' or Affiliates' employees, agents or representatives with respect to the legal, tax, economic, and related considerations of an investment in the Executive Securities; and

(xii) Executive is a resident of the State set forth in Executive's address for notices in Section 11 hereof.

(f) Executive Acknowledgment. As an inducement to the Company to issue the Executive Securities to Executive, and as a condition thereto, Executive acknowledges and agrees that neither the issuance of the Executive Securities to Executive nor any provision contained in this Agreement shall entitle Executive to remain in the employment of the Company, Employer or their respective Subsidiaries or affect the right of the Company, Employer or their respective Subsidiaries to terminate Executive's employment at any time for any reason, subject to Section 7.

(g) Security Powers. Concurrently with the execution of this Agreement, Executive shall execute in blank ten security transfer powers in the form of Exhibit C attached hereto (the "Security Powers") with respect to the Executive Securities and shall deliver such Security Powers to the Company. The Security Powers shall authorize the Company to assign, Transfer and deliver the Executive Securities to the appropriate acquiror thereof pursuant to Section 3 below or Section 8.2 of the LLC Agreement and under no other circumstances.

(h) Spousal Consent. Concurrently with the execution of this Agreement, if Executive is lawfully married, Executive's spouse shall execute the Consent in the form of Exhibit D attached hereto.

(i) Certain Covenant. Executive acknowledges that he has not breached, and that he will continue to fully comply with, the covenants referenced on Exhibit B attached hereto and set forth in Exhibit E attached hereto.

2. Vesting of Executive Securities.

(a) Executive Capital Units. The Executive Capital Units shall be vested upon the purchase pursuant to Section 1(a). The Executive Incentive Units shall be subject to vesting in the manner specified in this Section 2. 400,000 of the Executive Incentive Units shall be "Time-Vesting Executive Incentive Units" and 75,000 of the Executive Incentive Units shall be "Performance-Vesting Executive Incentive Units."

(b) Executive Incentive Units.

(i) Time-Vesting Executive Incentive Units. Except as otherwise provided in this Section 2, the Time-Vesting Executive Incentive Units shall become vested as follows: (A) up to 20% of the Time-Vesting Executive Incentive Units shall

become vested as of the date of the consummation of the Base Acquisition, determined by multiplying 20% by a fraction, the numerator of which is the number of whole months elapsed from the date hereof through the date of the consummation of the Base Acquisition and the denominator of which is twelve (12); provided, that in no event shall the amount of Time-Vesting Executive Incentive Units which shall vest in accordance with this Section 2(b)(i)(A) exceed 20%; and (B) the remaining portion of the Time- Vesting Executive Incentive Units shall vest ratably on each of the first, second, third, fourth and fifth anniversaries of the date on which the Base Acquisition is consummated, which shall be set forth on Schedule I upon the consummation of the Base Acquisition (such that the Time-Vesting Executive Incentive Units shall become 100% vested on the fifth anniversary of the consummation of the Base Acquisition), if as of each such date Executive is, and since the Closing continuously has been, employed by the Company, Employer or any of their respective Subsidiaries. For the avoidance of doubt, if Executive ceases to be employed by any of Employer and its Subsidiaries prior to the date on which the Base Acquisition is consummated, none of the Executive Incentive Units shall be deemed vested.

(ii) Performance Vesting Executive Incentive Units. The Performance-Vesting Executive Incentive Units shall become 100% vested on the date on which both, (A) the Investors achieve a Target Multiple of at least 3.0; and (B) the Investors achieve an Investor IRR of at least 25%; if, as of such date, Executive is, and since the Closing continuously has been, employed by the Company, Employer or any of their respective Subsidiaries. The Board shall reasonably determine in good faith what amount of the Performance-Vesting Executive Incentive Units have vested pursuant to this Section 2(b)(ii).

(c) Sale of the Company. Upon the occurrence of a Sale of the Company, all Time-Vesting Executive Incentive Units which have not yet become vested shall become vested as of the date of consummation of such Sale of the Company, if, as of such date, Executive has been continuously employed by the Company or any of its Subsidiaries from the date of this Agreement through and including such date, subject to the provisions of this Section 2(c). Upon the occurrence of a Sale of the Company, any Performance-Vesting Executive Incentive Units (whether held by Executive or one or more of Executive's transferees, other than the Company and the Investors) which fail to vest as result of such Sale of the Company will automatically (without any action by Executive or any of Executive's transferees) be forfeited to the Company and deemed canceled and no longer outstanding without any payment therefor upon the consummation of such Sale of the Company. Notwithstanding the foregoing or anything herein or in the LLC Agreement to the contrary (and in addition to any requirements therein), in the case of a Sale of the Company, Executive hereby agrees that, if the Person who is acquiring the equity securities or assets of the Company resulting in such Sale of the Company (the "Acquiror") reasonably requests that Executive continue to provide any services to the Acquiror, the Company, Employer or any of their respective Affiliates from and after the consummation of the Sale of the Company (whether as a full-time employee, consultant or otherwise) that are within the scope of services provided by Executive during the Employment Period in exchange for a base salary (or equivalent base compensation), bonus opportunity and fringe benefits (collectively, the "Post-Sale Compensation") that are no less favorable to Executive in the aggregate than the Annual Base Salary, bonus opportunity, and fringe benefits provided to

Executive by Employer immediately prior to such Sale of the Company (excluding any equity or other incentive compensation), then the Continuing Incentive Amount shall be handled as follows (in lieu of being paid to Executive and/or his Permitted Transferee(s)):

(i) if Executive declines to provide such requested services, the Continuing Incentive Amount shall be distributed pursuant to Section 4.1(a) of the LLC Agreement to the holders of Capital Units (excluding, for these purposes, all Restricted Units which are subject to an applicable limitation), and, thereafter, neither Executive nor his Permitted Transferee(s) shall have any rights in respect of or other claims on such amounts (other than his status as a holder of Capital Units); or

(ii) if Executive agrees to provide such requested services, the Continuing Incentive Amount shall be deposited into an escrow account with an escrow agent designated by the Company, and the Continuing Incentive Amount shall be handled as follows:

(A) if Executive provides such requested services from and after consummation of the Sale of the Company through the earliest of (w) the date on which Acquiror reduces Executive's Post-Sale Compensation below the Annual Base Salary, bonus opportunity, and fringe benefits provided to Executive by Employer immediately prior to such Sale of the Company (excluding any equity or other incentive compensation), (x) the date on which the Acquiror terminates such services (other than with Cause), (y) Executive's death or Disability, or (z) the nine (9)-month anniversary of the consummation of the Sale of the Company (the earliest of (w), (x), (y) and (z), the "Final Vesting Date"), then the Continuing Incentive Amount, together with any income earned thereon, shall be released to Executive and/or his Permitted Transferee(s), as applicable, within five (5) business days after the Final Vesting Date; or

(B) if Executive fails to provide such requested services from and after the consummation of the Sale of the Company through the Final Vesting Date, then the Continuing Incentive Amount, together with any income earned thereon, shall be distributed as a Distribution under Section 4.1(a) of the LLC Agreement to the holders of Capital Units (excluding, for these purposes, all Restricted Units which are subject to an applicable limitation), and, thereafter, neither Executive nor his Permitted Transferee(s) shall have any rights in respect of or other claims on such amounts (other than his status as a holder of Capital Units).

(iii) For purposes of this Agreement, "Continuing Incentive Amount" means 25% of all consideration to which Executive and, to the extent necessary, his Permitted Transferee(s) are otherwise entitled in connection with such Sale of the Company in respect of the Executive Incentive Units.

(d) All Executive Incentive Units which have become vested hereunder, if any, are collectively referred to herein as the "Vested Incentive Units." All Executive Incentive Units which have not become vested hereunder, if any, are collectively referred to herein as the "Unvested Incentive Units."

3. Forfeiture and Repurchase Option.

(a) Forfeiture; Repurchase Option. In the event of a Separation, (i) all Unvested Incentive Units (whether held by Executive or one or more of Executive's transferees, other than the Company and the Investors) automatically (without any action by Executive or any of Executive's transferees) will be forfeited to the Company and deemed canceled and no longer outstanding without any payment therefor, and (ii) all Vested Incentive Units and Executive Capital Units (whether held by Executive or one or more of Executive's transferees, other than the Company and the Investors) will be subject to a right of repurchase by the Company and the Investors pursuant to the terms and conditions in this Section 3 (the "Repurchase Option"). The Company may assign its repurchase rights set forth in this Section 3 to any Person; provided, that if there is a Subsidiary Public Offering and the securities of such Subsidiary are distributed to the members of the Company, then such Subsidiary will be treated as the Company for purposes of this Section 3 with respect to any repurchase of the securities of such Subsidiary. Notwithstanding anything to the contrary contained in this Agreement, if such Separation results from Employer's termination of Executive's employment with Cause, then all Executive Incentive Units (whether held by Executive or one or more of Executive's transferees, other than the Company and the Investors) automatically (without any action by Executive or any of Executive's transferees) will be forfeited to the Company and deemed canceled and no longer outstanding without any payment therefor pursuant to clause (i) of this Section 3(a).

(b) Purchase Price. In the event of a Separation, the purchase price for each Vested Incentive Unit and Executive Capital Unit will be the Fair Market Value of such Unit; provided, that if such Separation results from Employer's termination of Executive's employment with Cause, then the purchase price for each Executive Capital Unit will be the lower of (i) the Original Cost of such Unit and (ii) the Fair Market Value of such Unit. The Fair Market Value of any Unit for purposes of this Section 3 shall be the Fair Market Value of such Unit as of the first date of delivery of the Repurchase Notice or Supplemental Repurchase Notice, as the case may be, pursuant to Section 3(c) or Section 3(d).

(c) Repurchase Notice. The Company may elect to purchase all or any portion of the Executive Securities pursuant to this Section 3 by delivering written notice (the "Repurchase Notice") to the holder or holders of such securities within seven months after the Separation. The Repurchase Notice will set forth the number of Executive Securities to be acquired from each holder, the aggregate consideration to be paid for such Units and the time and place for the closing of the transaction.

(d) Supplemental Repurchase Notice. If for any reason the Company does not elect to purchase all of the Executive Securities (other than Unvested Incentive Units) pursuant to the Repurchase Option, the Investors shall be entitled to exercise the Repurchase Option for all or any portion of the Executive Securities (other than Unvested Incentive Units) which the Company has not elected to purchase (the "Available Securities"). As soon as practicable after the Company has determined that there will be Available Securities, but in any event before the date that is six months and one day after the Separation, the Company shall give written notice (the "Option Notice") to the Investors setting forth the number of Available Securities and the purchase price for the Available Securities. The Investors may elect to purchase any or all of the Available Securities by giving written notice to the Company within seven months after the

Separation. If the Investors elect to purchase an aggregate number of any class of Available Securities greater than the number of Available Securities of such class, the Available Securities of such class shall be allocated among the Investors based upon the number of Units of such class owned by each Investor. As soon as practicable, and in any event within ten days after the expiration of the seven-month period set forth above, the Company shall notify each holder of Executive Securities as to the number of Units of each class being purchased from such holder by the Investors (the "Supplemental Repurchase Notice"). At the time the Company delivers the Supplemental Repurchase Notice to the holder(s) of Executive Securities, the Company shall also deliver written notice to each Investor setting forth the number of Units of each class such Investor is entitled to purchase, the aggregate purchase price and the time and place of the closing of the transaction.

(e) Closing of Repurchase. The closing of the purchase of the Executive Securities pursuant to the Repurchase Option shall take place on the date designated by the Company in the Repurchase Notice or Supplemental Repurchase Notice, which date shall not be more than one month nor less than five days after the delivery of the later of either such notice to be delivered. The Company will pay for the Executive Securities to be purchased by it pursuant to the Repurchase Option by first offsetting amounts outstanding under any bona fide debts owed by Executive to the Company or any of its Subsidiaries, and will pay the remainder of the purchase price by, at its option, (i) a check or wire transfer of funds, (ii) the issuance of a subordinated promissory note of the Company or a Subsidiary of the Company payable in up to three annual installments beginning on the first anniversary of the closing of such repurchase and bearing interest (payable quarterly) at a per annum rate equal to 8% (a "Repurchase Note"), (iii) the issuance in exchange for such securities of a number of a new class or series of Units or other Company Equity Securities that are senior to the other existing Units and bearing a yield of 8% per annum, compounded quarterly, or (iv) any combination of (i), (ii) and (iii) as the Board may elect in its discretion. In the event the Board elects to repurchase the Executive Securities through the issuance of a Repurchase Note, the Company hereby agrees that (x) it shall not make any Distributions pursuant to Section 4.1(a) of the LLC Agreement unless and until such Repurchase Note, including all interest accrued and unpaid thereon, is repaid in full and (y) in the event of a Sale of the Company, all obligations under the Repurchase Note shall automatically accelerate and become due and payable upon the consummation of such Sale of the Company. For the avoidance of doubt, nothing contained herein shall limit the Company's ability to make Tax Distributions in accordance with Section 4.1(b) of the LLC Agreement. Each Investor will pay for the Executive Securities purchased by it by a check or wire transfer of funds. The Company and the Investors will be entitled to receive customary representations and warranties from the sellers regarding such sale and to require that all sellers' signatures be guaranteed. Notwithstanding the foregoing, the Company may, at its option, effect repurchases as contemplated by Section 4.7 of the LLC Agreement.

(f) Restrictions on Repurchase. Notwithstanding anything to the contrary contained in this Agreement, all repurchases of Executive Securities by the Company pursuant to the Repurchase Option and all payments of principal and interest on any promissory note issued pursuant to Section 3(e)(ii) shall be subject to applicable restrictions contained in the Delaware Limited Liability Company Act, the Delaware General Corporation Law or such other governing corporate or limited liability company law, and in the Company's and its Subsidiaries' debt and equity financing agreements. If any such restrictions prohibit (i) the repurchase of Executive

Securities hereunder which the Company is otherwise entitled or required to make, (ii) dividends or other transfers of funds from one or more Subsidiaries to the Company to enable such repurchases or (iii) the payment of principal or interest required to be paid on any Repurchase Note issued pursuant to Section 3(e)(ii), then the Company (or the corporate successor to the Company, if applicable) may make such repurchases and may pay amounts due on such note as soon as it is permitted to make repurchases, pay such amounts or receive funds from Subsidiaries under such restrictions. The Company agrees to use commercially reasonable efforts to have payments of principal or interest on any Repurchase Note be permitted distributions pursuant to any debt or equity financing arrangement.

(g) Revocation. If the Fair Market Value of the Executive Capital Units or Vested Incentive Units is finally determined to be an amount at least 10% greater than the per Unit repurchase price for such Unit of Executive Capital Units or Vested Incentive Units in the Repurchase Notice or in the Supplemental Repurchase Notice, each of the Company and the Investors shall have the right to revoke its exercise of the Repurchase Option for all or any portion of the Vested Incentive Units elected to be repurchased by it by delivering notice of such revocation in writing to the holders of the Executive Capital Units or Vested Incentive Units during the thirty-day period beginning on the date that the Company and/or the Investors are given written notice that the Fair Market Value of a Unit of the Executive Capital Units or Vested Incentive Units was finally determined to be an amount at least 10% greater than the per Unit repurchase price for the Executive Capital Units or Vested Incentive Units set forth in the Repurchase Notice or in the Supplemental Repurchase Notice.

(h) Default Event. Notwithstanding anything to the contrary contained in this Agreement, in addition to all other rights and remedies which might otherwise be available to the Company and the Investors at law or in equity, in the event Executive fails for any reason to make all or any portion of any Capital Contribution to the Company that Executive is required to make pursuant to Section 1(b) (a "Default Event"), upon such Default Event all of the Executive Capital Units originally issued to Executive (whether held by Executive or one or more of Executive's transferees, other than the Company and Investors) shall be automatically deemed Restricted Units under the LLC Agreement and shall participate in Distributions with other Units pursuant to Section 4.1 of the LLC Agreement; provided, that the amount of Distributions received in respect of such Executive Capital Units shall not exceed an amount equal to the aggregate amount of all unreturned Capital Contributions made to the Company in respect of such Executive Capital Units plus a yield of 8% per annum, compounded quarterly, and any amounts that would have been received but for this proviso shall be distributed to Participating Common Units that are not Restricted Units in accordance with Section 4.1 of the LLC Agreement.

(i) Certificates. Promptly upon the forfeiture of any Units pursuant to this Section 3 (whether held by Executive or one of Executive's transferees, other than the Company and the Investors), Executive and Executive's transferees shall return the certificates, if any, evidencing such Units to the Company and the Company shall mark as canceled all such certificates evidencing such forfeited Units.

(j) Termination. The provisions of this Section 3 will terminate with respect to all Executive Securities upon the consummation of a Sale of the Company.

4. Transfer Restrictions in a Public Sale; Legend.

(a) Executive Transfers in a Public Sale. In addition to the restrictions on transfer set forth in the LLC Agreement, the Registration Agreement (including in Section 3 thereof) and any agreement executed pursuant thereto, a holder of Executive Securities may only sell Common Stock in a Public Sale if such Common Stock is vested and to the extent that, before and after giving effect to such sale, the Executive Cumulative Sale Percentage would be equal to or less than the Investor Cumulative Sale Percentage. Except as set forth in the prior sentence, the Executive Securities may not be Transferred in a Public Sale.

(b) Legend. In addition to the legend(s) required by the LLC Agreement, each certificate evidencing the Executive Securities and each certificate issued in exchange for or upon the Transfer of any Executive Securities (if such securities remain Executive Securities as defined herein after such Transfer) shall be stamped or otherwise imprinted with a legend in substantially the following form:

> "THE SECURITIES REPRESENTED BY THIS CERTIFICATE ARE ALSO SUBJECT TO ADDITIONAL RESTRICTIONS ON TRANSFER, CERTAIN REPURCHASE OPTIONS, CERTAIN FORFEITURE PROVISIONS AND CERTAIN OTHER AGREEMENTS SET FORTH IN A SENIOR MANAGEMENT AGREEMENT BETWEEN THE COMPANY AND AN EXECUTIVE OF THE COMPANY AND OTHER PARTIES, DATED AS OF MARCH 18, 2014, AS AMENDED. A COPY OF SUCH AGREEMENT MAY BE OBTAINED BY THE HOLDER HEREOF AT THE COMPANY'S PRINCIPAL PLACE OF BUSINESS WITHOUT CHARGE."

The Company shall imprint such legend on certificates evidencing Executive Securities outstanding prior to the date hereof. The legend set forth above shall be removed from the certificates evidencing any securities which cease to be Executive Securities.

5. Issuance of New Securities

(a) Offer to Qualified Holders. If, after the date hereof, the Company authorizes the issuance or sale of any New Securities to any Investor, the Company shall, as provided in this Section 5, offer to sell to Executive his Pro Rata Allotment of such New Securities. Executive shall be entitled to purchase all or any portion of his Pro Rata Allotment of such New Securities on economic terms that are at least as favorable as the economic terms for such New Securities that are to be offered to the Investors; provided that if the Investors acquiring the New Securities are also required to purchase other securities of the Company, Executive shall also be required to purchase the same strip of securities (on at least as favorable economic terms and conditions) that the Investors are required to purchase. Any New Securities purchased by Executive pursuant to this Section 5 shall be deemed Executive Capital Units for the purposes of this Agreement. For purposes of this Section 5, "Pro Rata Allotment" shall mean the quotient determined by dividing (i) the number of Executive Capital Units (other than Restricted Units) held by Executive at such time, by (ii) the number of Capital Units (other than Restricted Units) then issued and outstanding at such time.

(b) Issuance Notice. At least fifteen (15) days prior to any issuance by the Company of any New Securities to any Investor, the Company shall give written notice (each, an "Issuance Notice") to Executive specifying in reasonable detail the total amount of New Securities to be issued, the purchase price thereof, the other material terms and conditions of the issuance and Executive's Pro Rata Allotment of the New Securities. In order to exercise his purchase rights hereunder, Executive must, within ten (10) days after the Issuance Notice has been given, give written notice to the Company describing Executive's election to purchase all or any portion of the amount of New Securities available for purchase by Executive. If after sending an Issuance Notice the Company elects not to proceed with the issuance or sale contemplated thereby, any elections made by Executive to participate in such offering shall be deemed rescinded.

(c) Issuance Closing. The Company shall sell, and, in the event Executive elects to participate in such issuance, Executive shall purchase, the amount of New Securities determined pursuant to this Section 5 elected to be purchased by Executive at the Company headquarters' office either, at the option of the Company, (i) on the 15th day after the Issuance Notice (or if such 15th day is not a business day, then on the next succeeding business day) or (ii) simultaneously with (and, if specified by the Company, as a part of) the closing of, the issuance of New Securities to the participating Investors (in each such instance, the "Issuance Closing"). At the Issuance Closing, Executive will pay the purchase price payable for the New Securities offered to Executive hereunder in cash by wire transfer of immediately available funds to an account designated by the Company and will make customary investment representations to the Company.

(d) Alternative Process. Notwithstanding anything to the contrary herein, in lieu of offering any New Securities to Executive at the time such New Securities are offered to the Investors, the Company may comply with the provisions of this Section 5 by making an offer to sell to Executive such New Securities promptly, but in no event later than thirty (30) days, after a sale to the Investors is effected. In such event, for all purposes of this Section 5, the portion of such New Securities that Executive shall be entitled to purchase hereunder shall be determined by taking into consideration the actual amount of New Securities sold to the Investors so as to achieve the same economic effect as if such offer would have been made prior to such sale. In the event that Executive accepts such offer and agrees to purchase New Securities pursuant to this Section 5(d), the Investors and/or other Persons who initially acquired New Securities shall promptly, but within fifteen (15) days after a sale to Executive is effected, sell to the Company for a price per Unit equal to the original cost thereof (plus interest at a rate equal to 8% per annum (compounded quarterly) from the date such securities were initially acquired until the time such securities are repurchased pursuant to this Section 5(d)), the same number and class of Units purchased by Executive exercising his rights under this Section 5(d).

(e) Termination. The provisions of this Section 5 will terminate upon the first to occur of (i) the consummation of a Sale of the Company and (ii) the consummation of a Public Offering.

(f) Waiver. Executive expressly waives any similar rights or privileges provided in Section 2 of the Securityholders Agreement which Executive would otherwise be entitled to absent the provisions of this Section 5.

6 . Limited Information Rights. Notwithstanding Section 2.10 of the LLC Agreement, so long as Executive continuously holds Executive Capital Units or Executive Incentive Units, Executive shall be entitled to receive, upon Executive's written request: (a) within ninety (90) days after the end of each Fiscal Year, consolidating and consolidated statements of income and cash flows of the Company and its Subsidiaries for such Fiscal Year, and consolidating and consolidated balance sheets of the Company and its Subsidiaries as of the end of such Fiscal Year; (b) a current list of the name and last known business, residence or mailing address of each Unitholder of the Company; and (c) a copy of the LLC Agreement and certificate of formation of the Company, and all amendments thereto.

PROVISIONS RELATING TO EMPLOYMENT

7 . Employment. Employer agrees to employ Executive, and Executive accepts such employment, for the period beginning on the date hereof and ending upon his separation pursuant to Section 7(c) (the "Employment Period").

(a) Position and Duties.

(i) During the Employment Period, Executive shall serve as the Chief Executive Officer of the Company and Employer and shall have the normal duties, responsibilities and authority implied by such position, which shall include defining the Company's and Employer's strategy and business plan, selecting and evaluating other executives of the Company and Employer, sourcing and completing acquisitions made by the Company and Employer and managing the growth and operations of the Company and Employer, and such other activities as are reasonably directed by the Board, subject in each case to the power of the Board and the board of directors of Employer to expand, limit or otherwise alter such duties, responsibilities, positions and authority and to otherwise override actions of officers.

(ii) Executive shall report to the Board, and Executive shall devote his best efforts and his full business time and attention to the business and affairs of the Company, Employer and the other Subsidiaries of the Company; provided, that during the Employment Period, Executive shall be entitled to (A) serve, with the prior written consent of the Board, on corporate, civic or charitable boards or committees, (B) deliver lectures and fulfill speaking engagements and (C) manage personal investments, so long as, with respect to clauses (B) and (C), such activities do not interfere substantially with the performance of Executive's responsibilities to the Company or Employer under this Agreement.

(b) Salary, Bonus and Benefits. Commencing on the date hereof and continuing until a Separation, Employer will pay Executive a base salary at a rate of $450,000 per annum (the "Annual Base Salary"). The Annual Base Salary shall be reviewed annually by the Board. For the fiscal year in which the Company consummates the Base Acquisition and for each fiscal year thereafter ending during the Employment Period, Executive shall be eligible for an annual bonus in an amount up to 75% of the Annual Base Salary, as determined by the Board based upon the performance of Executive and the achievement by the Company, Employer and the other Subsidiaries of the Company of financial, operating and other objectives set by the Board; provided, that with respect to the first fiscal year for which Executive is eligible for a

bonus, such bonus shall be paid on a *pro rata* basis based upon that portion of the fiscal year that remained after the consummation of the Base Acquisition. In addition, during the Employment Period, Executive will be entitled to such other benefits as are approved by the Board and made generally available to all senior management of the Company and Employer.

(c) Separation. The Employment Period will continue until (i) Executive's resignation, death or Disability or (ii) the Board terminates Executive's employment with or without Cause. If Executive's employment is terminated after consummation of the Base Acquisition by resignation of Executive with Good Reason pursuant to clause (i) above or by the Board without Cause pursuant to clause (ii) above, then during the one-year period commencing on the date of termination (the "Severance Period"), (x) Employer shall pay to Executive during the period beginning on the date of the Separation and ending on the first anniversary of the Separation an aggregate amount equal to 100% of his Annual Base Salary, payable in equal installments on Employer's regular salary payment dates as in effect on the date of the Separation (the "Severance Payments"), and (y) if Executive is eligible to and does elect continuation coverage under Employer's health benefit plan pursuant to the provisions of Section 4980B of the Code, then Employer shall reimburse to Executive the premiums paid for such coverage by Executive during the portion of the Severance Period of which Executive is eligible for and elects such continuation coverage under Employer's health benefit plan, provided that such reimbursements shall not be made in the event an excise tax under Section 4980D of the Code would be imposed on Employer as a result. Notwithstanding anything in this Agreement to the contrary, if Executive's employment is terminated without Cause pursuant to clause (ii) above, the portion of the Executive Incentive Units which would have vested if Executive had remained employed with the Company through the immediately succeeding anniversary date of the Base Acquisition following the date of Separation shall be deemed vested. Notwithstanding anything herein to the contrary, (A) Executive shall not be entitled to receive any payments or other benefits pursuant to this Section 7(c) unless Executive has executed and delivered to Employer a general release in form and substance satisfactory to Employer (and such release is in full force and effect and has not been revoked), which release shall be delivered by Executive within fifteen (15) calendar days after his Separation and (B) Executive shall be entitled to receive such payments only so long as Executive has not breached any of the provisions of such general release or Section 8 or Section 9. The amounts payable pursuant to this Section 7(c) shall be reduced by the amount of any compensation earned or received by Executive during the Severance Period in connection with the performance of any services by Executive; provided, that, for the purposes of the foregoing clause, any amount earned or received by Executive in the form of directors' fees or as compensation for consulting services provided by Executive shall not reduce the amounts payable pursuant to this Section 7(c), in each case only if (1) such fees or compensation are not in any way related to Executive engaging in any Competitive Activities and do not come from an entity engaged in Competitive Activities and (2) Executive is not engaged in being a director or providing consulting services on a full-time basis. Upon request from time to time, Executive shall furnish Employer with a true and complete certificate specifying any such compensation earned or received by him while receiving any Severance Payments. Executive shall not be entitled to any further payments from the Company, Employer or their Affiliates, nor shall they have any further liability to Executive, except as expressly set forth in this Section 7.

(d) No-Fault Dissolution Event. In the event of a No-Fault Dissolution Event, Section 7 of this Agreement (other than this Section 7(d)) shall automatically terminate without any further action of the parties hereto and, except as set forth in this Section 7(d), no party hereto shall have any further obligation to any other party hereto under or pursuant to this Section 7. In furtherance of the foregoing, notwithstanding anything to the contrary in this Agreement, (i) the Employment Period shall be terminated on the date of a No-Fault Dissolution Event and neither the Company nor Employer shall have any obligation to make any Severance Payments, provide any employee benefits or continue any employee benefit plan(s) (except to the extent required by applicable law), and (ii) the provisions of Section 7 shall terminate and have no further force or effect. In connection with a No-Fault Dissolution Event, upon the request of the Board, Executive shall Transfer, and shall cause his Permitted Transferees to Transfer, the Executive Securities then held by Executive or his Permitted Transferees to the Company or, upon the written request of the holders of the Required Interest, the Investors for Fair Market Value. Notwithstanding anything herein to the contrary, the terms and conditions of Sections 1 through 4 and 8, 10, 11 and 12, and the rights and obligations of the parties set forth therein, shall survive any No-Fault Dissolution Event.

(e) Code Section 409A. The intent of the parties is that payments and benefits under this Agreement comply with or otherwise be exempt from Internal Revenue Code Section 409A and the regulations and guidance promulgated thereunder (collectively "Code Section 409A") and, accordingly, to the maximum extent permitted, this Agreement shall be interpreted to be either exempt from or in compliance therewith. In no event whatsoever shall the Company or Employer be liable for any additional tax, interest or penalty that may be imposed on the Executive by Code Section 409A or damages for failing to comply with Code Section 409A. Notwithstanding any other payment schedule provided herein to the contrary, if the Executive is deemed on the date of termination to be a "specified employee" within the meaning of that term under Code Section 409A(a)(2)(B), then any payment under Section 5 that is considered deferred compensation under Code Section 409A payable on account of a "separation from service" shall not be made until the date which is the earlier of (A) the expiration of the six (6)-month period measured from the date of such "separation from service" of Executive, and (B) the date of Executive's death (the "Delay Period") to the extent required under Code Section 409A. Upon the expiration of the Delay Period, all payments delayed pursuant to this Section 5(e) shall be paid to the Executive in a lump sum, and all remaining payments due under this Agreement shall be paid or provided in accordance with the normal payment dates specified for them herein. A termination of employment shall not be deemed to have occurred for purposes of any provision of this Agreement providing for the payment of any amounts or benefits upon or following a termination of employment unless such termination is also a "separation from service" from the Company and Employer within the meaning of Code Section 409A and, for purposes of any such provision of this Agreement, references to a "termination," "termination of employment" or like terms shall mean "separation from service." For purposes of Code Section 409A, the Executive's right to receive any installment payment pursuant to this Agreement shall be treated as a right to receive a series of separate and distinct payments. Notwithstanding any other provision to the contrary, in no event shall any payment under this Agreement that constitutes "deferred compensation" for purposes of Code Section 409A be subject to offset by any other amount unless otherwise permitted by Code Section 409A.

8. Confidential Information.

(a) Obligation to Maintain Confidentiality. Executive acknowledges that the information, observations and data (including trade secrets) obtained by him during the course of his employment with Employer concerning the business or affairs of the Company, Employer and their respective Subsidiaries and Affiliates ("Confidential Information") are the property of the Company, Employer or such Subsidiaries and Affiliates, including information concerning acquisition opportunities in or reasonably related to the Company's and Employer's business or industry of which Executive becomes aware during the Employment Period. Therefore, Executive agrees that he will not disclose to any unauthorized Person or use for his own account any Confidential Information without the Board's written consent, unless and to the extent that the Confidential Information, (i) becomes generally known to and available for use by the public other than as a result of Executive's acts or omissions to act or (ii) is required to be disclosed pursuant to any applicable law or court order. Executive shall deliver to Employer at a Separation, or at any other time Employer may request, all memoranda, notes, plans, records, reports, computer tapes, printouts and software and other documents and data (and copies thereof) relating to the Confidential Information, Work Product (as defined below) or the business of the Company, Employer and their respective Subsidiaries and Affiliates (including all acquisition prospects, lists and contact information) which he may then possess or have under his control.

(b) Protection of Trade Secrets. Executive acknowledges and agrees with Employer that Executive's services to Employer and to the Company and their respective Subsidiaries and Affiliates require the use of Confidential Information and trade secret information (including any formula, pattern, compilation, program, device, method, technique or process) that Employer, the Company or their respective Subsidiaries and Affiliates have made reasonable efforts to keep confidential and that derives independent economic value, actual or potential, from not being generally known to the public or to other persons who can obtain economic value from its disclosure or use ("Trade Secrets"). Executive further acknowledges and agrees that Employer, the Company and such Subsidiaries and Affiliates would be irreparably harmed if Executive were to provide similar services requiring the use of such Trade Secrets in connection with any Competitive Activities (as defined below). Executive accordingly covenants and agrees with Employer and the Company that during the Employment Period and the one-year period immediately following the Employment Period (such period, together with the Employment Period, is referred to herein as the "Restricted Period"), Executive shall not engage in any Competitive Activities in which Executive would be required to employ, reveal, or otherwise utilize Trade Secrets Executive has obtained knowledge of during his employment with Employer or its Subsidiaries. For purposes of this Agreement, "Competitive Activities" means Executive engaging, or Executive causing or directing any Person to engage, directly or indirectly, as a principal, agent, shareholder, investor, employer, partner, director, officer, employee, consultant, member, joint venturer, manager, lender, consultant, operator, or in any capacity whatsoever (other than as a customer) (including, without limitation, in any division, group or franchise of a larger organization), in the Company Business or any other business for which the Company, Employer or any of their respective Subsidiaries has a Bona Fide Interest, within the United States or any other jurisdiction in which the Company, Employer or any of their respective Subsidiaries engages in the Company Business or for which the Company, Employer or any of their respective Subsidiaries has a Bona Fide Interest (whether such business is located in the United States or such other jurisdiction or markets to customers located within the United States or such other jurisdiction); provided, that notwithstanding

anything in this Agreement to the contrary, Competitive Activities shall not include (i) Executive being a passive owner of not more than 2% of the outstanding stock of any class of a corporation that is publicly traded, so long as Executive has no active participation in the Company Business of such corporation or (ii) Executive being employed by an entity which is a Rejected Company. As used herein, a "Bona Fide Interest" means a bona fide interest or expectancy relating to the acquisition of such business by the Company, Employer or any of their respective Subsidiaries, as evidenced by appropriate written documentation (for example, a term sheet or letter of intent or emails or other written records that evidence that the parties have an interest or expectancy and have had discussions relating to such acquisition) or discussions indicating an intent to pursue such acquisition transaction (except that, with respect to the portion of the Restricted Period following the Employment Period, the bona fide interest or expectancy is measured as of the time immediately preceding the Separation).

(c) Ownership of Property. Executive acknowledges that all discoveries, concepts, ideas, inventions, innovations, improvements, developments, methods, processes, programs, designs, analyses, drawings, reports, patent applications, copyrightable work and mask work (whether or not including any confidential information) and all registrations or applications related thereto, all other proprietary information and all similar or related information (whether or not patentable) that relate to the Company, Employer or any of their respective Subsidiaries or Affiliates engaging in the Company Business or an anticipated business in which the Company, Employer or any of their respective Subsidiaries or Affiliates have a Bona Fide Interest, research and development, or existing or future products or services and that are conceived, developed, contributed to, made, or reduced to practice by Executive (either solely or jointly with others) while employed by the Company, Employer or any of their respective Subsidiaries or Affiliates or during the period between the date hereof and the Closing (including any of the foregoing that constitutes any proprietary information or records) ("Work Product") belong to the Company, Employer or such Subsidiary or Affiliate, and Executive hereby assigns, and agrees to assign, all of the above Work Product to the Company, Employer or to such Subsidiary or Affiliate. Any copyrightable work prepared in whole or in part by Executive in the course of his work for any of the foregoing entities shall be deemed a "work made for hire" under the copyright laws, and the Company, Employer or such Subsidiary or Affiliate shall own all rights therein. To the extent that any such copyrightable work is not a "work made for hire," Executive hereby assigns and agrees to assign to the Company, Employer or such Subsidiary or Affiliate all right, title, and interest, including without limitation, copyright in and to such copyrightable work. Executive shall promptly disclose such Work Product and copyrightable work to the Board and perform all actions reasonably requested by the Board (whether during or after the Employment Period), to establish and confirm the Company's, Employer's or such Subsidiary's or Affiliate's ownership (including assignments, consents, powers of attorney, and other instruments); provided, that the Company shall reimburse Executive for his reasonable and documented out-of-pocket expenses.

(d) Third Party Information. Executive understands that the Company, Employer and their respective Subsidiaries and Affiliates will receive from third parties confidential or proprietary information ("Third Party Information") subject to a duty on the Company's, Employer's and their respective Subsidiaries and Affiliates' part to maintain the confidentiality of such information and to use it only for certain limited purposes. During the Employment Period and thereafter, and without in any way limiting the provisions of Section 8(a) above, Executive will hold Third Party Information in the strictest confidence and will not

disclose to anyone (other than personnel and consultants of the Company, Employer or their respective Subsidiaries and Affiliates who need to know such information in connection with their work for the Company, Employer or their respective Subsidiaries and Affiliates) or use, except in connection with his work for the Company, Employer or their respective Subsidiaries and Affiliates, Third Party Information unless expressly authorized by a member of the Board (other than Executive) in writing.

(e) Use of Information of Prior Employers. During the Employment Period, Executive will not improperly use or disclose any confidential information or trade secrets, if any, of any former employers or any other Person to whom Executive has an obligation of confidentiality, and will not bring onto the premises of the Company, Employer or any of their respective Subsidiaries or Affiliates any unpublished documents or any property belonging to any former employer or any other Person to whom Executive has an obligation of confidentiality unless consented to in writing by the former employer or Person. Executive will use in the performance of his duties only information which is (i) generally known and used by persons with training and experience comparable to Executive's and which is (x) common knowledge in the industry or (y) is otherwise legally in the public domain, (ii) is otherwise provided or developed by the Company, Employer or any of their respective Subsidiaries or Affiliates or (iii) in the case of materials, property or information belonging to any former employer or other Person to whom Executive has an obligation of confidentiality, approved for such use in writing by such former employer or Person. In furtherance of the foregoing, concurrently with the execution of this Agreement, Executive shall execute and deliver to Employer a certificate in the form of Exhibit E attached hereto.

9 . Noncompetition and Nonsolicitation. Executive acknowledges that in the course of his employment with Employer he will become familiar with Trade Secrets and with other confidential information concerning the Company, Employer and such Subsidiaries and that his services will be of special, unique and extraordinary value to the Company, Employer and such Subsidiaries. Therefore, Executive agrees that:

(a) Noncompetition. During the Employment Period, Executive shall not engage in any Competitive Activity and, if all of Executive's Capital Units and Vested Incentive Units are repurchased pursuant to the Executive Securities Agreement at Fair Market Value then during the one-year period immediately following the Employment Period, Executive shall not engage in any Competitive Activity; provided, that Executive's obligations pursuant to this Section 9(a) shall cease if the Company is in material breach of its financial obligations to Executive, if any, set forth in Section 7(c); provided further, that, the immediately preceding proviso shall not apply unless and until Executive has provided ten (10) days' prior written notice to the Company of such breach and the Company fails to cure such breach within a reasonable period of time, but not more than thirty (30) days, after receipt of such notice.

(b) Nonsolicitation. During the Restricted Period, Executive shall not directly or indirectly through another entity (i) induce or attempt to induce any employee of the Company, Employer or any of their respective Subsidiaries to leave the employ of the Company, Employer or such Subsidiary, or in any way interfere with the relationship between the Company, Employer or any of their respective Subsidiaries and any employee thereof, (ii) hire any employee of the Company, Employer or any of their respective Subsidiaries or, hire any

former employee of the Company, Employer or any of their respective Subsidiaries within one year after such person ceased to be an employee of the Company, Employer or any of their respective Subsidiaries or (iii) induce or attempt to induce any customer, supplier, licensee or other business relation of the Company, Employer or any of their respective Subsidiaries to cease doing business with the Company, Employer or such Subsidiary or in any way interfere with the relationship between any such customer, supplier, licensee or business relation and the Company, Employer or any such Subsidiary to the extent such inducement, interference or solicitation relates to the Executive conducting or engaging in Competitive Activities or provided, that the foregoing shall not restrict Executive from (A) engaging in general solicitation efforts not specifically targeted at any such employee, or (B) hiring any employee of the Company, Employer or such Subsidiary who responds to any such regular solicitation effort without any other inducement to leave the employ of the Company, Employer or any of their respective Subsidiaries.

(c) Enforcement. If, at the time of enforcement of Section 8 or this Section 9, a court holds that the restrictions stated herein are unreasonable under circumstances then existing, the parties hereto agree that the maximum duration, scope or geographical area reasonable under such circumstances shall be substituted for the stated period, scope or area and that the court shall be allowed to revise the restrictions contained herein to cover the maximum duration, scope and area permitted by law. Because Executive's services are unique and because Executive has access to confidential information, the parties hereto agree that money damages would be an inadequate remedy for any breach of this Agreement. Therefore, in the event a breach or threatened breach of this Agreement, the Company, Employer, their respective Subsidiaries and/or their respective successors or assigns may, in addition to other rights and remedies existing in their favor, subject to Section 12(h), apply to any court of competent jurisdiction for specific performance and/or injunctive or other relief in order to enforce, or prevent any violations of, the provisions hereof (without posting a bond or other security). In the event that Executive breaches any provision of this Section 9, then the Restricted Period shall be extended for a period of time equal to the period of time during which such breach occurred and, in the event that the Company, Employer or any of their Subsidiaries is required to seek relief from such breach in any court, then the Restricted Period shall be extended for a period of time equal to the pendency of such proceedings, including all appeals.

(d) Additional Acknowledgments. Executive acknowledges that the provisions of this Section 9 are in consideration of: (i) employment with Employer, (ii) the issuance of the Executive Securities and (iii) additional good and valuable consideration as set forth in this Agreement. In addition, Executive agrees and acknowledges that the restrictions contained in Section 8 and this Section 9 do not preclude Executive from earning a livelihood, nor do they unreasonably impose limitations on Executive's ability to earn a living. In addition, Executive acknowledges (x) that the business of the Company, Employer and their respective Subsidiaries will be conducted throughout the United States and other jurisdictions where the Company, Employer or any of their respective Subsidiaries conduct business during the Employment Period, (y) notwithstanding the state of organization or principal office of the Company, Employer or any of their respective Subsidiaries, or any of their respective executives or employees (including Executive), it is expected that the Company, Employer and their respective Subsidiaries will have business activities and have valuable business relationships within its industry throughout the United States and other jurisdictions where the Company,

Employer or any of their respective Subsidiaries conduct business during the Employment Period, and (z) as part of his responsibilities, Executive will be traveling throughout the United States and other jurisdictions where the Company, Employer or any of their respective Subsidiaries conduct business during the Employment Period in furtherance of Employer's business and its relationships. Executive agrees and acknowledges that the potential harm to the Company, Employer and their respective Subsidiaries of the non-enforcement of any provision of Section 8 or this Section 9 outweighs any potential harm to Executive of its enforcement by injunction or otherwise. The covenants contained in each of Sections 8(a), 8(b), 8(c), 8(d), 8(e), 9(a) and 9(b) may be enforced independently and without any one or more of such sections limiting the provisions of any one or more of the other of such sections. Executive acknowledges that he has carefully read this Agreement and consulted with legal counsel of his choosing regarding its contents, has given careful consideration to the restraints imposed upon Executive by this Agreement and is in full accord as to their necessity for the reasonable and proper protection of confidential and proprietary information of the Company, Employer and their respective Subsidiaries now existing or to be developed in the future. Executive expressly acknowledges and agrees that each and every restraint imposed by this Agreement is reasonable with respect to subject matter, time period and geographical area.

GENERAL PROVISIONS

10. Definitions.

"Cause" means (a) the commission of a felony, (b) willful conduct tending to bring the Company, Employer or any of their respective Subsidiaries into substantial public disgrace or disrepute, (c) substantial and repeated failure to perform duties of the office held by Executive as reasonably directed by the Board, (d) gross negligence or willful misconduct with respect to the Company, Employer or any of their respective Subsidiaries, including any other act or omission involving significant and willful dishonesty or fraud with respect to the Company, Employer or any of their respective Subsidiaries or any of their respective customers or suppliers, or (e) any material breach of Sections 1(e)(iii), 8 or 9 or Section 7(a)(ii) (but only with respect the requirement of such Section 7(a)(ii) that Executive devote his full business time and attention to the business and affairs of the Company, Employer and their Subsidiaries). In each case above the burden of proving such action or omission is a "Cause" event shall be with Employer. In addition, Employer agrees it will permit Executive an opportunity to be heard by the Board before such dismissal.

"Common Stock" means, collectively, (a) following the organization of a corporation and reorganization or recapitalization of the Company into such corporation as provided in Section 12.1 of the LLC Agreement, the common equity securities of such corporation and any other class or series of authorized capital stock of such corporation that is not limited to a fixed sum or percentage of par or stated value in respect of the rights of the holders thereof to participate in dividends or in the distribution of assets upon any liquidation, dissolution or winding up of such corporation, and (b) any common stock of a Subsidiary of either the Company or such corporation distributed by the Company or such corporation to its unitholders or shareholders, as applicable.

"Company Business" means the business(es) of providing those services or selling those products which the Company, Employer or any of their respective Subsidiaries actually provide or sell.

"Disability" means the disability of Executive caused by any physical or mental injury, illness or incapacity as a result of which Executive is, or is reasonably expected to be, unable to effectively perform the essential functions of Executive's duties for a substantially continuous period of more than 120 days or for any 180 days (whether or not continuous) within a 365 day period, as determined by the Board in good faith.

"Executive Cumulative Sale Percentage" means, on any date of determination, a percentage equal to the quotient of (a) the aggregate number of shares of Common Stock sold by Executive and/or or his Permitted Transferees in Public Sales from and including the consummation of the Company's initial Public Offering and to and including such date, divided by (b) the aggregate number of shares of Common Stock held by Executive and his Permitted Transferees upon the consummation of the Company's initial Public Offering.

"Executive Securities" means all Common Units (including all Executive Capital Units and Executive Incentive Units) at any time acquired by Executive. Executive Securities will continue to be Executive Securities in the hands of any holder other than Executive (except for the Company and the Investors and except for transferees in a Public Sale), and except as otherwise provided herein, each such other holder of Executive Securities will succeed to all rights and obligations attributable to Executive as a holder of Executive Securities hereunder. Executive Securities will also include equity of the Company (or a corporate successor to the Company or a Subsidiary of the Company) issued with respect to Executive Securities (a) by way of a Unit split, Unit distribution, conversion, or other recapitalization, (b) by way of reorganization or recapitalization of the Company in connection with the incorporation of a corporate successor prior to a Public Offering or (c) by way of a distribution of securities of a Subsidiary of the Company to the members of the Company following or with respect to a Subsidiary Public Offering. Notwithstanding the foregoing, all Unvested Incentive Units shall remain Unvested Incentive Units after any Transfer thereof (other than to the Company or any of the Investors).

"Fair Market Value" of each Unit of Executive Securities means the fair value of such Executive Securities as determined in good faith by the Board applying the provisions of Sections 11.2(a)(ii) and 11.2(b) of the LLC Agreement. If Executive reasonably disagrees with such determination, Executive shall deliver to the Board a written notice of objection within ten days after delivery of the Repurchase Notice (or if no Repurchase Notice is delivered, then within ten days after delivery of the Supplemental Repurchase Notice). Upon receipt of Executive's written notice of objection, the Board and Executive will negotiate in good faith to agree on such Fair Market Value. If such agreement is not reached within 30 days after the delivery of the Repurchase Notice (or if no Repurchase Notice is delivered, then within 30 days after the delivery of the Supplemental Repurchase Notice), Fair Market Value shall be determined by an appraiser applying the provisions of Sections 11.2(a)(ii) and 11.2(b) of the LLC Agreement. The appraiser will be jointly selected by the Board and Executive and will submit to the Board and Executive a report within 30 days of its engagement setting forth such determination. If the parties are unable to agree on an appraiser within 45 days after delivery of

the Repurchase Notice or the Supplemental Repurchase Notice, within seven days, each party hereto shall submit the names of four nationally recognized firms that are engaged in the business of valuing non-public securities, and each party hereto shall be entitled to strike two names from the other party's list of firms, and the appraiser shall be selected by lot from the remaining four appraisal firms. If Executive does not comply with his obligations in this paragraph regarding the selection and appointment of the appraiser, Executive shall be deemed to have agreed to the Board's determination of Fair Market Value notwithstanding his disagreement therewith. The expenses of such appraiser shall be borne by Executive unless the appraiser's valuation is more than 10% greater than the amount determined by the Board, in which case the expenses of the appraiser shall be borne by the Company. The determination of such appraiser as to Fair Market Value shall be final and binding upon all parties for purposes of this Agreement.

"Good Reason" means (a) any action by the Company or Employer which results in a material reduction in Executive's title, status, authority or responsibility as Chief Executive Officer of Employer, (b) a failure of Executive to be on the Board, or (c) a reduction in Executive's Annual Base Salary, in each case without the prior written consent of Executive; provided, that in order to constitute a termination with Good Reason, Executive must resign within 30 days of an event which constitutes Good Reason.

"Indemnification Agreement" means the Indemnification Agreement, dated as of the date hereof, by and between the Company and Executive.

"Investor Cumulative Sale Percentage" means, on any date of determination, a percentage equal to the quotient of (a) the aggregate number of shares of Common Stock sold by the Investors in Public Sales from and including the consummation of the Company's initial Public Offering and to and including such date, divided by (b) the aggregate number of shares of Common Stock held by the Investors upon the consummation of the Company's initial Public Offering.

"Investor Investment Amount" means, as of any measurement date, the total amount of cash, cash equivalents, promissory obligations, or the fair market value of any other property (as determined by the Board) invested or contributed by the Investors with respect to Company Equity Securities.

"Investor IRR" means the annual discount rate which, when used to calculate the net present value of the sum of (i) the aggregate amount of all Investor Proceeds and (ii) the Investor Investment Amount causes such net present value to equal zero. For purposes of the net present value calculation, (A) Investor Proceeds shall be positive numbers and (B) the Investor Investment Amount shall be a negative number. In determining the Investor IRR, cash payments, other cash Distributions and the Fair Market Value of all other property included within the Investor Proceeds will be measured from the day on which the Investors actually receive such payments, Distributions or other property, and Investor Investment Amount will be measured from the day on which the payments, investments and contributions included therein are actually received by the Company or other recipient thereof.

"Investor Proceeds" means, as of any measurement date, the total amount of cash received by the Investors with respect to Company Equity Securities pursuant to Section 4.1 of the LLC Agreement (other than Tax Distributions); provided, that in the event the Investors

receive property other than cash as a distribution from the Company pursuant to Section 4.1, such property shall become Investor Proceeds on the date that it is sold, exchanged, transferred or otherwise converted into cash.

"LLC Agreement" means the Limited Liability Company Agreement of the Company, as amended or modified from time to time in accordance with its terms.

"New Securities" shall have the meaning set forth in the Securityholders Agreement.

"No-Fault Dissolution Event" means a dissolution of the Company pursuant to Section 10.1(c) of the LLC Agreement.

"Original Cost" means, with respect to each Executive Capital Unit purchased hereunder, $0.05937259 (as proportionately adjusted for all Subsequent Contributions made by Executive with respect to such Executive Capital Units, subsequent unit splits, unit distributions and other recapitalizations).

"Rejected Company" means, as determined in the sole discretion of the Board, an entity which, (i) is not engaged in the Company Business, (ii) has been formally presented and recommended in writing by Executive to the Board as a potential acquisition target for the Company or its Subsidiaries and (iii) has been explicitly rejected as a potential acquisition target or business opportunity and a "Rejected Company" in writing by the Board.

"Securityholders Agreements" means the Securityholders Agreement, dated as of the date hereof, by and among the Company, Executive and the other parties signatories thereto as amended or modified from time to time in accordance with its terms.

"Separation" means Executive ceasing to be employed by any of the Company, Employer and their respective Subsidiaries for any reason.

"Target Multiple" means a number equal to the result of (i) all Investor Proceeds divided by (ii) the Investor Investment Amount.

11. Notices. All notices, demands or other communications to be given or delivered under or by reason of the provisions of this Agreement shall be in writing and shall be deemed to have been given when (a) delivered personally to the recipient, (b) sent to the recipient by reputable express courier service (charges prepaid), (c) mailed to the recipient by certified or registered mail, return receipt requested and postage prepaid, or (d) telecopied to the recipient (with hard copy sent to the recipient by reputable overnight courier service (charges prepaid) that same day) if telecopied before 5:00 p.m. Chicago, Illinois time on a business day, and otherwise on the next business day. Such notices, demands and other communications shall be sent to the parties at the addresses indicated below:

If to Company or Employer:

Maravai Life Sciences Holdings, LLC
c/o GTCR Management LLC

300 North LaSalle Street, Suite 5600
Chicago, Illinois 60654
Facsimile: (312) 382-2201
Attention: Chief Executive Officer

with copies to:

GTCR Management LLC
300 North LaSalle Street
Chicago, Illinois 60654
Facsimile: (312) 382-2201
Attention: Constantine S. Mihas
Sean L. Cunningham
Benjamin J. Daverman

Kirkland & Ellis LLP
300 North LaSalle Street
Chicago, Illinois 60654
Facsimile: (312) 862-2200
Attention: Sanford E. Perl, P.C.
Michael H. Weed, P.C.

If to Executive:

Carl W. Hull

If to the Investors:

GTCR Management LLC
300 North LaSalle Street
Chicago, Illinois 60654
Facsimile: (312) 382-2201
Attention: Constantine S. Mihas
Sean L. Cunningham
Benjamin J. Daverman

Kirkland & Ellis LLP

300 North LaSalle Street
Chicago, Illinois 60654
Facsimile: (312) 862-2200
Attention: Sanford E. Perl, P.C.
Michael H. Weed, P.C.

or such other address or to the attention of such other Person as the recipient party shall have specified by prior written notice to the sending party.

12. General Provisions.

(a) Transfers in Violation of Agreement. Any Transfer or attempted Transfer of any Executive Securities in violation of any provision of this Agreement shall be void, and the Company shall not record such Transfer on its books or treat any purported Transferee of such Executive Securities as the owner of such equity for any purpose.

(b) Severability. Whenever possible, each provision of this Agreement will be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Agreement is held to be invalid, illegal or unenforceable in any respect under any applicable law or rule in any jurisdiction, such invalidity, illegality or unenforceability will not affect any other provision or any other jurisdiction, but this Agreement will be reformed, construed and enforced in such jurisdiction as if such invalid, illegal or unenforceable provision had never been contained herein.

(c) Entire Agreement. This Agreement, those documents expressly referred to herein and other documents of even date herewith embody the complete agreement and understanding among the parties hereto and supersede and preempt any prior understandings, agreements or representations by or among the parties hereto, written or oral, which may have related to the subject matter hereof in any way, including the draft Summary of Terms, dated March 1, 2013.

(d) Descriptive Headings; Interpretation; No Strict Construction. The descriptive headings of this Agreement are inserted for convenience only and do not constitute a substantive part of this Agreement. Whenever required by the context, any pronoun used in this Agreement shall include the corresponding masculine, feminine, or neuter forms, and the singular form of nouns, pronouns, and verbs shall include the plural and vice versa. The use of the word “including” in this Agreement shall be by way of example rather than by limitation. Reference to any agreement, document, or instrument means such agreement, document, or instrument as amended or otherwise modified from time to time in accordance with the terms thereof, and, if applicable, hereof. The use of the words “or,” “either,” and “any” shall not be exclusive. The parties hereto have participated jointly in the negotiation and drafting of this Agreement. In the event an ambiguity or question of intent or interpretation arises, this Agreement shall be construed as if drafted jointly by the parties hereto, and no presumption or burden of proof shall arise favoring or disfavoring any party by virtue of the authorship of any of the provisions of this Agreement.

(e) Counterparts. This Agreement may be executed in multiple counterparts with the same effect as if all signing parties had signed the same document. All counterparts shall be construed together and constitute the same instrument.

(f) Successors and Assigns. Except as otherwise provided herein, this Agreement shall bind and inure to the benefit of and be enforceable by Executive, the Company, Employer, the Investors and their respective successors and assigns (including subsequent holders of Executive Securities); provided, that the rights and obligations of Executive under this Agreement shall not be assigned or delegated except for the assignment and delegation of Executive's rights and obligations hereunder as a holder of Executive Securities in connection with a permitted Transfer of Executive Securities hereunder and under the other Transaction Documents.

(g) Applicable Law. This Agreement shall be governed by, and construed in accordance with, the laws of the State of Delaware, without giving effect to any choice of law or conflict of law rules or provisions (whether of the State of Delaware or any other jurisdiction) that would cause the application of the laws of any jurisdiction other than the State of Delaware.

(h) Dispute Resolution. Any controversy, dispute or claim arising out of or relating to this Agreement or the Indemnification Agreement (a "Covered Claim") shall be resolved by binding arbitration to be held in Wilmington, Delaware, and shall be administered by JAMS in accordance with the Employment Arbitration Rules & Procedures of JAMS then in effect and subject to JAMS Policy on Employment Arbitration Minimum Standards. Each party shall pay their own costs and expenses (including, without limitation, attorneys' fees and other charges of counsel) incurred in resolving any such Covered Claim; provided, that in the event litigation is required to compel arbitration or to enforce an arbitration award or judgment pursuant to this Agreement, the non-prevailing party in such litigation shall reimburse the costs and expenses (including attorney's fees and other charges of counsel) of the prevailing party. Judgment upon the award rendered by the arbitrator(s) may be entered into any court having jurisdiction thereof. The parties hereto agree that any action to compel arbitration pursuant to this Agreement shall be brought in the appropriate Delaware state court, and in connection with such action to compel, the laws of Delaware shall control.

(i) Executive's Cooperation. During the Employment Period and thereafter, Executive shall cooperate with the Company, Employer and their respective Subsidiaries and Affiliates in any disputes with third parties, internal investigation or administrative, regulatory or judicial proceeding as reasonably requested by the Company (including Executive being available to the Company upon reasonable notice for interviews and factual investigations, appearing at the Company's request to give testimony without requiring service of a subpoena or other legal process, volunteering to the Company all pertinent information and turning over to the Company all relevant documents which are or may come into Executive's possession, all at times and on schedules that are reasonably consistent with Executive's other permitted activities and commitments). In the event the Company requires Executive's cooperation in accordance with this paragraph after the Employment Period, the Company shall reimburse Executive for Executive's reasonable time at a rate of $100 per hour and reasonable travel expenses (including lodging and meals, upon submission of receipts).

(j) Remedies. Each of the parties to this Agreement shall have all rights and remedies set forth in this Agreement and all rights and remedies which such Person has been granted at any time under any other agreement or contract and all of the rights which such Person has under any law. Each of the parties to this Agreement will be entitled to enforce its rights under this Agreement specifically, to recover damages and costs caused by any breach of any provision of this Agreement and to exercise all other rights existing in its favor. The parties hereto agree and acknowledge that money damages may not be an adequate remedy for any breach of the provisions of this Agreement and that any party may in its sole discretion, but subject to Section 12(h), apply to any court of law or equity of competent jurisdiction (without posting any bond or deposit) for specific performance and/or other injunctive relief in order to enforce or prevent any violations of the provisions of this Agreement.

(k) Amendment and Waiver. The provisions of this Agreement may be amended and waived only with the prior written consent of the Company, Employer, Executive and the Majority Holders (as defined in the Unit Purchase Agreement). No failure by any party to insist upon the strict performance of any covenant, duty, agreement, or condition of this Agreement or to exercise any right or remedy consequent upon a breach thereof shall constitute a waiver of any such breach or any other covenant, duty, agreement, or condition. The waiver by any party of a breach of any covenant, duty, agreement, or condition of this Agreement of any other party shall not operate or be construed as a waiver of any subsequent breach of that provision or any other provision hereof.

(l) Insurance. The Company or Employer, at its discretion, may apply for and procure in its own name and for its own benefit life and/or disability insurance on Executive in any amount or amounts considered available. Executive agrees to cooperate in any medical or other examination, supply any information, and to execute and deliver any applications or other instruments in writing as may be reasonably necessary to obtain and constitute such insurance.

(m) Business Days. If any time period for giving notice or taking action hereunder expires on a day which is a Saturday, Sunday or holiday in the state in which the Company's chief executive office is located, the time period shall be automatically extended to the business day immediately following such Saturday, Sunday or holiday.

(n) Indemnification and Reimbursement of Payments on Behalf of Executive. The Company, Employer and their respective Subsidiaries shall be entitled to deduct or withhold from any amounts owing from the Company, Employer or any of their respective Subsidiaries to Executive (including withholding shares or other equity securities in the case of issuances of equity by the Company, Employer or any of their respective Subsidiaries) any federal, state, local or foreign withholding taxes, excise taxes, or employment taxes ("~~Taxes~~") imposed with respect to Executive's compensation or other payments from the Company, Employer or any of their respective Subsidiaries or Executive's ownership interest in the Company, including wages, bonuses, distributions, the receipt or exercise of equity options and/or the receipt or vesting of restricted equity. In the event any such deductions or withholdings are not made, Executive shall indemnify the Company, Employer and each of their respective Subsidiaries for any amounts paid with respect to any such Taxes, together with any interest, penalties and related expenses thereto; provided, that, Executive shall not be obligated to indemnify the Company pursuant to this Section 12(n) for such interest, penalties or related expenses which are directly caused by the

failure of the Company to take necessary action with respect to such deductions and withholdings as it is required by law to take.

(o) Reasonable Expenses. Employer agrees to pay the reasonable fees and expenses of Executive's counsel arising in connection with the negotiation and execution of this Agreement, the LLC Agreement, the Securityholders Agreement and the Registration Agreement (but in no event exceeding $25,000 in the aggregate).

(p) Termination. Subject to Section 7(d), this Agreement (except for the provisions of Sections 7(a) and 7(b)) shall survive a Separation and shall remain in full force and effect after such Separation.

(q) Adjustments of Numbers. All numbers set forth herein that refer to Unit prices or amounts will be appropriately adjusted to reflect Unit splits, Unit distributions, combinations of Units and other recapitalizations affecting the subject class of equity.

(r) Deemed Transfer of Executive Securities. If the Company (and/or the Investors and/or any other Person acquiring securities) shall make available, at the time and place and in the amount and form provided in this Agreement, the consideration for the Executive Securities to be repurchased, in each case, in accordance with the provisions of this Agreement, then from and after such time, the Person from whom such Units are to be repurchased shall no longer have any rights as a holder of such Units (other than the right to receive payment of such consideration in accordance with this Agreement), and such Units shall be deemed purchased in accordance with the applicable provisions hereof and the Company (and/or the Investors and/or any other Person acquiring securities) shall be deemed the owner and holder of such Units, whether or not the certificates therefor have been delivered as required by this Agreement.

(s) No Pledge or Security Interest. The purpose of the Company's retention of Executive's certificates and executed security powers is solely to facilitate the provisions set forth in Section 3 herein and Section 8.2 of the LLC Agreement and does not by itself constitute a pledge by Executive of, or the granting of a security interest in, the underlying equity.

(t) Rights Granted to the Investors and their Affiliates. Any rights granted to any of the Investors or any of their respective Affiliates hereunder may also be exercised (in whole or in part) by their designees.

(u) Subsidiary Public Offering. If, after consummation of a Subsidiary Public Offering, the Company distributes securities of such Subsidiary to members of the Company, then such securities will be treated in the same manner as (but excluding any "preferred" features of the Units with respect to which they were distributed) the Units with respect to which they were distributed for purposes of Sections 1, 2, 3, and 4.

(v) Electronic Delivery. This Agreement, the agreements referred to herein, and each other agreement or instrument entered into in connection herewith or therewith or contemplated hereby or thereby, and any amendments hereto or thereto, to the extent signed and delivered by means of a photographic, facsimile, portable document format (.pdf), or similar reproduction of such signed writing using a facsimile machine or electronic mail shall be treated

in all manner and respects as an original agreement or instrument and shall be considered to have the same binding legal effect as if it were the original signed version thereof delivered in person. At the request of any party hereto or to any such agreement or instrument, each other party hereto or thereto shall re-execute original forms thereof and deliver them to all other parties hereto. No party hereto or to any such agreement or instrument shall raise the use of a facsimile machine or electronic mail to deliver a signature or the fact that any signature or agreement or instrument was transmitted or communicated through the use of a facsimile machine or electronic mail as a defense to the formation or enforceability of a contract and each such party forever waives any such defense.

(w) No Third-Party Beneficiaries. Except as expressly provided herein, no term or provision of this Agreement is intended to be, or shall be, for the benefit of any Person not a party hereto, and no such other Person shall have any right or cause of action hereunder.

(x) Directors' and Officers' Insurance. Each of the Company and Employer agree that it shall obtain and maintain in full force and effect during the term of Executive's employment hereunder directors' and officers' insurance policies in amounts and with coverages customary for entities of the size and with the type of business of the Company and Employer, respectively.

* * * * *

IN WITNESS WHEREOF, the parties hereto have executed this Senior Management Agreement as of the date first above written.

MARAVAI LIFE SCIENCES HOLDINGS, LLC

By: /s/ Eric Tardif
Name: Eric Tardif
Its: President

MARAVAI LIFE SCIENCES, INC.

By: /s/ Eric Tardif
Name: Eric Tardif
Its: President

Carl W. Hull

IN WITNESS WHEREOF, the parties hereto have executed this Senior Management Agreement as of the date first above written.

MARAVAI LIFE SCIENCES HOLDINGS, LLC

By: _____
Name: Eric Tardif
Its: President

MARAVAI LIFE SCIENCES, INC.

By: _____
Name: Eric Tardif
Its: President

/s/ Carl W. Hull
Carl W. Hull

Each Investor, by signing below, acknowledges and accepts the rights granted to it as a third party beneficiary of this Agreement under Sections 3, 11, and 12 hereof as set forth therein and no Investor shall have any liability or obligation under this Agreement as a result of its signature below:

THE INVESTORS:

GTCR FUND X/A LP

By: GTCR Partners X/A&C LP
Its: General Partner

By: GTCR Investment X LLC
Its: General Partner

By: /s/ Constantine S. Mihas
Name: Constantine S. Mihas
Its: Principal

GTCR FUND X/C LP

By: GTCR Partners X/A&C LP
Its: General Partner

By: GTCR Investment X LLC
Its: General Partner

By: /s/ Constantine S. Mihas
Name: Constantine S. Mihas
Its: Principal

GTCR CO-INVEST X LP

By: GTCR Investment X LLC
Its: General Partner

By: /s/ Constantine S. Mihas
Name: Constantine S. Mihas
Its: Principal

Exhibit 10.3

EXECUTION VERSION

AMENDED AND RESTATED
SENIOR MANAGEMENT AGREEMENT

THIS AMENDED AND RESTATED SENIOR MANAGEMENT AGREEMENT (this "Agreement") is made as of August 4, 2015, by and among Maravai Life Sciences Holdings, LLC, a Delaware limited liability company (the "Company"), Maravai Life Sciences, Inc. a Delaware corporation ("Employer") and Eric Tardif ("Executive"). Capitalized terms used but not otherwise defined herein shall have the meanings set forth in Section 10 of this Agreement, or if not defined herein, the meanings in the LLC Agreement.

This Agreement amends, restates and supersedes in its entirety that certain Senior Management Agreement, dated as of March 18, 2014 (the "Prior Agreement"), by and among the Company, Employer, Executive and The Eric Tardif and Tanya M. Kovacik Family Trust, dated June 2, 2010 ("Tardif Trust" and, together with Executive, each a "Tardif Party" and collectively, the "Tardif Parties").

The Company, Employer, Executive and Tardif Trust desire to amend and restate the Prior Agreement as set forth herein in order to govern the terms of the Executive Capital Units (as defined below) and the Executive Incentive Units (as defined below) acquired by Executive and issued by the Company pursuant to the Prior Agreement, as well as to modify certain terms and conditions pursuant to which Employer will employ Executive.

The Company, Employer and Executive also mutually desire to enter into an agreement containing the terms and conditions pursuant to which Employer will employ Executive.

The execution and delivery of this Agreement by the Company and Executive was a condition to the purchase of Common Units by the Investors pursuant to the Unit Purchase Agreement. Certain provisions of this Agreement are intended for the benefit of, and will be enforceable by, the Investors.

NOW, THEREFORE, in consideration of the mutual covenants contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties to this Agreement hereby agree as follows:

PROVISIONS RELATING TO EXECUTIVE SECURITIES

1. Purchase and Sale of Executive Securities.

(a) Initial Closing. Upon execution of the Prior Agreement, (the "Closing"), (i) Tardif Trust purchased from the Company, and the Company sold to Tardif Trust, 8,421 of the Company's Capital Units (the " Executive Capital Units") at a price of $0.05937259 per Unit and (ii) the Company issued and granted to Tardif Trust, on behalf of Executive, 250,000 of the Company's Incentive Units (the "Executive Incentive Units") at no cost per Unit. Such Executive Incentive Units are designated Series 1 Incentive Units and are subject to the vesting requirements described herein. Each Executive Incentive Unit had an initial Capital Contribution for such Executive Incentive Unit equal to zero and an initial Participation Threshold of $0.05937259. The Participation Threshold with respect to each Executive Incentive Unit is subject to adjustment from time to time as set forth in the LLC Agreement. The Company has

delivered to the applicable Tardif Parties a copy of the certificate(s) representing such Executive Securities, and Tardif Trust will has delivered to the Company a cashier's or certified check or wire transfer of immediately available funds in an aggregate amount equal to $499.98, as payment for the Executive Securities and each of the Tardif Parties has delivered to the Company (x) an executed counterpart signature page to each of the Securityholders Agreement and the Registration Agreement as an "Executive" thereunder, and (y) an executed counterpart signature page to the LLC Agreement. Both the Executive Capital Units and Executive Incentive Units are Common Units. Concurrently with the execution of this Agreement, the Company, Executive and Tardif Trust agree to enter into such documentation as is necessary or advisable in order to evidence the irrevocable transfer and assignment of the Executive Capital Units and Executive Incentive Units from Tardif Trust to Executive. From and after the date hereof, upon execution of such transfer documentation, Executive shall be, and shall be deemed to be, the holder and acquirer of the Executive Capital Units and Executive Incentive Units and shall have all rights, benefits and obligations with respect thereto pursuant to this Agreement, the LLC Agreement, the Registration Agreement, the Securityholders Agreement and any other agreement by and between the Company and its equityholders; provided that, for the avoidance of doubt, Executive shall be liable for any claims, losses or liabilities arising out of the breach of this Agreement, the Securityholders Agreement, the LLC Agreement, the Registration Agreement and any other agreement between Tardif Trust and the Company, the Employee or the Investors by Tardif Trust prior to the date hereof.

(b) Subsequent Closings. If, from time to time after the Closing, the Investors make subsequent Capital Contributions to the Company in respect of Common Units acquired by the Investors pursuant to the Unit Purchase Agreement (each such subsequent Capital Contribution, a "Subsequent Contribution"), Executive will, concurrently with each such Subsequent Contribution, make an additional Capital Contribution to the Company in respect of the Executive Capital Units, by wire transfer of funds or certified or cashier's check, in an amount equal to (A) $300,000, multiplied by (B) a fraction (x) the numerator of which will be the Capital Contributions to the Company to be made by the Investors in respect of Common Units in connection with such Subsequent Contribution and (y) the denominator of which will be $300,000,000; provided, that in no event shall the aggregate amount of all Capital Contributions to the Company made by Executive hereunder (including at the Closing and pursuant to this Section 1(b)) exceed $300,000. In connection with any such Subsequent Contribution pursuant to this Section 1(b), the Company will update the Unit Ledger to the LLC Agreement to reflect such additional Capital Contribution. To the extent that, after the date hereof, any Person (other than any Investor) assumes or otherwise agrees to perform all or part of the obligations of the Investors under Section 1(b)(ii) of the Unit Purchase Agreement, any Capital Contribution made by such Person in connection with a Subsequent Contribution shall be treated as having been made by the Investors for purposes of this Section 1(b).

(c) 83(b) Election. Within 30 days after the acquisition of Executive Securities at the Initial Closing, each of the Tardif Parties made an effective election (an "83(b) Election") with the Internal Revenue Service under Section 83(b) of the Internal Revenue Code of 1986, as amended, and the regulations promulgated thereunder in the form of Exhibit A attached hereto.

(d) Certificates. Until released upon the occurrence of a Sale of the Company, all certificates evidencing Executive Securities shall be held, subject to the other terms of this Agreement and the Securityholders Agreement, by the Company for the benefit of Executive and the other holder(s) of Executive Securities. Upon the occurrence of a Sale of the Company, subject to the provisions of the LLC Agreement (including Section 12.1 thereof), the Company will return all certificates in its possession evidencing Executive Securities to the record holders thereof or, subject to Section 1(g), to the appropriate acquirer thereof.

(e) Representations and Warranties. In connection with the purchase, sale and subsequent acquisition of the Executive Securities and any additional Capital Contribution made by Executive, Executive warrants to the Company and Employer that:

(i) Executive possesses all requisite capacity, power and authority to enter into and perform his or its obligations under this Agreement;

(ii) this Agreement constitutes the legal, valid and binding obligation of each Tardif Party, enforceable in accordance with its terms, and the execution, delivery and performance of this Agreement by Executive does not and will not conflict with, violate or cause a breach of any agreement, contract or instrument to which any Tardif Party is a party or any judgment, order or decree to which any Tardif Party is subject;

(iii) except as set forth on Exhibit B attached hereto, Executive is not a party to, or bound by, any other employment agreement, consulting agreement, noncompete agreement, non-solicitation agreement or confidentiality agreement or any other agreement which could impair or interfere with Executive's obligations hereunder;

(iv) Executive hereby acknowledges and agrees that (A) there is no current public market for the Executive Securities, none is expected to develop and the Executive Securities are subject to substantial restrictions on transferability, and (B) as a result of such matters and other factors, the Executive Securities are difficult to value;

(v) Executive Securities to be acquired by Executive pursuant to this Agreement will be acquired for Executive's own account and not with a view to, or intention of, distribution thereof in violation of the Securities Act, or any applicable state securities laws, and the Executive Securities will not be disposed of in contravention of the Securities Act or any applicable state securities laws;

(vi) Executive is an "accredited investor" within the meaning of Rule 501 of Regulation D of the Securities and Exchange Commission, is sophisticated in financial matters and is able to evaluate the risks and benefits of the investment in the Executive Securities and Executive is an executive officer of the Company and/or Employer;

(vii) Executive is able to bear the economic risk of his investment in the Executive Securities for an indefinite period of time because the Executive Securities have not been registered under the Securities Act or applicable state securities laws and are subject to substantial restrictions on Transfer set forth herein and in the LLC Agreement, and, therefore, cannot be sold unless subsequently registered under the

Securities Act and applicable state securities laws, or an exemption from such registration is available, and in compliance with such restrictions on Transfer;

(viii) Executive has had an opportunity to ask questions and receive answers concerning the terms and conditions of the Transaction Documents (in particular, with respect to the distribution provisions set forth in the LLC Agreement) and the offering of Executive Securities and has had full and free access and opportunity to inspect, review, examine and inquire about all financial and other information concerning the Company and Employer as he has or it has requested;

(ix) Executive understands and agrees that (A) the investment in the Company involves a high degree of risk, (B) in the future the Executive Securities may significantly increase or decrease in value, and (C) no guarantees or representations have been made or can be made with respect to the future value of the Executive Securities or the future profitability or success of the Company;

(x) Executive acknowledges and agrees that (A) the Company and its Subsidiaries may incur in the future a substantial amount of senior or other indebtedness and (B) there may be additional issuances of Common Units or other Equity Securities after the date hereof and the equity interests of Executive may be diluted in connection with any such issuance, subject to the terms of the LLC Agreement and the Securityholders Agreement;

(xi) Executive has had an opportunity to consult with his own tax counsel as to the U.S. federal, state, local and foreign tax consequences of the transactions contemplated by the Transaction Documents and independent legal counsel regarding his rights and obligations under the Transaction Documents and fully understands the terms and conditions contained herein and therein. Executive is not relying on the Company or Employer or any of their or their Subsidiaries' or Affiliates' employees, agents or representatives with respect to the legal, tax, economic, and related considerations of an investment in the Executive Securities; and

(xii) Executive is a resident of the State set forth in Executive's address for notices in Section 11 hereof.

(f) 'Executive Acknowledgment. As an inducement to the Company to issue the Executive Securities to Executive, and as a condition thereto, Executive acknowledges and agrees that neither the issuance of the Executive Securities to Executive nor any provision contained in this Agreement shall entitle Executive to remain in the employment of the Company, Employer or their respective Subsidiaries or affect the right of the Company, Employer or their respective Subsidiaries to terminate Executive's employment at any time for any reason, subject to Section 7.

(g) Security Powers. Concurrently with the execution of this Agreement, Executive shall each in blank ten security transfer powers in the form of Exhibit C-1 and Exhibit C-2, respectively, attached hereto (the "Security Powers") with respect to the Executive Securities and shall deliver such Security Powers to the Company. The Security Powers shall authorize the Company to assign, Transfer and deliver the Executive Securities to the appropriate

acquiror thereof pursuant to Section 3 below or Section 8.2 of the LLC Agreement and under no other circumstances.

(h) Spousal Consent. Concurrently with the execution of this Agreement, if Executive is lawfully married, Executive's spouse shall execute the Consent in the form of Exhibit D attached hereto.

(i) Certain Covenant. Executive acknowledges that he has not breached, and that he will continue to fully comply with, the covenants referenced on Exhibit B attached hereto and set forth in Exhibit E attached hereto.

2. Vesting of Executive Securities.

(a) Executive Capital Units. The Executive Capital Units shall be vested upon the purchase pursuant to Section 1(a). The Executive Incentive Units shall be subject to vesting in the manner specified in this Section 2. 200,000 of the Executive Incentive Units shall be "Time-Vesting Executive Incentive Units" and 50,000 of the Executive Incentive Units shall be "Performance-Vesting Executive Incentive Units."

(b) Executive Incentive Units.

(i) Time-Vesting Executive Incentive Units. Except as otherwise provided in this Section 2, the Time-Vesting Executive Incentive Units shall become vested as follows: (A) up to 20% of the Time-Vesting Executive Incentive Units shall become vested as of the date of the consummation of the Base Acquisition, determined by multiplying 20% by a fraction, the numerator of which is the number of whole months elapsed from the date of the Prior Agreement through the date of the consummation of the Base Acquisition and the denominator of which is twelve (12); provided, that in no event shall the amount of Time-Vesting Executive Incentive Units which shall vest in accordance with this Section 2(b)(i) exceed 20%; and (B) the remaining portion of the Time-Vesting Executive Incentive Units shall vest ratably on each of the first, second, third, fourth and fifth anniversaries of the date on which the Base Acquisition is consummated, which shall be set forth on Schedule I upon the consummation of the Base Acquisition (such that the Time-Vesting Executive Incentive Units shall become 100% vested on the fifth anniversary of the consummation of the Base Acquisition), if as of each such date Executive is, and since the Closing continuously has been, employed by the Company, Employer or any of their respective Subsidiaries. For the avoidance of doubt, if Executive ceases to be employed by any of Employer and its Subsidiaries prior to the date on which the Base Acquisition is consummated, none of the Executive Incentive Units shall be deemed vested.

(ii) Performance-Vesting Executive Incentive Units. The Performance-Vesting Executive Incentive Units shall become 100% vested on the date on which both, (A) the Investors achieve a Target Multiple of at least 3.0; and (B) the Investors achieve an Investor IRR of at least 25%; if, as of such date, Executive is, and since the Closing continuously has been, employed by the Company, Employer or any of their respective Subsidiaries. The Board shall reasonably determine in good faith what amount of the

Performance-Vesting Executive Incentive Units have vested pursuant to this Section 2(b)(ii)

(c) Sale of the Company. Upon the occurrence of a Sale of the Company, all Time-Vesting Executive Incentive Units which have not yet become vested shall become vested as of the date of consummation of such Sale of the Company, if, as of such date, Executive has been continuously employed by the Company or any of its Subsidiaries from the date of this Agreement through and including such date, subject to the provisions of this Section 2(c). Upon the occurrence of a Sale of the Company, any Performance-Vesting Executive Incentive Units (whether held by Executive or one or more of his transferees, other than the Company and the Investors) which fail to vest as result of such Sale of the Company will automatically (without any action by any Executive or any of his transferees) be forfeited to the Company and deemed canceled and no longer outstanding without any payment therefor upon the consummation of such Sale of the Company. Notwithstanding the foregoing or anything herein or in the LLC Agreement to the contrary (and in addition to any requirements therein), in the case of a Sale of the Company, Executive hereby agrees that, if the Person who is acquiring the equity securities or assets of the Company resulting in such Sale of the Company (the "Acquiror") reasonably requests that Executive continue to provide any services to the Acquiror, the Company, Employer or any of their respective Affiliates from and after the consummation of the Sale of the Company (whether as a full-time employee, consultant or otherwise) that are within the scope of services provided by Executive during the Employment Period in exchange for a base salary (or equivalent base compensation), bonus opportunity and fringe benefits (collectively, the "Post-Sale Compensation") that are no less favorable to Executive in the aggregate than the Annual Base Salary, bonus opportunity, and fringe benefits provided to Executive by Employer immediately prior to such Sale of the Company (excluding any equity or other incentive compensation), then the Continuing Incentive Amount shall be handled as follows (in lieu of being paid to Executive and/or his Permitted Transferee(s)):

(i) if Executive declines to provide such requested services, the Continuing Incentive Amount shall be distributed pursuant to Section 4.1(a) of the LLC Agreement to the holders of Capital Units (excluding, for these purposes, all Restricted Units which are subject to an applicable limitation), and, thereafter, neither Executive nor his Permitted Transferee(s) shall have any rights in respect of or other claims on such amounts (other than their status as a holder of Capital Units); or

(ii) if Executive agrees to provide such requested services, the Continuing Incentive Amount shall be deposited into an escrow account with an escrow agent designated by the Company, and the Continuing Incentive Amount shall be handled as follows:

(A) if Executive provides such requested services from and after consummation of the Sale of the Company through the earliest of (w) the date on which Acquiror reduces Executive's Post-Sale Compensation below the Annual Base Salary, bonus opportunity, and fringe benefits provided to Executive by Employer immediately prior to such Sale of the Company (excluding any equity or other incentive compensation), (x) the date on which the Acquiror terminates such services (other than with Cause), (y) Executive's death or

Disability, or (z) the six (6)-month anniversary of the consummation of the Sale of the Company (the earliest of (w), (x), (y) and (z), the "Final Vesting Date"), then the Continuing Incentive Amount, together with any income earned thereon, shall be released to Executive and/or his Permitted Transferee(s), as applicable, within five (5) business days after the Final Vesting Date; or

(B) if Executive fails to provide such requested services from and after the consummation of the Sale of the Company through the Final Vesting Date, then the Continuing Incentive Amount, together with any income earned thereon, shall be distributed as a Distribution under Section 4.1(a) of the LLC Agreement to the holders of Capital Units (excluding, for these purposes, all Restricted Units which are subject to an applicable limitation), and, thereafter, neither Executive nor his Permitted Transferee(s) shall have any rights in respect of or other claims on such amounts (other than their status as a holder of Capital Units).

(iii) For purposes of this Agreement, "Continuing Incentive Amount" means 25% of all consideration to which Executive and, to the extent necessary, his Permitted Transferee(s) are otherwise entitled in connection with such Sale of the Company in respect of the Executive Incentive Units.

(d) All Executive Incentive Units which have become vested hereunder, if any, are collectively referred to herein as the "Vested Incentive Units." All Executive Incentive Units which have not become vested hereunder, if any, are collectively referred to herein as the "Unvested Incentive Units."

3. Forfeiture and Repurchase Option.

(a) Forfeiture; Repurchase Option. In the event of a Separation, (i) all Unvested Incentive Units (whether held by Executive or one or more of his transferees, other than the Company and the Investors) automatically (without any action by Executive or any of his transferees) will be forfeited to the Company and deemed canceled and no longer outstanding without any payment therefor, and (ii) all Vested Incentive Units and Executive Capital Units (whether held by Executive or one or more of his transferees, other than the Company and the Investors) will be subject to a right of repurchase by the Company and the Investors pursuant to the terms and conditions in this Section 3 (the "Repurchase Option"). The Company may assign its repurchase rights set forth in this Section 3 to any Person; provided, that if there is a Subsidiary Public Offering and the securities of such Subsidiary are distributed to the members of the Company, then such Subsidiary will be treated as the Company for purposes of this Section 3 with respect to any repurchase of the securities of such Subsidiary. Notwithstanding anything to the contrary contained in this Agreement, if such Separation results from Employer's termination of Executive's employment with Cause, then all Executive Incentive Units (whether held by Executive or one or more of his transferees, other than the Company and the Investors) automatically (without any action by Executive or any of his transferees) will be forfeited to the Company and deemed canceled and no longer outstanding without any payment therefor pursuant to clause (i) of this Section 3(a).

(b) Purchase Price. In the event of a Separation, the purchase price for each Vested Incentive Unit and Executive Capital Unit will be the Fair Market Value of such Unit; provided, that if such Separation results from Employer's termination of Executive's employment with Cause, then the purchase price for each Executive Capital Unit will be the lower of (i) the Original Cost of such Unit and (ii) the Fair Market Value of such Unit. The Fair Market Value of any Unit for purposes of this Section 3 shall be the Fair Market Value of such Unit as of the first date of delivery of the Repurchase Notice or Supplemental Repurchase Notice, as the case may be, pursuant to Section 3(c) or Section 3(d).

(c) Repurchase Notice. The Company may elect to purchase all or any portion of the Executive Securities pursuant to this Section 3 by delivering written notice (the "Repurchase Notice") to the holder or holders of such securities within seven months after the Separation. The Repurchase Notice will set forth the number of Executive Securities to be acquired from each holder, the aggregate consideration to be paid for such Units and the time and place for the closing of the transaction.

(d) Supplemental Repurchase Notice. If for any reason the Company does not elect to purchase all of the Executive Securities (other than Unvested Incentive Units) pursuant to the Repurchase Option, the Investors shall be entitled to exercise the Repurchase Option for all or any portion of the Executive Securities (other than Unvested Incentive Units) which the Company has not elected to purchase (the "Available Securities"). As soon as practicable after the Company has determined that there will be Available Securities, but in any event before the date that is six months and one day after the Separation, the Company shall give written notice (the "Option Notice") to the Investors setting forth the number of Available Securities and the purchase price for the Available Securities. The Investors may elect to purchase any or all of the Available Securities by giving written notice to the Company within seven months after the Separation. If the Investors elect to purchase an aggregate number of any class of Available Securities greater than the number of Available Securities of such class, the Available Securities of such class shall be allocated among the Investors based upon the number of Units of such class owned by each Investor. As soon as practicable, and in any event within ten days after the expiration of the seven-month period set forth above, the Company shall notify each holder of Executive Securities as to the number of Units of each class being purchased from such holder by the Investors (the "Supplemental Repurchase Notice"). At the time the Company delivers the Supplemental Repurchase Notice to the holder(s) of Executive Securities, the Company shall also deliver written notice to each Investor setting forth the number of Units of each class such Investor is entitled to purchase, the aggregate purchase price and the time and place of the closing of the transaction.

(e) Closing of Repurchase. The closing of the purchase of the Executive Securities pursuant to the Repurchase Option shall take place on the date designated by the Company in the Repurchase Notice or Supplemental Repurchase Notice, which date shall not be more than one month nor less than five days after the delivery of the later of either such notice to be delivered. The Company will pay for the Executive Securities to be purchased by it pursuant to the Repurchase Option by first offsetting amounts outstanding under any bona fide debts owed by Executive to the Company or any of its Subsidiaries, and will pay the remainder of the purchase price by, at its option, (i) a check or wire transfer of funds, (ii) the issuance of a subordinated promissory note of the Company or a Subsidiary of the Company payable in up to

three annual installments beginning on the first anniversary of the closing of such repurchase and bearing interest (payable quarterly) at a per annum rate equal to 8% (a "Repurchase Note"), (iii) the issuance in exchange for such securities of a number of a new class or series of Units or other Company Equity Securities that are senior to the other existing Units and bearing a yield of 8% per annum, compounded quarterly, or (iv) any combination of (i), (ii) and (iii) as the Board may elect in its discretion. In the event the Board elects to repurchase the Executive Securities through the issuance of a Repurchase Note, the Company hereby agrees that (x) it shall not make any Distributions pursuant to Section 4.1(a) of the LLC Agreement unless and until such Repurchase Note, including all interest accrued and unpaid thereon, is repaid in full and (y) in the event of a Sale of the Company, all obligations under the Repurchase Note shall automatically accelerate and become due and payable upon the consummation of such Sale of the Company. For the avoidance of doubt, nothing contained herein shall limit the Company's ability to make Tax Distributions in accordance with Section 4.1(b) of the LLC Agreement. Each Investor will pay for the Executive Securities purchased by it by a check or wire transfer of funds. The Company and the Investors will be entitled to receive customary representations and warranties from the sellers regarding such sale and to require that all sellers' signatures be guaranteed. Notwithstanding the foregoing, the Company may, at its option, effect repurchases as contemplated by Section 4.7 of the LLC Agreement.

(f) Restrictions on Repurchase. Notwithstanding anything to the contrary contained in this Agreement, all repurchases of Executive Securities by the Company pursuant to the Repurchase Option and all payments of principal and interest on any promissory note issued pursuant to Section 3(e)(ii) shall be subject to applicable restrictions contained in the Delaware Limited Liability Company Act, the Delaware General Corporation Law or such other governing corporate or limited liability company law, and in the Company's and its Subsidiaries' debt and equity financing agreements. If any such restrictions prohibit (i) the repurchase of Executive Securities hereunder which the Company is otherwise entitled or required to make, (ii) dividends or other transfers of funds from one or more Subsidiaries to the Company to enable such repurchases or (iii) the payment of principal or interest required to be paid on any Repurchase Note issued pursuant to Section 3(e)(ii), then the Company (or the corporate successor to the Company, if applicable) may make such repurchases and may pay amounts due on such note as soon as it is permitted to make repurchases, pay such amounts or receive funds from Subsidiaries under such restrictions. The Company agrees to use commercially reasonable efforts to have payments of principal or interest on any Repurchase Note be permitted distributions pursuant to any debt or equity financing arrangement.

(g) Revocation. If the Fair Market Value of the Executive Capital Units or Vested Incentive Units is finally determined to be an amount at least 10% greater than the per Unit repurchase price for such Unit of Executive Capital Units or Vested Incentive Units in the Repurchase Notice or in the Supplemental Repurchase Notice, each of the Company and the Investors shall have the right to revoke its exercise of the Repurchase Option for all or any portion of the Vested Incentive Units elected to be repurchased by it by delivering notice of such revocation in writing to the holders of the Executive Capital Units or Vested Incentive Units during the thirty-day period beginning on the date that the Company and/or the Investors are given written notice that the Fair Market Value of a Unit of the Executive Capital Units or Vested Incentive Units was finally determined to be an amount at least 10% greater than the per

Unit repurchase price for the Executive Capital Units or Vested Incentive Units set forth in the Repurchase Notice or in the Supplemental Repurchase Notice.

(h) Default Event. Notwithstanding anything to the contrary contained in this Agreement, in addition to all other rights and remedies which might otherwise be available to the Company and the Investors at law or in equity, in the event Executive fails for any reason to make all or any portion of any Capital Contribution to the Company that Executive is required to make pursuant to Section 1(b) (a "Default Event"), upon such Default Event all of the Executive Capital Units originally issued to Executive (whether held by Executive or one or more of his transferees, other than the Company and Investors) shall be automatically deemed Restricted Units under the LLC Agreement and shall participate in Distributions with other Units pursuant to Section 4.1 of the LLC Agreement; provided, that the amount of Distributions received in respect of such Executive Capital Units shall not exceed an amount equal to the aggregate amount of all unreturned Capital Contributions made to the Company in respect of such Executive Capital Units plus a yield of 8% per annum, compounded quarterly, and any amounts that would have been received but for this proviso shall be distributed to Participating Common Units that are not Restricted Units in accordance with Section 4.1 of the LLC Agreement.

(i) Certificates. Promptly upon the forfeiture of any Units pursuant to this Section 3 (whether held by Executive or one of his transferees, other than the Company and the Investors), Executive and his transferees shall return the certificates, if any, evidencing such Units to the Company and the Company shall mark as canceled all such certificates evidencing such forfeited Units.

(j) Termination. The provisions of this Section 3 will terminate with respect to all Executive Securities upon the consummation of a Sale of the Company.

4. Transfer Restrictions in a Public Sale; Legend.

(a) Executive Transfers in a Public Sale. In addition to the restrictions on transfer set forth in the LLC Agreement, the Registration Agreement (including in Section 3 thereof) and any agreement executed pursuant thereto, a holder of Executive Securities may only sell Common Stock in a Public Sale if such Common Stock is vested and to the extent that, before and after giving effect to such sale, the Executive Cumulative Sale Percentage would be equal to or less than the Investor Cumulative Sale Percentage. Except as set forth in the prior sentence, the Executive Securities may not be Transferred in a Public Sale.

(b) Legend. In addition to the legend(s) required by the LLC Agreement, each certificate evidencing the Executive Securities and each certificate issued in exchange for or upon the Transfer of any Executive Securities (if such securities remain Executive Securities as defined herein after such Transfer) shall be stamped or otherwise imprinted with a legend in substantially the following form:

> "THE SECURITIES REPRESENTED BY THIS CERTIFICATE ARE ALSO SUBJECT TO ADDITIONAL RESTRICTIONS ON TRANSFER, CERTAIN REPURCHASE OPTIONS, CERTAIN FORFEITURE PROVISIONS AND CERTAIN OTHER AGREEMENTS SET FORTH IN A SENIOR MANAGEMENT AGREEMENT BETWEEN THE

COMPANY AND AN EXECUTIVE OF THE COMPANY AND OTHER PARTIES, DATED AS OF MARCH 17, 2014, AS AMENDED. A COPY OF SUCH AGREEMENT MAY BE OBTAINED BY THE HOLDER HEREOF AT THE COMPANY'S PRINCIPAL PLACE OF BUSINESS WITHOUT CHARGE."

The Company shall imprint such legend on certificates evidencing Executive Securities outstanding prior to the date hereof. The legend set forth above shall be removed from the certificates evidencing any securities which cease to be Executive Securities.

5. Issuance of New Securities

(a) Offer to Qualified Holders. If, after the date hereof, the Company authorizes the issuance or sale of any New Securities to any Investor, the Company shall, as provided in this Section 5, offer to sell to Executive his Pro Rata Allotment of such New Securities. Executive shall be entitled to purchase all or any portion of his Pro Rata Allotment of such New Securities on economic terms that are at least as favorable as the economic terms for such New Securities that are to be offered to the Investors; provided that if the Investors acquiring the New Securities are also required to purchase other securities of the Company, Executive shall also be required to purchase the same strip of securities (on at least as favorable economic terms and conditions) that the Investors are required to purchase. Any New Securities purchased by Executive pursuant to this Section 5 shall be deemed Executive Capital Units for the purposes of this Agreement. For purposes of this Section 5, "Pro Rata Allotment" shall mean the quotient determined by dividing (i) the number of Executive Capital Units (other than Restricted Units) held by Executive at such time, by (ii) the number of Capital Units (other than Restricted Units) then issued and outstanding at such time.

(b) Issuance Notice. At least fifteen (15) days prior to any issuance by the Company of any New Securities to any Investor, the Company shall give written notice (each, an "Issuance Notice") to Executive specifying in reasonable detail the total amount of New Securities to be issued, the purchase price thereof, the other material terms and conditions of the issuance and Executive's Pro Rata Allotment of the New Securities. In order to exercise his purchase rights hereunder, Executive must, within ten (10) days after the Issuance Notice has been given, give written notice to the Company describing Executive's election to purchase all or any portion of the amount of New Securities available for purchase by Executive. If after sending an Issuance Notice the Company elects not to proceed with the issuance or sale contemplated thereby, any elections made by Executive to participate in such offering shall be deemed rescinded.

(c) Issuance Closing. The Company shall sell, and, in the event Executive elects to participate in such issuance, Executive shall purchase, the amount of New Securities determined pursuant to this Section 5 elected to be purchased by Executive at the Company headquarters' office either, at the option of the Company, (i) on the 15th day after the Issuance Notice (or if such 15th day is not a business day, then on the next succeeding business day) or (ii) simultaneously with (and, if specified by the Company, as a part of) the closing of, the issuance of New Securities to the participating Investors (in each such instance, the "Issuance Closing"). At the Issuance Closing, Executive will pay the purchase price payable for the New Securities offered to Executive hereunder in cash by wire transfer of immediately available funds

to an account designated by the Company and will make customary investment representations to the Company.

(d) Alternative Process. Notwithstanding anything to the contrary herein, in lieu of offering any New Securities to Executive at the time such New Securities are offered to the Investors, the Company may comply with the provisions of this Section 5 by making an offer to sell to Executive such New Securities promptly, but in no event later than thirty (30) days, after a sale to the Investors is affected. In such event, for all purposes of this Section 5, the portion of such New Securities that Executive shall be entitled to purchase hereunder shall be determined by taking into consideration the actual amount of New Securities sold to the Investors so as to achieve the same economic effect as if such offer would have been made prior to such sale. In the event that Executive accepts such offer and agrees to purchase New Securities pursuant to this Section 5(d), the Investors and/or other Persons who initially acquired New Securities shall promptly, but within fifteen (15) days after a sale to Executive is effected, sell to the Company for a price per Unit equal to the original cost thereof (plus interest at a rate equal to 8% per annum (compounded quarterly) from the date such securities were initially acquired until the time such securities are repurchased pursuant to this Section 5(d)), the same number and class of Units purchased by Executive exercising his rights under this Section 5(d).

(e) Termination. The provisions of this Section 5 will terminate upon the first to occur of (i) the consummation of a Sale of the Company and (ii) the consummation of a Public Offering.

(f) Waiver. Executive expressly waives any similar rights or privileges provided in Section 2 of the Securityholders Agreement which Executive would otherwise be entitled to absent the provisions of this Section 5.

6 . Limited Information Rights. Notwithstanding Section 2.10 of the LLC Agreement, so long as Executive continuously holds Executive Capital Units or Executive Incentive Units, Executive shall be entitled to receive, upon Executive's written request: (a) within ninety (90) days after the end of each Fiscal Year, consolidating and consolidated statements of income and cash flows of the Company and its Subsidiaries for such Fiscal Year, and consolidating and consolidated balance sheets of the Company and its Subsidiaries as of the end of such Fiscal Year; (b) a current list of the name and last known business, residence or mailing address of each Unitholder of the Company; and (c) a copy of the LLC Agreement and certificate of formation of the Company, and all amendments thereto.

PROVISIONS RELATING TO EMPLOYMENT

7 . Employment. Employer agrees to employ Executive, and Executive accepts such employment, for the period beginning on the date of the Prior Agreement and ending upon his separation pursuant to Section 5(c) (the "Employment Period").

(a) Position and Duties.

(i) During the Employment Period, Executive shall serve as the President and Executive Vice-President - Corporate Development of the Company and Employer and shall have the normal duties, responsibilities and authority implied by such

position, including, without limitation, the responsibilities associated with the business development, licensing, mergers and acquisitions and associated business activities of the Company, and such other activities as are reasonably directed by the Chief Executive Officer or the Board, subject in each case to the power of the Board and the board of directors of Employer to expand, limit or otherwise alter such duties, responsibilities, positions and authority and to otherwise override actions of officers.

(ii) Executive shall report to the Chief Executive Officer, and Executive shall devote his best efforts and his full business time and attention to the business and affairs of the Company, Employer and the other Subsidiaries of the Company; provided, that during the Employment Period, Executive shall be entitled to (A) serve, with the prior written consent of the Board, on corporate, civic or charitable boards or committees, (B) deliver lectures and fulfill speaking engagements and (C) manage personal investments, so long as, with respect to clauses (B) and (C), such activities do not interfere substantially with the performance of Executive's responsibilities to the Company or Employer under this Agreement.

(b) Salary, Bonus and Benefits. Commencing on the date of the Prior Agreement and continuing until a Separation, Employer will pay Executive a base salary at a rate of $375,000 per annum (the "Annual Base Salary"). The Annual Base Salary shall be reviewed annually by the Board. For the fiscal year in which the Company consummates the Base Acquisition and for each fiscal year thereafter ending during the Employment Period, Executive shall be eligible for an annual bonus in an amount up to 75% of the Annual Base Salary, as determined by the Board based upon the performance of Executive and the achievement by the Company, Employer and the other Subsidiaries of the Company of financial, operating and other objectives set by the Board; provided, that with respect to the first fiscal year for which Executive is eligible for a bonus, such bonus shall be paid on a *pro rata* basis based upon that portion of the fiscal year that remained after the consummation of the Base Acquisition. In addition, during the Employment Period, Executive will be entitled to such other benefits as are approved by the Board and made generally available to all senior management of the Company and Employer.

(c) Separation. The Employment Period will continue until (i) Executive's resignation, death or Disability or (ii) the Board terminates Executive's employment with or without Cause. If Executive's employment is terminated after consummation of the Base Acquisition by resignation of Executive with Good Reason pursuant to clause (i) above or by the Board without Cause pursuant to clause (ii) above, then in either event during the one-year period commencing on the date of termination (the "Severance Period"), Employer shall pay to Executive during the period beginning on the date of the Separation and ending on the first anniversary of the Separation an aggregate amount equal to 100% of his Annual Base Salary, payable in equal installments on Employer's regular salary payment dates as in effect on the date of the Separation (the "Severance Payments"). Notwithstanding the foregoing, in the event Executive resigns due to a Relocation Good Reason or if Executive's employment is terminated by the Board without Cause prior to the consummation of the Base Acquisition (each, an "Alternate Separation"), including by the delivery of notice to Executive by the Board that the Board intends to terminate Executive without Cause prior to the consummation of the Base Acquisition (such notice, an "Alternate Separation Notice"), such Severance Payments shall

instead be an aggregate amount equal to 50% of his Annual Base Salary, payable in equal installments during a six month period commencing on the date of Executive's resignation due to a Relocation Good Reason or the delivery of the Alternate Separation Notice (such period, an "Alternate Severance Period"), as applicable, and in each case in accordance with Employer's regular salary payment dates as in effect on the date of such Alternate Separation. If Executive is eligible to and does elect continuation coverage under Employer's health benefit plan pursuant to the provisions of Section 4980B of the Code, then Employer shall reimburse to Executive the premiums paid for such coverage by Executive during the portion of the Severance Period or Alternate Severance Period, as applicable, of which Executive is eligible for and elects such continuation coverage under Employer's health benefit plan, provided that such reimbursements shall not be made in the event an excise tax under Section 4980D of the Code would be imposed on Employer as a result. Notwithstanding anything in this Agreement to the contrary, if Executive's employment is terminated without Cause pursuant to clause (ii) above, the portion of the Executive Incentive Units which would have vested if Executive had remained employed with the Company through the immediately succeeding anniversary date of the Base Acquisition following the date of Separation shall be deemed vested. Notwithstanding anything herein to the contrary, (A) Executive shall not be entitled to receive any payments or other benefits pursuant to this Section 5(c) unless Executive has executed and delivered to Employer a general release in form and substance satisfactory to Employer (and such release is in full force and effect and has not been revoked), which release shall be delivered by Executive within fifteen (15) calendar days after his Separation and (B) Executive shall be entitled to receive such payments only so long as Executive has not breached any of the provisions of such general release or Section 6 or Section 7. The amounts payable pursuant to this Section 5(c) shall be reduced by the amount of any compensation earned or received by Executive during the Severance Period or Alternate Severance Period, as applicable, in connection with the performance of any services by Executive; provided, that, for the purposes of the foregoing clause, any amount earned or received by Executive in the form of directors' fees or as compensation for consulting services provided by Executive shall not reduce the amounts payable pursuant to this Section 5(c), in each case only if (1) except as otherwise provided in Section 9, such fees or compensation are not in any way related to Executive engaging in any Competitive Activities and do not come from an entity engaged in Competitive Activities and (2) Executive is not engaged in being a director or providing consulting services on a full-time basis. Upon request from time to time, Executive shall furnish Employer with a true and complete certificate specifying any such compensation earned or received by him while receiving any Severance Payments. Executive shall not be entitled to any further payments from the Company, Employer or their Affiliates, nor shall they have any further liability to Executive, except as expressly set forth in this Section 5.

(d) No-Fault Dissolution Event. In the event of a No-Fault Dissolution Event, Section 7 of this Agreement (other than this Section 7(d) and other than with respect to any Severance Payments which have already become due and payable), shall automatically terminate without any further action of the parties hereto and, except as set forth in this Section 7(d), no party hereto shall have any further obligation to any other party hereto under or pursuant to this Section 7. In furtherance of the foregoing, notwithstanding anything to the contrary in this Agreement, (i) the Employment Period shall be terminated on the date of a No-Fault Dissolution Event and neither the Company nor Employer shall have any obligation to make any Severance Payments, provide any employee benefits or continue any employee benefit plan(s) (except to the extent required by applicable law), and (ii) the provisions of Section 7 shall terminate and

have no further force or effect. In connection with a No-Fault Dissolution Event, upon the request of the Board, Executive shall Transfer, and shall cause his Permitted Transferees to Transfer, the Executive Securities then held by Executive or his Permitted Transferees to the Company or, upon the written request of the holders of the Required Interest, the Investors for Fair Market Value. Notwithstanding anything herein to the contrary, the terms and conditions of Sections 1 through 4 and 6, 8, 9 and 12, and the rights and obligations of the parties set forth therein, shall survive any No-Fault Dissolution Event.

(e) Code Section 409A. The intent of the parties is that payments and benefits under this Agreement comply with or otherwise be exempt from Internal Revenue Code Section 409A and the regulations and guidance promulgated thereunder (collectively "Code Section 409A") and, accordingly, to the maximum extent permitted, this Agreement shall be interpreted to be either exempt from or in compliance therewith. In no event whatsoever shall the Company or Employer be liable for any additional tax, interest or penalty that may be imposed on Executive by Code Section 409A or damages for failing to comply with Code Section 409A. Notwithstanding any other payment schedule provided herein to the contrary, if Executive is deemed on the date of termination to be a "specified employee" within the meaning of that term under Code Section 409A(a)(2)(B), then any payment under Section 5 that is considered deferred compensation under Code Section 409A payable on account of a "separation from service" shall not be made until the date which is the earlier of (A) the expiration of the six (6)-month period measured from the date of such "separation from service" of Executive, and (B) the date of Executive's death (the "Delay Period") to the extent required under Code Section 409A. Upon the expiration of the Delay Period, all payments delayed pursuant to this Section 5(e) shall be paid to Executive in a lump sum, and all remaining payments due under this Agreement shall be paid or provided in accordance with the normal payment dates specified for them herein. A termination of employment shall not be deemed to have occurred for purposes of any provision of this Agreement providing for the payment of any amounts or benefits upon or following a termination of employment unless such termination is also a "separation from service" from the Company and Employer within the meaning of Code Section 409A and, for purposes of any such provision of this Agreement, references to a "termination," "termination of employment" or like terms shall mean "separation from service." For purposes of Code Section 409A, Executive's right to receive any installment payment pursuant to this Agreement shall be treated as a right to receive a series of separate and distinct payments. Notwithstanding any other provision to the contrary, in no event shall any payment under this Agreement that constitutes "deferred compensation" for purposes of Code Section 409A be subject to offset by any other amount unless otherwise permitted by Code Section 409A.

8. Confidential Information.

(a) Obligation to Maintain Confidentiality. Executive acknowledges that the information, observations and data (including trade secrets) obtained by Executive during the course of Executive's employment with Employer concerning the business or affairs of the Company, Employer and their respective Subsidiaries and Affiliates ("Confidential Information") are the property of the Company, Employer or such Subsidiaries and Affiliates, including information concerning acquisition opportunities in or reasonably related to the Company's and Employer's business or industry of which Executive becomes aware during the Employment Period. Therefore, Executive agrees that he will not disclose to any unauthorized

Person or use for his or its own account any Confidential Information without the Board's written consent, unless and to the extent that the Confidential Information, (i) becomes generally known to and available for use by the public other than as a result of Executive's acts or omissions to act or (ii) is required to be disclosed pursuant to any applicable law or court order. Executive shall deliver to Employer at a Separation, or at any other time Employer may request, all memoranda, notes, plans, records, reports, computer tapes, printouts and software and other documents and data (and copies thereof) relating to the Confidential Information, Work Product (as defined below) or the business of the Company, Employer and their respective Subsidiaries and Affiliates (including all acquisition prospects, lists and contact information) which he or it may then possess or have under his control.

(b) Ownership of Property. Executive acknowledges that all discoveries, concepts, ideas, inventions, innovations, improvements, developments, methods, processes, programs, designs, analyses, drawings, reports, patent applications, copyrightable work and mask work (whether or not including any confidential information) and all registrations or applications related thereto, all other proprietary information and all similar or related information (whether or not patentable) that relate to the Company, Employer or any of their respective Subsidiaries or Affiliates engaging in the Company Business or an anticipated business in which the Company, Employer or any of their respective Subsidiaries or Affiliates have a Bona Fide Interest, research and development, or existing or future products or services and that are conceived, developed, contributed to, made, or reduced to practice by Executive (either solely or jointly with others) while employed by the Company, Employer or any of their respective Subsidiaries or Affiliates or during the period between the date of the Prior Agreement and the Closing (including any of the foregoing that constitutes any proprietary information or records) ("Work Product") belong to the Company, Employer or such Subsidiary or Affiliate, and Executive hereby assigns, and agrees to assign, all of the above Work Product to the Company, Employer or to such Subsidiary or Affiliate. Any copyrightable work prepared in whole or in part by Executive in the course of his work for any of the foregoing entities shall be deemed a "work made for hire" under the copyright laws, and the Company, Employer or such Subsidiary or Affiliate shall own all rights therein. To the extent that any such copyrightable work is not a "work made for hire," Executive hereby assigns and agrees to assign to the Company, Employer or such Subsidiary or Affiliate all right, title, and interest, including without limitation, copyright in and to such copyrightable work. Executive shall promptly disclose such Work Product and copyrightable work to the Board and perform all actions reasonably requested by the Board (whether during or after the Employment Period), to establish and confirm the Company's, Employer's or such Subsidiary's or Affiliate's ownership (including assignments, consents, powers of attorney, and other instruments); provided, that the Company shall reimburse Executive for his reasonable and documented out-of-pocket expenses.

(c) Third Party Information. Executive understands that the Company, Employer and their respective Subsidiaries and Affiliates will receive from third parties confidential or proprietary information ("Third Party Information") subject to a duty on the Company's, Employer's and their respective Subsidiaries and Affiliates' part to maintain the confidentiality of such information and to use it only for certain limited purposes. During the Employment Period and thereafter, and without in any way limiting the provisions of Section 8(a) above, Executive will hold Third Party Information in the strictest confidence and will not disclose to anyone (other than personnel and consultants of the Company, Employer or their

respective Subsidiaries and Affiliates who need to know such information in connection with their work for the Company, Employer or their respective Subsidiaries and Affiliates) or use, except in connection with Executive's work for the Company, Employer or their respective Subsidiaries and Affiliates, Third Party Information unless expressly authorized by a member of the Board (other than Executive) in writing.

(d) Use of Information of Prior Employers. During the Employment Period, Executive will not improperly use or disclose any confidential information or trade secrets, if any, of any former employers or any other Person to whom Executive has an obligation of confidentiality, and will not bring onto the premises of the Company, Employer or any of their respective Subsidiaries or Affiliates any unpublished documents or any property belonging to any former employer or any other Person to whom Executive has an obligation of confidentiality unless consented to in writing by the former employer or Person. Executive will use in the performance of his duties only information which is (i) generally known and used by persons with training and experience comparable to Executive's and which is (x) common knowledge in the industry or (y) is otherwise legally in the public domain, (ii) is otherwise provided or developed by the Company, Employer or any of their respective Subsidiaries or Affiliates or (iii) in the case of materials, property or information belonging to any former employer or other Person to whom Executive has an obligation of confidentiality, approved for such use in writing by such former employer or Person. In furtherance of the foregoing, concurrently with the execution of this Agreement, Executive shall execute and deliver to Employer a certificate in the form of Exhibit E attached hereto.

9 . Noncompetition and Nonsolicitation. Executive acknowledges that in the course of his employment with Employer he will become familiar with the Company's, Employer's and their respective Subsidiaries' trade secrets and with other confidential information concerning the Company, Employer and such Subsidiaries and that his services will be of special, unique and extraordinary value to the Company, Employer and such Subsidiaries. Therefore, Executive agrees that:

(a) Noncompetition. During the Employment Period and the one-year period immediately following the Employment Period (such period, together with the Employment Period, is referred to herein as the "Restricted Period"), Executive shall not engage in any Competitive Activities. For purposes of this Agreement, "Competitive Activities" means Executive engaging, or Executive causing or directing any Person to engage, directly or indirectly, as a principal, agent, shareholder, investor, employer, partner, director, officer, employee, consultant, member, joint venturer, manager, lender, consultant, operator, or in any capacity whatsoever (other than as a customer) (including, without limitation, in any division, group or franchise of a larger organization), in the Company Business or any other business for which the Company, Employer or any of their respective Subsidiaries has a Bona Fide Interest, within the United States or any other jurisdiction in which the Company, Employer or any of their respective Subsidiaries engages in the Company Business or for which the Company, Employer or any of their respective Subsidiaries has a Bona Fide Interest (whether such business is located in the United States or such other jurisdiction or markets to customers located within the United States or such other jurisdiction); provided, that notwithstanding anything in this Agreement to the contrary, (x) Competitive Activities shall not include (i) Executive being a passive owner of not more than 2% of the outstanding stock of any class of a corporation that is

publicly traded, so long as Executive has no active participation in the Company Business of such corporation or (ii) Executive being employed by an entity which is a Rejected Company and (y) solely in the limited circumstance of Executive's termination by the Board without Cause prior to the consummation of the Base Acquisition, the Board may, in its sole and complete discretion, consent to the release of Executive from any or all the restrictions set forth in this Section 9(a) and Section 9(b), with such consent being subject to any terms, conditions, covenants, representations, warranties or agreements as the Board may in its sole discretion require. As used herein, a "Bona Fide Interest" means a bona fide interest or expectancy relating to the acquisition of such business by the Company, Employer or any of their respective Subsidiaries, as evidenced by appropriate written documentation (for example, a term sheet or letter of intent or emails or other written records that evidence that the parties have an interest or expectancy and have had discussions relating to such acquisition) or discussions indicating an intent to pursue such acquisition transaction (except that, with respect to the portion of the Restricted Period following the Employment Period, the bona fide interest or expectancy is measured as of the time immediately preceding the Separation).

(b) Nonsolicitation. During the Restricted Period, Executive shall not directly or indirectly through another entity (i) induce or attempt to induce any employee of the Company, Employer or any of their respective Subsidiaries to leave the employ of the Company, Employer or such Subsidiary, or in any way interfere with the relationship between the Company, Employer or any of their respective Subsidiaries and any employee thereof, (ii) hire any employee of the Company, Employer or any of their respective Subsidiaries or, hire any former employee of the Company, Employer or any of their respective Subsidiaries within one year after such person ceased to be an employee of the Company, Employer or any of their respective Subsidiaries or (iii) induce or attempt to induce any customer, supplier, licensee or other business relation of the Company, Employer or any of their respective Subsidiaries to cease doing business with the Company, Employer or such Subsidiary or in any way interfere with the relationship between any such customer, supplier, licensee or business relation and the Company, Employer or any such Subsidiary to the extent such inducement, interference or solicitation relates to Executive conducting or engaging in Competitive Activities or provided, that the foregoing shall not restrict Executive from (A) engaging in general solicitation efforts not specifically targeted at any such employee, or (B) hiring any employee of the Company, Employer or such Subsidiary who responds to any such regular solicitation effort without any other inducement to leave the employ of the Company, Employer or any of their respective Subsidiaries.

(c) Enforcement. If, at the time of enforcement of Section 8 or this Section 9, a court holds that the restrictions stated herein are unreasonable under circumstances then existing, the parties hereto agree that the maximum duration, scope or geographical area reasonable under such circumstances shall be substituted for the stated period, scope or area and that the court shall be allowed to revise the restrictions contained herein to cover the maximum duration, scope and area permitted by law. Because Executive's services are unique and because Executive has access to confidential information, the parties hereto agree that money damages would be an inadequate remedy for any breach of this Agreement. Therefore, in the event a breach or threatened breach of this Agreement, the Company, Employer, their respective Subsidiaries and/or their respective successors or assigns may, in addition to other rights and remedies existing in their favor, subject to Section 12(h), apply to any court of competent

jurisdiction for specific performance and/or injunctive or other relief in order to enforce, or prevent any violations of, the provisions hereof (without posting a bond or other security). In the event that Executive breaches any provision of this Section 9, then the Restricted Period shall be extended for a period of time equal to the period of time during which such breach occurred and, in the event that the Company, Employer or any of their Subsidiaries is required to seek relief from such breach in any court, then the Restricted Period shall be extended for a period of time equal to the pendency of such proceedings, including all appeals.

(d) Additional Acknowledgments. Executive acknowledges that the provisions of this Section 9 are in consideration of: (i) Executive's employment with Employer, (ii) the issuance of the Executive Securities and (iii) additional good and valuable consideration as set forth in this Agreement. In addition, Executive agrees and acknowledges that the restrictions contained in Section 8 and this Section 9 do not preclude Executive from earning a livelihood, nor do they unreasonably impose limitations on Executive's ability to earn a living. In addition, Executive acknowledges (x) that the business of the Company, Employer and their respective Subsidiaries will be conducted throughout the United States and other jurisdictions where the Company, Employer or any of their respective Subsidiaries conduct business during the Employment Period, (y) notwithstanding the state of organization or principal office of the Company, Employer or any of their respective Subsidiaries, or any of their respective executives or employees (including Executive), it is expected that the Company, Employer and their respective Subsidiaries will have business activities and have valuable business relationships within its industry throughout the United States and other jurisdictions where the Company, Employer or any of their respective Subsidiaries conduct business during the Employment Period, and (z) as part of his responsibilities, Executive will be traveling throughout the United States and other jurisdictions where the Company, Employer or any of their respective Subsidiaries conduct business during the Employment Period in furtherance of Employer's business and its relationships. Executive agrees and acknowledges that the potential harm to the Company, Employer and their respective Subsidiaries of the non-enforcement of any provision of Section 8 or this Section 9 outweighs any potential harm to Executive of its enforcement by injunction or otherwise. The covenants contained in each of Sections 8(a), 8(b), 8(c), 8(d), 9(a) and 9(b) may be enforced independently and without any one or more of such sections limiting the provisions of any one or more of the other of such sections. Executive acknowledges that he has carefully read this Agreement and consulted with legal counsel of his choosing regarding its contents, has given careful consideration to the restraints imposed upon Executive by this Agreement and is in full accord as to their necessity for the reasonable and proper protection of confidential and proprietary information of the Company, Employer and their respective Subsidiaries now existing or to be developed in the future.Executive expressly acknowledges and agrees that each and every restraint imposed by this Agreement is reasonable with respect to subject matter, time period and geographical area.

GENERAL PROVISIONS

10. Definitions.

"Cause" means (a) the commission of a felony, (b) willful conduct tending to bring the Company, Employer or any of their respective Subsidiaries into substantial public disgrace or disrepute, (c) substantial and repeated failure to perform duties of the office held by

Executive as reasonably directed by the Board, (d) gross negligence or willful misconduct with respect to the Company, Employer or any of their respective Subsidiaries, including any other act or omission involving significant and willful dishonesty or fraud with respect to the Company, Employer or any of their respective Subsidiaries or any of their respective customers or suppliers, or (e) any material breach of Sections 1(e)(iii), 8 or 7 or Section 7(a)(ii) (but only with respect the requirement of such Section 7(a)(ii) that Executive devote his full business time and attention to the business and affairs of the Company, Employer and their Subsidiaries). In each case above the burden of proving such action or omission is a "Cause" event shall be with Employer. In addition, Employer agrees it will permit Executive an opportunity to be heard by the Board before such dismissal.

"Common Stock" means, collectively, (a) following the organization of a corporation and reorganization or recapitalization of the Company into such corporation as provided in Section 12.1 of the LLC Agreement, the common equity securities of such corporation and any other class or series of authorized capital stock of such corporation that is not limited to a fixed sum or percentage of par or stated value in respect of the rights of the holders thereof to participate in dividends or in the distribution of assets upon any liquidation, dissolution or winding up of such corporation, and (b) any common stock of a Subsidiary of either the Company or such corporation distributed by the Company or such corporation to its unitholders or shareholders, as applicable.

"Company Business" means the business(es) of providing those services or selling those products which the Company, Employer or any of their respective Subsidiaries actually provide or sell.

"Disability" means the disability of Executive caused by any physical or mental injury, illness or incapacity as a result of which Executive is, or is reasonably expected to be, unable to effectively perform the essential functions of Executive's duties for a substantially continuous period of more than 120 days or for any 180 days (whether or not continuous) within a 365 day period, as determined by the Board in good faith.

"Executive Cumulative Sale Percentage" means, on any date of determination, a percentage equal to the quotient of (a) the aggregate number of shares of Common Stock sold by Executive and/or his Permitted Transferees in Public Sales from and including the consummation of the Company's initial Public Offering and to and including such date, divided by (b) the aggregate number of shares of Common Stock held by Executive and his Permitted Transferees upon the consummation of the Company's initial Public Offering.

"Executive Securities" means all Common Units (including all Executive Capital Units and Executive Incentive Units) at any time acquired by Executive. Executive Securities will continue to be Executive Securities in the hands of any holder other than Executive (except for the Company and the Investors and except for transferees in a Public Sale), and except as otherwise provided herein, each such other holder of Executive Securities will succeed to all rights and obligations attributable to Executive as a holder of Executive Securities hereunder. Executive Securities will also include equity of the Company (or a corporate successor to the Company or a Subsidiary of the Company) issued with respect to Executive Securities (a) by way of a Unit split, Unit distribution, conversion, or other recapitalization, (b) by way of reorganization or recapitalization of the Company in connection with the incorporation of a

corporate successor prior to a Public Offering or (c) by way of a distribution of securities of a Subsidiary of the Company to the members of the Company following or with respect to a Subsidiary Public Offering. Notwithstanding the foregoing, all Unvested Incentive Units shall remain Unvested Incentive Units after any Transfer thereof (other than to the Company or any of the Investors).

"Fair Market Value" of each Unit of Executive Securities means the fair value of such Executive Securities as determined in good faith by the Board applying the provisions of Sections 11.2(a)(ii) and 11.2(b) of the LLC Agreement. If Executive reasonably disagrees with such determination, Executive shall deliver to the Board a written notice of objection within ten days after delivery of the Repurchase Notice (or if no Repurchase Notice is delivered, then within ten days after delivery of the Supplemental Repurchase Notice). Upon receipt of Executive's written notice of objection, the Board and Executive will negotiate in good faith to agree on such Fair Market Value. If such agreement is not reached within 30 days after the delivery of the Repurchase Notice (or if no Repurchase Notice is delivered, then within 30 days after the delivery of the Supplemental Repurchase Notice), Fair Market Value shall be determined by an appraiser applying the provisions of Sections 11.2(a)(ii) and 11.2(b) of the LLC Agreement. The appraiser will be jointly selected by the Board and Executive and will submit to the Board and Executive a report within 30 days of its engagement setting forth such determination. If the parties are unable to agree on an appraiser within 45 days after delivery of the Repurchase Notice or the Supplemental Repurchase Notice, within seven days, each party hereto shall submit the names of four nationally recognized firms that are engaged in the business of valuing non-public securities, and each party hereto shall be entitled to strike two names from the other party's list of firms, and the appraiser shall be selected by lot from the remaining four appraisal firms. If Executive does not comply with his obligations in this paragraph regarding the selection and appointment of the appraiser, Executive shall be deemed to have agreed to the Board's determination of Fair Market Value notwithstanding his disagreement therewith. The expenses of such appraiser shall be borne by Executive unless the appraiser's valuation is more than 10% greater than the amount determined by the Board, in which case the expenses of the appraiser shall be borne by the Company. The determination of such appraiser as to Fair Market Value shall be final and binding upon all parties for purposes of this Agreement.

"Good Reason" means (a) any action by the Company or Employer which results in a material reduction in Executive's title, status, authority or responsibility as President and Executive Vice-President - Corporate Development of Employer, (b) a reduction in Executive's Annual Base Salary, in each case without the prior written consent of Executive or (c) the relocation of Executive's principal office to a location which is more than fifty (50) miles outside of the Boston, Massachusetts metropolitan area (clause (c) of this Good Reason definition is referred to herein as a "Relocation Good Reason"); provided, that in order to constitute a termination with Good Reason, Executive must resign within 30 days of an event which constitutes Good Reason.

"Indemnification Agreement" means the Indemnification Agreement, dated as of March 18, 2014 by and between the Company and Executive.

"Investor Cumulative Sale Percentage" means, on any date of determination, a percentage equal to the quotient of (a) the aggregate number of shares of Common Stock sold by

the Investors in Public Sales from and including the consummation of the Company's initial Public Offering and to and including such date, divided by (b) the aggregate number of shares of Common Stock held by the Investors upon the consummation of the Company's initial Public Offering.

"Investor Investment Amount" means, as of any measurement date, the total amount of cash, cash equivalents, promissory obligations, or the fair market value of any other property (as determined by the Board) invested or contributed by the Investors with respect to Company Equity Securities.

"Investor IRR" means the annual discount rate which, when used to calculate the net present value of the sum of (i) the aggregate amount of all Investor Proceeds and (ii) the Investor Investment Amount causes such net present value to equal zero. For purposes of the net present value calculation, (A) Investor Proceeds shall be positive numbers and (B) the Investor Investment Amount shall be a negative number. In determining the Investor IRR, cash payments, other cash Distributions and the Fair Market Value of all other property included within the Investor Proceeds will be measured from the day on which the Investors actually receive such payments, Distributions or other property, and Investor Investment Amount will be measured from the day on which the payments, investments and contributions included therein are actually received by the Company or other recipient thereof.

"Investor Proceeds" means, as of any measurement date, the total amount of cash received by the Investors with respect to Company Equity Securities pursuant to Section 4.1 of the LLC Agreement (other than Tax Distributions); provided, that in the event the Investors receive property other than cash as a distribution from the Company pursuant to Section 4.1, such property shall become Investor Proceeds on the date that it is sold, exchanged, transferred or otherwise converted into cash.

"LLC Agreement" means the Limited Liability Company Agreement of the Company, as amended or modified from time to time in accordance with its terms.

"New Securities" shall have the meaning set forth in the Securityholders Agreement.

"No-Fault Dissolution Event" means a dissolution of the Company pursuant to Section 10.1(c) of the LLC Agreement.

"Original Cost" means, with respect to each Executive Capital Unit purchased hereunder, $0.05937259 (as proportionately adjusted for all Subsequent Contributions made by Executive with respect to such Executive Capital Units, subsequent unit splits, unit distributions and other recapitalizations).

"Rejected Company" means, as determined in the sole discretion of the Board, an entity which, (i) is not engaged in the Company Business, (ii) has been formally presented and recommended in writing by Executive to the Board as a potential acquisition target for the Company or its Subsidiaries and (iii) has been explicitly rejected as a potential acquisition target or business opportunity and a "Rejected Company" in writing by the Board.

"Securityholders Agreement" means the Securityholders Agreement, dated as of March 18, 2014, by and among the Company, Executive and the other parties signatories thereto as amended or modified from time to time in accordance with its terms.

"Separation" means Executive ceasing to be employed by any of the Company, Employer and their respective Subsidiaries for any reason.

"Target Multiple" means a number equal to the result of (i) all Investor Proceeds divided by (ii) the Investor Investment Amount.

11. Notices. All notices, demands or other communications to be given or delivered under or by reason of the provisions of this Agreement shall be in writing and shall be deemed to have been given when (a) delivered personally to the recipient, (b) sent to the recipient by reputable express courier service (charges prepaid), (c) mailed to the recipient by certified or registered mail, return receipt requested and postage prepaid, or (d) telecopied to the recipient (with hard copy sent to the recipient by reputable overnight courier service (charges prepaid) that same day) if telecopied before 5:00 p.m. Chicago, Illinois time on a business day, and otherwise on the next business day. Such notices, demands and other communications shall be sent to the parties at the addresses indicated below:

If to Company or Employer:

Maravai Life Sciences Holdings, LLC
c/o GTCR Management LLC
300 North LaSalle Street, Suite 5600
Chicago, Illinois 60654
Facsimile: (312) 382-2201
Attention: Chief Executive Officer

with copies to:

GTCR Management LLC
300 North LaSalle Street
Chicago, Illinois 60654
Facsimile: (312) 382-2201
Attention: Constantine S. Mihas
SeanL. Cunningham
BenjaminJ. Daverman

Kirkland & Ellis LLP
300 North LaSalle Street
Chicago, Illinois 60654
Facsimile: (312) 862-2200
Attention: Sanford E. Perl, P.C.
MichaelH. Weed, P.C.

If to Executive:

Eric Tardif
Facsimile:
E-mail:

If to the Investors:

GTCR Management LLC
300 North LaSalle Street
Chicago, Illinois 60654
Facsimile: (312) 382-2201
Attention: Constantine S. Mihas
SeanL. Cunningham
BenjaminJ. Daverman

Kirkland & Ellis LLP
300 North LaSalle Street
Chicago, Illinois 60654
Facsimile: (312) 862-2200
Attention: Sanford E. Perl, P.C.
MichaelH. Weed, P.C.

or such other address or to the attention of such other Person as the recipient party shall have specified by prior written notice to the sending party.

12. General Provisions.

(a) Transfers in Violation of Agreement. Any Transfer or attempted Transfer of any Executive Securities in violation of any provision of this Agreement shall be void, and the Company shall not record such Transfer on its books or treat any purported Transferee of such Executive Securities as the owner of such equity for any purpose.

(b) Severability. Whenever possible, each provision of this Agreement will be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Agreement is held to be invalid, illegal or unenforceable in any respect under any applicable law or rule in any jurisdiction, such invalidity, illegality or unenforceability will not affect any other provision or any other jurisdiction, but this Agreement will be reformed, construed and enforced in such jurisdiction as if such invalid, illegal or unenforceable provision had never been contained herein.

(c) Entire Agreement. This Agreement, those documents expressly referred to herein and other documents of even date herewith embody the complete agreement and understanding among the parties hereto and supersede and preempt any prior understandings, agreements or representations by or among the parties hereto, written or oral, which may have related to the subject matter hereof in any way, including (i) the draft Summary of Terms, dated March 1, 2013 and (ii) the Prior Agreement.

(d) Descriptive Headings; Interpretation; No Strict Construction. The descriptive headings of this Agreement are inserted for convenience only and do not constitute a substantive part of this Agreement. Whenever required by the context, any pronoun used in this Agreement shall include the corresponding masculine, feminine, or neuter forms, and the singular form of nouns, pronouns, and verbs shall include the plural and vice versa. The use of the word "including" in this Agreement shall be by way of example rather than by limitation. Reference to any agreement, document, or instrument means such agreement, document, or instrument as amended or otherwise modified from time to time in accordance with the terms thereof, and, if applicable, hereof. The use of the words "or," "either," and "any" shall not be exclusive. The parties hereto have participated jointly in the negotiation and drafting of this Agreement. In the event an ambiguity or question of intent or interpretation arises, this Agreement shall be construed as if drafted jointly by the parties hereto, and no presumption or burden of proof shall arise favoring or disfavoring any party by virtue of the authorship of any of the provisions of this Agreement.

(e) Counterparts. This Agreement may be executed in multiple counterparts with the same effect as if all signing parties had signed the same document. All counterparts shall be construed together and constitute the same instrument.

(f) Successors and Assigns. Except as otherwise provided herein, this Agreement shall bind and inure to the benefit of and be enforceable by Executive, the Company, Employer, the Investors and their respective successors and assigns (including subsequent holders of Executive Securities); provided, that the rights and obligations of Executive under this Agreement shall not be assigned or delegated except for the assignment and delegation of Executive's rights and obligations hereunder as a holder of Executive Securities in connection with a permitted Transfer of Executive Securities hereunder and under the other Transaction Documents.

(g) Applicable Law. This Agreement shall be governed by, and construed in accordance with, the laws of the State of Delaware, without giving effect to any choice of law or conflict of law rules or provisions (whether of the State of Delaware or any other jurisdiction) that would cause the application of the laws of any jurisdiction other than the State of Delaware.

(h) Dispute Resolution. Any controversy, dispute or claim arising out of or relating to this Agreement or the Indemnification Agreement (a "Covered Claim") shall be resolved by binding arbitration to be held in Wilmington, Delaware, and shall be administered by JAMS in accordance with the Employment Arbitration Rules & Procedures of JAMS then in effect and subject to JAMS Policy on Employment Arbitration Minimum Standards. Each party shall pay their own costs and expenses (including, without limitation, attorneys' fees and other charges of counsel) incurred in resolving any such Covered Claim; provided, that in the event litigation is required to compel arbitration or to enforce an arbitration award or judgment pursuant to this Agreement, the non-prevailing party in such litigation shall reimburse the costs and expenses (including attorney's fees and other charges of counsel) of the prevailing party. Judgment upon the award rendered by the arbitrator(s) may be entered into any court having jurisdiction thereof. The parties hereto agree that any action to compel arbitration pursuant to this Agreement shall be brought in the appropriate Delaware state court, and in connection with such action to compel, the laws of Delaware shall control.

(i) Executive's Cooperation. During the Employment Period and thereafter, Executive shall cooperate with the Company, Employer and their respective Subsidiaries and Affiliates in any disputes with third parties, internal investigation or administrative, regulatory or judicial proceeding as reasonably requested by the Company (including Executive being available to the Company upon reasonable notice for interviews and factual investigations, appearing at the Company's request to give testimony without requiring service of a subpoena or other legal process, volunteering to the Company all pertinent information and turning over to the Company all relevant documents which are or may come into Executive's possession, all at times and on schedules that are reasonably consistent with Executive's other permitted activities and commitments). In the event the Company requires Executive's cooperation in accordance with this paragraph after the Employment Period, the Company shall reimburse Executive for Executive's reasonable time at a rate of $100 per hour and reasonable travel expenses (including lodging and meals, upon submission of receipts).

(j) Remedies. Each of the parties to this Agreement shall have all rights and remedies set forth in this Agreement and all rights and remedies which such Person has been granted at any time under any other agreement or contract and all of the rights which such Person has under any law. Each of the parties to this Agreement will be entitled to enforce its rights under this Agreement specifically, to recover damages and costs caused by any breach of any provision of this Agreement and to exercise all other rights existing in its favor. The parties hereto agree and acknowledge that money damages may not be an adequate remedy for any breach of the provisions of this Agreement and that any party may in its sole discretion, but subject to Section 12(h), apply to any court of law or equity of competent jurisdiction (without posting any bond or deposit) for specific performance and/or other injunctive relief in order to enforce or prevent any violations of the provisions of this Agreement.

(k) Amendment and Waiver. The provisions of this Agreement may be amended and waived only with the prior written consent of the Company, Employer, Executive and the Majority Holders (as defined in the Unit Purchase Agreement). No failure by any party to insist upon the strict performance of any covenant, duty, agreement, or condition of this Agreement or to exercise any right or remedy consequent upon a breach thereof shall constitute a waiver of any such breach or any other covenant, duty, agreement, or condition. The waiver by any party of a breach of any covenant, duty, agreement, or condition of this Agreement of any other party shall not operate or be construed as a waiver of any subsequent breach of that provision or any other provision hereof.

(l) Insurance. The Company or Employer, at its discretion, may apply for and procure in its own name and for its own benefit life and/or disability insurance on Executive in any amount or amounts considered available. Executive agrees to cooperate in any medical or other examination, supply any information, and to execute and deliver any applications or other instruments in writing as may be reasonably necessary to obtain and constitute such insurance.

(m) Business Days. If any time period for giving notice or taking action hereunder expires on a day which is a Saturday, Sunday or holiday in the state in which the Company's chief executive office is located, the time period shall be automatically extended to the business day immediately following such Saturday, Sunday or holiday.

(n) Indemnification and Reimbursement of Payments on Behalf of Executive. The Company, Employer and their respective Subsidiaries shall be entitled to deduct or withhold from any amounts owing from the Company, Employer or any of their respective Subsidiaries to Executive (including withholding shares or other equity securities in the case of issuances of equity by the Company, Employer or any of their respective Subsidiaries) any federal, state, local or foreign withholding taxes, excise taxes, or employment taxes ("Taxes") imposed with respect to Executive's compensation or other payments from the Company, Employer or any of their respective Subsidiaries or Executive's ownership interest in the Company, including wages, bonuses, distributions, the receipt or exercise of equity options and/or the receipt or vesting of restricted equity. In the event any such deductions or withholdings are not made, Executive shall indemnify the Company, Employer and each of their respective Subsidiaries for any amounts paid with respect to any such Taxes, together with any interest, penalties and related expenses thereto; provided, that, Executive shall not be obligated to indemnify the Company pursuant to this Section 12(n) for such interest, penalties or related expenses which are directly caused by the failure of the Company to take necessary action with respect to such deductions and withholdings as it is required by law to take.

(o) Termination. Subject to Section 7(d), this Agreement (except for the provisions of Sections 5(a) and 5(b)) shall survive a Separation and shall remain in full force and effect after such Separation.

(p) Adjustments of Numbers. All numbers set forth herein that refer to Unit prices or amounts will be appropriately adjusted to reflect Unit splits, Unit distributions, combinations of Units and other recapitalizations affecting the subject class of equity.

(q) Deemed Transfer of Executive Securities. If the Company (and/or the Investors and/or any other Person acquiring securities) shall make available, at the time and place and in the amount and form provided in this Agreement, the consideration for the Executive Securities to be repurchased, in each case, in accordance with the provisions of this Agreement, then from and after such time, the Person from whom such Units are to be repurchased shall no longer have any rights as a holder of such Units (other than the right to receive payment of such consideration in accordance with this Agreement), and such Units shall be deemed purchased in accordance with the applicable provisions hereof and the Company (and/or the Investors and/or any other Person acquiring securities) shall be deemed the owner and holder of such Units, whether or not the certificates therefor have been delivered as required by this Agreement.

(r) No Pledge or Security Interest. The purpose of the Company's retention of Executive's certificates and executed security powers is solely to facilitate the provisions set forth in Section 3 herein and Section 8.2 of the LLC Agreement and does not by itself constitute a pledge by Executive of, or the granting of a security interest in, the underlying equity.

(s) Rights Granted to the Investors and their Affiliates. Any rights granted to any of the Investors or any of their respective Affiliates hereunder may also be exercised (in whole or in part) by their designees.

(t) Subsidiary Public Offering. If, after consummation of a Subsidiary Public Offering, the Company distributes securities of such Subsidiary to members of the Company,

then such securities will be treated in the same manner as (but excluding any "preferred" features of the Units with respect to which they were distributed) the Units with respect to which they were distributed for purposes of Sections 1, 2, 3, and 4.

(u) Electronic Delivery. This Agreement, the agreements referred to herein, and each other agreement or instrument entered into in connection herewith or therewith or contemplated hereby or thereby, and any amendments hereto or thereto, to the extent signed and delivered by means of a photographic, facsimile, portable document format (.pdf), or similar reproduction of such signed writing using a facsimile machine or electronic mail shall be treated in all manner and respects as an original agreement or instrument and shall be considered to have the same binding legal effect as if it were the original signed version thereof delivered in person. At the request of any party hereto or to any such agreement or instrument, each other party hereto or thereto shall re-execute original forms thereof and deliver them to all other parties hereto. No party hereto or to any such agreement or instrument shall raise the use of a facsimile machine or electronic mail to deliver a signature or the fact that any signature or agreement or instrument was transmitted or communicated through the use of a facsimile machine or electronic mail as a defense to the formation or enforceability of a contract and each such party forever waives any such defense.

(v) No Third-Party Beneficiaries. Except as expressly provided herein, no term or provision of this Agreement is intended to be, or shall be, for the benefit of any Person not a party hereto, and no such other Person shall have any right or cause of action hereunder.

(w) Directors' and Officers' Insurance. Each of the Company and Employer agree that it shall obtain and maintain in full force and effect during the term of Executive's employment hereunder directors' and officers' insurance policies in amounts and with coverages customary for entities of the size and with the type of business of the Company and Employer, respectively.

* * * * *

IN WITNESS WHEREOF, the parties hereto have executed this Senior Management Agreement as of the date first above written.

MARAVAI LIFE SCIENCES HOLDINGS, LLC

By: /s/ Carl W. Hull
Name: Carl W. Hull
Its: Chief Executive Officer

MARAVAI LIFE SCIENCES, INC.

By: /s/ Carl W. Hull
Name: Carl W. Hull
Its: Chief Executive Officer

Eric Tardif

THE ERIC TARDIF AND TANYA M. KOVACIK FAMILY TRUST, DATED JUNE 2, 2010

By: _____
Name:
Its:

IN WITNESS WHEREOF, the parties hereto have executed this Senior Management Agreement as of the date first above written.

MARAVAI LIFE SCIENCES HOLDINGS, LLC

By: _____
Name: Carl W. Hull
Its: Chief Executive Officer

MARAVAI LIFE SCIENCES, INC.

By: _____
Name: Carl W. Hull
Its: Chief Executive Officer

/s/ Eric Tardif
Eric Tardif

THE ERIC TARDIF AND TANYA M. KOVACIK FAMILY TRUST, DATED JUNE 2, 2010

By: /s/ Eric Tardif
Name: Eric Tardif
Its: Trustee

Each Investor, by signing below, acknowledges and accepts the rights granted to it as a third party beneficiary of this Agreement under Sections 3, 11, and 12 hereof as set forth therein and no Investor shall have any liability or obligation under this Agreement as a result of its signature below:

THE INVESTORS:

GTCR FUND XI/A LP

By: GTCR Partners XI/A&C LP
Its: General Partner

By: GTCR Investment XI LLC
Its: General Partner

By: /s/ Constantine S. Mihas
Name: Constantine S. Mihas
Its: Manager

GTCR FUND XI/C LP

By: GTCR Partners XI/A&C LP
Its: General Partner

By: GTCR Investment XI LLC
Its: General Partner

By: /s/ Constantine S. Mihas
Name: Constantine S. Mihas
Its: Manager

GTCR CO-INVEST XI LP

By: GTCR Investment XI LLC
Its: General Partner

By: /s/ Constantine S. Mihas
Name: Constantine S. Mihas
Its: Manager

Exhibit 10.4

SENIOR MANAGEMENT AGREEMENT

THIS SENIOR MANAGEMENT AGREEMENT (this "Agreement") is made as of May 30, 2017, by and among Maravai Life Sciences Holdings, LLC, a Delaware limited liability company (the "Company"), Maravai Life Sciences, Inc., a Delaware corporation ("Employer"), and Kevin M. Herde ("Executive"). Capitalized terms used but not otherwise defined herein shall have the meanings set forth in Section 8 of this Agreement, or if not defined herein, the meanings in the LLC Agreement.

The Company and Executive desire to enter into an agreement pursuant to which the Company will issue to Executive, on the terms and subject to the conditions contained herein, the Executive Incentive Units (as defined below).

The Company, Employer and Executive also mutually desire to enter into an agreement containing the terms and conditions pursuant to which Employer will employ Executive.

Certain provisions of this Agreement are intended for the benefit of, and will be enforceable by, the Investors.

NOW, THEREFORE, in consideration of the mutual covenants contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties to this Agreement hereby agree as follows:

PROVISIONS RELATING TO EXECUTIVE SECURITIES

1. Purchase and Sale of Executive Securities.

(a) Closing. Upon execution of this Agreement (the "Closing"), Executive will purchase from the Company, and the Company will sell to Executive, 100,000 of the Company's Incentive Units (the "Executive Incentive Units") at no cost per Unit. Such Executive Incentive Units shall be Series 4 Incentive Units and shall be subject to the vesting requirements described herein. Each Executive Incentive Unit shall have an initial Capital Contribution for such Executive Incentive Unit equal to zero and an initial Participation Threshold of $33.14. The Participation Threshold with respect to each Executive Incentive Unit is subject to adjustment from time to time as set forth in the LLC Agreement. The Company will deliver to Executive a copy of the certificate(s) representing such Executive Securities, and Executive will deliver to the Company (x) an executed counterpart signature page to each of the Securityholders Agreement and the Registration Agreement as an "Executive" thereunder, and (y) an executed counterpart signature page to the LLC Agreement. Executive Incentive Units are Common Units.

(b) 83(b) Election. Within 30 days after the acquisition of Executive Securities at the Closing, Executive will make an effective election (an "83(b) Election") with the Internal Revenue Service under Section 83(b) of the Internal Revenue Code of 1986, as amended, and the regulations promulgated thereunder in the form of Exhibit A attached hereto.

(c) Certificates. Until released upon the occurrence of a Sale of the Company, all certificates evidencing Executive Securities shall be held, subject to the other terms of this Agreement and the Securityholders Agreement, by the Company for the benefit of Executive and the other holder(s) of Executive Securities. Upon the occurrence of a Sale of the Company,

subject to the provisions of the LLC Agreement (including Section 12.1 thereof), the Company will return all certificates in its possession evidencing Executive Securities to the record holders thereof or, subject to Section 1(f), to the appropriate acquirer thereof.

(d) Representations and Warranties. In connection with the purchase and sale of the Executive Securities made by Executive, Executive represents and warrants to the Company and Employer that:

(i) Executive possesses all requisite capacity, power and authority to enter into and perform Executive's obligations under this Agreement;

(ii) this Agreement constitutes the legal, valid and binding obligation of Executive, enforceable in accordance with its terms, and the execution, delivery and performance of this Agreement by Executive does not and will not conflict with, violate or cause a breach of any agreement, contract or instrument to which Executive is a party or any judgment, order or decree to which Executive is subject;

(iii) Except as set forth on Exhibit B attached hereto, Executive is neither party to, nor bound by, any other employment agreement, consulting agreement, noncompete agreement, non-solicitation agreement or confidentiality agreement or any other agreement which could impair or interfere with Executive's obligations hereunder;

(iv) Executive hereby acknowledges and agrees that (A) there is no current public market for the Executive Securities, none is expected to develop and the Executive Securities are subject to substantial restrictions on transferability, and (B) as a result of such matters and other factors, the Executive Securities are difficult to value;

(v) the Executive Securities to be acquired by Executive pursuant to this Agreement will be acquired for Executive's own account and not with a view to, or intention of, distribution thereof in violation of the Securities Act, or any applicable state securities laws, and the Executive Securities will not be disposed of in contravention of the Securities Act or any applicable state securities laws;

(vi) Executive is an "accredited investor" within the meaning of Rule 501 of Regulation D of the Securities and Exchange Commission and is an executive officer of the Company and/or Employer, is sophisticated in financial matters and is able to evaluate the risks and benefits of the investment in the Executive Securities;

(vii) Executive is able to bear the economic risk of Executive's investment in the Executive Securities for an indefinite period of time because the Executive Securities have not been registered under the Securities Act or applicable state securities laws and are subject to substantial restrictions on Transfer set forth herein and in the LLC Agreement, and, therefore, cannot be sold unless subsequently registered under the Securities Act and applicable state securities laws, or an exemption from such registration is available, and in compliance with such restrictions on Transfer;

(viii) Executive has had an opportunity to ask questions and receive answers concerning the terms and conditions of the Transaction Documents (in particular, with respect to the distribution provisions set forth in the LLC Agreement) and the

offering of Executive Securities and has had full and free access and opportunity to inspect, review, examine and inquire about all financial and other information concerning the Company and Employer as Executive has requested;

(ix) Executive understands and agrees that (A) the investment in the Company involves a high degree of risk, (B) in the future the Executive Securities may significantly increase or decrease in value, and (C) no guarantees or representations have been made or can be made with respect to the future value of the Executive Securities or the future profitability or success of the Company;

(x) Executive acknowledges and agrees that (A) the Company and its Subsidiaries may incur in the future a substantial amount of senior or other indebtedness and (B) there may be additional issuances of Common Units or other Equity Securities after the date hereof and the equity interests of Executive may be diluted in connection with any such issuance, subject to the terms of the LLC Agreement and the Securityholders Agreement;

(xi) Executive has had an opportunity to consult with Executive's own tax counsel as to the U.S. federal, state, local and foreign tax consequences of the transactions contemplated by the Transaction Documents and independent legal counsel regarding Executive's rights and obligations under the Transaction Documents and fully understands the terms and conditions contained herein and therein. Executive is not relying on the Company or Employer or any of their or their Subsidiaries' or Affiliates' employees, agents or representatives with respect to the legal, tax, economic, and related considerations of an investment in the Executive Securities; and

(xii) Executive is a resident of the State set forth in Executive's address for notices in Section 9 hereof.

(e) Executive Acknowledgment. As an inducement to the Company to issue the Executive Securities to Executive, and as a condition thereto, Executive acknowledges and agrees that neither the issuance of the Executive Securities to Executive nor any provision contained in this Agreement shall entitle Executive to remain in the employment of the Company, Employer or their respective Subsidiaries or affect the right of the Company, Employer or their respective Subsidiaries to terminate Executive's employment at any time for any reason, subject to Section 5.

(f) Security Powers. Concurrently with the execution of this Agreement, Executive shall execute in blank ten security transfer powers in the form of Exhibit C attached hereto (the "Security Powers") with respect to the Executive Securities and shall deliver such Security Powers to the Company. The Security Powers shall authorize the Company to assign, Transfer and deliver the Executive Securities to the appropriate acquiror thereof pursuant to Section 3 below or Section 8.2 of the LLC Agreement and under no other circumstances.

(g) Spousal Consent. Concurrently with the execution of this Agreement, if Executive is lawfully married, Executive's spouse shall execute the Consent in the form of Exhibit D attached hereto.

(h) Certain Covenant. Executive acknowledges that Executive has not breached, and that Executive will continue to fully comply with, the covenants referenced on Exhibit B attached hereto and set forth in Exhibit E attached hereto.

2. Vesting of Executive Securities.

(a) Issuance of Executive Incentive Units. 75,000 of the Executive Incentive Units shall be "Time-Vesting Executive Incentive Units" and 25,000 of the Executive Incentive Units shall be "Performance-Vesting Executive Incentive Units."

(b) Executive Incentive Units.

(i) Time-Vesting Executive Incentive Units. Except as otherwise provided in this Section 2, the Time-Vesting Executive Incentive Units shall become vested as follows: 20% of the Time-Vesting Executive Incentive Units shall vest ratably on each of the first, second, third, fourth and fifth anniversaries of the Reference Date (such that the Time-Vesting Executive Incentive Units shall become 100% vested on the fifth anniversary of the Reference Date), if as of each such date Executive is, and since the Closing continuously has been, employed by the Company, Employer or any of their respective Subsidiaries.

(ii) Performance Vesting Executive Incentive Units. The Performance-Vesting Executive Incentive Units shall become 100% vested on the date on which the Investors achieve a Target Multiple of at least 2.75; if, as of such date, Executive is, and since the Reference Date continuously has been, employed by the Company, Employer or any of their respective Subsidiaries. The Board shall reasonably determine in good faith what amount of the Performance-Vesting Executive Incentive Units have vested pursuant to this Section 2(b)(ii).

(c) Sale of the Company. Upon the occurrence of a Sale of the Company, all Time-Vesting Executive Incentive Units which have not yet become vested shall become vested as of the date of consummation of such Sale of the Company, if, as of such date, Executive has been continuously employed by the Company or any of its Subsidiaries from the Reference Date through and including such date, subject to the provisions of this Section 2(c). Upon the occurrence of a Sale of the Company, any Performance-Vesting Executive Incentive Units (whether held by Executive or one or more of Executive's transferees, other than the Company and the Investors) which fail to vest as result of such Sale of the Company will automatically (without an action by Executive or any of Executive's transferees) be forfeited to the Company and deemed canceled and no longer outstanding without any payment therefor upon the consummation of such Sale of the Company. Notwithstanding the foregoing or anything herein or in the LLC Agreement to the contrary (and in addition to any requirements therein), in the case of a Sale of the Company, Executive hereby agrees that, if the Person who is acquiring the equity securities or assets of the Company resulting in such Sale of the Company (the "Acquiror") reasonably requests that Executive continue to provide any services to the Acquiror, the Company, Employer or any of their respective Affiliates from and after the consummation of the Sale of the Company (whether as a full-time employee, consultant or otherwise) that are within the scope of services provided by Executive during the Employment Period in exchange for a base salary (or equivalent base compensation), bonus opportunity and fringe benefits (collectively, the "Post-Sale Compensation") that are no less favorable to Executive in the aggregate than the Annual Base Salary, bonus opportunity, and fringe benefits provided to

Executive by Employer immediately prior to such Sale of the Company (excluding any equity or other incentive compensation), then the Continuing Incentive Amount shall be handled as follows (in lieu of being paid to Executive and/or Executive's Permitted Transferee(s)):

(i) if Executive declines to provide such requested services, the Continuing Incentive Amount shall be distributed pursuant to Section 4.1(a) of the LLC Agreement to the holders of Capital Units (excluding, for these purposes, all Restricted Units which are subject to an applicable limitation), and, thereafter, neither Executive nor Executive's Permitted Transferee(s) shall have any rights in respect of or other claims on such amounts (other than Executive's status as a holder of Capital Units); or

(ii) if Executive agrees to provide such requested services, the Continuing Incentive Amount shall be deposited into an escrow account with an escrow agent designated by the Company, and the Continuing Incentive Amount shall be handled as follows:

(A) if Executive provides such requested services from and after consummation of the Sale of the Company through the earliest of (w) the date on which Acquiror reduces Executive's Post-Sale Compensation below the Annual Base Salary, bonus opportunity, and fringe benefits provided to Executive by Employer immediately prior to such Sale of the Company (excluding any equity or other incentive compensation), (x) [ILLEGIBLE] date on which the Acquiror terminates such services (other than with Cause), (y) Executive's death or Disability, or (z) the nine (9)-month anniversary of the consummation of the Sale of the Company (the earliest of (w), (x), (y) and (z), the "Final Vesting Date"), then the Continuing Incentive Amount, together with any income earned thereon, shall be released to Executive and/or Executive's Permitted Transferee(s), as applicable, within five (5) business days after the Final Vesting Date; or

B) if Executive fails to provide such requested services from and after the consummation [ILLEGIBLE] the Sale of the Company through the Final Vesting Date, then the Continuing Incentive Amount, together with any income earned thereon, shall be distributed as a Distribution under Section 4.1(a) of the LLC Agreement to the holders of Capital Units (excluding, for these purposes, all Restricted Units which are subject to an applicable limitation), and, thereafter, neither Executive nor Executive's Permitted Transferee(s) shall have any rights in respect of or other claims on such amounts (other than Executive's status as a holder of Capital Units).

(iii) For purposes of this Agreement, "Continuing Incentive Amount" means 25% of all consideration to which Executive and, to the extent necessary, Executive's Permitted Transferee(s) are otherwise entitled in connection with such Sale of the Company in respect of the Executive Incentive Units.

(d) All Executive Incentive Units which have become vested hereunder, if any, are collectively referred to herein as the "Vested Incentive Units." All Executive Incentive Units which have not become vested hereunder, if any, are collectively referred to herein as the "Unvested Incentive Units."

3. Forfeiture and Repurchase Option.

(a) Forfeiture; Repurchase Option. In the event of a Separation, (i) all Unvested Incentive Units (whether held by Executive or one or more of Executive's transferees, other than the Company and the Investors) automatically (without any action by Executive or any of Executive's transferees) will be forfeited to the Company and deemed canceled and no longer outstanding without any payment therefor, and (ii) all Vested Incentive Units (whether held by Executive or one or more of Executive's transferees, other than the Company and the Investors) will be subject to a right of repurchase by the Company and the Investors pursuant to the terms and conditions in this Section 3 (the "Repurchase Option"). The Company may assign its repurchase rights set forth in this Section 3 to any Person; provided, that if there is a Subsidiary Public Offering and the securities of such Subsidiary are distributed to the members of the Company, then such Subsidiary will be treated as the Company for purposes of this Section 3 with respect to any repurchase of the securities of such Subsidiary. Notwithstanding anything to the contrary contained in this Agreement, if such Separation results from Employer's termination of Executive's employment with Cause, then all Executive Incentive Units (whether held by Executive or one or more of Executive's transferees, other than the Company and the Investors) automatically (without any action by Executive or any of Executive's transferees) will be forfeited to the Company and deemed canceled and no longer outstanding without any payment therefor pursuant to clause (i) of this Section 3(a).

(b) Purchase Price. In the event of a Separation, the purchase price for each Vested Incentive Unit will be the Fair Market Value of such U it. The Fair Market Value of any Unit for purposes of this Section 3 shall be the Fair Market Value of such Unit as of the first date of delivery of the Repurchase Notice or Supplemental Repurchase Notice, as the case may be, pursuant to Section 3(c) or Section 3(d).

(c) Repurchase Notice. The Company may elect to purchase all or any portion of the Executive Securities pursuant to this Section 3 by delivering written notice (the "Repurchase Notice") to the holder or holders of such securities within seven months after the Separation. The Repurchase Notice will set forth the number of Executive Securities to be acquired from each holder, the aggregate consideration to be paid for such Units and the time and place for the closing of the transaction.

(d) Supplemental Repurchase Notice. If for any reason the Company does not elect to purchase all of the Executive Securities (other than Unvested Incentive Units) pursuant to the Repurchase Option, the Investors shall be entitled to exercise the Repurchase Option for all or any portion of the Executive Securities (other than Unvested Incentive Units) which the Company has not elected to purchase (the "Available Securities"). As soon as practicable after the Company has determined that there will be Available Securities, but in any event before the date that is six months and one day after the Separation, the Company shall give written notice (the "Option Notice") to the Investors setting forth the number of Available Securities and the purchase price for the Available Securities. The Investors may elect to purchase any or all of the Available Securities by giving written notice to the Company within seven months after the Separation. If the Investors elect to purchase an aggregate number of any class of Available Securities greater than the number of Available Securities of such class, the Available Securities of such class shall be allocated among the Investors based upon the number of Units of such class owned by each Investor. As soon as practicable, and in any event within ten days after the expiration of the seven-month period set forth above, the Company shall notify each holder of Executive Securities as to the number of Units of each class being purchased from such holder by the Investors (the "Supplemental Repurchase Notice"). At the time the Company delivers the

Supplemental Repurchase Notice to the holder(s) of Executive Securities, the Company shall also deliver written notice to each Investor setting forth the number of Units of each class such Investor is entitled to purchase, the aggregate purchase price and the time and place of the closing of the transaction.

(e) Closing of Repurchase. The closing of the purchase of the Executive Securities pursuant to the Repurchase Option shall take place on the date designated by the Company in the Repurchase Notice or Supplemental Repurchase Notice, which date shall not be more than one month nor less than five days after the delivery of the later of either such notice to be delivered. The Company will pay for the Executive Securities to be purchased by it pursuant to the Repurchase Option by first offsetting amounts outstanding under any bona fide debts owed by Executive to the Company or any of its Subsidiaries, and will pay the remainder of the purchase price by, at its option, (i) a check or wire transfer of funds, (ii) the issuance of a subordinated promissory note of the Company or a Subsidiary of the Company payable in up to three annual installments beginning on the first anniversary of the closing of such repurchase and bearing interest (payable quarterly) at a per annum rate equal to 8% (a "Repurchase Note"), (iii) the issuance in exchange for such securities of a number of a new class or series of Units or other Company Equity Securities that are senior to the other existing Units and bearing a yield of 8% per annum, compounded quarterly, or (iv) any combination of (i), (ii) and (iii) as the Board may elect in its discretion. In the event the Board elects to repurchase the Executive Securities through the issuance of a Repurchase Note, the Company hereby agrees that (x) it shall not make any Distributions pursuant to Section 4.1(a) of the LLC Agreement unless and until such Repurchase Note, including all interest accrued and unpaid thereon, is repaid in full and (y) in the event of a Sale of the Company, all obligations under the Repurchase Note shall automatically accelerate and become due and payable upon the consummation of such Sale of the Company. For the avoidance of doubt, nothing contained herein shall limit the Company's ability to make Tax Distributions in accordance with Section 4.1(b) of the LLC Agreement. Each Investor will pay for the Executive Securities purchased by it by a check or wire transfer of funds. The Company and the Investors will be entitled to receive customary representations and warranties from the sellers regarding such sale and to require that all sellers' signatures be guaranteed. Notwithstanding the foregoing, the Company may, at its option, effect repurchases as contemplated by Section 4.7 of the LLC Agreement.

(f) Restrictions on Repurchase. Notwithstanding anything to the contrary contained in this Agreement, all repurchases of Executive Securities by the Company pursuant to the Repurchase Option and all payments of principal and interest on any promissory note issued pursuant to Section 3 e ii shall be subject to applicable restrictions contained in the Delaware Limited Liability Company Act, the Delaware General Corporation Law or such other governing corporate or limited liability company law, and in the Company's and its Subsidiaries' debt and equity financing agreements. If any such restrictions prohibit (i) the repurchase of Executive Securities hereunder which the Company is otherwise entitled or required to make, (ii) dividends or other transfers of funds from one or more Subsidiaries to the Company to enable such repurchases or (iii) the payment of principal or interest required to be paid on any Repurchase Note issued pursuant to Section 3(e)(ii), then the Company (or the corporate successor to the Company, if applicable) may make such repurchases and may pay amounts due on such note as soon as it is permitted to make repurchases, pay such amounts or receive funds from Subsidiaries under such restrictions. The Company agrees to use commercially reasonable efforts to have payments of principal or interest on any Repurchase Note be permitted distributions pursuant to any debt or equity financing arrangement.

(g) Revocation. If the Fair Market Value of the Vested Incentive Units is finally determined to be an amount at least 10% greater than the per Unit repurchase price for such Vested Incentive Units in the Repurchase Notice or in the Supplemental Repurchase Notice, each of the Company and the Investors shall have the right to revoke its exercise of the Repurchase Option for all or any portion of the Vested Incentive Units elected to be repurchased by it by delivering notice of such revocation in writing to the holders of Vested Incentive Units during the thirty-day period beginning on the date that the Company and/or the Investors are given written notice that the Fair Market Value of a Unit of the Vested Incentive Units was finally determined to be an amount at least 10% greater than the per Unit repurchase price for the Vested Incentive Units set forth in the Repurchase Notice or in the Supplemental Repurchase Notice.

(h) Certificates. Promptly upon the forfeiture of any Units pursuant to this Section 3 (whether held by Executive or one of Executive's transferees, other than the Company and the Investors), Executive and Executive's transferees shall return the certificates, if any, evidencing such Units to the Company and the Company shall mark as canceled all such certificates evidencing such forfeited Units.

(i) Termination. The provisions of this Section 3 will terminate with respect to all Executive Securities upon the consummation of a Sale of the Company.

4. Transfer Restrictions in a Public Sale; Legend.

(a) Executive Transfers in a Public Sale In addition to the restrictions on transfer set forth in the LLC Agreement, the Registration Agreement (including in Section 3 thereof) and any agreement executed pursuant thereto, a holder of Executive Securities may only sell Common Stock in a Public Sale if such Common Stock is vested and to the extent that, before and after giving effect to such sale, the Executive Cumulative Sale Percentage would be equal to or less than the Investor Cumulative Sale Percentage. Except as set forth in the prior sentence, the Executive Securities may not be Transferred in a Public Sale.

(b) Legend. In addition to the legend(s) required by the LLC Agreement, each certificate evidencing the Executive Securities and each certificate issued in exchange for or upon the Transfer of any Executive Securities (if such securities remain Executive Securities as defined herein after such Transfer) shall be stamped or otherwise imprinted with a legend in substantially the following form:

> "THE SECURITIES REPRESENTED BY THIS CERTIFICATE ARE ALSO SUBJECT TO ADDITIONAL RESTRICTIONS ON TRANSFER, CERTAIN REPURCHASE OPTIONS, CERTAIN FORFEITURE PROVISIONS AND CERTAIN OTHER AGREEMENTS SET FORTH IN A SENIOR MANAGEMENT AGREEMENT BETWEEN THE COMPANY AND AN EXECUTIVE OF THE COMPANY AND OTHER PARTIES, DATED AS OF MAY 30, 2017, AS AMENDED. A COPY OF SUCH AGREEMENT MAY BE OBTAINED BY THE HOLDER HEREOF AT THE COMPANY'S PRINCIPAL PLACE OF BUSINESS WITHOUT CHARGE."

The Company shall imprint such legend on certificates evidencing Executive Securities outstanding prior to the date hereof. The legend set forth above shall be removed from the certificates evidencing any securities which cease to be Executive Securities.

PROVISIONS RELATING TO EMPLOYMENT

5 . Employment. Employer agrees to employ Executive, and Executive accepts such employment, for the period beginning on the Reference Date and ending upon Executive's separation pursuant to Section 5(c) (the "Employment Period").

(a) Position and Duties.

(i) During the Employment Period, Executive shall serve as the Vice President and Chief Financial Officer of the Company and Employer and shall have the normal duties, responsibilities and authority implied by such position, including, but not limited to, responsibility for financing accounting, treasury and IT operations, defining the Company's and Employer's strategy and business plan, selecting and evaluating other executives of the Company and Employer, sourcing and completing acquisitions made by the Company and Employer and managing the growth and operations of the Company and Employer, and such other activities as are reasonably directed by the Chief Executive Officer of the Company or the Board, subject in each case to the power of the Chief Executive Officer of the Company, the Board and the board of directors of Employer to expand, limit or otherwise alter such duties, responsibilities, positions and authority and to otherwise override actions of officers.

(ii) Executive shall report to the Chief Executive Officer of the Company or the Chief Executive Officer's designee, and Executive shall devote Executive's best efforts and Executive's full business time and attention to the business and affairs of the Company, Employer and the other Subsidiaries of the Company; provided, that during the Employment Period, Executive shall be entitled to (A) serve, with the prior written consent of the Board, on corporate, civic or charitable boards or committees, (B) deliver lectures and fulfill speaking engagements and (C) manage personal investments, so long as, with respect to clauses (B) and (C), such activities do not interfere substantially with the performance of Executive's responsibilities to the Company or Employer under this Agreement.

(b) Salary, Bonus and Benefits. Commencing as of the Reference Date and continuing until a Separation, Employer will pay Executive a base salary at a rate of $345,000 per annum (the "Annual Base Salary"). The Annual Base Salary shall be reviewed annually by the Board. For each fiscal year ending during the Employment Period, Executive shall be eligible for an annual bonus in an amount up to $140,000, as determined by the Board based upon the performance of Executive and the achievement by the Company, Employer and the other Subsidiaries of the Company of financial, operating and other objectives set by the Board; provided, that with respect to the first fiscal year for which Executive is eligible for a bonus, such bonus shall be paid on a *pro rata* basis based upon that portion of the fiscal year that remained. In addition, during the Employment Period, Executive will be entitled to such other benefits as are approved by the Board and made generally available to other similarly situated members of senior management of the Company and Employer.

(c) Separation. The Employment Period will continue until (i) Executive's resignation, death or Disability or (ii) the Board terminates Executive's employment with or without Cause. If Executive's employment is terminated by resignation of Executive with Good Reason pursuant to clause (i) above or by the Board without Cause pursuant to clause (ii) above, then during the six-month period commencing on the date of termination (the "Severance Period"), (x) Employer shall pay to Executive during the period beginning on the date of the Separation and ending on the date that is six months after the Separation an aggregate amount equal to 50% of Executive's Annual Base Salary, payable in equal installments on Employer's regular salary payment dates as in effect on the date of the Separation (the "Severance Payments"), and (y) if Executive is eligible to and does elect continuation coverage under Employer's health benefit plan pursuant to the provisions of Section 4980B of the Code, then Employer shall reimburse to Executive the premiums paid for such coverage by Executive during the portion of the Severance Period of which Executive is eligible for and elects such continuation coverage under Employer's health benefit plan, provided that such reimbursements shall not be made in the event an excise tax under Section 4980D of the Code would be imposed on Employer as a result. Notwithstanding anything herein to the contrary, (A) Executive shall not be entitled to receive any payments or other benefits pursuant to this Section 5(c) unless Executive has executed and delivered to Employer a general release in form and substance satisfactory to Employer (and such release is in full force and effect and has not been revoked), which release shall be delivered by Executive within fifteen (15) calendar days after Executive's Separation and (B) Executive shall be entitled to receive such payments only so long as Executive has not breached any of the provisions of such general release or Section 6 or Section 7. The amounts payable pursuant to this Section 5(c) shall be reduced by the amount of any compensation earned or received by Executive during the Severance Period in connection with the performance of any services by Executive. Upon request from time to time, Executive shall furnish Employer with a true and complete certificate specifying any such compensation earned or received by him while receiving any Severance Payments. Executive shall not be entitled to any further payments from the Company, Employer or their Affiliates, nor shall they have any further liability to Executive, except as expressly set forth in this Section 5.

(d) Code Section 409A. The intent of the parties is that payments and benefits under this Agreement comply with or otherwise be exempt from Internal Revenue Code Section 409A and the regulations and guidance promulgated thereunder (collectively "Code Section 409A") and, accordingly, to the maximum extent permitted, this Agreement shall be interpreted to be either exempt from or in compliance therewith. In no event whatsoever shall the Company or Employer be liable for any additional tax, interest or penalty that may be imposed on the Executive by Code Section 409A or damages for failing to comply with Code Section 409A. Notwithstanding any other payment schedule provided herein to the contrary, if the Executive is deemed on the date of termination to be a "specified employee" within the meaning of that term under Code Section 409A(a)(2)(B), then any payment under Section 5 that is considered deferred compensation under Code Section 409A payable on account of a "separation from service" shall not be made until the date which is the earlier of (A) the expiration of the six (6)-month period measured from the date of such "separation from service" of Executive, and (B) the date of Executive's death (the "Delay Period") to the extent required under Code Section 409A. Upon the expiration of the Delay Period, all payments delayed pursuant to this Section 5(d) shall be paid to the Executive in a lump sum, and all remaining payments due under this Agreement shall be paid or provided in accordance with the normal payment dates specified for them herein. A termination of employment shall not be deemed to have occurred for purposes of any provision of this Agreement providing for the payment of any amounts or benefits upon or following a

termination of employment unless such termination is also a "separation from service" from the Company and Employer within the meaning of Code Section 409A and, for purposes of any such provision of this Agreement, references to a "termination," "termination of employment" or like terms shall mean "separation from service." For purposes of Code Section 409A, the Executive's right to receive any installment payment pursuant to this Agreement shall be treated as a right to receive a series of separate and distinct payments. Notwithstanding any other provision to the contrary, in no event shall any payment under this Agreement that constitutes "deferred compensation" for purposes of Code Section 409A be subject to offset by any other amount unless otherwise permitted by Code Section 409A.

6. Confidential Information.

(a) Obligation to Maintain Confidentiality. Executive acknowledges that the information, observations and data (including trade secrets) obtained by him during the course of Executive's employment with Employer concerning the business or affairs of the Company, Employer and their respective Subsidiaries and Affiliates ("Confidential Information") are the property of the Company, Employer or such Subsidiaries and Affiliates, including information concerning acquisition opportunities in or reasonably related to the Company's and Employer's business or industry of which Executive becomes aware during the Employment Period. Therefore, Executive agrees that Executive will not disclose to any unauthorized Person or use for Executive's own account any Confidential Information without the Board's written consent, unless and to the extent that the Confidential Information, (i) becomes generally known to and available for use by the public other than as a result of Executive's acts or omissions to act or (ii) is required to be disclosed pursuant to any applicable la or court order. Executive shall deliver to Employer at a Separation, or at any other time Employer may request, all memoranda, notes, plans, records, reports, computer tapes, printouts and software and other documents and data (and copies thereof) relating to the Confidential Information, Work Product (as defined below) or the business of the Company, Employer and their respective Subsidiaries and Affiliates (including all acquisition prospects, lists and contact information) which Executive may then possess or have under Executive's control.

(b) Protection of Trade Secrets. Executive acknowledges and agrees with Employer that Executive's services to Employer and to the Company and their respective Subsidiaries and Affiliates require the use of Confidential Information and trade secret information (including any formula, pattern, compilation, program, device, method, technique or process) that Employer, the Company or their respective Subsidiaries and Affiliates have made reasonable efforts to keep confidential and that derives independent economic value, actual or potential, from not being generally known to the public or to other persons who can obtain economic value from its disclosure or use ("Trade Secrets"). Executive further acknowledges and agrees that Employer, the Company and such Subsidiaries and Affiliates would be irreparably harmed if Executive were to provide similar services requiring the use of such Trade Secrets in connection with any Competitive Activities (as defined below). Executive accordingly covenants and agrees with Employer and the Company that during the Employment Period and the one-year period immediately following the Employment Period (such period, together with the Employment Period, is referred to herein as the "Restricted Period"), Executive shall not engage in any Competitive Activities in which Executive would be required to employ, reveal, or otherwise utilize Trade Secrets Executive has obtained knowledge of during Executive's employment with Employer or its Subsidiaries. For purposes of this Agreement, "Competitive Activities" means Executive engaging, or Executive causing or directing any

Person to engage, directly or indirectly, as a principal, agent, shareholder, investor, employer, partner, director, officer, employee, consultant, member, joint venturer, manager, lender, consultant, operator, or in any capacity whatsoever (other than as a customer) (including, without limitation, in any division, group or franchise of a larger organization), in the Company Business or any other business for which the Company, Employer or any of their respective Subsidiaries has a Bona Fide Interest, within the United States or any other jurisdiction in which the Company, Employer or any of their respective Subsidiaries engages in the Company Business or for which the Company, Employer or any of their respective Subsidiaries has a Bona Fide Interest (whether such business is located in the United States or such other jurisdiction or markets to customers located within the United States or such other jurisdiction); provided, that notwithstanding anything in this Agreement to the contrary, Competitive Activities shall not include Executive being a passive owner of not more than 2% of the outstanding stock of any class of a corporation that is publicly traded, so long as Executive has no active participation in the Company Business of such corporation. As used herein, a "Bona Fide Interest" means a bona fide interest or expectancy relating to the acquisition of such business by the Company, Employer or any of their respective Subsidiaries, as evidenced by appropriate written documentation (for example, a term sheet or letter of intent or emails or other written records that evidence that the parties have an interest or expectancy and have had discussions relating to such acquisition) or discussions indicating an intent to pursue such acquisition transaction (except that, with respect to the portion of the Restricted Period following the Employment Period, the bona fide interest or expectancy is measured as of the time immediately preceding the Separation).

(c) Ownership of Property. Executive acknowledges that all discoveries, concepts, ideas, inventions, innovations, improvements, developments, methods, processes, programs, designs, analyses, drawings, reports, patent applications, copyrightable work and mask work (whether or not including any confidential information) and all registrations or applications related thereto, all other proprietary information and all similar or related information (whether or not patentable) that relate to the Company, Employer or any of their respective Subsidiaries or Affiliates engaging in the Company Business or an anticipated business in which the Company, Employer or any of their respective Subsidiaries or Affiliates have a Bona Fide Interest, research and development, or existing or future products or services and that are conceived, developed, contributed to, made, or reduced to practice by Executive (either solely or jointly with others) while employed by the Company, Employer or any of their respective Subsidiaries or Affiliates or during the period between the Reference Date and the Separation (including any of the foregoing that constitutes any proprietary information or records) ("Work Product") belong to the Company, Employer or such Subsidiary or Affiliate, and Executive hereby assigns, and agrees to assign, all of the above Work Product to the Company, Employer or to such Subsidiary or Affiliate. Any copyrightable work prepared in whole or in part by Executive in the course of Executive's work for any of the foregoing entities shall be deemed a "work made for hire" under the copyright laws, and the Company, Employer or such Subsidiary or Affiliate shall own all rights therein. To the extent that any such copyrightable work is not a "work made for hire," Executive hereby assigns and agrees to assign to the Company, Employer or such Subsidiary or Affiliate all right, title, and interest, including without limitation, copyright in and to such copyrightable work. Executive shall promptly disclose such Work Product and copyrightable work to the Board and perform all actions reasonably requested by the Board (whether during or after the Employment Period), to establish and confirm the Company's, Employer's or such Subsidiary's or Affiliate's ownership (including assignments, consents, powers of attorney, and

other instruments); provided, that the Company shall reimburse Executive for Executive's reasonable and documented out-of-pocket expenses.

(d) Third Party Information. Executive understands that the Company, Employer and their respective Subsidiaries and Affiliates will receive from third parties confidential or proprietary information ("Third Party Information") subject to a duty on the Company's, Employer's and their respective Subsidiaries and Affiliates' part to maintain the confidentiality of such information and to use it only for certain limited purposes. During the Employment Period and thereafter, and without in any way limiting the provisions of Section 6(a) above, Executive will hold Third Party Information in the strictest confidence and will not disclose to anyone (other than personnel and consultants of the Company, Employer or their respective Subsidiaries and Affiliates who need to know such information in connection with their work for the Company, Employer or their respective Subsidiaries and Affiliates) or use, except in connection with Executive's work for the Company, Employer or their respective Subsidiaries and Affiliates, Third Party Information unless express y authorized by a member of the Board (other than Executive) in writing.

(e) Use of Information of Prior Employers. During the Employment Period, Executive will not improperly use or disclose any confidential information or trade secrets, if any, of any former employers or any other Person to whom Executive has an obligation of confidentiality, and will not bring onto the premises of the Company, Employer or any of their respective Subsidiaries or Affiliates any unpublished documents or any property belonging to any former employer or any other Person to whom Executive has an obligation of confidentiality unless consented to in writing by the former employer or Person. Executive will use in the performance of Executive's duties only information which is (i) generally known and used by persons with training and experience comparable to Executive's and which is (x) common knowledge in the industry or (y) is otherwise legally in the public domain, (ii) is otherwise provided or developed by the Company, Employer or any of their respective Subsidiaries or Affiliates or (iii) in the case of materials, property or information belonging to any former employer or other Person to whom Executive has an obligation of confidentiality, approved for such use in writing by such former employer or Person. In furtherance of the foregoing, concurrently with the execution of this Agreement, Executive shall execute and deliver to Employer a certificate in the form of Exhibit E attached hereto.

7 . Noncompetition and Nonsolicitation. Executive acknowledges that, in the course of Executive's employment with Employer, Executive will become familiar with Trade Secrets and with other confidential information concerning the Company, Employer and such Subsidiaries and that Executive's services will be of special, unique and extraordinary value to the Company, Employer and such Subsidiaries. Therefore, Executive agrees that:

(a) Noncompetition. During the Employment Period, Executive shall not engage in any Competitive Activity and, if all of Executive's Vested Incentive Units are repurchased pursuant to Section 3 herein at Fair Market Value then during the one-year period immediately following the Employment Period, Executive shall not engage in any Competitive Activity; provided, that Executive's obligations pursuant to this Section 7(a) shall cease if the Company is in material breach of its financial obligations to Executive, if any, set forth in Section 5(c); provided further, that, the immediately preceding proviso shall not apply unless and until Executive has provided ten (10) days' prior written notice to the Company of such breach

and the Company fails to cure such breach within a reasonable period of time, but not more than thirty (30) days, after receipt of such notice.

(b) Nonsolicitation. During the Restricted Period, Executive shall not directly or indirectly through another entity (i) induce or attempt to induce any employee of the Company, Employer or any of their respective Subsidiaries to leave the employ of the Company, Employer or such Subsidiary, or in any way interfere with the relationship between the Company, Employer or any of their respective Subsidiaries and any employee thereof, (ii) hire any employee of the Company, Employer or any of their respective Subsidiaries or, hire any former employee of the Company, Employer or any of their respective Subsidiaries within one year after such person ceased to be an employee of the Company, Employer or any of their respective Subsidiaries or (iii) induce or attempt to induce any customer, supplier, licensee or other business relation of the Company, Employer or any of their respective Subsidiaries to cease doing business with the Company, Employer or such Subsidiary or in any way interfere with the relationship between any such customer, supplier, licensee or business relation and the Company, Employer or any such Subsidiary to the extent such inducement, interference or solicitation relates to the Executive conducting or engaging in Competitive Activities or provided, that the foregoing shall not restrict Executive from (A) engaging in general solicitation efforts not specifically targeted at any such employee, or (B) hiring any employee of the Company, Employer or such Subsidiary who responds to any such regular solicitation effort without any other inducement to leave the employ of the Company, Employer or any of their respective Subsidiaries.

(c) Enforcement. If, at the time of enforcement of Section 6 or this Section 7, a court holds that the restrictions stated herein a ‘e unreasonable under circumstances then existing, the parties hereto agree that the maximum duration, scope or geographical area reasonable under such circumstances shall be substituted for the stated period, scope or area and that the court shall be allowed to revise the restrictions contained herein to cover the maximum duration, scope and area permitted by law. Because Executive’s services are unique and because Executive has access to confidential information, the parties hereto agree that money damages would be an inadequate remedy for any breach of this Agreement. Therefore, in the event a breach or threatened breach of this Agreement, the Company, Employer, their respective Subsidiaries and/or their respective successors or assigns may, in addition to other rights and remedies existing in their favor, subject to Section 10(h), apply to any court of competent jurisdiction for specific performance and/or injunctive or other relief in order to enforce, or prevent any violations of, the provisions hereof (without posting a bond or other security). In the event that Executive breaches any provision of this Section 7, then the Restricted Period shall be extended for a period of time equal to the period of time during which such breach occurred and, in the event that the Company, Employer or any of their Subsidiaries is required to seek relief from such breach in any court, then the Restricted Period shall be extended for a period of time equal to the pendency of such proceedings, including all appeals.

(d) Additional Acknowledgments. Executive acknowledges that the provisions of this Section 7 are in consideration of: (i) employment with Employer, (ii) the issuance of the Executive Securities and (iii) additional good and valuable consideration as set forth in this Agreement. In addition, Executive agrees and acknowledges that the restrictions contained in Section 6 and this Section 7 do not preclude Executive from earning a livelihood, nor do they unreasonably impose limitations on Executive’s ability to earn a living. In addition, Executive acknowledges (x) that the business of the Company, Employer and their respective

Subsidiaries will be conducted throughout the United States and other jurisdictions where the Company, Employer or any of their respective Subsidiaries conduct business during the Employment Period, (y) notwithstanding the state of organization or principal office of the Company, Employer or any of their respective Subsidiaries, or any of their respective executive or employees (including Executive), it is expected that the Company, Employer and their respective Subsidiaries will have business activities and have valuable business relationships within its industry throughout the United States and other jurisdictions where the Company, Employer or any of their respective Subsidiaries conduct business during the Employment Period, and (2) as part of Executive's responsibilities, Executive will be traveling throughout the United States and other jurisdictions where the Company, Employer or any of their respective Subsidiaries conduct business during the Employment Period in furtherance of Employer's business and its relationships. Executive agrees and acknowledges that the potential harm to the Company, Employer and their respective Subsidiaries of the non-enforcement of any provision of Section 6 or this Section 7 outweighs any potential harm to Executive of its enforcement by injunction or otherwise. The covenants contained in each of Sections 6(a), 6(b), 6(c), 6(d), 6(e), 7(a) and 7(b) may be enforced independently and without any one or more of such sections limiting the provisions of any one or more of the other of such sections. Executive acknowledges that Executive has carefully read this Agreement and consulted with legal counsel of Executive's choosing regarding its contents, has given careful consideration to the restraints imposed upon Executive by this Agreement and is in full accord as to their necessity for the reasonable and proper protection of confidential and proprietary information of the Company, Employer and their respective Subsidiaries now existing or to be developed in the future. Executive expressly acknowledges and agrees that each and every estraint imposed by this Agreement is reasonable with respect to subject matter, time period and geographical area.

GENERAL PROVISIONS

8. Definitions.

"Cause" means (a) the commission of a felony, (b) willful conduct tending to bring the Company, Employe or any of their respective Subsidiaries into substantial public disgrace or disrepute, (c) substantial and repeated failure to perform duties of the office held by Executive as reasonably directed by the Board and/or the Chief Executive Officer of the Company, (d) gross negligence or willful misconduct with respect to the Company, Employer or any of their respective Subsidiaries, including any other act or omission involving significant and willful dishonesty or fraud with respect to the Company, Employer or any of their respective Subsidiaries or any of their respective customers or suppliers, or (e) any material breach of Sections 1(d)(iii), 6 or 7 or Section 5(a)(ii) (but only with respect the requirement of such Section 5(a)(ii) that Executive devote Executive's full business time and attention to the business and affairs of the Company, Employer and their Subsidiaries). In each case above the burden of proving such action or omission is a "Cause" event shall be with Employer. In addition, Employer agrees it will permit Executive an opportunity to be heard by the Board before such dismissal.

"Common Stock" means, collectively, (a) following the organization of a corporation and reorganization or recapitalization of the Company into such corporation as provided in Section 12.1 of the LLC Agreement, the common equity securities of such corporation and any other class or series of authorized capital stock of such corporation that is not limited to a fixed sum or percentage of par or stated value in respect of the rights of the

holders thereof to participate in dividends or in the distribution of assets upon any liquidation, dissolution or winding up of such corporation, and (b) any common stock of a Subsidiary of either the Company or such corporation distributed by the Company or such corporation to its unitholders or shareholders, as applicable.

"Company Business" means the business(es) of providing those services or selling those products which the Company, Employer or any of their respective Subsidiaries actually provide or sell.

"Disability" means the disability of Executive caused by any physical or mental injury, illness or incapacity as a result of which Executive is, or is reasonably expected to be, unable to effectively perform the essential functions of Executive's duties for a substantially continuous period of more than 120 days or for any 180 days (whether or not continuous) within a 365 day period, as determined by the Board in good faith.

"Executive Cumulative Sale Percentage" means, on any date of determination, a percentage equal to the quotient of (a) the aggregate number of shares of Common Stock sold by Executive and/or or Executive's Permitted Transferees in Public Sales from and including the consummation of the Company's initial Public Offering and to and including such date, divided by (b) the aggregate number of shares of Common Stock held by Executive and Executive's Permitted Transferees upon the consummation of the Company's initial Public Offering.

"Executive Securities" means all Common Units (including all Executive Incentive Units) at any time acquired by Executive. Executive Securities will continue to be Executive Securities in the hands of any holder other than Executive (except for the Company and the Investors and except for transferees in a Public Sale), and except as otherwise provided herein, each such other holder of Executive Securities will succeed to all rights and obligations attributable to Executive as a holder of Executive Securities hereunder. Executive Securities will also include equity of the Company (or a corporate successor to the Company or a Subsidiary of the Company) issued with respect to Executive Securities (a) by way of a Unit split, Unit distribution, conversion, or other recapitalization, (b) by way of reorganization or recapitalization of the Company in connection with the incorporation of a corporate successor prior to a Public Offering or (c) by way of a distribution of securities of a Subsidiary of the Company to the members of the Company following or with respect to a Subsidiary Public Offering. Notwithstanding the foregoing, all Unvested Incentive Units shall remain Unvested Incentive Units after any Transfer thereof (other than to the Company or any of the Investors).

"Fair Market Value" of each Unit of Executive Securities means the fair value of such Executive Securities as determined in good faith by the Board applying the provisions of Sections 11.2(a)(ii) and 11.2(b) of the LLC Agreement.

"Good Reason" means (a) any action by the Company or Employer which results in a material reduction in Executive's title, status, authority or responsibility as Chief Financial Officer of Employer or (b) a reduction in Executive's Annual Base Salary, in each case without the prior written consent of Executive; provided, that in order to constitute a termination with Good Reason, Executive must resign within 30 days of an event which constitutes Good Reason.

"Investor Cumulative Sale Percentage" means, on any date of determination, a percentage equal to the quotient of (a) the aggregate number of shares of Common Stock sold by the Investors in Public Sales from and including the consummation of the Company's initial

Public Offering and to and including such date, divided by (b) the aggregate number of shares of Common Stock held by the Investors upon the consummation of the Company's initial Public Offering.

"Investor Investment Amount" means, as of any measurement date, the total amount of cash, cash equivalents, promissory obligations, or the fair market value of any other property (as determined by the Board) invested or contributed by the Investors with respect to Company Equity Securities.

"Investor Proceeds" means, as of any measurement date, the total amount of cash received by the Investors with respect to Company Equity Securities pursuant to Section 4.1 of the LLC Agreement (other than Tax Distributions); provided, that in he event he Investors receive property other than cash as a distribution from the Company pursuant t Section 4.1, such property shall become Investor Proceeds on the date that it is sold, exchanged, transferred or otherwise converted into cash.

"LLC Agreement" means the Second Amended and Restated Limited Liability Company Agreement of the Company, dated as of April 5 2016, as amended or modified from time to time in accordance with its terms.

"Reference Date" means May 30, 2017.

"Securityholders Agreements" means the Amended and Restated Securityholders Agreement, dated as of April 5, 2016, by and among the Company, Executive and the other parties signatories thereto as amended or modified from time to time in accordance with its terms.

"Separation" means Executive ceasing to be employed by any of the Company, Employer and their respective Subsidiaries fo any reason.

"Target Multiple" means a number equal to the result of (i) all Investor Proceeds divided by (ii) the Investor Investment Amount.

9. Notices. All notices, demands or other communications to be given or delivered under or by reason of the provisions of this Agreement shall be in writing and shall be deemed to have been given when (a) delivered personally to the recipient, (b) sent to the recipient by reputable express courier service (charges prepaid), (c) mailed to the recipient by certified or registered mail, return receipt requested and postage prepaid, or (d) telecopied to the recipient (with hard copy sent to the recipient by reputable overnight courier service (charges prepaid) that same day) if telecopied before 5:00 p.m. Chicago, Illinois time on a business day, and otherwise on the next business day. Such notices, demands and other communications shall be sent to the parties at the addresses indicated below:

If to Company or Employer:

Maravai Life Sciences Holdings, LLC
c/o GTCR Management LLC
300 North LaSalle Street, Suite 5600
Chicago, Illinois 60654
Facsimile: (312) 382-2201

Attention: Chief Executive Officer

with copies to:

GTCR Management LLC
300 North LaSalle Street
Chicago, Illinois 60654
Facsimile: (312) 382-2201
Attention: Constantine S. Mihas
Sean L. Cunningham
Benjamin J. Daverman

Kirkland & Ellis LLP
300 North LaSalle Street
Chicago, Illinois 60654
Facsimile: (312) 862-2200
Attention: Sanford E. Perl, P.C.
Michael H. Weed, P.C.

If to Executive:

Kevin M. Herde

If to the Investors:

GTCR Management LLC
300 North LaSalle Street
Chicago, Illinois 60654
Facsimile: (312) 382-2201
Attention: Constantine S. Mihas
Sean L. Cunningham
Benjamin J. Daverman

with a copy to:

Kirkland & Ellis LLP
300 North LaSalle Street
Chicago, Illinois 60654
Facsimile: (312) 862-2200
Attention: Sanford E. Perl, P.C.
Michael H. Weed, P.C.

or such other address or to the attention of such other Person as the recipient party shall have specified by prior written notice to the sending party.

10. General Provisions.

(a) Transfers in Violation of Agreement. Any Transfer or attempted Transfer of any Executive Securities in violation of any provision of this Agreement shall be void, and the Company shall not record such Transfer on its books or treat any purported Transferee of such Executive Securities as the owner of such equity for any purpose.

(b) Severability. Whenever possible, each provision of this Agreement will be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Agreement is held to be invalid, illegal or unenforceable in any respect under any applicable law or rule in any jurisdiction, such invalidity, illegality or unenforceability will not affect any other provision or any other jurisdiction, but this Agreement will be reformed, construed and enforced in such jurisdiction as if such invalid, illegal or unenforceable provision had never been contained herein.

(c) Entire Agreement. This Agreement, those documents expressly referred to herein and other documents of even date herewith embody the complete agreement and understanding among the parties hereto and supersede and preempt any prior understandings, agreements or representations by or among the parties hereto, written or oral, which may have related to the subject matter hereof in any way.

(d) Descriptive Headings; Interpretation; No Strict Construction. The descriptive headings of this Agreement are inserted for convenience only and do not constitute a substantive part of this Agreement. Whenever required by the context, any pronoun used in this Agreement shall include the corresponding masculine, feminine, or neuter forms, and the singular form of nouns, pronouns, and verbs shall include the plural and vice versa. The use of the word "including" in this Agreement shall be by way of example rather than by limitation. Reference to any agreement, document, or instrument means such agreement, document, or instrument as amended or otherwise modified from time to time in accordance with the terms thereof, and, if applicable, hereof. The use of the words "or," "either," and "any" shall not be exclusive. The parties hereto have participated jointly in the negotiation and drafting of this Agreement. In the event an ambiguity or question of intent or interpretation arises, this Agreement shall be construed as if drafted jointly by the parties hereto, and no presumption or burden of proof shall arise favoring or disfavoring any party by virtue of the authorship of any of the provisions of this Agreement.

(e) Counterparts. This Agreement may be executed in multiple counterparts with the same effect as if all signing parties had signed the same document. All counterparts shall be construed together and constitute the same instrument.

(f) Successors and Assigns. Except as otherwise provided herein, this Agreement shall bind and inure to the benefit of and be enforceable by Executive, the Company, Employer, the Investors and their respective successors and assigns (including subsequent holders of Executive Securities); provided, that the rights and obligations of Executive under this Agreement shall not be assigned or delegated except for the assignment and delegation of Executive's rights and obligations hereunder as a holder of Executive Securities in connection with a permitted Transfer of Executive Securities hereunder and under the other Transaction Documents.

(g) Applicable Law. This Agreement shall be governed by, and construed in accordance with, the laws of the State of Delaware, without giving effect to any choice of law or conflict of law rules or provisions (whether of the State of Delaware or any other jurisdiction) that would cause the application of the laws of any jurisdiction other than the State of Delaware.

(h) Dispute Resolution. Any controversy, dispute or claim arising out of or relating to this Agreement (a "Covered Claim") shall be resolved by binding arbitration to be held in Wilmington, Delaware, and shall be administered by JAMS in accordance with the Employment Arbitration Rules & Procedures of JAMS then in effect and subject to JAMS Policy on Employment Arbitration Minimum Standards. Each party shall pay their own costs and expenses (including, without limitation, attorneys' fees and other charges of counsel) incurred in resolving any such Covered Claim; provided, that in the event litigation is required to compel arbitration or to enforce an arbitration award or judgment pursuant to this Agreement, the non-prevailing party in such litigation shall reimburse the costs and expenses (including attorney's fees and other charges of counsel) of the prevailing party. Judgment upon the award rendered by the arbitrator(s) may be entered into any court having jurisdiction thereof. The parties hereto agree that any action to compel arbitration pursuant to this Agreement shall be brought in the appropriate Delaware state court, and in connection with such action to compel, the laws of Delaware shall control.

(i) Executive's Cooperation. During the Employment Period and thereafter, Executive shall cooperate with the Company, Employer and their respective Subsidiaries and Affiliates in any disputes with third parties, internal investigation or administrative, regulatory or judicial proceeding as reasonably requested by the Company (including Executive being available to the Company upon reasonable notice for interviews and factual investigations, appearing at the Company's request to give testimony without requiring service of a subpoena or other legal process, volunteering to the Company all pertinent information and turning over to the Company all relevant documents which are or may come into Executive's possession, all at times and on schedules that are reasonably consistent with Executive's other permitted activities and commitments). In the event the Company requires Executive's cooperation in accordance with this paragraph after the Employment Period, the Company shall reimburse Executive for reasonable travel expenses (including lodging and meals, upon submission of receipts).

(j) Remedies. Each of the parties to this Agreement shall have all rights and remedies set forth in this Agreement and all rights and remedies which such Person has been granted at any time under any other agreement or contract and all of the rights which such Person has under any law. Each of the parties to this Agreement will be entitled to enforce its rights under this Agreement specifically, to recover damages and costs caused by any breach of any provision of this Agreement and to exercise all other rights existing in its favor. The parties hereto agree and acknowledge that money damages may not be an adequate remedy for any breach of the provisions of this Agreement and that any party may in its sole discretion, but subject to Section 10(h), apply to any court of law or equity of competent jurisdiction (without posting any bond or deposit) for specific performance and/or other injunctive relief in order to enforce or prevent any violations of the provisions of this Agreement.

(k) Amendment and Waiver. The provisions of this Agreement may be amended and waived only with the prior written consent of the Company, Employer, Executive and the Majority Holders (as defined in the Unit Purchase Agreement). No failure by any party to insist upon the strict performance of any covenant, duty, agreement, or condition of this

Agreement or to exercise any right or remedy consequent upon a breach thereof shall constitute a waiver of any such breach or any other covenant, duty, agreement, or condition. The waiver by any party of a breach of any covenant, duty, agreement, or condition of this Agreement of any other party shall not operate or be construed as a waiver of any subsequent breach of that provision or any other provision hereof.

(l) Insurance. The Company or Employer, at its discretion, may apply for and procure in its own name and for its own benefit life and/or disability insurance on Executive in any amount or amounts considered available. Executive agrees to cooperate in any medical or other examination, supply any information, and to execute and deliver any applications or other instruments in writing as may be reasonably necessary to obtain and constitute such insurance.

(m) Business Days. If any time period for giving notice or taking action hereunder expires on a day which is a Saturday, Sunday or holiday in the state in which the Company's chief executive office is located, the time period shall be automatically extended to the business day immediately following such Saturday, Sunday or holiday.

(n) Indemnification and Reimbursement of Payments on Behalf of Executive. The Company, Employer and their respective Subsidiaries shall be entitled to deduct or withhold from any amounts owing from the Company, Employer or any of their respective Subsidiaries to Executive (including withholding shares or other equity securities in the case of issuances of equity by the Company, Employer or any of their respective Subsidiaries) any federal, state, local or foreign withholding taxes, excise taxes, or employment taxes ("Taxes") imposed with respect to Executive's compensation or other payments from the Company, Employer or any of their respective Subsidiaries or Executive's ownership interest in the Company, including wages, bonuses, distributions, the receipt or exercise of equity options and/or the receipt or vesting of restricted equity. In the event any such deductions or withholdings are not made, Executive shall indemnify the Company, Employer and each of their respective Subsidiaries for any amounts paid with respect to any such Taxes, together with any interest, penalties and related expenses thereto; provided, that, Executive shall not be obligated to indemnify the Company pursuant to this Section 10(n) for such interest, penalties or related expenses which are directly caused by the failure of the Company to take necessary action with respect to such deductions and withholdings as it is required by law to take.

(o) Termination. This Agreement (except for the provisions of Sections 5(a) and 5(b)) shall survive a Separation and shall remain in full force and effect after such Separation.

(p) Adjustments of Numbers. All numbers set forth herein that refer to Unit prices or amounts will be appropriately adjusted to reflect Unit splits, Unit distributions, combinations of Units and other recapitalizations affecting the subject class of equity.

(q) Deemed Transfer of Executive Securities. If the Company (and/or the Investors and/or any other Person acquiring securities) shall make available, at the time and place and in the amount and form provided in this Agreement, the consideration for the Executive Securities to be repurchased, in each case, in accordance with the provisions of this Agreement, then from and after such time, the Person from whom such Units are to be repurchased shall no longer have any rights as a holder of such Units (other than the right to receive payment of such consideration in accordance with this Agreement), and such Units shall be deemed purchased in accordance with the applicable provisions hereof and the Company

(and/or the Investors and/or any other Person acquiring securities) shall be deemed the owner and holder of such Units, whether or not the certificates therefor have been delivered as required by this Agreement.

(r) No Pledge or Security Interest. The purpose of the Company's retention of Executive's certificates and executed security powers is solely to facilitate the provisions set forth in Section 3 herein and Section 8.2 of the LLC Agreement and does not y itself constitute a pledge by Executive of, or the granting of a security interest in, the underlying equity.

(s) Rights Granted to the Investors and their Affiliates. Any rights granted to any of the Investors or any of their respective Affiliates hereunder may also be exercised (in whole or in part) by their designees.

(t) Subsidiary Public Offering. If, after consummation of a Subsidiary Public Offering, the Company distributes securities of such Subsidiary to members of the Company, then such securities will be treated in the same manner as (but excluding any "preferred" features of the Units with respect to which they were distributed) the Units with respect to which they were distributed for purposes of Sections 1, 2, 3, and 4.

(u) Electronic Delivery. This Agreement, the agreements referred to herein, and each other agreement or instrument entered into in connection herewith or therewith or contemplated hereby or thereby, and any amendments hereto or thereto, to the extent signed and delivered by means of a photographic, facsimile, portable document format (.pdf), or similar reproduction of such signed writing using a facsimile machine or electronic mail shall be treated in all manner and respects as an original agreement or instrument and shall be considered to have the same binding legal effect as if it were the original signed version thereof delivered in person. At the request of any party hereto or to any such agreement or instrument, each other party hereto or thereto shall re-execute original forms thereof and deliver them to all other parties hereto. No party hereto or to any such agreement or instrument shall raise the use of a facsimile machine or electronic mail to deliver a signature or the fact that any signature or agreement or instrument was transmitted or communicated through the use of a facsimile machine or electronic mail as a defense to the formation or enforceability of a contract and each such party forever waives any such defense.

(v) No Third-Party Beneficiaries. Except as expressly provided herein, no term or provision of this Agreement is intended to be, or shall be, for the benefit of any Person not a party here o, and no such other Person shall have any right or cause of action hereunder.

* * * * *

IN WITNESS WHEREOF, the parties hereto have executed this Senior Management Agreement as of the date first above written.

MARAVAI LIFE SCIENCES HOLDINGS, LLC

By: /s/ Carl Hull
Name: Carl Hull
Its: Chief Executive Officer

MARAVAI LIFE SCIENCES, INC.

By: /s/ Carl Hull
Name: Carl Hull
Its: Chief Executive Officer

/s/ Kevin M. Herde
Kevin M. Herde

Each Investor, by signing below, acknowledges and accepts the rights granted to it as a third party beneficiary of this Agreement under Sections 3, 9, and 10 hereof as set forth therein and no Investor shall have any liability or obligation under this Agreement as a result of its signature below:

THE INVESTORS:

GTCR FUND XI/B LP

By: GTCR Partners XI/B LP
Its: General Partner

By: GTCR Investment XI LLC
Its: General Partner

By: /s/ Constantine S. Mihas
Name: Constantine S. Mihas
Its: Principal

GTCR/MARAVAI SPLITTER LP

By: GTCR Partners XI/B LP
Its: General Partner

By: GTCR Investment XI LLC
Its: General Partner

By: /s/ Constantine S. Mihas
Name: Constantine S. Mihas
Its: Principal

GTCR CO-INVEST XI LP

By: GTCR Investment XI LLC
Its: General Partner

By: /s/ Constantine S. Mihas
Name: Constantine S. Mihas
Its: Principal

Exhibit 10.5

SENIOR MANAGEMENT AGREEMENT

THIS SENIOR MANAGEMENT AGREEMENT (this "Agreement") is made as of December 27, 2017, by and among Maravai Life Sciences Holdings, LLC, a Delaware limited liability company (the "Company"), TriLink Biotechnologies, LLC, a Delaware limited liability company ("Employer"), and Brian Neel ("Executive"). Capitalized terms used but not otherwise defined herein shall have the meanings set forth in Section 8 of this Agreement, or if not defined herein, the meanings in the LLC Agreement.

The Company and Executive desire to enter into an agreement pursuant to which the Company will issue to Executive, on the terms and subject to the conditions contained herein, the Executive Incentive Units (as defined below).

The Company, Employer and Executive also mutually desire to enter into an agreement containing the terms and conditions pursuant to which Employer will employ Executive.

Certain provisions of this Agreement are intended for the benefit of, and will be enforceable by, the Investors.

NOW, THEREFORE, in consideration of the mutual covenants contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties to this Agreement hereby agree as follows:

PROVISIONS RELATING TO EXECUTIVE SECURITIES

1. Purchase and Sale of Executive Securities.

(a) Closing. Upon execution of this Agreement (the "Closing"), Executive will purchase from the Company, and the Company will sell to Executive, 65,000 of the Company's Incentive Units (the "Executive Incentive Units") at no cost per Unit. Such Executive Incentive Units shall be Series 5 Incentive Units and shall be subject to the vesting requirements described herein. Each Executive Incentive Unit shall have an initial Capital Contribution for such Executive Incentive Unit equal to zero and an initial Participation Threshold of $31.08. The Participation Threshold with respect to each Executive Incentive Unit is subject to adjustment from time to time as set forth in the LLC Agreement. The Company will deliver to Executive a copy of the certificate(s) representing such Executive Securities, and Executive will deliver to the Company and Executive will deliver to the Company an executed joinder to each of the Securityholders Agreement, Registration Agreement and LLC Agreement, in the form attached hereto as Exhibit A.

(b) 83(b) Election. Within 30 days after the acquisition of Executive Securities at the Closing, Executive will make an effective election (an "83(b) Election") with the Internal Revenue Service under Section 83(b) of the Internal Revenue Code of 1986, as amended, and the regulations promulgated thereunder in the form of Exhibit B attached hereto.

(c) Certificates. Until released upon the occurrence of a Sale of the Company, all certificates evidencing Executive Securities shall be held, subject to the other terms of this

Agreement and the Securityholders Agreement, by the Company for the benefit of Executive and the other holder(s) of Executive Securities. Upon the occurrence of a Sale of the Company, subject to the provisions of the LLC Agreement (including Section 12.1 thereof), the Company will return all certificates in its possession evidencing Executive Securities to the record holders thereof or, subject to Section 1(f), to the appropriate acquirer thereof.

(d) Representations and Warranties. In connection with the purchase and sale of the Executive Securities made by Executive, Executive represents and warrants to the Company and Employer that:

(i) Executive possesses all requisite capacity, power and authority to enter into and perform Executive's obligations under this Agreement;

(ii) this Agreement constitutes the legal, valid and binding obligation of Executive, enforceable in accordance with its terms, and the execution, delivery and performance of this Agreement by Executive does not and will not conflict with, violate or cause a breach of any agreement, contract or instrument to which Executive is a party or any judgment, order or decree to which Executive is subject;

(iii) Except as set forth on Exhibit C attached hereto, Executive is neither party to, nor bound by, any other employment agreement, consulting agreement, noncompete agreement, non-solicitation agreement or confidentiality agreement or any other agreement which could impair or interfere with Executive's obligations hereunder;

(iv) Executive hereby acknowledges and agrees that (A) there is no current public market for the Executive Securities, none is expected to develop and the Executive Securities are subject to substantial restrictions on transferability, and (B) as a result of such matters and other factors, the Executive Securities are difficult to value;

(v) the Executive Securities to be acquired by Executive pursuant to this Agreement will be acquired for Executive's own account and not with a view to, or intention of, distribution thereof in violation of the Securities Act, or any applicable state securities laws, and the Executive Securities will not be disposed of in contravention of the Securities Act or any applicable state securities laws;

(vi) Executive is an "accredited investor" within the meaning of Rule 501 of Regulation D of the Securities and Exchange Commission and is an executive officer of the Company and/or Employer, is sophisticated in financial matters and is able to evaluate the risks and benefits of the investment in the Executive Securities;

(vii) Executive is able to bear the economic risk of Executive's investment in the Executive Securities for an indefinite period of time because the Executive Securities have not been registered under the Securities Act or applicable state securities laws and are subject to substantial restrictions on Transfer set forth herein and in the LLC Agreement, and, therefore, cannot be sold unless subsequently registered under the Securities Act and applicable state securities laws, or an exemption from such registration is available, and in compliance with such restrictions on Transfer;

(viii) Executive has had an opportunity to ask questions and receive answers concerning the terms and conditions of the Transaction Documents (in particular,

with respect to the distribution provisions set forth in the LLC Agreement) and the offering of Executive Securities and has had full and free access and opportunity to inspect, review, examine and inquire about all financial and other information concerning the Company and Employer as he has requested;

(ix) Executive understands and agrees that (A) the investment in the Company involves a high degree of risk, (B) in the future the Executive Securities may significantly increase or decrease in value and (C) no guarantees or representations have been made or can be made with respect to the future value of the Executive Securities or the future profitability or success of the Company;

(x) Executive acknowledges and agrees that (A) the Company and its Subsidiaries may incur in the future a substantial amount of senior or other indebtedness and (B) there may be additional issuances of Common Units or other Equity Securities after the date hereof and the equity interests of Executive may be diluted in connection with any such issuance, subject to the terms of the LLC Agreement and the Securityholders Agreement;

(xi) Executive has had an opportunity to consult with Executive's own tax counsel as to the U.S. federal, state, local and foreign tax consequences of the transactions contemplated by the Transaction Documents and independent legal counsel regarding Executive's rights and obligations under the Transaction Documents and fully understands the terms and conditions contained herein and therein;

(xii) Executive is not relying on the Company or Employer or any of their or their Subsidiaries' or Affiliates' employees, agents or representatives with respect to the legal, tax, economic, and related considerations of an investment in the Executive Securities; and

(xiii) Executive is a resident of the State set forth in Executive's address for notices in Section 9 hereof.

(e) Executive Acknowledgment. As an inducement to the Company to issue the Executive Securities to Executive, and as a condition thereto, Executive acknowledges and agrees that neither the issuance of the Executive Securities to Executive nor any provision contained in this Agreement shall entitle Executive to remain in the employment of the Company, Employer or their respective Subsidiaries or affect the right of the Company, Employer or their respective Subsidiaries to terminate Executive's employment at any time for any reason, subject to Section 5.

(f) Security Powers. Concurrently with the execution of this Agreement, Executive shall execute in blank ten security transfer powers in the form of Exhibit D attached hereto (the "Security Powers") with respect to the Executive Securities and shall deliver such Security Powers to the Company. The Security Powers shall authorize the Company to assign, Transfer and deliver the Executive Securities to the appropriate acquiror thereof pursuant to Section 3 below or Section 8.2 of the LLC Agreement and under no other circumstances.

(g) Spousal Consent. Concurrently with the execution of this Agreement, if Executive is lawfully married, Executive's spouse shall execute the Consent in the form of Exhibit E attached hereto.

(h) Certain Covenant. Executive acknowledges that Executive has not breached, and that Executive will continue to fully comply with, the covenants referenced on Exhibit C attached hereto and set forth in Exhibit F attached hereto.

2. Vesting of Executive Securities.

(a) Issuance of Executive Incentive Units. 35,000 of the Executive Incentive Units shall be "Time-Vesting Executive Incentive Units" and 30,000 of the Executive Incentive Units shall be "Performance-Vesting Executive Incentive Units."

(b) Executive Incentive Units.

(i) Time-Vesting Executive Incentive Units. Except as otherwise provided in this Section 2, the Time-Vesting Executive Incentive Units shall become vested as follows: 20% of the Time-Vesting Executive Incentive Units shall vest ratably on each of the first, second, third, fourth and fifth anniversaries of the Reference Date (such that the Time-Vesting Executive Incentive Units shall become 100% vested on the fifth anniversary of the Reference Date), if as of each such date Executive is, and since the Closing continuously has been, employed by the Company, Employer or any of their respective Subsidiaries.

(ii) Performance Vesting Executive Incentive Units. The Performance-Vesting Executive Incentive Units shall become 100% vested on the date on which the Investors achieve a Target Multiple of at least 2.75; if, as of such date, Executive is, and since the Reference Date continuously has been, employed by the Company, Employer or any of their respective Subsidiaries. The Board shall reasonably determine in good faith what amount of the Performance-Vesting Executive Incentive Units have vested pursuant to this Section 2(b)(ii).

(c) Sale of the Company. Upon the occurrence of a Sale of the Company, all Time-Vesting Executive Incentive Units which have not yet become vested shall become vested as of the date of consummation of such Sale of the Company, if, as of such date, Executive has been continuously employed by the Company or any of its Subsidiaries from the Reference Date through and including such date, subject to the provisions of this Section 2(c). Upon the occurrence of a Sale of the Company, any Performance-Vesting Executive Incentive Units (whether held by Executive or one or more of Executive's transferees, other than the Company and the Investors) which fail to vest as result of such Sale of the Company will automatically (without any action by Executive or any of Executive's transferees) be forfeited to the Company and deemed canceled and no longer outstanding without any payment therefor upon the consummation of such Sale of the Company. Notwithstanding the foregoing or anything herein or in the LLC Agreement to the contrary (and in addition to any requirements therein), in the case of a Sale of the Company, Executive hereby agrees that, if the Person who is acquiring the equity securities or assets of the Company resulting in such Sale of the Company (the "Acquiror") reasonably requests that Executive continue to provide any services to the Acquiror, the Company, Employer or any of their respective Affiliates from and after the consummation of the Sale of the Company (whether as a full-time employee, consultant or otherwise) that are within the scope of services provided by Executive during the Employment Period in exchange for a base salary (or equivalent base compensation), bonus opportunity and fringe benefits (collectively, the "Post-Sale Compensation") that are no less favorable to Executive in the aggregate than the Annual Base Salary, bonus opportunity, and fringe benefits provided to

Executive by Employer immediately prior to such Sale of the Company (excluding any equity or other incentive compensation), then the Continuing Incentive Amount shall be handled as follows (in lieu of being paid to Executive and/or Executive's Permitted Transferee(s)):

(i) if Executive declines to provide such requested services, the Continuing Incentive Amount shall be distributed pursuant to Section 4.1(a) of the LLC Agreement to the holders of Capital Units (excluding, for these purposes, all Restricted Units which are subject to an applicable limitation), and, thereafter, neither Executive nor Executive's Permitted Transferee(s) shall have any rights in respect of or other claims on such amounts (other than, if applicable, Executive's status as a holder of Capital Units); or

(ii) if Executive agrees to provide such requested services, the Continuing Incentive Amount shall be deposited into an escrow account with an escrow agent designated by the Company, and the Continuing Incentive Amount shall be handled as follows:

(A) if Executive provides such requested services from and after consummation of the Sale of the Company through the earliest of (w) the date on which Acquiror reduces Executive's Post-Sale Compensation below the Annual Base Salary, bonus opportunity, and fringe benefits provided to Executive by Employer immediately prior to such Sale of the Company (excluding any equity or other incentive compensation), (x) the date on which the Acquiror terminates such services (other than with Cause), (y) Executive's death or Disability, or (z) the nine (9)-month anniversary of the consummation of the Sale of the Company (the earliest of (w), (x), (y) and (z), the "Final Vesting Date"), then the Continuing Incentive Amount, together with any income earned thereon, shall be released to Executive and/or Executive's Permitted Transferee(s), as applicable, within five (5) business days after the Final Vesting Date; or

(B) if Executive fails to provide such requested services from and after the consummation of the Sale of the Company through the Final Vesting Date, then the Continuing Incentive Amount, together with any income earned thereon, shall be distributed as a Distribution under Section 4.1(a) of the LLC Agreement to the holders of Capital Units (excluding, for these purposes, all Restricted Units which are subject to an applicable limitation), and, thereafter, neither Executive nor Executive's Permitted Transferee(s) shall have any rights in respect of or other claims on such amounts (other than, if applicable, Executive's status as a holder of Capital Units).

(iii) For purposes of this Agreement, "Continuing Incentive Amount" means 25% of all consideration to which Executive and, to the extent necessary, Executive's Permitted Transferee(s) are otherwise entitled in connection with such Sale of the Company in respect of the Executive Incentive Units.

(d) All Executive Incentive Units which have become vested hereunder, if any, are collectively referred to herein as the "Vested Incentive Units." All Executive Incentive Units which have not become vested hereunder, if any, are collectively referred to herein as the "Unvested Incentive Units."

3. Forfeiture and Repurchase Option.

(a) Forfeiture; Repurchase Option. In the event of a Separation, (i) all Unvested Incentive Units (whether held by Executive or one or more of Executive's transferees, other than the Company and the Investors) automatically (without any action by Executive or any of Executive's transferees) will be forfeited to the Company and deemed canceled and no longer outstanding without any payment therefor, and (ii) all Vested Incentive Units (whether held by Executive or one or more of Executive's transferees, other than the Company and the Investors) will be subject to a right of repurchase by the Company and the Investors pursuant to the terms and conditions in this Section 3 (the "Repurchase Option"). The Company may assign its repurchase rights set forth in this Section 3 to any Person; provided, that if there is a Subsidiary Public Offering and the securities of such Subsidiary are distributed to the members of the Company, then such Subsidiary will be treated as the Company for purposes of this Section 3 with respect to any repurchase of the securities of such Subsidiary. Notwithstanding anything to the contrary contained in this Agreement, if such Separation results from Employer's termination of Executive's employment with Cause, then all Executive Incentive Units (whether held by Executive or one or more of Executive's transferees, other than the Company and the Investors) automatically (without any action by Executive or any of Executive's transferees) will be forfeited to the Company and deemed canceled and no longer outstanding without any payment therefor pursuant to clause (i) of this Section 3(a).

(b) Purchase Price. In the event of a Separation, the purchase price for each Vested Incentive Unit will be the Fair Market Value of such Unit. The Fair Market Value of any Unit for purposes of this Section 3 shall be the Fair Market Value of such Unit as of the first date of delivery of the Repurchase Notice or Supplemental Repurchase Notice, as the case may be, pursuant to Section 3(c) or Section 3(d).

(c) Repurchase Notice. The Company may elect to purchase all or any portion of the Executive Securities pursuant to this Section 3 by delivering written notice (the "Repurchase Notice") to the holder or holders of such securities within seven months after the Separation. The Repurchase Notice will set forth the number of Executive Securities to be acquired from each holder, the aggregate consideration to be paid for such Units and the time and place for the closing of the transaction.

(d) Supplemental Repurchase Notice. If for any reason the Company does not elect to purchase all of the Executive Securities (other than Unvested Incentive Units) pursuant to the Repurchase Option, the Investors shall be entitled to exercise the Repurchase Option for all or any portion of the Executive Securities (other than Unvested Incentive Units) which the Company has not elected to purchase (the "Available Securities"). As soon as practicable after the Company has determined that there will be Available Securities, but in any event before the date that is six months and one day after the Separation, the Company shall give written notice (the "Option Notice") to the Investors setting forth the number of Available Securities and the purchase price for the Available Securities. The Investors may elect to purchase any or all of the Available Securities by giving written notice to the Company within seven months after the Separation. If the Investors elect to purchase an aggregate number of any class of Available Securities greater than the number of Available Securities of such class, the Available Securities of such class shall be allocated among the Investors based upon the number of Units of such class owned by each Investor. As soon as practicable, and in any event within ten days after the expiration of the seven-month period set forth above, the Company shall notify each holder of Executive Securities as to the number of Units of each class being purchased from such holder

by the Investors (the "Supplemental Repurchase Notice"). At the time the Company delivers the Supplemental Repurchase Notice to the holder(s) of Executive Securities, the Company shall also deliver written notice to each Investor setting forth the number of Units of each class such Investor is entitled to purchase, the aggregate purchase price and the time and place of the closing of the transaction.

(e) Closing of Repurchase. The closing of the purchase of the Executive Securities pursuant to the Repurchase Option shall take place on the date designated by the Company in the Repurchase Notice or Supplemental Repurchase Notice, which date shall not be more than one month nor less than five days after the delivery of the later of either such notice to be delivered. The Company will pay for the Executive Securities to be purchased by it pursuant to the Repurchase Option by first offsetting amounts outstanding under any bona fide debts owed by Executive to the Company or any of its Subsidiaries, and will pay the remainder of the purchase price by, at its option, (i) a check or wire transfer of funds, (ii) the issuance of a subordinated promissory note of the Company or a Subsidiary of the Company payable in up to three annual installments beginning on the first anniversary of the closing of such repurchase and bearing interest (payable quarterly) at a per annum rate equal to 8% (a "Repurchase Note"), (iii) the issuance in exchange for such securities of a number of a new class or series of Units or other Company Equity Securities that are senior to the other existing Units and bearing a yield of 8% per annum, compounded quarterly, or (iv) any combination of (i), (ii) and (iii) as the Board may elect in its discretion. In the event the Board elects to repurchase the Executive Securities through the issuance of a Repurchase Note, the Company hereby agrees that (x) it shall not make any Distributions pursuant to Section 4.1(a) of the LLC Agreement unless and until such Repurchase Note, including all interest accrued and unpaid thereon, is repaid in full and (y) in the event of a Sale of the Company, all obligations under the Repurchase Note shall automatically accelerate and become due and payable upon the consummation of such Sale of the Company. For the avoidance of doubt, nothing contained herein shall limit the Company's ability to make Tax Distributions in accordance with Section 4.1(b) of the LLC Agreement. Each Investor will pay for the Executive Securities purchased by it by a check or wire transfer of funds. The Company and the Investors will be entitled to receive customary representations and warranties from the sellers regarding such sale and to require that all sellers' signatures be guaranteed. Notwithstanding the foregoing, the Company may, at its option, effect repurchases as contemplated by Section 4.7 of the LLC Agreement.

(f) Restrictions on Repurchase. Notwithstanding anything to the contrary contained in this Agreement, all repurchases of Executive Securities by the Company pursuant to the Repurchase Option and all payments of principal and interest on any promissory note issued pursuant to Section 3(e)(ii) shall be subject to applicable restrictions contained in the Delaware Limited Liability Company Act, the Delaware General Corporation Law or such other governing corporate or limited liability company law, and in the Company's and its Subsidiaries' debt and equity financing agreements. If any such restrictions prohibit (i) the repurchase of Executive Securities hereunder which the Company is otherwise entitled or required to make, (ii) dividends or other transfers of funds from one or more Subsidiaries to the Company to enable such repurchases or (iii) the payment of principal or interest required to be paid on any Repurchase Note issued pursuant to Section 3(e)(ii), then the Company (or the corporate successor to the Company, if applicable) may make such repurchases and may pay amounts due on such note as soon as it is permitted to make repurchases, pay such amounts or receive funds from Subsidiaries under such restrictions. The Company agrees to use commercially reasonable efforts to have payments of principal or interest on any Repurchase Note be permitted distributions pursuant to any debt or equity financing arrangement.

(g) Certificates. Promptly upon the forfeiture of any Units pursuant to this Section 3 (whether held by Executive or one of Executive's transferees, other than the Company and the Investors), Executive and Executive's transferees shall return the certificates, if any, evidencing such Units to the Company and the Company shall mark as canceled all such certificates evidencing such forfeited Units.

(h) Termination. The provisions of this Section 3 will terminate with respect to all Executive Securities upon the consummation of a Sale of the Company.

4. Transfer Restrictions in a Public Sale; Legend.

(a) Executive Transfers in a Public Sale. In addition to the restrictions on transfer set forth in the LLC Agreement, the Registration Agreement (including in Section 3 thereof) and any agreement executed pursuant thereto, a holder of Executive Securities may only sell Common Stock in a Public Sale if such Common Stock is vested and to the extent that, before and after giving effect to such sale, the Executive Cumulative Sale Percentage would be equal to or less than the Investor Cumulative Sale Percentage. Except as set forth in the prior sentence, the Executive Securities may not be Transferred in a Public Sale.

(b) Legend. In addition to the legend(s) required by the LLC Agreement, each certificate evidencing the Executive Securities and each certificate issued in exchange for or upon the Transfer of any Executive Securities (if such securities remain Executive Securities as defined herein after such Transfer) shall be stamped or otherwise imprinted with a legend in substantially the following form:

> "THE SECURITIES REPRESENTED BY THIS CERTIFICATE ARE ALSO SUBJECT TO ADDITIONAL RESTRICTIONS ON TRANSFER, CERTAIN REPURCHASE OPTIONS, CERTAINFORFEITURE PROVISIONS AND CERTAIN OTHER AGREEMENTS SET FORTH IN A SENIOR MANAGEMENT AGREEMENT BETWEEN THE COMPANY AND AN EXECUTIVE OF THE COMPANY AND OTHER PARTIES, DATED AS OF DECEMBER 27, 2017, AS AMENDED. A COPY OF SUCH AGREEMENT MAY BE OBTAINED BY THE HOLDER HEREOF AT THE COMPANY'S PRINCIPAL PLACE OF BUSINESS WITHOUT CHARGE."

The Company shall imprint such legend on certificates evidencing Executive Securities outstanding prior to the date hereof. The legend set forth above shall be removed from the certificates evidencing any securities which cease to be Executive Securities.

PROVISIONS RELATING TO EMPLOYMENT

5 . Employment. Employer agrees to employ Executive, and Executive accepts such employment, for the period beginning on the Reference Date and ending upon Executive's separation pursuant to Section 5(c) (the "Employment Period").

(a) Position and Duties.

(i) During the Employment Period, Executive shall serve as the Chief Operating Officer of Employer and shall have the normal duties, responsibilities and authority implied by such position, and such other activities as are reasonably directed by

the Chief Executive Officer of the Company, subject in each case to the power of the Chief Executive Officer of the Company to expand, limit or otherwise alter such duties, responsibilities, positions and authority and to otherwise override actions of officers.

(ii) Executive shall report to the Chief Executive Officer of the Company, or such Person's designee, and Executive shall devote Executive's best efforts and Executive's full business time and attention to the business and affairs of Employer and its Subsidiaries of the Company.

(b) Salary, Bonus and Benefits. Commencing as of the Reference Date and continuing until a Separation, Employer will pay Executive a base salary at a rate of $250,000 per annum (the "Annual Base Salary"). The Annual Base Salary shall be reviewed annually by the Board. For the 2017 fiscal year, Executive shall be eligible for an annual bonus in an amount up to 40% of the Annual Base Salary, as determined by the Board based upon the performance of Executive and the achievement by the Company, Employer and the other Subsidiaries of the Company of financial, operating and other objectives set by the Board; provided, that, such bonus shall be paid on a *pro rata* basis based upon that portion of the fiscal year that remained after the Reference Date. For the 2018 fiscal year and thereafter, Executive shall be eligible for an annual bonus in accordance with the TriLink Bonus Plan, as established by the Board after January 1, 2018, with a target bonus amount of up to 40% of the Annual Base Salary. In addition, during the Employment Period, Executive will be entitled to such other benefits as are approved by the Board and made generally available to all senior management of the Company and Employer.

(c) Separation. The Employment Period will continue until (i) Executive's resignation, death or Disability or (ii) the Board terminates Executive's employment with or without Cause. If Executive's employment is terminated by resignation of Executive with Good Reason pursuant to clause (i) above or by the Board without Cause pursuant to clause (ii) above, then during the three-month period commencing on the date of termination (the "Severance Period"), (x) Employer shall pay to Executive during the period beginning on the date of the Separation and ending on the date that is three months after the Separation an aggregate amount equal to 25% of his Annual Base Salary, payable in equal installments on Employer's regular salary payment dates as in effect on the date of the Separation (the "Severance Payments"), and (y) if Executive is eligible to and does elect continuation coverage under Employer's health benefit plan pursuant to the provisions of Section 4980B of the Code, then Employer shall reimburse to Executive the premiums paid for such coverage by Executive during the portion of the Severance Period of which Executive is eligible for and elects such continuation coverage under Employer's health benefit plan, provided that such reimbursements shall not be made in the event an excise tax under Section 4980D of the Code would be imposed on Employer as a result. Notwithstanding anything herein to the contrary, (A) Executive shall not be entitled to receive any payments or other benefits pursuant to this Section 5(c) unless Executive has executed and delivered to Employer a general release in form and substance satisfactory to Employer (and such release is in full force and effect and has not been revoked), which release shall be delivered by Executive within fifteen (15) calendar days after his Separation and (B) Executive shall be entitled to receive such payments only so long as Executive has not breached any of the provisions of such general release or Section 6 or Section 7. The amounts payable pursuant to this Section 5(c) shall be reduced by the amount of any compensation earned or received by Executive during the Severance Period in connection with the performance of any services by Executive. Upon request from time to time, Executive shall furnish Employer with a true and complete certificate specifying any such compensation earned or received by him while

receiving any Severance Payments. Executive shall not be entitled to any further payments from the Company, Employer or their Affiliates, nor shall they have any further liability to Executive, except as expressly set forth in this Section 5.

(d) Code Section 409A. The intent of the parties is that payments and benefits under this Agreement comply with or otherwise be exempt from Internal Revenue Code Section 409A and the regulations and guidance promulgated thereunder (collectively "Code Section 409A") and, accordingly, to the maximum extent permitted, this Agreement shall be interpreted to be either exempt from or in compliance therewith. In no event whatsoever shall the Company or Employer be liable for any additional tax, interest or penalty that may be imposed on the Executive by Code Section 409A or damages for failing to comply with Code Section 409A. Notwithstanding any other payment schedule provided herein to the contrary, if the Executive is deemed on the date of termination to be a "specified employee" within the meaning of that term under Code Section 409A(a)(2)(B), then any payment under Section 5 that is considered deferred compensation under Code Section 409A payable on account of a "separation from service" shall not be made until the date which is the earlier of (A) the expiration of the six (6)-month period measured from the date of such "separation from service" of Executive, and (B) the date of Executive's death (the "Delay Period") to the extent required under Code Section 409A. Upon the expiration of the Delay Period, all payments delayed pursuant to this Section 5(d) shall be paid to the Executive in a lump sum, and all remaining payments due under this Agreement shall be paid or provided in accordance with the normal payment dates specified for them herein. A termination of employment shall not be deemed to have occurred for purposes of any provision of this Agreement providing for the payment of any amounts or benefits upon or following a termination of employment unless such termination is also a "separation from service" from the Company and Employer within the meaning of Code Section 409A and, for purposes of any such provision of this Agreement, references to a "termination," "termination of employment" or like terms shall mean "separation from service." For purposes of Code Section 409A, the Executive's right to receive any installment payment pursuant to this Agreement shall be treated as a right to receive a series of separate and distinct payments. Notwithstanding any other provision to the contrary, in no event shall any payment under this Agreement that constitutes "deferred compensation" for purposes of Code Section 409A be subject to offset by any other amount unless otherwise permitted by Code Section 409A.

6. Confidential Information.

(a) Obligation to Maintain Confidentiality. Executive acknowledges that the information, observations and data (including trade secrets) obtained by Executive during the course of Executive's employment with Employer concerning the business or affairs of the Company, Employer and their respective Subsidiaries and Affiliates ("Confidential Information") are the property of the Company, Employer or such Subsidiaries and Affiliates, including information concerning acquisition opportunities in or reasonably related to the Company's and Employer's business or industry of which Executive becomes aware during the Employment Period. Therefore, Executive agrees that he will not disclose to any unauthorized Person or use for Executive's own account any Confidential Information without the Board's written consent, unless and to the extent that the Confidential Information, (i) becomes generally known to and available for use by the public other than as a result of Executive's acts or omissions to act or (ii) is required to be disclosed pursuant to any applicable law or court order. Executive shall deliver to Employer at a Separation, or at any other time Employer may request, all memoranda, notes, plans, records, reports, computer tapes, printouts and software and other documents and data (and copies thereof) relating to the Confidential Information, Work Product

(as defined below) or the business of the Company, Employer and their respective Subsidiaries and Affiliates (including all acquisition prospects, lists and contact information) which he may then possess or have under Executive's control.

(b) Protection of Trade Secrets. Executive acknowledges and agrees with Employer that Executive's services to Employer and to the Company and their respective Subsidiaries and Affiliates require the use of Confidential Information and trade secret information (including any formula, pattern, compilation, program, device, method, technique or process) that Employer, the Company or their respective Subsidiaries and Affiliates have made reasonable efforts to keep confidential and that derives independent economic value, actual or potential, from not being generally known to the public or to other persons who can obtain economic value from its disclosure or use ("Trade Secrets"). Executive further acknowledges and agrees that Employer, the Company and such Subsidiaries and Affiliates would be irreparably harmed if Executive were to provide similar services requiring the use of such Trade Secrets in connection with any Competitive Activities (as defined below). Executive accordingly covenants and agrees with Employer and the Company that during the Employment Period and the one-year period immediately following the Employment Period (such period, together with the Employment Period, is referred to herein as the "Restricted Period"), Executive shall not engage in any Competitive Activities in which Executive would be required to employ, reveal, or otherwise utilize Trade Secrets Executive has obtained knowledge of during Executive's employment with Employer or its Subsidiaries. For purposes of this Agreement, "Competitive Activities" means Executive engaging, or Executive causing or directing any Person to engage, directly or indirectly, as a principal, agent, shareholder, investor, employer, partner, director, officer, employee, consultant, member, joint venturer, manager, lender, consultant, operator, or in any capacity whatsoever (other than as a customer) (including, without limitation, in any division, group or franchise of a larger organization), in the Company Business or any other business for which the Company, Employer or any of their respective Subsidiaries has a Bona Fide Interest, within the United States or any other jurisdiction in which the Company, Employer or any of their respective Subsidiaries engages in the Company Business or for which the Company, Employer or any of their respective Subsidiaries has a Bona Fide Interest (whether such business is located in the United States or such other jurisdiction or markets to customers located within the United States or such other jurisdiction); provided, that notwithstanding anything in this Agreement to the contrary, Competitive Activities shall not include Executive being a passive owner of not more than 2% of the outstanding stock of any class of a corporation that is publicly traded, so long as Executive has no active participation in the Company Business of such corporation. As used herein, a "Bona Fide Interest" means a bona fide interest or expectancy relating to the acquisition of such business by the Company, Employer or any of their respective Subsidiaries, as evidenced by appropriate written documentation (for example, a term sheet or letter of intent or emails or other written records that evidence that the parties have an interest or expectancy and have had discussions relating to such acquisition) or discussions indicating an intent to pursue such acquisition transaction (except that, with respect to the portion of the Restricted Period following the Employment Period, the bona fide interest or expectancy is measured as of the time immediately preceding the Separation).

(c) Ownership of Property. Executive acknowledges that all discoveries, concepts, ideas, inventions, innovations, improvements, developments, methods, processes, programs, designs, analyses, drawings, reports, patent applications, copyrightable work and mask work (whether or not including any confidential information) and all registrations or applications related thereto, all other proprietary information and all similar or related information (whether

or not patentable) that relate to the Company, Employer or any of their respective Subsidiaries or Affiliates engaging in the Company Business or an anticipated business in which the Company, Employer or any of their respective Subsidiaries or Affiliates have a Bona Fide Interest, research and development, or existing or future products or services and that are conceived, developed, contributed to, made, or reduced to practice by Executive (either solely or jointly with others) while employed by the Company, Employer or any of their respective Subsidiaries or Affiliates or during the period between the Reference Date and the Separation (including any of the foregoing that constitutes any proprietary information or records) ("Work Product") belong to the Company, Employer or such Subsidiary or Affiliate, and Executive hereby assigns, and agrees to assign, all of the above Work Product to the Company, Employer or to such Subsidiary or Affiliate. Any copyrightable work prepared in whole or in part by Executive in the course of Executive's work for any of the foregoing entities shall be deemed a "work made for hire" under the copyright laws, and the Company, Employer or such Subsidiary or Affiliate shall own all rights therein. To the extent that any such copyrightable work is not a "work made for hire," Executive hereby assigns and agrees to assign to the Company, Employer or such Subsidiary or Affiliate all right, title, and interest, including without limitation, copyright in and to such copyrightable work. Executive shall promptly disclose such Work Product and copyrightable work to the Board and perform all actions reasonably requested by the Board (whether during or after the Employment Period), to establish and confirm the Company's, Employer's or such Subsidiary's or Affiliate's ownership (including assignments, consents, powers of attorney, and other instruments); provided, that the Company shall reimburse Executive for Executive's reasonable and documented out-of-pocket expenses.

(d) Third Party Information. Executive understands that the Company, Employer and their respective Subsidiaries and Affiliates will receive from third parties confidential or proprietary information ("Third Party Information") subject to a duty on the Company's, Employer's and their respective Subsidiaries and Affiliates' part to maintain the confidentiality of such information and to use it only for certain limited purposes. During the Employment Period and thereafter, and without in any way limiting the provisions of Section 6(a) above, Executive will hold Third Party Information in the strictest confidence and will not disclose to anyone (other than personnel and consultants of the Company, Employer or their respective Subsidiaries and Affiliates who need to know such information in connection with their work for the Company, Employer or their respective Subsidiaries and Affiliates) or use, except in connection with Executive's work for the Company, Employer or their respective Subsidiaries and Affiliates, Third Party Information unless expressly authorized by a member of the Board (other than Executive) in writing.

(e) Use of Information of Prior Employers. During the Employment Period, Executive will not improperly use or disclose any confidential information or trade secrets, if any, of any former employers or any other Person to whom Executive has an obligation of confidentiality, and will not bring onto the premises of the Company, Employer or any of their respective Subsidiaries or Affiliates any unpublished documents or any property belonging to any former employer or any other Person to whom Executive has an obligation of confidentiality unless consented to in writing by the former employer or Person. Executive will use in the performance of Executive's duties only information which is (i) generally known and used by persons with training and experience comparable to Executive's and which is (x) common knowledge in the industry or (y) is otherwise legally in the public domain, (ii) is otherwise provided or developed by the Company, Employer or any of their respective Subsidiaries or Affiliates or (iii) in the case of materials, property or information belonging to any former employer or other Person to whom Executive has an obligation of confidentiality, approved for

such use in writing by such former employer or Person. In furtherance of the foregoing, concurrently with the execution of this Agreement, Executive shall execute and deliver to Employer a certificate in the form of Exhibit F attached hereto.

7 . Noncompetition and Nonsolicitation. Executive acknowledges that in the course of Executive's employment with Employer he will become familiar with Trade Secrets and with other confidential information concerning the Company, Employer and such Subsidiaries and that Executive's services will be of special, unique and extraordinary value to the Company, Employer and such Subsidiaries. Therefore, Executive agrees that:

(a) Noncompetition. During the Employment Period, Executive shall not engage in any Competitive Activity and, if all of Executive's Vested Incentive Units are repurchased pursuant to Section 3 herein at Fair Market Value then during the one-year period immediately following the Employment Period, Executive shall not engage in any Competitive Activity; provided, that Executive's obligations pursuant to this Section 7(a) shall cease if the Company is in material breach of its financial obligations to Executive, if any, set forth in Section 5(c); provided further, that, the immediately preceding proviso shall not apply unless and until Executive has provided ten (10) days' prior written notice to the Company of such breach and the Company fails to cure such breach within a reasonable period of time, but not more than thirty (30) days, after receipt of such notice.

(b) Nonsolicitation. During the Restricted Period, Executive shall not directly or indirectly through another entity (i) induce or attempt to induce any employee of the Company, Employer or any of their respective Subsidiaries to leave the employ of the Company, Employer or such Subsidiary, or in any way interfere with the relationship between the Company, Employer or any of their respective Subsidiaries and any employee thereof, (ii) hire any employee of the Company, Employer or any of their respective Subsidiaries or, hire any former employee of the Company, Employer or any of their respective Subsidiaries within one year after such person ceased to be an employee of the Company, Employer or any of their respective Subsidiaries or (iii) induce or attempt to induce any customer, supplier, licensee or other business relation of the Company, Employer or any of their respective Subsidiaries to cease doing business with the Company, Employer or such Subsidiary or in any way interfere with the relationship between any such customer, supplier, licensee or business relation and the Company, Employer or any such Subsidiary to the extent such inducement, interference or solicitation relates to the Executive conducting or engaging in Competitive Activities or provided, that the foregoing shall not restrict Executive from (A) engaging in general solicitation efforts not specifically targeted at any such employee, or (B) hiring any employee of the Company, Employer or such Subsidiary who responds to any such regular solicitation effort without any other inducement to leave the employ of the Company, Employer or any of their respective Subsidiaries.

(c) Enforcement. If, at the time of enforcement of Section 6 or this Section 7, a court holds that the restrictions stated herein are unreasonable under circumstances then existing, the parties hereto agree that the maximum duration, scope or geographical area reasonable under such circumstances shall be substituted for the stated period, scope or area and that the court shall be allowed to revise the restrictions contained herein to cover the maximum duration, scope and area permitted by law. Because Executive's services are unique and because Executive has access to confidential information, the parties hereto agree that money damages would be an inadequate remedy for any breach of this Agreement. Therefore, in the event a breach or threatened breach of this Agreement, the Company, Employer, their respective

Subsidiaries and/or their respective successors or assigns may, in addition to other rights and remedies existing in their favor, subject to Section 10(h), apply to any court of competent jurisdiction for specific performance and/or injunctive or other relief in order to enforce, or prevent any violations of, the provisions hereof (without posting a bond or other security). In the event that Executive breaches any provision of this Section 7, then the Restricted Period shall be extended for a period of time equal to the period of time during which such breach occurred and, in the event that the Company, Employer or any of their Subsidiaries is required to seek relief from such breach in any court, then the Restricted Period shall be extended for a period of time equal to the pendency of such proceedings, including all appeals.

(d) Additional Acknowledgments. Executive acknowledges that the provisions of this Section 7 are in consideration of: (i) employment with Employer, (ii) the issuance of the Executive Securities and (iii) additional good and valuable consideration as set forth in this Agreement. In addition, Executive agrees and acknowledges that the restrictions contained in Section 6 and this Section 7 do not preclude Executive from earning a livelihood, nor do they unreasonably impose limitations on Executive's ability to earn a living. In addition, Executive acknowledges (x) that the business of the Company, Employer and their respective Subsidiaries will be conducted throughout the United States and other jurisdictions where the Company, Employer or any of their respective Subsidiaries conduct business during the Employment Period, (y) notwithstanding the state of organization or principal office of the Company, Employer or any of their respective Subsidiaries, or any of their respective executives or employees (including Executive), it is expected that the Company, Employer and their respective Subsidiaries will have business activities and have valuable business relationships within its industry throughout the United States and other jurisdictions where the Company, Employer or any of their respective Subsidiaries conduct business during the Employment Period, and (z) as part of Executive's responsibilities, Executive will be traveling throughout the United States and other jurisdictions where the Company, Employer or any of their respective Subsidiaries conduct business during the Employment Period in furtherance of Employer's business and its relationships. Executive agrees and acknowledges that the potential harm to the Company, Employer and their respective Subsidiaries of the non-enforcement of any provision of Section 6 or this Section 7 outweighs any potential harm to Executive of its enforcement by injunction or otherwise. The covenants contained in each of Sections 6(a), 6(b), 6(c), 6(d), 6(e), 7(a) and 7(b) may be enforced independently and without any one or more of such sections limiting the provisions of any one or more of the other of such sections. Executive acknowledges that he has carefully read this Agreement and consulted with legal counsel of Executive's choosing regarding its contents, has given careful consideration to the restraints imposed upon Executive by this Agreement and is in full accord as to their necessity for the reasonable and proper protection of confidential and proprietary information of the Company, Employer and their respective Subsidiaries now existing or to be developed in the future. Executive expressly acknowledges and agrees that each and every restraint imposed by this Agreement is reasonable with respect to subject matter, time period and geographical area.

GENERAL PROVISIONS

8. Definitions.

"Cause" means (a) the commission of a felony, (b) willful conduct tending to bring the Company, Employer or any of their respective Subsidiaries into substantial public disgrace or disrepute, (c) substantial and repeated failure to perform duties of the office held by Executive as reasonably directed by the Board and/or the Chief Executive Officer of the

Company, (d) gross negligence or willful misconduct with respect to the Company, Employer or any of their respective Subsidiaries, including any other act or omission involving significant and willful dishonesty or fraud with respect to the Company, Employer or any of their respective Subsidiaries or any of their respective customers or suppliers, or (e) any material breach of Sections 1(d)(iii), 6 or 7 or Section 5(a)(ii) (but only with respect the requirement of such Section 5(a)(ii) that Executive devote Executive's full business time and attention to the business and affairs of the Company, Employer and their Subsidiaries). In each case above the burden of proving such action or omission is a "Cause" event shall be with Employer. In addition, Employer agrees it will permit Executive an opportunity to be heard by the Board before such dismissal.

"Common Stock" means, collectively, (a) following the organization of a corporation and reorganization or recapitalization of the Company into such corporation as provided in Section 12.1 of the LLC Agreement, the common equity securities of such corporation and any other class or series of authorized capital stock of such corporation that is not limited to a fixed sum or percentage of par or stated value in respect of the rights of the holders thereof to participate in dividends or in the distribution of assets upon any liquidation, dissolution or winding up of such corporation, and (b) any common stock of a Subsidiary of either the Company or such corporation distributed by the Company or such corporation to its unitholders or shareholders, as applicable.

"Company Business" means the business(es) of providing those services or selling those products which the Company, Employer or any of their respective Subsidiaries actually provide or sell.

"Disability" means the disability of Executive caused by any physical or mental injury, illness or incapacity as a result of which Executive is, or is reasonably expected to be, unable to effectively perform the essential functions of Executive's duties for a substantially continuous period of more than 120 days or for any 180 days (whether or not continuous) within a 365 day period, as determined by the Board in good faith.

"Executive Cumulative Sale Percentage" means, on any date of determination, a percentage equal to the quotient of (a) the aggregate number of shares of Common Stock sold by Executive and/or or Executive's Permitted Transferees in Public Sales from and including the consummation of the Company's initial Public Offering and to and including such date, divided by (b) the aggregate number of shares of Common Stock held by Executive and Executive's Permitted Transferees upon the consummation of the Company's initial Public Offering.

"Executive Securities" means all Common Units (including all Executive Incentive Units) at any time acquired by Executive. Executive Securities will continue to be Executive Securities in the hands of any holder other than Executive (except for the Company and the Investors and except for transferees in a Public Sale), and except as otherwise provided herein, each such other holder of Executive Securities will succeed to all rights and obligations attributable to Executive as a holder of Executive Securities hereunder. Executive Securities will also include equity of the Company (or a corporate successor to the Company or a Subsidiary of the Company) issued with respect to Executive Securities (a) by way of a Unit split, Unit distribution, conversion, or other recapitalization, (b) by way of reorganization or recapitalization of the Company in connection with the incorporation of a corporate successor prior to a Public Offering or (c) by way of a distribution of securities of a Subsidiary of the Company to the members of the Company following or with respect to a Subsidiary Public Offering.

Notwithstanding the foregoing, all Unvested Incentive Units shall remain Unvested Incentive Units after any Transfer thereof (other than to the Company or any of the Investors).

"Fair Market Value" of each Unit of Executive Securities means the fair value of such Executive Securities as determined in good faith by the Board applying the provisions of Sections 11.2(a)(ii) and 11.2(b) of the LLC Agreement.

"Good Reason" means (a) any action by the Company or Employer which results in a material reduction in Executive's title, status, authority or responsibility as Chief Operating Officer of Employer or (b) a reduction in Executive's Annual Base Salary, in each case without the prior written consent of Executive; provided, that in order to constitute a termination with Good Reason, Executive must resign within 30 days of an event which constitutes Good Reason.

"Investor Cumulative Sale Percentage" means, on any date of determination, a percentage equal to the quotient of (a) the aggregate number of shares of Common Stock sold by the Investors in Public Sales from and including the consummation of the Company's initial Public Offering and to and including such date, divided by (b) the aggregate number of shares of Common Stock held by the Investors upon the consummation of the Company's initial Public Offering.

"Investor Investment Amount" means, as of any measurement date, the total amount of cash, cash equivalents, promissory obligations, or the fair market value of any other property (as determined by the Board) invested or contributed by the Investors with respect to Company Equity Securities.

"Investor Proceeds" means, as of any measurement date, the total amount of cash received by the Investors with respect to Company Equity Securities pursuant to Section 4.1 of the LLC Agreement (other than Tax Distributions); provided, that in the event the Investors receive property other than cash as a distribution from the Company pursuant to Section 4.1, such property shall become Investor Proceeds on the date that it is sold, exchanged, transferred or otherwise converted into cash.

"LLC Agreement" means the Second Amended and Restated Limited Liability Company Agreement of the Company, dated as of April 5, 2016, as amended or modified from time to time in accordance with its terms.

"New Securities" shall have the meaning set forth in the Securityholders Agreement.

"Reference Date" means October 16, 2017.

"Securityholders Agreements" means the Amended and Restated Securityholders Agreement, dated as of April 5, 2016, by and among the Company, Executive and the other parties signatories thereto as amended or modified from time to time in accordance with its terms.

"Separation" means Executive ceasing to be employed by any of the Company, Employer and their respective Subsidiaries for any reason.

"Target Multiple" means a number equal to the result of (i) all Investor Proceeds divided by (ii) the Investor Investment Amount.

9. Notices. All notices, demands or other communications to be given or delivered under or by reason of the provisions of this Agreement shall be in writing and shall be deemed to have been given when (a) delivered personally to the recipient, (b) sent to the recipient by reputable express courier service (charges prepaid), (c) mailed to the recipient by certified or registered mail, return receipt requested and postage prepaid, or (d) telecopied or e-mailed to the recipient (with hard copy sent to the recipient by reputable overnight courier service (charges prepaid) that same day) if telecopied or e-mailed before 5:00 p.m. Chicago, Illinois time on a business day, and otherwise on the next business day. Such notices, demands and other communications shall be sent to the parties at the addresses indicated below:

If to Company or Employer:

Maravai Life Sciences Holdings, LLC
c/o GTCR Management LLC
300 North LaSalle Street, Suite 5600
Chicago, Illinois 60654
Facsimile: (312) 382-2201
Attention: Chief Executive Officer

with copies to:

GTCR Management LLC
300 North LaSalle Street
Chicago, Illinois 60654
Facsimile: (312) 382-2201
Attention: Constantine S. Mihas
Sean L. Cunningham
Benjamin J. Daverman
E-mail: cmihas@gtcr.com; scunningham@gtcr.com;
bdaverman@gtcr.com

Kirkland & Ellis LLP
300 North LaSalle Street
Chicago, Illinois 60654
Facsimile: (312) 862-2200
Attention: Sanford E. Perl, P.C.
Michael H. Weed, P.C.
E-mail: sperl@kirkland.com; mweed@kirkland.com

If to Executive:

Brian Neel
E-mail:

If to the Investors:

GTCR Management LLC
300 North LaSalle Street
Chicago, Illinois 60654
Facsimile: (312) 382-2201
Attention: Constantine S. Mihas
Sean L. Cunningham
Benjamin J. Daverman
E-mail: cmihas@gtcr.com; scunningham@gtcr.com;
bdaverman@gtcr.com

Kirkland & Ellis LLP
300 North LaSalle Street
Chicago, Illinois 60654
Facsimile: (312) 862-2200
Attention: Sanford E. Perl, P.C.
Michael H. Weed, P.C.
E-mail: sperl@kirkland.com; mweed@kirkland.com

or such other address or to the attention of such other Person as the recipient party shall have specified by prior written notice to the sending party.

10. General Provisions.

(a) Transfers in Violation of Agreement. Any Transfer or attempted Transfer of any Executive Securities in violation of any provision of this Agreement shall be void, and the Company shall not record such Transfer on its books or treat any purported Transferee of such Executive Securities as the owner of such equity for any purpose.

(b) Severability. Whenever possible, each provision of this Agreement will be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Agreement is held to be invalid, illegal or unenforceable in any respect under any applicable law or rule in any jurisdiction, such invalidity, illegality or unenforceability will not affect any other provision or any other jurisdiction, but this Agreement will be reformed, construed and enforced in such jurisdiction as if such invalid, illegal or unenforceable provision had never been contained herein.

(c) Entire Agreement. This Agreement, those documents expressly referred to herein and other documents of even date herewith embody the complete agreement and understanding among the parties hereto and supersede and preempt any prior understandings, agreements or representations by or among the parties hereto, written or oral, which may have related to the subject matter hereof in any way.

(d) Descriptive Headings; Interpretation; No Strict Construction. The descriptive headings of this Agreement are inserted for convenience only and do not constitute a substantive part of this Agreement. Whenever required by the context, any pronoun used in this Agreement shall include the corresponding masculine, feminine, or neuter forms, and the singular form of nouns, pronouns, and verbs shall include the plural and vice versa. The use of the word “including” in this Agreement shall be by way of example rather than by limitation. Reference to any agreement, document, or instrument means such agreement, document, or instrument as amended or otherwise modified from time to time in accordance with the terms

thereof, and, if applicable, hereof. The use of the words "or," "either," and "any" shall not be exclusive. The parties hereto have participated jointly in the negotiation and drafting of this Agreement. In the event an ambiguity or question of intent or interpretation arises, this Agreement shall be construed as if drafted jointly by the parties hereto, and no presumption or burden of proof shall arise favoring or disfavoring any party by virtue of the authorship of any of the provisions of this Agreement.

(e) Counterparts. This Agreement may be executed in multiple counterparts with the same effect as if all signing parties had signed the same document. All counterparts shall be construed together and constitute the same instrument.

(f) Successors and Assigns. Except as otherwise provided herein, this Agreement shall bind and inure to the benefit of and be enforceable by Executive, the Company, Employer, the Investors and their respective successors and assigns (including subsequent holders of Executive Securities); provided, that the rights and obligations of Executive under this Agreement shall not be assigned or delegated except for the assignment and delegation of Executive's rights and obligations hereunder as a holder of Executive Securities in connection with a permitted Transfer of Executive Securities hereunder and under the other Transaction Documents.

(g) Applicable Law. This Agreement shall be governed by, and construed in accordance with, the laws of the State of Delaware, without giving effect to any choice of law or conflict of law rules or provisions (whether of the State of Delaware or any other jurisdiction) that would cause the application of the laws of any jurisdiction other than the State of Delaware.

(h) Dispute Resolution. Any controversy, dispute or claim arising out of or relating to this Agreement (a "Covered Claim") shall be resolved by binding arbitration to be held in Wilmington, Delaware, and shall be administered by JAMS in accordance with the Employment Arbitration Rules & Procedures of JAMS then in effect and subject to JAMS Policy on Employment Arbitration Minimum Standards. Each party shall pay their own costs and expenses (including, without limitation, attorneys' fees and other charges of counsel) incurred in resolving any such Covered Claim; provided, that in the event litigation is required to compel arbitration or to enforce an arbitration award or judgment pursuant to this Agreement, the non-prevailing party in such litigation shall reimburse the costs and expenses (including attorney's fees and other charges of counsel) of the prevailing party. Judgment upon the award rendered by the arbitrator(s) may be entered into any court having jurisdiction thereof. The parties hereto agree that any action to compel arbitration pursuant to this Agreement shall be brought in the appropriate Delaware state court, and in connection with such action to compel, the laws of Delaware shall control.

(i) Executive's Cooperation. During the Employment Period and thereafter, Executive shall cooperate with the Company, Employer and their respective Subsidiaries and Affiliates in any disputes with third parties, internal investigation or administrative, regulatory or judicial proceeding as reasonably requested by the Company (including Executive being available to the Company upon reasonable notice for interviews and factual investigations, appearing at the Company's request to give testimony without requiring service of a subpoena or other legal process, volunteering to the Company all pertinent information and turning over to the Company all relevant documents which are or may come into Executive's possession, all at times and on schedules that are reasonably consistent with Executive's other permitted activities and commitments). In the event the Company requires Executive's cooperation in accordance

with this paragraph after the Employment Period, the Company shall reimburse Executive for reasonable travel expenses (including lodging and meals, upon submission of receipts).

(j) Remedies. Each of the parties to this Agreement shall have all rights and remedies set forth in this Agreement and all rights and remedies which such Person has been granted at any time under any other agreement or contract and all of the rights which such Person has under any law. Each of the parties to this Agreement will be entitled to enforce its rights under this Agreement specifically, to recover damages and costs caused by any breach of any provision of this Agreement and to exercise all other rights existing in its favor. The parties hereto agree and acknowledge that money damages may not be an adequate remedy for any breach of the provisions of this Agreement and that any party may in its sole discretion, but subject to Section 10(h), apply to any court of law or equity of competent jurisdiction (without posting any bond or deposit) for specific performance and/or other injunctive relief in order to enforce or prevent any violations of the provisions of this Agreement.

(k) Amendment and Waiver. The provisions of this Agreement may be amended and waived only with the prior written consent of the Company, Employer, Executive and the Majority Holders (as defined in the Unit Purchase Agreement). No failure by any party to insist upon the strict performance of any covenant, duty, agreement, or condition of this Agreement or to exercise any right or remedy consequent upon a breach thereof shall constitute a waiver of any such breach or any other covenant, duty, agreement, or condition. The waiver by any party of a breach of any covenant, duty, agreement, or condition of this Agreement of any other party shall not operate or be construed as a waiver of any subsequent breach of that provision or any other provision hereof.

(l) Insurance. The Company or Employer, at its discretion, may apply for and procure in its own name and for its own benefit life and/or disability insurance on Executive in any amount or amounts considered available. Executive agrees to cooperate in any medical or other examination, supply any information, and to execute and deliver any applications or other instruments in writing as may be reasonably necessary to obtain and constitute such insurance.

(m) Business Days. If any time period for giving notice or taking action hereunder expires on a day which is a Saturday, Sunday or holiday in the state in which the Company's chief executive office is located, the time period shall be automatically extended to the business day immediately following such Saturday, Sunday or holiday.

(n) Indemnification and Reimbursement of Payments on Behalf of Executive. The Company, Employer and their respective Subsidiaries shall be entitled to deduct or withhold from any amounts owing from the Company, Employer or any of their respective Subsidiaries to Executive (including withholding shares or other equity securities in the case of issuances of equity by the Company, Employer or any of their respective Subsidiaries) any federal, state, local or foreign withholding taxes, excise taxes, or employment taxes ("Taxes") imposed with respect to Executive's compensation or other payments from the Company, Employer or any of their respective Subsidiaries or Executive's ownership interest in the Company, including wages, bonuses, distributions, the receipt or exercise of equity options and/or the receipt or vesting of restricted equity. In the event any such deductions or withholdings are not made, Executive shall indemnify the Company, Employer and each of their respective Subsidiaries for any amounts paid with respect to any such Taxes, together with any interest, penalties and related expenses thereto; provided, that, Executive shall not be obligated to indemnify the Company pursuant to this Section 10(n) for such interest, penalties or related expenses which are directly caused by the

failure of the Company to take necessary action with respect to such deductions and withholdings as it is required by law to take.

(o) Termination. This Agreement (except for the provisions of Sections 5(a) and 5(b)) shall survive a Separation and shall remain in full force and effect after such Separation.

(p) Adjustments of Numbers. All numbers set forth herein that refer to Unit prices or amounts will be appropriately adjusted to reflect Unit splits, Unit distributions, combinations of Units and other recapitalizations affecting the subject class of equity.

(q) Deemed Transfer of Executive Securities. If the Company (and/or the Investors and/or any other Person acquiring securities) shall make available, at the time and place and in the amount and form provided in this Agreement, the consideration for the Executive Securities to be repurchased, in each case, in accordance with the provisions of this Agreement, then from and after such time, the Person from whom such Units are to be repurchased shall no longer have any rights as a holder of such Units (other than the right to receive payment of such consideration in accordance with this Agreement), and such Units shall be deemed purchased in accordance with the applicable provisions hereof and the Company (and/or the Investors and/or any other Person acquiring securities) shall be deemed the owner and holder of such Units, whether or not the certificates therefor have been delivered as required by this Agreement.

(r) No Pledge or Security Interest. The purpose of the Company's retention of Executive's certificates and executed security powers is solely to facilitate the provisions set forth in Section 3 herein and Section 8.2 of the LLC Agreement and does not by itself constitute a pledge by Executive of, or the granting of a security interest in, the underlying equity.

(s) Rights Granted to the Investors and their Affiliates. Any rights granted to any of the Investors or any of their respective Affiliates hereunder may also be exercised (in whole or in part) by their designees.

(t) Subsidiary Public Offering. If, after consummation of a Subsidiary Public Offering, the Company distributes securities of such Subsidiary to members of the Company, then such securities will be treated in the same manner as (but excluding any "preferred" features of the Units with respect to which they were distributed) the Units with respect to which they were distributed for purposes of Sections 1, 2, 3, and 4.

(u) Electronic Delivery. This Agreement, the agreements referred to herein, and each other agreement or instrument entered into in connection herewith or therewith or contemplated hereby or thereby, and any amendments hereto or thereto, to the extent signed and delivered by means of a photographic, facsimile, portable document format (.pdf), or similar reproduction of such signed writing using a facsimile machine or electronic mail shall be treated in all manner and respects as an original agreement or instrument and shall be considered to have the same binding legal effect as if it were the original signed version thereof delivered in person. At the request of any party hereto or to any such agreement or instrument, each other party hereto or thereto shall re-execute original forms thereof and deliver them to all other parties hereto. No party hereto or to any such agreement or instrument shall raise the use of a facsimile machine or electronic mail to deliver a signature or the fact that any signature or agreement or instrument was transmitted or communicated through the use of a facsimile machine or

electronic mail as a defense to the formation or enforceability of a contract and each such party forever waives any such defense.

(v) No Third-Party Beneficiaries. Except as expressly provided herein, no term or provision of this Agreement is intended to be, or shall be, for the benefit of any Person not a party hereto, and no such other Person shall have any right or cause of action hereunder.

(w) Directors' and Officers' Insurance . Each of the Company and Employer agree that it shall obtain and maintain in full force and effect during the term of Executive's employment hereunder directors' and officers' insurance policies in amounts and with coverages customary for entities of the size and with the type of business of the Company and Employer, respectively.

* * * * *

IN WITNESS WHEREOF, the parties hereto have executed this Senior Management Agreement as of the date first above written.

MARAVAI LIFE SCIENCES HOLDINGS, LLC

By: /s/ Carl Hull
Name: Carl Hull
Its: Chief Executive Officer

TRILINK BIOTECHNOLOGIES, LLC

By: /s/ Carl Hull
Name: Carl Hull
Its: Executive Vice President

/s/ Brian Neel
Brian Neel

IN WITNESS WHEREOF, the parties hereto have executed this Senior Management Agreement as of the date first above written.

MARAVAI LIFE SCIENCES HOLDINGS, LLC

By: _____
Name:
Its:

TRILINK BIOTECHNOLOGIES, LLC

By: _____
Name:
Its:

/s/ Brian Neel
Brian Neel

Each Investor, by signing below, acknowledges and accepts the rights granted to it as a third party beneficiary of this Agreement under Sections 3, 9, and 10 hereof as set forth therein and no Investor shall have any liability or obligation under this Agreement as a result of its signature below:

THE INVESTORS:

GTCR FUND XI/B LP

By: GTCR Partners XI/B LP
Its: General Partner

By: GTCR Investment XI LLC
Its: General Partner

By: /s/ Constantine S. Mihas
Name: Constantine S. Mihas
Its: Principal

GTCR/MARAVAI SPLITTER LP

By: GTCR Partners XI/B LP
Its: General Partner

By: GTCR Investment XI LLC
Its: General Partner

By: /s/ Constantine S. Mihas
Name: Constantine S. Mihas
Its: Principal

GTCR CO-INVEST XI LP

By: GTCR Investment XI LLC
Its: General Partner

By: /s/ Constantine S. Mihas
Name: Constantine S. Mihas
Its: Principal

Exhibit 10.6

SENIOR MANAGEMENT AGREEMENT

THIS SENIOR MANAGEMENT AGREEMENT (this "Agreement") is made as of December 27, 2017 (the "Effective Date"), by and among MLSC Holdings, LLC, a Delaware limited liability company (the "Company"), Cygnus Technologies, LLC, a Delaware limited liability company ("Employer") and Christine Dolan ("Executive"). Capitalized terms used but not otherwise defined herein shall have the meanings set forth in Section 8 of this Agreement, or if not defined herein, the meanings in the LLC Agreement.

The Company and Executive desire to enter into an agreement pursuant to which the Company will issue to Executive, on the terms and subject to the conditions contained herein, the Executive Incentive Units (as defined below).

The Company, Employer and Executive also mutually desire to enter into an agreement containing the terms and conditions pursuant to which Employer will employ Executive.

Certain provisions of this Agreement are intended for the benefit of, and will be enforceable by, the Investor and the Repurchasing Unitholders.

NOW, THEREFORE, in consideration of the mutual covenants contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties to this Agreement hereby agree as follows:

PROVISIONS RELATING TO EXECUTIVE SECURITIES

1. Purchase and Sale of Executive Securities.

(a) Closing. Upon execution of this Agreement (the "Closing"), Executive will purchase from the Company, and the Company will sell to Executive, 150,000 of the Company's Incentive Units (the "Executive Incentive Units") at no cost per Unit. Such Executive Incentive Units shall be Series 2 Incentive Units and shall be subject to the vesting requirements described herein. Each Executive Incentive Unit shall have an initial Capital Contribution for such Executive Incentive Unit equal to zero and an initial Participation Threshold of $2.33. The Participation Threshold with respect to each Executive Incentive Unit is subject to adjustment from time to time as set forth in the LLC Agreement. The Company will deliver to Executive a copy of the certificate(s) representing such Executive Securities, and Executive will deliver to the Company and Executive will deliver to the Company an executed joinder to each of the Securityholders Agreement, Registration Agreement and LLC Agreement, in the form attached hereto as Exhibit A. The Executive Incentive Units are Common Units.

(b) 83(b) Election. Within 30 days after the acquisition of Executive Securities at the Closing, Executive will make an effective election (an "83(b) Election") with the Internal Revenue Service under Section 83(b) of the Internal Revenue Code of 1986, as amended (the "Code"), and the regulations promulgated thereunder in the form of Exhibit B attached hereto.

(c) Certificates. Until released upon the occurrence of a Sale of the Company, all certificates evidencing Executive Securities shall be held, subject to the other terms of this Agreement and the Securityholders Agreement, by the Company for the benefit of Executive and

the other holder(s) of Executive Securities. Upon the occurrence of a Sale of the Company, subject to the provisions of the LLC Agreement (including Section 12.1 thereof), the Company will return all certificates in its possession evidencing Executive Securities to the record holders thereof or, subject to Section 1(f), to the appropriate acquirer thereof.

(d) Representations and Warranties. In connection with the purchase and sale of the Executive Securities made by Executive, Executive represents and warrants to the Company and Employer that:

(i) Executive possesses all requisite capacity, power and authority to enter into and perform Executive's obligations under this Agreement;

(ii) this Agreement constitutes the legal, valid and binding obligation of Executive, enforceable in accordance with its terms, and the execution, delivery and performance of this Agreement by Executive does not and will not conflict with, violate or cause a breach of any agreement, contract or instrument to which Executive is a party or any judgment, order or decree to which Executive is subject;

(iii) except as set forth on Exhibit C attached hereto, Executive is neither party to, nor bound by, any other employment agreement, consulting agreement, noncompete agreement, non-solicitation agreement or confidentiality agreement or any other agreement which could impair or interfere with Executive's obligations hereunder;

(iv) Executive hereby acknowledges and agrees that (A) there is no current public market for the Executive Securities, none is expected to develop and the Executive Securities are subject to substantial restrictions on transferability, and (B) as a result of such matters and other factors, the Executive Securities are difficult to value;

(v) the Executive Securities to be acquired by Executive pursuant to this Agreement will be acquired for Executive's own account and not with a view to, or intention of, distribution thereof in violation of the Securities Act, or any applicable state securities laws, and the Executive Securities will not be disposed of in contravention of the Securities Act or any applicable state securities laws;

(vi) Executive is sophisticated in financial matters and is able to evaluate the risks and benefits of the investment in the Executive Securities;

(vii) Executive is able to bear the economic risk of Executive's investment in the Executive Securities for an indefinite period of time because the Executive Securities have not been registered under the Securities Act or applicable state securities laws and are subject to substantial restrictions on Transfer set forth herein and in the LLC Agreement, and, therefore, cannot be sold unless subsequently registered under the Securities Act and applicable state securities laws, or an exemption from such registration is available, and in compliance with such restrictions on Transfer;

(viii) Executive has had an opportunity to ask questions and receive answers concerning the terms and conditions of the Transaction Documents (in particular, with respect to the distribution provisions set forth in the LLC Agreement) and the offering of Executive Securities and has had full and free access and opportunity to

inspect, review, examine and inquire about all financial and other information concerning the Company and Employer as Executive has requested;

(ix) Executive understands and agrees that (A) the investment in the Company involves a high degree of risk, (B) in the future the Executive Securities may significantly increase or decrease in value, and (C) no guarantees or representations have been made or can be made with respect to the future value of the Executive Securities or the future profitability or success of the Company;

(x) Executive acknowledges and agrees that (A) the Company and its Subsidiaries may incur in the future a substantial amount of senior or other indebtedness and (B) there may be additional issuances of Common Units or other Equity Securities after the date hereof and the equity interests of Executive may be diluted in connection with any such issuance, subject to the terms of the LLC Agreement and the Securityholders Agreement;

(xi) Executive has had an opportunity to consult with Executive's own tax counsel as to the U.S. federal, state, local and foreign tax consequences of the transactions contemplated by the Transaction Documents and independent legal counsel regarding her rights and obligations under the Transaction Documents and fully understands the terms and conditions contained herein and therein;

(xii) Executive is not relying on the Company or Employer or any of their or their Subsidiaries' or Affiliates' employees, agents or representatives with respect to the legal, tax, economic, and related considerations of an investment in the Executive Securities; and

(xiii) Executive is a resident of the State set forth in Executive's address for notices in Section 0 hereof.

(e) Executive Acknowledgment. As an inducement to the Company to issue the Executive Securities to Executive, and as a condition thereto, Executive acknowledges and agrees that neither the issuance of the Executive Securities to Executive nor any provision contained in this Agreement shall entitle Executive to remain in the employment of the Company, Employer or their respective Subsidiaries or affect the right of the Company, Employer or their respective Subsidiaries to terminate Executive's employment at any time for any reason, subject to Section 5.

(f) Security Powers. Concurrently with the execution of this Agreement, Executive shall execute in blank ten security transfer powers in the form of Exhibit D attached hereto (the "Security Powers") with respect to the Executive Securities and shall deliver such Security Powers to the Company. The Security Powers shall authorize the Company to assign, Transfer and deliver the Executive Securities to the appropriate acquiror thereof pursuant to Section 3 below or Section 8.2 of the LLC Agreement and under no other circumstances.

(g) Certain Covenant. Executive acknowledges that Executive has not breached, and that Executive will continue to fully comply with, the covenants referenced on Exhibit C attached hereto and set forth in Exhibit E attached hereto.

2. Vesting of Executive Securities.

(a) Issuance of Executive Incentive Units. 120,000 of the Executive Incentive Units shall be "Time-Vesting Executive Incentive Units" and 30,000 of the Executive Incentive Units shall be "Performance-Vesting Executive Incentive Units."

(b) Executive Incentive Units.

(i) Time-Vesting Executive Incentive Units. Except as otherwise provided in this Section 2, 20% of the Time-Vesting Executive Incentive Units shall vest on each of the first, second, third, fourth and fifth anniversaries of the Reference Date (such that the Time-Vesting Executive Incentive Units shall become 100% vested on the fifth anniversary of the Closing Date), if as of each such date Executive is, and since the Reference Date continuously has been, employed by the Company, Employer or any of their respective Subsidiaries.

(ii) Performance-Vesting Executive Incentive Units. Except as otherwise provided in this Section 2, the Performance-Vesting Executive Incentive Units shall become 100% vested on the date on which the holders of Class A Preferred Units and Class B Preferred Units of the Company each achieve a Target Multiple of at least 3.0, if as of such date Executive is, and since the Reference Date continuously has been, employed by the Company, Employer or any of their respective Subsidiaries. The Board shall reasonably determine in good faith what amount of the Performance-Vesting Executive Incentive Units have vested pursuant to this Section 2(b)(ii).

(c) Sale of the Company. Upon the occurrence of a Sale of the Company, all Time-Vesting Executive Incentive Units which have not yet become vested shall become vested as of the date of consummation of such Sale of the Company, if, as of such date, Executive has been continuously employed by the Company or any of its Subsidiaries from the Reference Date through and including such date, subject to the provisions of this Section 2(c). Upon the occurrence of a Sale of the Company, any Performance-Vesting Executive Incentive Units (whether held by Executive or one or more of Executive's transferees, other than the Company and the Investors) which fail to vest as result of such Sale of the Company will automatically (without any action by Executive or any of Executive's transferees) be forfeited to the Company and deemed canceled and no longer outstanding without any payment therefor upon the consummation of such Sale of the Company. Notwithstanding the foregoing or anything herein or in the LLC Agreement to the contrary (and in addition to any requirements therein), in the case of a Sale of the Company, Executive hereby agrees that, if the Person who is acquiring the equity securities or assets of the Company resulting in such Sale of the Company (the "Acquiror") reasonably requests that Executive continue to provide any services to the Acquiror, the Company, Employer or any of their respective Affiliates from and after the consummation of the Sale of the Company (whether as a full-time employee, consultant or otherwise) that are within the scope of services provided by Executive during the Employment Period in exchange for a base salary (or equivalent base compensation), bonus opportunity and fringe benefits (collectively, the "Post-Sale Compensation") that are no less favorable to Executive in the aggregate than the Annual Base Salary, bonus opportunity, and fringe benefits provided to Executive by Employer immediately prior to such Sale of the Company (excluding any equity or other incentive compensation), then the Continuing Incentive Amount shall be handled as follows (in lieu of being paid to Executive and/or Executive's Permitted Transferee(s)):

(i) if Executive declines to provide such requested services, the Continuing Incentive Amount shall be distributed pursuant to Section 4.1(a) of the LLC Agreement to the holders of Units (excluding, for these purposes, all Restricted Units which are subject to an applicable limitation), and, thereafter, neither Executive nor Executive's Permitted Transferee(s) shall have any rights in respect of or other claims on such amounts; or

(ii) if Executive agrees to provide such requested services, the Continuing Incentive Amount shall be held back by the Investor (or its designee) or deposited into an escrow account with an escrow agent designated by the Company, and the Continuing Incentive Amount shall be handled as follows:

(A) if Executive provides such requested services from and after consummation of the Sale of the Company through the earliest of (w) the date on which Acquiror reduces Executive's Post-Sale Compensation below the Annual Base Salary, bonus opportunity, and fringe benefits provided to Executive by Employer immediately prior to such Sale of the Company (excluding any equity or other incentive compensation), (x) the date on which the Acquiror terminates such services (other than with Cause), (y) Executive's death or Disability, or (z) the 12-month anniversary of the consummation of the Sale of the Company (the earliest of (w), (x), (y) and (z), the "Final Vesting Date"), then the Continuing Incentive Amount, together with any income earned thereon, shall be released to Executive and/or her Permitted Transferee(s), as applicable, within five business days after the Final Vesting Date; or

(B) if Executive fails to provide such requested services from and after the consummation of the Sale of the Company through the Final Vesting Date, then the Continuing Incentive Amount, together with any income earned thereon, shall be distributed as a Distribution under Section 4.1(a) of the LLC Agreement to the holders of Units (excluding, for these purposes, all Restricted Units which are subject to an applicable limitation), and, thereafter, neither Executive nor her Permitted Transferee(s) shall have any rights in respect of or other claims on such amounts.

(iii) For purposes of this Agreement, "Continuing Incentive Amount" means 25% of all consideration to which Executive and, to the extent necessary, Executive's Permitted Transferee(s), are otherwise entitled in connection with such Sale of the Company in respect of the Executive Incentive Units.

(d) All Executive Incentive Units which have become vested hereunder, if any, are collectively referred to herein as the "Vested Incentive Units." All Executive Incentive Units which have not become vested hereunder, if any, are collectively referred to herein as the "Unvested Incentive Units."

3. Forfeiture and Repurchase Option.

(a) Forfeiture; Repurchase Option. In the event of a Separation, (i) all Unvested Incentive Units (whether held by Executive or one or more of Executive's transferees, other than the Company and the Repurchasing Unitholders) automatically (without any action by Executive or any of Executive's transferees) will be forfeited to the Company and deemed

canceled and no longer outstanding without any payment therefor, and (ii) all Vested Incentive Units (whether held by Executive or one or more of Executive's transferees, other than the Company and the Repurchasing Unitholders) will be subject to a right of repurchase by the Company and the Repurchasing Unitholders pursuant to the terms and conditions in this Section 3 (the "Repurchase Option"). The Company may assign its repurchase rights set forth in this Section 3 to any Person; provided, that if there is a Subsidiary Public Offering and the securities of such Subsidiary are distributed to the members of the Company, then such Subsidiary will be treated as the Company for purposes of this Section 3 with respect to any repurchase of the securities of such Subsidiary. Notwithstanding anything to the contrary contained in this Agreement, if such Separation results from Employer's termination of Executive's employment with Cause, then all Executive Incentive Units (whether held by Executive or one or more of Executive's transferees, other than the Company and the Repurchasing Unitholders) automatically (without any action by Executive or any of Executive's transferees) will be forfeited to the Company and deemed canceled and no longer outstanding without any payment therefor pursuant to clause (i) of this Section 3(a).

(b) Purchase Price. In the event of a Separation, the purchase price for each Vested Incentive Unit will be the Fair Market Value of such Unit. The Fair Market Value of any Unit for purposes of this Section 3 shall be the Fair Market Value of such Unit as of the first date of delivery of the Repurchase Notice or Supplemental Repurchase Notice, as the case may be, pursuant to Section 3(c) or Section 3(d).

(c) Repurchase Notice. The Company may elect to purchase all or any portion of the Executive Securities pursuant to this Section 3 by delivering written notice (the "Repurchase Notice") to the holder or holders of such securities within seven months after the Separation. The Repurchase Notice will set forth the number of Executive Securities to be acquired from each holder, the aggregate consideration to be paid for such Units and the time and place for the closing of the transaction.

(d) Supplemental Repurchase Notice. If for any reason the Company does not elect to purchase all of the Executive Securities (other than Unvested Incentive Units) pursuant to the Repurchase Option, each Repurchasing Unitholder shall be entitled to exercise the Repurchase Option for such number of the Executive Securities (other than Unvested Incentive Units) which the Company has not elected to purchase (the "Available Securities") equal to the Available Securities multiplied by a fraction, the numerator of which is the aggregate number of Common Units owned by such Repurchasing Unitholder and the denominator of which is the sum of all issued and outstanding Common Units of the Company held by the Repurchasing Unitholders (the "Pro Rata Share"). As soon as practicable after the Company has determined that there will be Available Securities, but in any event before the date that is six months and one day after the Separation, the Company shall give written notice (the "Option Notice") to each Repurchasing Unitholder setting forth such Repurchasing Unitholder's Pro Rata Share of Available Securities and the purchase price for the Available Securities. A Repurchasing Unitholder may elect to purchase any or all of its Pro Rata Share of Available Securities by giving written notice to the Company within seven months after the Separation. If for any reason a Repurchasing Unitholder does not elect to purchase all of its Pro Rata Share of the Available Securities, the other Repurchasing Unitholder shall be given the opportunity, upon five days' prior written notice, to purchase such number of the Available Securities which the Repurchasing Unitholder has not elected to purchase. As soon as practicable, and in any event within ten days after the expiration of the seven-month period set forth above, the Company shall notify each

holder of Executive Securities as to the number of Units of each class being purchased from such holder by the Repurchasing Unitholders (the "Supplemental Repurchase Notice"). At the time the Company delivers the Supplemental Repurchase Notice to the holder(s) of Executive Securities, the Company shall also deliver written notice to the Repurchasing Unitholders setting forth the number of Units of each class such Repurchasing Unitholder is entitled to purchase, the aggregate purchase price and the time and place of the closing of the transaction.

(e) Closing of Repurchase. The closing of the purchase of the Executive Securities pursuant to the Repurchase Option shall take place on the date designated by the Company in the Repurchase Notice or Supplemental Repurchase Notice, which date shall not be more than one month nor less than five days after the delivery of the later of either such notice to be delivered. The Company will pay for the Executive Securities to be purchased by it pursuant to the Repurchase Option by first offsetting amounts outstanding under any bona fide debts owed by Executive to the Company or any of its Subsidiaries, and will pay the remainder of the purchase price by, at its option, (i) a check or wire transfer of funds, (ii) the issuance of a subordinated promissory note of the Company or a Subsidiary of the Company payable in up to three annual installments beginning on the first anniversary of the closing of such repurchase and bearing interest (payable quarterly) at a per annum rate equal to 8% (a "Repurchase Note"), (iii) the issuance in exchange for such securities of a number of a new class or series of Units or other Company Equity Securities that are senior to the other existing Units and bearing a yield of 8% per annum, compounded quarterly, or (iv) any combination of (i), (ii) and (iii) as the Board may elect in its discretion. In the event the Board elects to repurchase the Executive Securities through the issuance of a Repurchase Note, the Company hereby agrees that (x) it shall not make any Distributions pursuant to Section 4.1(a) of the LLC Agreement unless and until such Repurchase Note, including all interest accrued and unpaid thereon, is repaid in full and (y) in the event of a Sale of the Company, all obligations under the Repurchase Note shall automatically accelerate and become due and payable upon the consummation of such Sale of the Company. For the avoidance of doubt, nothing contained herein shall limit the Company's ability to make Tax Distributions in accordance with Section 4.1(b) of the LLC Agreement. Each Repurchasing Unitholder will pay for the Executive Securities purchased by it by a check or wire transfer of funds. The Company and the Repurchasing Unitholders will be entitled to receive customary representations and warranties and a customary release from the sellers regarding such sale and to require that all sellers' signatures be guaranteed. Notwithstanding the foregoing, the Company may, at its option, effect repurchases as contemplated by Section 4.7 of the LLC Agreement.

(f) Restrictions on Repurchase. Notwithstanding anything to the contrary contained in this Agreement, all repurchases of Executive Securities by the Company pursuant to the Repurchase Option and all payments of principal and interest on any promissory note issued pursuant to Section 3(e)(ii) shall be subject to applicable restrictions contained in the Delaware Limited Liability Company Act, the Delaware General Corporation Law or such other governing corporate or limited liability company law, and in the Company's and its Subsidiaries' debt and equity financing agreements. If any such restrictions prohibit (i) the repurchase of Executive Securities hereunder which the Company is otherwise entitled or required to make, (ii) dividends or other transfers of funds from one or more Subsidiaries to the Company to enable such repurchases or (iii) the payment of principal or interest required to be paid on any Repurchase Note issued pursuant to Section 3(e)(ii), then the Company (or the corporate successor to the Company, if applicable) may make such repurchases and may pay amounts due on such note as soon as it is permitted to make repurchases, pay such amounts or receive funds from Subsidiaries

under such restrictions. The Company agrees to use commercially reasonable efforts to have payments of principal or interest on any Repurchase Note be permitted distributions pursuant to any debt or equity financing arrangement.

(g) Certificates. Promptly upon the forfeiture of any Units pursuant to this Section 3 (whether held by Executive or one of Executive's transferees, other than the Company and the Repurchasing Unitholders), Executive and Executive's transferees shall return the certificates, if any, evidencing such Units to the Company and the Company shall mark as canceled all such certificates evidencing such forfeited Units.

(h) Termination. The provisions of this Section 3 will terminate with respect to all Executive Securities upon the consummation of a Sale of the Company.

4. Transfer Restrictions in a Public Sale; Legend.

(a) Executive Transfers in a Public Sale. In addition to the restrictions on transfer set forth in the LLC Agreement, the Registration Agreement (including in Section 3 thereof) and any agreement executed pursuant thereto, a holder of Executive Securities may only sell Common Stock in a Public Sale if such Common Stock is vested and to the extent that, before and after giving effect to such sale, the Executive Cumulative Sale Percentage would be equal to or less than the Investor Cumulative Sale Percentage. Except as set forth in the prior sentence, the Executive Securities may not be Transferred in a Public Sale.

(b) Legend. In addition to the legend(s) required by the LLC Agreement, each certificate evidencing the Executive Securities and each certificate issued in exchange for or upon the Transfer of any Executive Securities (if such securities remain Executive Securities as defined herein after such Transfer) shall be stamped or otherwise imprinted with a legend in substantially the following form:

> "THE SECURITIES REPRESENTED BY THIS CERTIFICATE ARE ALSO SUBJECT TO ADDITIONAL RESTRICTIONS ON TRANSFER, CERTAIN REPURCHASE OPTIONS, CERTAIN FORFEITURE PROVISIONS AND CERTAIN OTHER AGREEMENTS SET FORTH IN A SENIOR MANAGEMENT AGREEMENT BETWEEN THE COMPANY AND AN EXECUTIVE OF THE COMPANY AND OTHER PARTIES, DATED AS OF DECEMBER 27, 2017, AS AMENDED. A COPY OF SUCH AGREEMENT MAY BE OBTAINED BY THE HOLDER HEREOF AT THE COMPANY'S PRINCIPAL PLACE OF BUSINESS WITHOUT CHARGE."

The Company shall imprint such legend on certificates evidencing Executive Securities outstanding prior to the date hereof. The legend set forth above shall be removed from the certificates evidencing any securities which cease to be Executive Securities.

PROVISIONS RELATING TO EMPLOYMENT

5 . Employment. Employer agrees to employ Executive, and Executive accepts such employment, for the period beginning on the Effective Date and ending upon her separation pursuant to Section 5(c) (the "Employment Period").

(a) Position and Duties.

(i) During the Employment Period, Executive shall serve as the Chief Operating Officer of the Company and Employer and shall have the normal duties, responsibilities and authority implied by such position, and such other activities as are reasonably directed by the President of the Company, subject in each case to the power of the President of the Company and the Board to expand, limit or otherwise alter such duties, responsibilities, positions and authority and to otherwise override actions of officers.

(ii) Executive shall report to the President of the Company, and Executive shall devote her best efforts and her full business time and attention to the business and affairs of the Company, Employer and the other Subsidiaries of the Company.

(b) Salary, Bonus and Benefits. Commencing on the Reference Date and continuing until a Separation, Employer will pay Executive a base salary at a rate of $300,000 per annum (the "Annual Base Salary"). The Annual Base Salary shall be reviewed annually by the Board. For the 2017 fiscal year, Executive shall be eligible for an annual bonus in an amount up to 40% of the Annual Base Salary, as determined by the Board based upon the performance of Executive and the achievement by the Company, Employer and the other Subsidiaries of the Company of financial, operating and other objectives set by the Board; provided, that, such bonus shall be paid on a *pro rata* basis based upon that portion of the fiscal year that remained after the Reference Date. For the 2018 fiscal year and thereafter, Executive shall be eligible for an annual bonus in accordance with the Cygnus Bonus Plan, as established by the Board after January 1, 2018, with a target bonus amount of up to 40% of the Annual Base Salary. In addition, during the Employment Period, Executive will be entitled to such other benefits as are approved by the Board and made generally available to other similarly situated members of senior management of the Company and Employer.

(c) Separation. The Employment Period will continue until (i) Executive's resignation, death or Disability or (ii) the Board terminates Executive's employment with or without Cause. If Executive's employment is terminated by resignation of Executive with Good Reason pursuant to clause (i) above or by the Board without Cause pursuant to clause (ii) above, then during the three-month period commencing on the date of termination (the "Severance Period"), (x) Employer shall pay to Executive during the period beginning on the date of the Separation and ending on the date that is three months after the Separation an aggregate amount equal to 25% of her Annual Base Salary, payable in equal installments on Employer's regular salary payment dates as in effect on the date of the Separation (the "Severance Payments"), and (y) if Executive is eligible to and does elect continuation coverage under Employer's health benefit plan pursuant to the provisions of Section 4980B of the Code, then Employer shall reimburse to Executive the premiums paid for such coverage by Executive during the portion of the Severance Period of which Executive is eligible for and elects such continuation coverage under Employer's health benefit plan, provided that such reimbursements shall not be made in the event an excise tax under Section 4980D of the Code would be imposed on Employer as a result. Notwithstanding anything herein to the contrary, (A) Executive shall not be entitled to receive any payments or other benefits pursuant to this Section 5(c) unless Executive has executed and delivered to Employer a general release in form and substance satisfactory to Employer (and such release is in full force and effect and has not been revoked), which release

shall be delivered by Executive within fifteen (15) calendar days after her Separation and (B) Executive shall be entitled to receive such payments only so long as Executive has not breached any of the provisions of such general release or Section 6 or Section 7. The amounts payable pursuant to this Section 5(c) shall be reduced by the amount of any compensation earned or received by Executive during the Severance Period in connection with the performance of any services by Executive. Upon request from time to time, Executive shall furnish Employer with a true and complete certificate specifying any such compensation earned or received by her while receiving any Severance Payments. Executive shall not be entitled to any further payments from the Company, Employer or their Affiliates, nor shall they have any further liability to Executive, except as expressly set forth in this Section 5.

(d) Code Section 409A. The intent of the parties is that payments and benefits under this Agreement comply with or otherwise be exempt from Section 409A of the Code and the regulations and guidance promulgated thereunder (collectively "Code Section 409A") and, accordingly, to the maximum extent permitted, this Agreement shall be interpreted to be either exempt from or in compliance therewith. In no event whatsoever shall the Company or Employer be liable for any additional tax, interest or penalty that may be imposed on the Executive by Code Section 409A or damages for failing to comply with Code Section 409A. Notwithstanding any other payment schedule provided herein to the contrary, if the Executive is deemed on the date of termination to be a "specified employee" within the meaning of that term under Code Section 409A(a)(2)(B), then any payment under this Agreement that is considered deferred compensation under Code Section 409A payable on account of a "separation from service" shall not be made until the date which is the earlier of (A) the expiration of the six (6)-month period measured from the date of such "separation from service" of Executive, and (B) the date of Executive's death (the "Delay Period") to the extent required under Code Section 409A. Upon the expiration of the Delay Period, all payments delayed pursuant to this Section 5(d) shall be paid to the Executive in a lump sum, and all remaining payments due under this Agreement shall be paid or provided in accordance with the normal payment dates specified for them herein. A termination of employment shall not be deemed to have occurred for purposes of any provision of this Agreement providing for the payment of any amounts or benefits upon or following a termination of employment unless such termination is also a "separation from service" from the Company and Employer within the meaning of Code Section 409A and, for purposes of any such provision of this Agreement, references to a "termination," "termination of employment" or like terms shall mean "separation from service." For purposes of Code Section 409A, the Executive's right to receive any installment payment pursuant to this Agreement shall be treated as a right to receive a series of separate and distinct payments. Notwithstanding any other provision to the contrary, in no event shall any payment under this Agreement that constitutes "deferred compensation" for purposes of Code Section 409A be subject to offset by any other amount unless otherwise permitted by Code Section 409A.

6. Confidential Information.

(a) Obligation to Maintain Confidentiality. Executive acknowledges that the information, observations and data (including trade secrets) obtained by Executive during the course of Executive's employment with Employer concerning the business or affairs of the Company, Employer and their respective Subsidiaries and Affiliates ("Confidential Information") are the property of the Company, Employer or such Subsidiaries and Affiliates, including information concerning acquisition opportunities in or reasonably related to the Company's and Employer's business or industry of which Executive becomes aware during the

Employment Period. Therefore, Executive agrees that Executive will not disclose to any unauthorized Person or use for Executive's own account any Confidential Information without the Board's written consent, unless and to the extent that the Confidential Information, (i) becomes generally known to and available for use by the public other than as a result of Executive's acts or omissions to act or (ii) is required to be disclosed pursuant to any applicable law or court order. Executive shall deliver to Employer at a Separation, or at any other time Employer may request, all memoranda, notes, plans, records, reports, computer tapes, printouts and software and other documents and data (and copies thereof) relating to the Confidential Information, Work Product (as defined below) or the business of the Company, Employer and their respective Subsidiaries and Affiliates (including all acquisition prospects, lists and contact information) which Executive may then possess or have under Executive's control.

(b) Ownership of Property. Executive acknowledges that all discoveries, concepts, ideas, inventions, innovations, improvements, developments, methods, processes, programs, designs, analyses, drawings, reports, patent applications, copyrightable work and mask work (whether or not including any confidential information) and all registrations or applications related thereto, all other proprietary information and all similar or related information (whether or not patentable) that relate to the Company, Employer or any of their respective Subsidiaries or Affiliates engaging in the Company Business or an anticipated business in which the Company, Employer or any of their respective Subsidiaries or Affiliates have a Bona Fide Interest, research and development, or existing or future products or services and that are conceived, developed, contributed to, made, or reduced to practice by Executive (either solely or jointly with others) while employed by the Company, Employer or any of their respective Subsidiaries or Affiliates (including any of the foregoing that constitutes any proprietary information or records) ("Work Product") belong to the Company, Employer or such Subsidiary or Affiliate, and Executive hereby assigns, and agrees to assign, all of the above Work Product to the Company, Employer or to such Subsidiary or Affiliate. Any copyrightable work prepared in whole or in part by Executive in the course of Executive's work for any of the foregoing entities shall be deemed a "work made for hire" under the copyright laws, and the Company, Employer or such Subsidiary or Affiliate shall own all rights therein. To the extent that any such copyrightable work is not a "work made for hire," Executive hereby assigns and agrees to assign to the Company, Employer or such Subsidiary or Affiliate all right, title, and interest, including without limitation, copyright in and to such copyrightable work. Executive shall promptly disclose such Work Product and copyrightable work to the Board and perform all actions reasonably requested by the Board (whether during or after the Employment Period), to establish and confirm the Company's, Employer's or such Subsidiary's or Affiliate's ownership (including assignments, consents, powers of attorney, and other instruments); provided, that the Company shall reimburse Executive for Executive's reasonable and documented out-of-pocket expenses.

(c) Third Party Information. Executive understands that the Company, Employer and their respective Subsidiaries and Affiliates will receive from third parties confidential or proprietary information ("Third Party Information") subject to a duty on the Company's, Employer's and their respective Subsidiaries and Affiliates' part to maintain the confidentiality of such information and to use it only for certain limited purposes. During the Employment Period and thereafter, and without in any way limiting the provisions of Section 6(a) above, Executive will hold Third Party Information in the strictest confidence and will not disclose to anyone (other than personnel and consultants of the Company, Employer or their respective Subsidiaries and Affiliates who need to know such information in connection with their work for the Company, Employer or their respective Subsidiaries and Affiliates) or

use, except in connection with Executive's work for the Company, Employer or their respective Subsidiaries and Affiliates, Third Party Information unless expressly authorized by a member of the Board (other than Executive) in writing.

(d) Use of Information of Prior Employers. During the Employment Period, Executive will not improperly use or disclose any confidential information or trade secrets, if any, of any former employers or any other Person to whom Executive has an obligation of confidentiality, and will not bring onto the premises of the Company, Employer or any of their respective Subsidiaries or Affiliates any unpublished documents or any property belonging to any former employer or any other Person to whom Executive has an obligation of confidentiality unless consented to in writing by the former employer or Person. Executive will use in the performance of Executive's duties only information which is (i) generally known and used by persons with training and experience comparable to Executive's and which is (x) common knowledge in the industry or (y) is otherwise legally in the public domain, (ii) is otherwise provided or developed by the Company, Employer or any of their respective Subsidiaries or Affiliates or (iii) in the case of materials, property or information belonging to any former employer or other Person to whom Executive has an obligation of confidentiality, approved for such use in writing by such former employer or Person. In furtherance of the foregoing, concurrently with the execution of this Agreement, Executive shall execute and deliver to Employer a certificate in the form of Exhibit E attached hereto.

7. Noncompetition and Nonsolicitation. Executive acknowledges that in the course of Executive's employment with Employer Executive will become familiar with the Company's, Employer's and their respective Subsidiaries' trade secrets and with other confidential information concerning the Company, Employer and such Subsidiaries and that Executive's services will be of special, unique and extraordinary value to the Company, Employer and such Subsidiaries. Therefore, Executive agrees that:

(a) Noncompetition. During the Employment Period and the two-year period immediately following the Employment Period (such period, together with the Employment Period, is referred to herein as the "Restricted Period"), Executive shall not engage in any Competitive Activities. For purposes of this Agreement, "Competitive Activities" means Executive engaging, or Executive causing or directing any Person to engage, directly or indirectly, as a principal, agent, shareholder, investor, employer, partner, director, officer, employee, consultant, member, joint venturer, manager, lender, consultant, operator, or in any capacity whatsoever (other than as a customer) (including, without limitation, in any division, group or franchise of a larger organization), in the Company Business or any other business for which the Company, Employer or any of their respective Subsidiaries has a Bona Fide Interest, within the United States or any other jurisdiction in which the Company, Employer or any of their respective Subsidiaries engages in the Company Business or for which the Company, Employer or any of their respective Subsidiaries has a Bona Fide Interest (whether such business is located in the United States or such other jurisdiction or markets to customers located within the United States or such other jurisdiction); provided, that notwithstanding anything in this Agreement to the contrary, Competitive Activities shall not include Executive being a passive owner of not more than 2% of the outstanding stock of any class of a corporation that is publicly traded, so long as Executive has no active participation in the Company Business of such corporation. As used herein, a "Bona Fide Interest" means a bona fide interest or expectancy relating to the acquisition of such business by the Company, Employer or any of their respective Subsidiaries, as evidenced by appropriate written documentation (for example, a term sheet or

letter of intent or emails or other written records that evidence that the parties have an interest or expectancy and have had discussions relating to such acquisition) or discussions indicating an intent to pursue such acquisition transaction (except that, with respect to the portion of the Restricted Period following the Employment Period, the bona fide interest or expectancy is measured as of the time immediately preceding the Separation).

(b) Nonsolicitation. During the Restricted Period, Executive shall not directly or indirectly through another entity (i) induce or attempt to induce any employee of the Company, Employer or any of their respective Subsidiaries or Affiliates to leave the employ of the Company, Employer or such Subsidiary or Affiliates, or in any way interfere with the relationship between the Company, Employer or any of their respective Subsidiaries or Affiliates and any employee thereof, (ii) hire any employee of the Company, Employer or any of their respective Subsidiaries or Affiliates or, hire any former employee of the Company, Employer or any of their respective Subsidiaries or Affiliates within one year after such person ceased to be an employee of the Company, Employer or any of their respective Subsidiaries or Affiliates or (iii) induce or attempt to induce any customer, supplier, licensee or other business relation of the Company, Employer or any of their respective Subsidiaries or Affiliates to cease doing business with the Company, Employer or such Subsidiary or Affiliates or in any way interfere with the relationship between any such customer, supplier, licensee or business relation and the Company, Employer or any such Subsidiary or Affiliates to the extent such inducement, interference or solicitation relates to Executive conducting or engaging in Competitive Activities; provided, that the foregoing shall not restrict Executive from (A) engaging in general solicitation efforts not specifically targeted at any such employee, or (B) hiring any employee of the Company, Employer or such Subsidiary who responds to any such regular solicitation effort without any other inducement to leave the employ of the Company, Employer or any of their respective Subsidiaries.

(c) Enforcement. If, at the time of enforcement of Section 6 or this Section 7, a court holds that the restrictions stated herein are unreasonable under circumstances then existing, the parties hereto agree that the maximum duration, scope or geographical area reasonable under such circumstances shall be substituted for the stated period, scope or area and that the court shall be allowed to revise the restrictions contained herein to cover the maximum duration, scope and area permitted by law. Because Executive's services are unique and because Executive has access to confidential information, the parties hereto agree that money damages would be an inadequate remedy for any breach of this Agreement. Therefore, in the event a breach or threatened breach of this Agreement, the Company, Employer, their respective Subsidiaries and/or their respective successors or assigns may, in addition to other rights and remedies existing in their favor, subject to Section 10(j), apply to any court of competent jurisdiction for specific performance and/or injunctive or other relief in order to enforce, or prevent any violations of, the provisions hereof (without posting a bond or other security). In the event that Executive breaches any provision of this Section 7, then the Restricted Period shall be extended for a period of time equal to the period of time during which such breach occurred and, in the event that the Company, Employer or any of their Subsidiaries is required to seek relief from such breach in any court, then the Restricted Period shall be extended for a period of time equal to the pendency of such proceedings, including all appeals.

(d) Additional Acknowledgments. Executive acknowledges that the provisions of this Section 7 are in consideration of: (i) Executive's employment with Employer, (ii) the issuance of the Executive Securities and (iii) additional good and valuable consideration

as set forth in this Agreement. In addition, Executive agrees and acknowledges that the restrictions contained in Section 6 and this Section 7 do not preclude Executive from earning a livelihood, nor do they unreasonably impose limitations on Executive's ability to earn a living. In addition, Executive acknowledges (x) that the business of the Company, Employer and their respective Subsidiaries will be conducted throughout the United States and other jurisdictions where the Company, Employer or any of their respective Subsidiaries conduct business during the Employment Period, (y) notwithstanding the state of organization or principal office of the Company, Employer or any of their respective Subsidiaries, or any of their respective executives or employees (including Executive), it is expected that the Company, Employer and their respective Subsidiaries will have business activities and have valuable business relationships within its industry throughout the United States and other jurisdictions where the Company, Employer or any of their respective Subsidiaries conduct business during the Employment Period, and (z) as part of Executive's responsibilities, Executive will be traveling throughout the United States and other jurisdictions where the Company, Employer or any of their respective Subsidiaries conduct business during the Employment Period in furtherance of Employer's business and its relationships. Executive agrees and acknowledges that the potential harm to the Company, Employer and their respective Subsidiaries of the non-enforcement of any provision of Section 6 or this Section 7 outweighs any potential harm to Executive of its enforcement by injunction or otherwise. The covenants contained in each of Sections 6(a), 6(b), 6(c), 6(d), 7(a) and 7(b) may be enforced independently and without any one or more of such sections limiting the provisions of any one or more of the other of such sections. Executive acknowledges that Executive has carefully read this Agreement and consulted with legal counsel of Executive's choosing regarding its contents, has given careful consideration to the restraints imposed upon Executive by this Agreement and is in full accord as to their necessity for the reasonable and proper protection of confidential and proprietary information of the Company, Employer and their respective Subsidiaries now existing or to be developed in the future. Executive expressly acknowledges and agrees that each and every restraint imposed by this Agreement is reasonable with respect to subject matter, time period and geographical area.

GENERAL PROVISIONS

8. Definitions.

"Cause" means (a) the commission of a felony or a crime involving moral turpitude or the commission of any other act or omission involving dishonesty or fraud with respect to the Company, Employer or any of their respective Subsidiaries or Affiliates or any of their customers, vendors or employees, (b) substantial and repeated failure to perform duties of the office held by Executive as reasonably directed by the Board (other than as a result of Executive's Disability), (c) gross negligence or willful misconduct with respect to the Company, Employer or any of their respective Subsidiaries or any of their customers, vendors or employees, which, if curable, continues uncured for 30 days of receipt by Employee of written notice from the Board of such gross negligence or willful misconduct, (d) conduct which could reasonably be expected to bring the Company, Employer or their respective Subsidiaries or Affiliates into substantial public disgrace or disrepute, (e) any breach by Executive of the covenants and agreements set forth in Section 6 and Section 7 and/or (f) a failure to observe policies or standards regarding employment practices (including nondiscrimination and sexual harassment policies) as approved by the Board from time to time, which such failure continues uncured for 30 days of receipt by Employee of written notice from the Board of such failure.

"Common Stock" means, collectively, (a) following the organization of a corporation and reorganization or recapitalization of the Company into such corporation as provided in Section 12.1 of the LLC Agreement, the common equity securities of such corporation and any other class or series of authorized capital stock of such corporation that is not limited to a fixed sum or percentage of par or stated value in respect of the rights of the holders thereof to participate in dividends or in the distribution of assets upon any liquidation, dissolution or winding up of such corporation, and (b) any common stock of a Subsidiary of either the Company or such corporation distributed by the Company or such corporation to its unitholders or shareholders, as applicable.

"Company Business" means the business(es) of providing those services or selling those products which the Company, Employer or any of their respective Subsidiaries actually provide or sell, including the business of manufacturing and providing specialized analytical products and services to the pharmaceutical and biotechnology industries for use in process development and quality control.

"Disability" means the disability of Executive caused by any physical or mental injury, illness or incapacity as a result of which Executive is, or is reasonably expected to be, unable to effectively perform the essential functions of Executive's duties for a substantially continuous period of more than 120 days or for any 180 days (whether or not continuous) within a 365 day period, as determined by the Board in good faith.

"Executive Cumulative Sale Percentage" means, on any date of determination, a percentage equal to the quotient of (a) the aggregate number of shares of Common Stock sold by Executive and/or or her Permitted Transferees in Public Sales from and including the consummation of the Company's initial Public Offering and to and including such date, divided by (b) the aggregate number of shares of Common Stock held by Executive and her Permitted Transferees upon the consummation of the Company's initial Public Offering.

"Executive Securities" means all Executive Incentive Units at any time acquired by Executive. Executive Securities will continue to be Executive Securities in the hands of any holder other than Executive (except for the Company and the Repurchasing Unitholder and except for transferees in a Public Sale), and except as otherwise provided herein, each such other holder of Executive Securities will succeed to all rights and obligations attributable to Executive as a holder of Executive Securities hereunder. Executive Securities will also include equity of the Company (or a corporate successor to the Company or a Subsidiary of the Company) issued with respect to Executive Securities (a) by way of a Unit split, Unit distribution, conversion, or other recapitalization, (b) by way of reorganization or recapitalization of the Company in connection with the incorporation of a corporate successor prior to a Public Offering or (c) by way of a distribution of securities of a Subsidiary of the Company to the members of the Company following or with respect to a Subsidiary Public Offering. Notwithstanding the foregoing, all Unvested Incentive Units shall remain Unvested Incentive Units after any Transfer thereof (other than to the Company or the Repurchasing Unitholder).

"Fair Market Value" of each Unit of Executive Securities means the fair value of such Executive Securities as determined in good faith by the Board applying the provisions of Sections 11.2(a)(ii) and 11.2(b) of the LLC Agreement.

"Investor" means MLSC Acquisition, LLC, a Delaware limited liability company.

"Investor Cumulative Sale Percentage" means, on any date of determination, a percentage equal to the quotient of (a) the aggregate number of shares of Common Stock sold by the Investor in Public Sales from and including the consummation of the Company's initial Public Offering and to and including such date, divided by (b) the aggregate number of shares of Common Stock held by the Investor upon the consummation of the Company's initial Public Offering.

"LLC Agreement" means the Amended and Restated Limited Liability Company Agreement of the Company, dated as of October 26, 2016, as amended or modified from time to time in accordance with its terms.

"Reference Date" means October 16, 2017s.

"Repurchasing Unitholders" means MLSC Acquisition, LLC, a Delaware limited liability company, and Thaeton, Inc., a Delaware corporation.

"Securityholders Agreements" means the Securityholders Agreement, dated as of October 26, 2016, by and among the Company, Executive and the other parties signatories thereto as amended or modified from time to time in accordance with its terms.

"Separation" means Executive ceasing to be employed by any of the Company, Employer and their respective Subsidiaries for any reason.

"Target Multiple" means, with respect to a holder of Class A Units or Class B Units, as applicable, a number equal to the result of (i) all Total Proceeds divided by (ii) the Total Investment Amount.

"Total Investment Amount" means, as of any measurement date, the total amount of cash, cash equivalents, promissory obligations, or the fair market value of any other property (as determined by the Board) invested or contributed (or deemed to be contributed) by a holder of Class A Units or Class B Units, as applicable, with respect to Company Equity Securities.

"Total Proceeds" means, as of any measurement date, the total amount of cash received by a holder of Class A Units or Class B Units, as applicable, with respect to Company Equity Securities pursuant to Section 4.1 of the LLC Agreement (other than Tax Distributions); provided, that in the event a holder of Class A Units or Class B Units, as applicable, receives property other than cash as a distribution from the Company pursuant to Section 4.1, such property shall become Total Proceeds on the date that it is sold, exchanged, transferred or otherwise converted into cash.

9. Notices. All notices, demands or other communications to be given or delivered under or by reason of the provisions of this Agreement shall be in writing and shall be deemed to have been given when (a) delivered personally to the recipient, (b) sent to the recipient by reputable express courier service (charges prepaid), (c) mailed to the recipient by certified or registered mail, return receipt requested and postage prepaid, or (d) telecopied or e-mailed to the recipient (with hard copy sent to the recipient by reputable overnight courier service (charges prepaid) that same day) if telecopied or e-mailed before 5:00 p.m. Chicago, Illinois time on a business day, and otherwise on the next business day. Such notices, demands and other communications shall be sent to the parties at the addresses indicated below:

If to Company or Employer:

MLSC Holdings, LLC
4332 Southport-Supply Rd SE
Southport, North Carolina 28461
Facsimile: (910) 454-9443
Attention: Board of Managers

with copies to:

GTCR Management LLC
300 North LaSalle Street
Chicago, Illinois 60654
Facsimile: (312) 382-2201
Attention: Constantine S. Mihas
Sean L. Cunningham
Benjamin J. Daverman
E-mail: cmihas@gtcr.com; scunningham@gtcr.com;
bdaverman@gtcr.com

Kirkland & Ellis LLP
300 North LaSalle Street
Chicago, Illinois 60654
Facsimile: (312) 862-2200
Attention: Sanford E. Perl, P.C.
Michael H. Weed, P.C.
E-mail: sperl@kirkland.com; mweed@kirkland.com

If to Executive:

Christine Dolan
E-mail:

If to the Repurchasing Unitholders:

MLSC Acquisition, LLC
c/o GTCR Management LLC
300 North LaSalle Street
Chicago, Illinois 60654
Facsimile: (312) 382-2201
Attention: Constantine S. Mihas
Sean L. Cunningham
Benjamin J. Daverman
E-mail: cmihas@gtcr.com; scunningham@gtcr.com;
bdaverman@gtcr.com

with a copy to:

Kirkland & Ellis LLP
300 North LaSalle Street
Chicago, Illinois 60654
Facsimile: (312) 862-2200
Attention: Sanford E. Perl, P.C.
Michael H. Weed, P.C.
E-mail: sperl@kirkland.com; mweed@kirkland.com

and

Thaeton, Inc.
4332 Southport-Supply Rd SE
Southport, North Carolina 28461
Facsimile: (910) 454-9443
Attention: Board of Directors

with a copy to:

Tarlow, Breed, Hart & Rodgers, P.C.
101 Huntington Avenue, Suite 500
Boston, MA 02199
Facsimile: (617) 261-7673
Attention: Jeffrey P. Hart, Esq.
Stephen Kutenplon, Esq.
E-mail: jhart@tbhr-law.com; skutenplon@tbhr-law.com

or such other address or to the attention of such other Person as the recipient party shall have specified by prior written notice to the sending party.

10. General Provisions.

(a) Transfers in Violation of Agreement. Any Transfer or attempted Transfer of any Executive Securities in violation of any provision of this Agreement shall be void, and the Company shall not record such Transfer on its books or treat any purported Transferee of such Executive Securities as the owner of such equity for any purpose.

(b) Severability. Whenever possible, each provision of this Agreement will be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Agreement is held to be invalid, illegal or unenforceable in any respect under any applicable law or rule in any jurisdiction, such invalidity, illegality or unenforceability will not affect any other provision or any other jurisdiction, but this Agreement will be reformed, construed and enforced in such jurisdiction as if such invalid, illegal or unenforceable provision had never been contained herein.

(c) Entire Agreement. This Agreement, those documents expressly referred to herein and other documents of even date herewith embody the complete agreement and

understanding among the parties hereto and supersede and preempt any prior understandings, agreements or representations by or among the parties hereto, written or oral, which may have related to the subject matter hereof in any way.

(d) Descriptive Headings; Interpretation; No Strict Construction. The descriptive headings of this Agreement are inserted for convenience only and do not constitute a substantive part of this Agreement. Whenever required by the context, any pronoun used in this Agreement shall include the corresponding masculine, feminine, or neuter forms, and the singular form of nouns, pronouns, and verbs shall include the plural and vice versa. The use of the word "including" in this Agreement shall be by way of example rather than by limitation. Reference to any agreement, document, or instrument means such agreement, document, or instrument as amended or otherwise modified from time to time in accordance with the terms thereof, and, if applicable, hereof. The use of the words "or," "either," and "any" shall not be exclusive. The parties hereto have participated jointly in the negotiation and drafting of this Agreement. In the event an ambiguity or question of intent or interpretation arises, this Agreement shall be construed as if drafted jointly by the parties hereto, and no presumption or burden of proof shall arise favoring or disfavoring any party by virtue of the authorship of any of the provisions of this Agreement.

(e) Counterparts. This Agreement may be executed in multiple counterparts with the same effect as if all signing parties had signed the same document. All counterparts shall be construed together and constitute the same instrument.

(f) Successors and Assigns. Except as otherwise provided herein, this Agreement shall bind and inure to the benefit of and be enforceable by Executive, the Company, Employer, the Investor and, solely with respect to Section 3, the Repurchasing Unitholders (in their capacity solely as the Repurchasing Unitholders) and their respective successors and assigns (including subsequent holders of Executive Securities); provided, that the rights and obligations of Executive under this Agreement shall not be assigned or delegated except for the assignment and delegation of Executive's rights and obligations hereunder as a holder of Executive Securities in connection with a permitted Transfer of Executive Securities hereunder and under the other Transaction Documents.

(g) Applicable Law. This Agreement shall be governed by, and construed in accordance with, the laws of the State of Delaware, without giving effect to any choice of law or conflict of law rules or provisions (whether of the State of Delaware or any other jurisdiction) that would cause the application of the laws of any jurisdiction other than the State of Delaware.

(h) Dispute Resolution. Any controversy, dispute or claim arising out of or relating to this Agreement (a "Covered Claim") shall be resolved by binding arbitration to be held in Wilmington, Delaware, and shall be administered by JAMS in accordance with the Employment Arbitration Rules & Procedures of JAMS then in effect and subject to JAMS Policy on Employment Arbitration Minimum Standards. Each party shall pay their own costs and expenses (including, without limitation, attorneys' fees and other charges of counsel) incurred in resolving any such Covered Claim; provided, that in the event litigation is required to compel arbitration or to enforce an arbitration award or judgment pursuant to this Agreement, the non-prevailing party in such litigation shall reimburse the costs and expenses (including attorney's fees and other charges of counsel) of the prevailing party. Judgment upon the award rendered by the arbitrator(s) may be entered into any court having jurisdiction thereof. The parties hereto agree that any action to compel arbitration pursuant to this Agreement shall be brought in the

appropriate Delaware state court, and in connection with such action to compel, the laws of Delaware shall control.

(i) Executive's Cooperation. During the Employment Period and thereafter, Executive shall cooperate with the Company, Employer and their respective Subsidiaries and Affiliates in any disputes with third parties, internal investigation or administrative, regulatory or judicial proceeding as reasonably requested by the Company (including Executive being available to the Company upon reasonable notice for interviews and factual investigations, appearing at the Company's request to give testimony without requiring service of a subpoena or other legal process, volunteering to the Company all pertinent information and turning over to the Company all relevant documents which are or may come into Executive's possession, all at times and on schedules that are reasonably consistent with Executive's other permitted activities and commitments). In the event the Company requires Executive's cooperation in accordance with this paragraph after the Employment Period, the Company shall reimburse Executive for Executive's reasonable time at a rate of $100 per hour and reasonable travel expenses (including lodging and meals, upon submission of receipts).

(j) Remedies. Each of the parties to this Agreement shall have all rights and remedies set forth in this Agreement and all rights and remedies which such Person has been granted at any time under any other agreement or contract and all of the rights which such Person has under any law. Each of the parties to this Agreement will be entitled to enforce its rights under this Agreement specifically, to recover damages and costs caused by any breach of any provision of this Agreement and to exercise all other rights existing in its favor. The parties hereto agree and acknowledge that money damages may not be an adequate remedy for any breach of the provisions of this Agreement and that any party may in its sole discretion, but subject to Section 10(h), apply to any court of law or equity of competent jurisdiction (without posting any bond or deposit) for specific performance and/or other injunctive relief in order to enforce or prevent any violations of the provisions of this Agreement.

(k) Amendment and Waiver. The provisions of this Agreement may be amended and waived only with the prior written consent of the Company, Employer, Executive and the Investor. No failure by any party to insist upon the strict performance of any covenant, duty, agreement, or condition of this Agreement or to exercise any right or remedy consequent upon a breach thereof shall constitute a waiver of any such breach or any other covenant, duty, agreement, or condition. The waiver by any party of a breach of any covenant, duty, agreement, or condition of this Agreement of any other party shall not operate or be construed as a waiver of any subsequent breach of that provision or any other provision hereof.

(l) Insurance. The Company or Employer, at its discretion, may apply for and procure in its own name and for its own benefit life and/or disability insurance on Executive in any amount or amounts considered available. Executive agrees to cooperate in any medical or other examination, supply any information, and to execute and deliver any applications or other instruments in writing as may be reasonably necessary to obtain and constitute such insurance.

(m) Business Days. If any time period for giving notice or taking action hereunder expires on a day which is a Saturday, Sunday or holiday in the state in which the Company's chief executive office is located, the time period shall be automatically extended to the business day immediately following such Saturday, Sunday or holiday.

(n) Indemnification and Reimbursement of Payments on Behalf of Executive. The Company, Employer and their respective Subsidiaries shall be entitled to deduct or withhold from any amounts owing from the Company, Employer or any of their respective Subsidiaries to Executive (including withholding shares or other equity securities in the case of issuances of equity by the Company, Employer or any of their respective Subsidiaries) any federal, state, local or foreign withholding taxes, excise taxes, or employment taxes ("Taxes") imposed with respect to Executive's compensation or other payments from the Company, Employer or any of their respective Subsidiaries or Executive's ownership interest in the Company, including wages, bonuses, distributions, the receipt or exercise of equity options and/or the receipt or vesting of restricted equity. In the event any such deductions or withholdings are not made, Executive shall indemnify the Company, Employer and each of their respective Subsidiaries for any amounts paid with respect to any such Taxes, together with any interest, penalties and related expenses thereto; provided, that, Executive shall not be obligated to indemnify the Company pursuant to this Section 10(n) for such interest, penalties or related expenses which are directly caused by the failure of the Company to take necessary action with respect to such deductions and withholdings as it is required by law to take.

(o) Termination. This Agreement (except for the provisions of Sections 5(a) and 5(b)) shall survive a Separation and shall remain in full force and effect after such Separation.

(p) Adjustments of Numbers. All numbers set forth herein that refer to Unit prices or amounts will be appropriately adjusted to reflect Unit splits, Unit distributions, combinations of Units and other recapitalizations affecting the subject class of equity.

(q) Deemed Transfer of Executive Securities. If the Company (and/or any of the Repurchasing Unitholders and/or any other Person acquiring securities) shall make available, at the time and place and in the amount and form provided in this Agreement, the consideration for the Executive Securities to be repurchased, in each case, in accordance with the provisions of this Agreement, then from and after such time, the Person from whom such Units are to be repurchased shall no longer have any rights as a holder of such Units (other than the right to receive payment of such consideration in accordance with this Agreement), and such Units shall be deemed purchased in accordance with the applicable provisions hereof and the Company (and/or any of the Repurchasing Unitholders and/or any other Person acquiring securities) shall be deemed the owner and holder of such Units, whether or not the certificates therefor have been delivered as required by this Agreement.

(r) No Pledge or Security Interest. The purpose of the Company's retention of Executive's certificates and executed security powers is solely to facilitate the provisions set forth in Section 3 herein and Section 8.2 of the LLC Agreement and does not by itself constitute a pledge by Executive of, or the granting of a security interest in, the underlying equity.

(s) Rights Granted to a Repurchasing Unitholder and its Affiliates. Any rights granted to a Repurchasing Unitholder or any of its Affiliates hereunder may also be exercised (in whole or in part) by its designees.

(t) Subsidiary Public Offering. If, after consummation of a Subsidiary Public Offering, the Company distributes securities of such Subsidiary to members of the Company, then such securities will be treated in the same manner as (but excluding any "preferred" features

of the Units with respect to which they were distributed) the Units with respect to which they were distributed for purposes of Sections 1, 2, 3, and 4.

(u) Electronic Delivery. This Agreement, the agreements referred to herein, and each other agreement or instrument entered into in connection herewith or therewith or contemplated hereby or thereby, and any amendments hereto or thereto, to the extent signed and delivered by means of a photographic, facsimile, portable document format (.pdf), or similar reproduction of such signed writing using a facsimile machine or electronic mail shall be treated in all manner and respects as an original agreement or instrument and shall be considered to have the same binding legal effect as if it were the original signed version thereof delivered in person. At the request of any party hereto or to any such agreement or instrument, each other party hereto or thereto shall re-execute original forms thereof and deliver them to all other parties hereto. No party hereto or to any such agreement or instrument shall raise the use of a facsimile machine or electronic mail to deliver a signature or the fact that any signature or agreement or instrument was transmitted or communicated through the use of a facsimile machine or electronic mail as a defense to the formation or enforceability of a contract and each such party forever waives any such defense.

(v) No Third-Party Beneficiaries. Except as expressly provided herein, no term or provision of this Agreement is intended to be, or shall be, for the benefit of any Person not a party hereto, and no such other Person shall have any right or cause of action hereunder.

* * * * *

IN WITNESS WHEREOF, the parties hereto have executed this Senior Management Agreement as of the date first above written.

MLSC HOLDINGS, LLC

By: /s/ Kenneth L. Hoffman
Name: Kenneth L. Hoffman
Its: President

CYGNUS TECHNOLOGIES, LLC

By: /s/ Kenneth L. Hoffman
Name: Kenneth L. Hoffman
Its: President

Christine Dolan

IN WITNESS WHEREOF, the parties hereto have executed this Senior Management Agreement as of the date first above written.

MLSC HOLDINGS, LLC

By:_____
Name:
Its:

CYGNUS TECHNOLOGIES, LLC

By:_____
Name:
Its:

/s/ Christine Dolan
Christine Dolan

Signature Page to Senior Management Agreement

MLSC Acquisition, LLC, by signing below, acknowledges and accepts the rights granded to its a third party beneficiary of this Agreement under Sections 3, 9, and 10 hereof as set forth therein. Thaeton, lnc., by signing below, acknowledges and accepts the rights granted to it as a third party beneficiary of this Agreement under Section 3 hereof as set forth therein. The Repurchasing Unitholders shall not have any liability or obligation under this Agreement as a result of their signatures below:

THE REPURCHASING UNITHOLDERS:

Ml,SC ACQUISITION, LLC

By: /s/ Carl Hull
Name: Carl Hull
Its: Chief Executive Officer

THAETON INC.

By: _____
Name:
Its:

MLSC Acquisition, LLC, by signing below, acknowledges and accepts the rights granted to it as a third party beneficiary of this Agreement under Sections 3, 9, and 10 hereof as set forth therein. Thaeton, Inc., by signing below, acknowledges and accepts the rights granted to it as a third party beneficiary of this Agreement under Section 3 hereof as set forth therein. The Repurchasing Unitholders shall not have any liability or obligation under this Agreement as a result of their signatures below:

THE REPURCHASING UNITHOLDERS:

MLSC ACQUISITION, LLC

By: _____
Name:
Its:

THAETON INC.

By: /s/ Kenneth L. Hollman
Name: Kenneth L. Hollman
Its: President

Exhibit 10.13

EXECUTION VERSION

FIRST LIEN CREDIT AGREEMENT

DATED AS OF AUGUST 2, 2018

AMONG

MARAVAI INTERMEDIATE HOLDINGS, LLC,
AS PARENT BORROWER,

CYGNUS TECHNOLOGIES, LLC, TRILINK BIOTECHNOLOGIES, LLC AND VECTOR LABORATORIES, INC.,
AS BORROWERS,

MARAVAI TOPCO HOLDINGS, LLC,
AS HOLDINGS,

JPMORGAN CHASE BANK, N.A.,
AS ADMINISTRATIVE AGENT, COLLATERAL AGENT AND AN L/C ISSUER,

AND

THE OTHER LENDERS AND L/C ISSUERS PARTY HERETO

JPMORGAN CHASE BANK, N.A., ANTARES CAPITAL LP AND CARLYLE GLOBAL INVESTMENT MANAGEMENT L.L.C.,
AS JOINT LEAD ARRANGERS AND JOINT BOOKRUNNERS

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This FIRST LIEN CREDIT AGREEMENT is entered into as of August 2, 2018, among MARAVAI INTERMEDIATE HOLDINGS, LLC, a Delaware limited liability company ("Parent Borrower"), CYGNUS TECHNOLOGIES, LLC, a Delaware limited liability company ("Cygnus"), TRILINK BIOTECHNOLOGIES, LLC, a Delaware limited liability company ("TriLink"), Vector Laboratories, Inc., a California corporation ("Vector"; and together with the Parent Borrower, Cygnus and TriLink, the "Borrowers" and each, a "Borrower"), MARAVAI TOPCO HOLDINGS, LLC, a Delaware limited liability company ("Holdings"), each lender from time to time party hereto (collectively, the "Lenders" and individually, a "Lender"), each L/C Issuer party hereto and JPMORGAN CHASE BANK, N.A. ("JPMCB"), as Administrative Agent and Collateral Agent.

PRELIMINARY STATEMENTS

The Borrowers have requested that, upon the satisfaction in full of the conditions precedent set forth in Article IV below, the applicable Lenders (a) make term loans to the Borrowers in an aggregate principal amount of $250,000,000 and (b) make available to the Borrowers a $50,000,000 revolving credit facility for the making, from time to time, of revolving loans and the issuance, from time to time, of letters of credit, in each case on the terms and subject to the conditions set forth in this Agreement.

In consideration of the mutual covenants and agreements herein contained, the parties hereto covenant and agree as follows:

ARTICLE I.
Definitions and Accounting Terms

Section 1.01 Defined Terms. As used in this Agreement, the following terms shall have the meanings set forth below:

"Accepting Lender" has the meaning specified in Section 10.01.

"Acquired Indebtedness" means, with respect to any specified Person, (a) Indebtedness of any other Person existing at the time such other Person is merged, amalgamated or consolidated with or into or becomes a Subsidiary of such specified Person, whether or not such Indebtedness is Incurred in connection with, or in contemplation of, such other Person merging, amalgamating or consolidating with or into, or becoming a Subsidiary of, such specified Person and (b) Indebtedness secured by a Lien encumbering any asset acquired by such specified Person.

"Actual Tax Liability" shall have the meaning assigned to such term in Section 7.05(13).

"Adjusted Eurocurrency Rate" means, with respect to any Eurocurrency Rate Borrowing for any Interest Period, an interest rate per annum (rounded upwards, if necessary, to the next 1/16 of 1%) equal to (a) with respect to the initial Term Loans, the greater of (i) the Eurocurrency Rate for such Interest Period multiplied by the Statutory Reserve Rate and (ii) 1.00% and (b) with respect to the Revolving Credit Facility, the Eurocurrency Rate for such Interest Period (which, if negative, shall be deemed to be 0%), multiplied by the Statutory Reserve Rate.

"Administrative Agent" means JPMCB acting through such of its Affiliates or branches as it may designate, in its capacity as administrative agent under any of the Loan Documents, or any successor administrative agent permitted by the terms hereof.

"Administrative Agent's Office" means the Administrative Agent's address and, as appropriate, account as set forth on Schedule 10.02 or such other address or account as the Administrative Agent may from time to time notify the Parent Borrower and the Lenders.

"Administrative Questionnaire" means an Administrative Questionnaire in the form approved by the Administrative Agent.

"Affiliate" of any specified Person means any other Person directly or indirectly controlling or controlled by or under direct or indirect common control with such specified Person. For purposes of this definition, "control"

(including, with correlative meanings, the terms "controlling," "controlled by" and "under common control with"), as used with respect to any Person, means the possession, directly or indirectly, of the power to direct or cause the direction of the management or policies of such Person, whether through the ownership of voting securities, by agreement or otherwise.

"Affiliate Lender Assignment and Assumption" has the meaning specified in Section 10.07(i)(i).

"Affiliate Lenders" means, collectively, the Sponsor and its Affiliates (other than any Natural Person, Holdings, the Borrowers and any of Holdings' or the Borrowers' respective Subsidiaries).

"Affiliate Transaction" has the meaning specified in Section 6.18(a).

"Agent-Related Persons" means each Agent, together with its Related Parties.

"Agents" means, collectively, the Administrative Agent, the Collateral Agent, the Arrangers and the Supplemental Agents (if any).

"Aggregate Commitments" means the Commitments of all the Lenders.

"Agreement" means this credit agreement.

"Agreement Currency" has the meaning specified in Section 10.23.

"All-in Yield" means, with respect to any Indebtedness, the yield of such Indebtedness, whether in the form of interest rate, margin, OID, upfront fees, index floors or otherwise, in each case payable by the Borrowers generally to lenders, provided that OID and upfront fees shall be equated to interest rate assuming a four-year life to maturity, and shall not include arrangement fees, structuring fees, ticking fees, commitment fees, unused line fees, underwriting fees and any amendment and similar fees (regardless of whether paid in whole or in part to the relevant lenders).

"Alternative Currency" means other currencies as may be approved by the Administrative Agent, the L/C Issuers (in the case of Letters of Credit to be issued by such L/C Issuers) and each of the Revolving Credit Lenders. For the avoidance of doubt, a Revolving Credit Lender shall not constitute a Defaulting Lender solely as a result of not agreeing to provide Revolving Credit Loans in other currencies pursuant to this definition.

"Alternative Currency Equivalent" means, at any time, with respect to any amount denominated in Dollars, the equivalent amount thereof in the applicable Alternative Currency, by using the rate of exchange for the purchase of dollars with the Alternative Currency in the London foreign exchange market at or about 11:00 a.m. London time (or New York time, as applicable) on a particular day as displayed by ICE Data Services as the "ask price," or as displayed on such other information service which publishes that rate of exchange from time to time in place of ICE Data Services (or if such service ceases to be available, the equivalent of such amount in dollars as determined by the Administrative Agent using any method of determination it deems appropriate in its sole discretion).

"Alternative Currency Loan" means a Loan denominated in an Alternative Currency.

"Antares" means Antares Capital LP.

"Anticipated Cure Deadline" has the meaning specified in Section 8.03(a).

"Anti-Corruption Laws" has the meaning specified in Section 5.20.

"Applicable Commitment Fee" means a percentage per annum equal to (a) from the Closing Date until the first Business Day that immediately follows the date on which a Compliance Certificate is delivered pursuant to Section 6.02(b) in respect of the first full fiscal quarter ending after the Closing Date, 0.500% per annum, and (b) thereafter, the applicable percentage per annum set forth below, as determined by reference to Consolidated First

Lien Net Leverage Ratio, as set forth in the most recent Compliance Certificate received by the Administrative Agent pursuant to Section 6.02(b):

Applicable Commitment Fee		
Pricing Level	Consolidated First Lien Net Leverage Ratio	Applicable Commitment Fee
1	< 4.50:1.00	0.375%
2	³ 4.50:1.00	0.500%

Any increase or decrease in the Applicable Commitment Fee resulting from a change in the Consolidated First Lien Net Leverage Ratio shall become effective as of the first Business Day immediately following the date the applicable Compliance Certificate is delivered pursuant to Section 6.02(b); provided, however, that "Pricing Level 2" shall apply without regard to the Consolidated First Lien Net Leverage Ratio (x) at any time after the date on which any annual or quarterly financial statement was required to have been delivered pursuant to Section 6.01(a) or Section 6.01(b) but was not delivered (or the Compliance Certificate related to such financial statements was required to have been delivered pursuant to Section 6.02(b) but was not delivered), commencing with the first Business Day immediately following such date and continuing until the first Business Day immediately following the date on which such financial statements (or, if later, the Compliance Certificate related to such financial statements) are delivered, or (y) at the election of the Majority Lenders under the Revolving Credit Facility at such time, at all times if an Event of Default shall have occurred and be continuing.

"Applicable Discount" has the meaning specified in the definition of "Dutch Auction."

"Applicable Intercreditor Arrangements" means customary intercreditor arrangements that are reasonably satisfactory to the Administrative Agent (provided that, in the case of Indebtedness secured by Liens on a junior basis to the Facilities, the First Lien/Second Lien Intercreditor Agreement shall be deemed satisfactory).

"Applicable Rate" means (a) a percentage per annum equal to, with respect to the Initial Term Loans, 4.25% per annum for Eurocurrency Rate Loans and 3.25% per annum for Base Rate Loans; and

(b) a percentage per annum equal to, with respect to the Revolving Credit Facility, (i) from the Closing Date until the first Business Day that immediately follows the date on which a Compliance Certificate is delivered pursuant to Section 6.02(b) in respect of the first full fiscal quarter ending after the Closing Date, 4.25% per annum for Eurocurrency Rate Loans and 3.25% per annum for Base Rate Loans and (ii) thereafter, the applicable percentage per annum set forth below, as determined by reference to the Consolidated First Lien Net Leverage Ratio, as set forth in the then most recent Compliance Certificate received by the Administrative Agent pursuant to Section 6.02(b):

Applicable Rate			
Pricing Level	Consolidated First Lien Net Leverage Ratio	Eurocurrency Rate Loans	Base Rate Loans
1	³ 4.50:1.00	4.25%	3.25%
2	< 4.50:1.00	4.00%	3.00%

Any increase or decrease in the Applicable Rate resulting from a change in the Consolidated First Lien Net Leverage Ratio shall become effective as of the first Business Day immediately following the date a Compliance Certificate is delivered pursuant to Section 6.02(b); provided, however, that "Pricing Level 1" for the tables set forth above shall apply without regard to the Consolidated First Lien Net Leverage Ratio (x) at any time after the date on which any annual or quarterly financial statement was required to have been delivered pursuant to Section 6.01(a) or Section 6.01(b) but was not delivered (or the Compliance Certificate related to such financial statements was required to have been delivered pursuant to Section 6.02(b) but was not delivered), commencing with the first Business Day immediately following such date and continuing until the first Business Day immediately following the date on which such financial statements (or, if later, the Compliance Certificate related to such financial statements) are delivered, or (y) at the election of the Majority Lenders under the applicable Tranche at such time, at all times if an Event of Default shall have occurred and be continuing.

"Appropriate Lender" means, at any time, (a) with respect to either the Term Facility or the Revolving Credit Facility, a Lender that has a Commitment with respect to such Facility or holds a Term Loan or a Revolving Credit Loan, respectively, at such time, (b) with respect to the Letter of Credit Sublimit, (i) each L/C Issuer and (ii) if any Letters of Credit have been issued pursuant to Section 2.03(a), the Revolving Credit Lenders, (c) with respect to any New Term Facility, a Lender that holds a New Term Loan at such time, and (d) with respect to any Specified Refinancing Debt, a Lender that holds Specified Refinancing Term Loans or Specified Refinancing Revolving Loans.

"Approved Electronic Platform" means IntraLinks™, DebtDomain, SyndTrak, ClearPar or any other electronic platform chosen by the Administrative Agent to be its electronic transmission system.

"Approved Fund" means any Fund that is administered, advised or managed by (a) a Lender, (b) an Affiliate of a Lender or (c) an entity or an Affiliate of an entity that administers, advises or manages a Lender.

"Arrangers" means each of JPMCB, Antares and Carlyle, in their respective capacities as exclusive joint lead arrangers and joint bookrunners.

"Asset Sale" means:

(a) the sale, conveyance, transfer or other Disposition (whether in a single transaction or a series of related transactions) of property or assets (including by way of a Sale/Leaseback Transaction) of the Parent Borrower or any Subsidiary, or

(b) the issuance or sale of Equity Interests (other than preferred stock of Subsidiaries issued in compliance with Section 7.01 and directors' qualifying shares or shares or interests required to be held by foreign nationals or other third parties to the extent required by applicable law) of any Subsidiary (other than to a Borrower or another Subsidiary) (whether in a single transaction or a series of related transactions),

(each of the foregoing referred to in this definition as a "Disposition"). Notwithstanding the preceding, none of the following items will be deemed to be an Asset Sale:

(a) a sale, exchange or other disposition of cash, Cash Equivalents or Investment Grade Securities, or of obsolete, damaged, unnecessary, unsuitable or worn out equipment or other assets in the ordinary course of business, or dispositions of property no longer used, useful or economically practicable to maintain in the conduct of the business of the Borrowers and the Subsidiaries (including allowing any registrations or any applications for registration of any intellectual property to lapse or become abandoned);

(b) the sale, conveyance, lease or other disposition of all or substantially all of the assets of the Borrowers and their Subsidiaries, taken as a whole, in compliance with the provisions of Section 7.03;

(c) any Restricted Payment that is permitted to be made, and is made, pursuant to Section 7.05 or any Permitted Investment;

(d) any Disposition of assets or issuance or sale of Equity Interests of any Subsidiary, in a single transaction or series of related transactions, with an aggregate Fair Market Value that is less than or equal to $7,500,000;

(e) any transfer or Disposition of property or assets or issuance or sale of Equity Interests by a Subsidiary to a Borrower or by a Borrower or a Subsidiary to another Subsidiary;

(f) the creation of any Lien permitted under this Agreement;

(g) [reserved];

(h) the sale, lease, assignment, license or sublease of inventory, equipment, accounts receivable, notes receivable or other current assets held for sale in the ordinary course of business or the conversion of accounts receivable to notes receivable or dispositions of accounts receivable in connection with the collection or compromise thereof;

(i) the lease, assignment, license, sublicense or sublease of any real or personal property in the ordinary course of business;

(j) a sale, assignment or other transfer of Receivables Assets, or participations therein, and related assets (i) to a Receivables Subsidiary in a Qualified Receivables Financing or (ii) to any other Person in a Qualified Receivables Factoring;

(k) a sale, assignment or other transfer of Receivables Assets, or participations therein, and related assets by a Receivables Subsidiary in a Qualified Receivables Financing;

(l) any exchange of assets for Related Business Assets (including a combination of Related Business Assets and a *de minimis* amount of cash or Cash Equivalents) of comparable or greater market value than the assets exchanged, as determined in good faith by the Parent Borrower;

(m) (i) non-exclusive licenses, sublicenses or cross-licenses of intellectual property or other general intangibles and (ii) exclusive licenses, sublicenses or cross-licenses of intellectual property or other general intangibles in the ordinary course of business of the Borrowers and the Subsidiaries of the Borrowers;

(n) any transfer in a Sale/Leaseback Transaction of any property acquired or built after the Closing Date within 270 days after the date of acquisition or completion of construction; provided that such sale is for at least Fair Market Value;

(o) the surrender or waiver of obligations of trade creditors or customers or other contract rights that were incurred in the ordinary course of business of the Borrowers or any Subsidiary of the Borrowers, including pursuant to any plan of reorganization or similar arrangement upon the bankruptcy or insolvency of any trade creditor or customer or compromise, settlement, release or surrender of a contract, tort or other litigation claim, arbitration or other disputes;

(p) Dispositions arising from foreclosures, condemnations, eminent domain, seizure, nationalization or any similar action with respect to assets, dispositions of property subject to casualty events (except for purposes of calculating Net Cash Proceeds of any Asset Sale under the second and third paragraphs of Section 7.04);

(q) Dispositions of Investments (including Equity Interests) in joint ventures to the extent required by, or made pursuant to customary buy/sell arrangements or rights of first refusal between, the joint venture parties set forth in joint venture arrangements and similar binding arrangements;

(r) to the extent allowable under Section 1031 of the Code, any exchange of like property (excluding any boot thereon) for use in a Similar Business;

(s) the issuance of directors' qualifying shares and shares issued to foreign nationals to the extent required by applicable law;

(t) Dispositions of property to the extent that (i) such property is exchanged for credit against the purchase price of similar replacement property that is promptly purchased or (ii) the proceeds of such Asset Sale are promptly applied to the purchase price of such replacement property (which replacement property is actually promptly purchased);

(u) a sale or transfer of equipment receivables, or participations therein, and related assets; and

(v) solely for purposes of the first paragraph of Section 7.04, the Disposition of assets that are necessary or advisable (as determined by the Parent Borrower in good faith) in order to obtain or increase the likelihood of obtaining the approval of any Governmental Authority to consummate or avoid the prohibition or other restriction on the consummation of any permitted acquisition of any Person, business or assets.

For the avoidance of doubt, the unwinding of Swap Contracts shall not be deemed to constitute an Asset Sale.

"Assignee Group" means two or more Eligible Assignees that are Affiliates of one another or two or more Approved Funds managed by the same investment advisor.

"Assignment and Assumption" means an assignment and assumption entered into by a Lender and an assignee (with the consent of any party whose consent is required by Section 10.07), and accepted by the Administrative Agent, in the form of Exhibit E-1 or any other form (including electronic records generated by the use of an electronic platform) approved by the Administrative Agent.

"Auction Amount" has the meaning specified in the definition of "Dutch Auction."

"Auction Notice" has the meaning specified in the definition of "Dutch Auction."

"Auto-Renewal Letter of Credit" has the meaning specified in Section 2.03(c)(iii).

"Bail-In Action" means the exercise of any Write-Down and Conversion Powers by the applicable EEA Resolution Authority in respect of any liability of an EEA Financial Institution.

"Bail-In Legislation" means, with respect to any EEA Member Country implementing Article 55 of Directive 2014/59/EU of the European Parliament and of the Council of the European Union, the implementing law for such EEA Member Country from time to time which is described in the EU Bail-In Legislation Schedule.

"Bankruptcy Event" means, with respect to any Person, such Person becomes the subject of a voluntary or involuntary bankruptcy or insolvency proceeding, or has had a receiver, conservator, trustee, administrator, custodian, assignee for the benefit of creditors or similar Person charged with the reorganization or liquidation of its business appointed for it, or, in the good faith determination of the Administrative Agent, has taken any action in furtherance of, or indicating its consent to, approval of, or acquiescence in, any such proceeding or appointment or has had any order for relief in such proceeding entered in respect thereof, provided that a Bankruptcy Event shall not result solely by virtue of any ownership interest, or the acquisition of any ownership interest, in such Person by a Governmental Authority or instrumentality thereof, unless such ownership interest results in or provides such Person with immunity from the jurisdiction of courts within the United States or from the enforcement of judgments or writs of attachment on its assets or permits such Person (or such Governmental Authority or instrumentality) to reject, repudiate, disavow or disaffirm any contracts or agreements made by such Person.

"Base Rate" means, for any day, a rate per annum equal to the greatest of (a) the Prime Rate in effect on such day, (b) the NYFRB Rate in effect on such day *plus* ½ of 1% per annum, (c) the Adjusted Eurocurrency Rate for a one month Interest Period on such day (or if such day is not a Business Day, the immediately preceding Business Day) *plus* 1% per annum; provided that for the purpose of this clause (c), the Adjusted Eurocurrency Rate for any day shall be based on the Screen Rate (or if the Screen Rate is not available for such one month Interest Period, the Interpolated Rate) at approximately 11:00 a.m. London time on such day, (d) solely with respect to Initial Term Loans, 2.00% per annum and (e) for any Loans that are not Initial Term Loans, 1.00% per annum. Any change in the Base Rate due to a change in the Prime Rate, the NYFRB Rate or the Adjusted Eurocurrency Rate shall be effective from and including the effective date of such change in the Prime Rate, the NYFRB Rate or the Adjusted Eurocurrency Rate, respectively. If the Base Rate is being used as an alternate rate of interest pursuant to

Section 3.04 hereof, then the Base Rate shall be the greater of clauses (a) and (b) above and shall be determined without reference to clause (c) above.

"Base Rate Borrowing" means a Borrowing comprising Base Rate Loans.

"Base Rate Loan" means a Loan that bears interest based on the Base Rate.

"Beneficial Ownership Certification" means a certification regarding beneficial ownership as required by the Beneficial Ownership Regulation.

"Beneficial Ownership Regulation" means 31 C.F.R. § 1010.230.

"Benefit Plan" means any of (a) an "employee benefit plan" (as defined in Section 3(3) of ERISA) that is subject to Title I of ERISA, (b) a "plan" as defined in Section 4975 of the Code to which Section 4975 of the Code applies, and (c) any Person whose assets include (for purposes of the Plan Asset Regulations or otherwise for purposes of Title I of ERISA or Section 4975 of the Code) the assets of any such "employee benefit plan" or "plan".

"Board of Directors" means as to any Person, the board of directors, board of managers, sole member or managing member or other governing body of such Person, or if such Person is owned or managed by a single entity or has a general partner, the board of directors, board of managers, sole member or managing member or other governing body of such entity or general partner, or in each case, any duly authorized committee thereof, and the term "directors" means members of the Board of Directors.

"Borrower Joinder Agreement" means a joinder agreement substantially in the form of Exhibit N or such other form as may be agreed between the Parent Borrower and the Administrative Agent.

"Borrower Parties" means the collective reference to the Borrowers and the Subsidiaries, and "Borrower Party" means any one of them.

"Borrowers" has the meaning specified in the introductory paragraph to this Agreement and shall include any Subsidiary that is a Domestic Subsidiary that, after the Closing Date becomes a Borrower by executing a Borrower Joinder Agreement; provided that any Subsidiary that has become a Borrower after the Closing Date (a "Subsidiary Borrower") may have its status as a Borrower terminated by delivering a notice to the Administrative Agent from the Parent Borrower and such Subsidiary Borrower electing to terminate such Subsidiary's status as a Borrower, provided, further, that no such termination shall affect any obligation of such Subsidiary as a Guarantor or as a "Grantor" under any Loan Document.

"Borrowing" means a Revolving Credit Borrowing or a Term Borrowing, as the context may require.

"Business Day" means:

(1) any day other than a Saturday, Sunday or other day on which commercial banks are authorized to close under the Laws of, or are in fact closed in, New York City;

(2) if such day relates to any interest rate settings as to a Eurocurrency Rate Loan denominated in Dollars, Euros or Pounds Sterling, means any such day described in clause (1) above that is also a London Banking Day;

(3) if such day relates to any interest rate settings as to a Eurocurrency Rate Loan denominated in Canadian Dollars, any day other than a Saturday, Sunday or other day on which commercial banks are authorized to close under the Laws of the Province of Ontario, or are in fact closed in Toronto, Ontario, that is also a day on which banks are open for foreign exchange business in Toronto, Ontario; and

(4) if such day relates to any interest rate settings as to a Eurocurrency Rate Loan denominated in an Alternative Currency other than Euros, Pounds Sterling or Canadian Dollars, any fundings, disbursements, settlements or payments in such Alternative Currency, or any other dealings in such Alternative Currency to be carried out pursuant to this Agreement in respect of any such Eurocurrency Rate Loan (other than any interest rate settings), means any such day on which banks are open for foreign exchange business in the principal financial center of the country of such currency.

"Canadian Dollars" means freely transferable lawful money of Canada (expressed in Canadian dollars).

"Capital Stock" means:

(1) in the case of a corporation or company, corporate stock or share capital;

(2) in the case of an association or business entity, any and all shares, interests, participations, rights or other equivalents (however designated) of corporate stock;

(3) in the case of a partnership or limited liability company, partnership or membership interests (whether general or limited); and

(4) any other interest or participation that confers on a Person the right to receive a share of the profits and losses of, or distributions of assets of, the issuing Person (it being understood and agreed, for the avoidance of doubt, that "cash-settled phantom appreciation programs" in connection with employee benefits that do not require a dividend or distribution shall not constitute Capital Stock).

"Capitalized Lease Obligation" means at the time any determination thereof is to be made, the amount of the liability in respect of a capital lease that would at such time be required to be capitalized and reflected as a liability on a balance sheet (excluding the footnotes thereto) in accordance with GAAP.

"Carlyle" means Carlyle Global Credit Investment Management L.L.C.

"Cash-Capped Incremental Facility" has the meaning specified in Section 2.14(a).

"Cash Collateralize" means to pledge and deposit with or deliver to the Administrative Agent, for the benefit of the Administrative Agent or L/C Issuer (as applicable) and the Lenders, as collateral for L/C Obligations or obligations of Lenders to fund participations in respect of either thereof (as the context may require), cash, Cash Equivalents (if reasonably acceptable to the Administrative Agent and the applicable L/C Issuer) or deposit account balances (in the case of L/C Obligations in the respective currency or currencies in which the applicable L/C Obligations are denominated, unless otherwise agreed by the Administrative Agent or L/C Issuer benefitting from such collateral) or, if the Administrative Agent or L/C Issuer benefiting from such collateral shall agree in its sole discretion, other credit support (including by backstop with a letter of credit satisfactory to the applicable L/C Issuer or by being deemed reissued under another agreement acceptable to the applicable L/C Issuer), in each case pursuant to documentation in form and substance reasonably satisfactory to (a) the Administrative Agent and (b) the applicable L/C Issuer (which documents are hereby consented to by the Lenders). "Cash Collateral" shall have a meaning correlative to the foregoing and shall include the proceeds of such cash collateral and other credit support.

"Cash Contribution Amount" means the aggregate amount of cash contributions made to the capital of the Borrowers or any Subsidiary Guarantor (other than from Holdings or a Subsidiary) and designated as a "Cash Contribution Amount" as described in the definition of "Contribution Indebtedness."

"Cash Equivalents" means:

(1) Dollars, Canadian Dollars, Pounds Sterling, euros, the national currency of any participating member state of the European Union and, with respect to any Foreign Subsidiaries, other currencies held by such Foreign Subsidiary in the ordinary course of business;

(2) securities issued or directly guaranteed or insured by the government of the United States, United Kingdom or any country that is a member of the European Union (as it is constituted on the Closing Date) or any agency or instrumentality thereof in each case with maturities not exceeding two years from the date of acquisition;

(3) money market deposits, certificates of deposit, time deposits and eurodollar time deposits with maturities of two years or less from the date of acquisition, bankers' acceptances, in each case with maturities not exceeding two years, and overnight bank deposits, in each case with any commercial bank having capital and surplus in excess of $250,000,000 in the case of domestic banks or $100,000,000 (or the dollar equivalent thereof) in the case of foreign banks;

(4) repurchase obligations for underlying securities of the types described in clauses (2) and (3) above and clause (6) below entered into with any financial institution or securities dealers of recognized national standing meeting the qualifications specified in clause (3) above;

(5) commercial paper or variable or fixed rate notes issued by a corporation or other Person (other than an Affiliate of the Borrower) rated at least "A-2" or the equivalent thereof by Moody's or S&P (or reasonably equivalent ratings of another internationally recognized ratings agency) and in each case maturing within two years after the date of acquisition;

(6) readily marketable direct obligations issued by any state, commonwealth or territory of the United States of America or any political subdivision or taxing authority thereof having an Investment Grade Rating from either Moody's or S&P (or reasonably equivalent ratings of another internationally recognized ratings agency) in each case with maturities not exceeding two years from the date of acquisition;

(7) Indebtedness issued by Persons (other than the Sponsor) with a rating of "A" or higher from S&P or "A-2" or higher from Moody's (or reasonably equivalent ratings of another internationally recognized ratings agency) in each case with maturities not exceeding two years from the date of acquisition, and marketable short-term money market and similar securities having a rating of at least "A-2" or "P-2" from either S&P or Moody's (or reasonably equivalent ratings of another internationally recognized ratings agency);

(8) investment funds investing at least 95% of their assets in investments of the types described in clauses (1) through (7) above and (9) and (10) below;

(9) Investments with average maturities of 12 months or less from the date of acquisition in money market funds rated AAA (or the equivalent thereof) or better by S&P or Aaa3 (or the equivalent thereof) or better by Moody's (or reasonably equivalent ratings of another internationally recognized ratings agency); and

(10) in the case of investments by any Foreign Subsidiary or investments made in a country outside the United States of America, other investments of comparable tenor and credit quality to those described in the foregoing clauses (1) through (9) customarily utilized in the countries where such Foreign Subsidiary is located or in which such investment is made.

Notwithstanding the foregoing, Cash Equivalents shall include amounts denominated in currencies other than those set forth in clause (1) above; provided that such amounts are converted into any currency listed in clause (1) as promptly as practicable and in any event within ten Business Days following the receipt of such amounts.

"Cash Management Agreement" means any agreement or arrangement to provide Cash Management Services to Holdings or any Subsidiary.

"Cash Management Bank" means any Person that (i) at the time it enters into a Cash Management Agreement, is a Lender or an Agent or an Affiliate of a Lender or an Agent, (ii) in the case of any Cash Management Agreement in effect on or prior to the Closing Date, is, as of the Closing Date or within 30 days thereafter, a Lender or an Agent or an Affiliate of a Lender or an Agent and a party to a Cash Management Agreement or (iii) within 30 days after the time it enters into the applicable Cash Management Agreement, becomes a Lender or an Affiliate of a Lender or an Agent, in each case, in its capacity as a party to such Cash Management Agreement.

"Cash Management Services" means any of the following to the extent not constituting a line of credit (other than an overnight draft facility that is not in default); automated clearing house transactions, treasury and/or cash management services, including, without limitation, treasury, depository, overdraft, credit, purchasing or debit card, non-card e-payable services, electronic funds transfer, treasury management services (including controlled disbursement services, overdraft automatic clearing house fund transfer services, return items and interstate depository network services), other demand deposit or operating account relationships, foreign exchange facilities, and merchant services.

"Casualty Event" means any event that gives rise to the receipt by the Parent Borrower or any Subsidiary of any casualty insurance proceeds or condemnation awards or that gives rise to a taking by a Governmental Authority in respect of any equipment, fixed assets or real property (including any improvements thereon) to replace, restore or repair, or compensate for the loss of, such equipment, fixed assets or real property.

"CERCLA" means the Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

"CERCLIS" means the Comprehensive Environmental Response, Compensation, and Liability Information System maintained by the U.S. Environmental Protection Agency.

"Change in Law" means the occurrence after the date of this Agreement or, with respect to any Lender, such later date on which such Lender becomes a party to this Agreement) of (a) the adoption of or taking effect of any law, rule, regulation or treaty, (b) any change in any law, rule, regulation or treaty or in the administration, interpretation, implementation or application thereof by any Governmental Authority or (c) compliance by any Lender or L/C Issuer (or, for purposes of Section 2.15(b), by any lending office of such Lender or by such Lender's or L/C Issuer's holding company, if any) with any request, guideline or directive (whether or not having the force of law) of any Governmental Authority made or issued after the date of this Agreement; provided that, notwithstanding anything herein to the contrary, (x) the Dodd-Frank Wall Street Reform and Consumer Protection Act and all requests, rules, guidelines or directives thereunder or issued in connection therewith or in the implementation thereof and (y) all requests, rules, guidelines or directives promulgated by the Bank for International Settlements, the Basel Committee on Banking Supervision (or any successor or similar authority) or the United States or foreign regulatory authorities, in each case pursuant to Basel III, shall, in each case, be deemed to be a "Change in Law," regardless of the date enacted, adopted, issued or implemented.

A "Change of Control" will be deemed to occur if:

(a) at any time, Holdings ceases to own, directly or indirectly, beneficially or of record, 100% of the issued and outstanding Equity Interests of the Parent Borrower; or

(b) at any time prior to the consummation of a Qualified IPO, the Permitted Holders, taken together, shall cease to beneficially own (within the meaning of Rule 13d-5 under the Exchange Act), directly or indirectly, at least a majority of the Voting Stock of Holdings (determined on a fully diluted basis); or

(c) at any time after the consummation of a Qualified IPO, any person or "group" (within the meaning of Rule 13d-5 under the Exchange Act, but excluding any employee benefit plan of such person and its subsidiaries and any person or entity acting in its capacity as trustee, agent or other fiduciary or administrator of any such plan), other than the Permitted Holders, acquires beneficial ownership (within the meaning of Rule 13d-5 under the Exchange Act) of Voting Stock of Holdings representing both (i) more than 35% of the aggregate ordinary voting power for the election of directors of Holdings and (ii) more

than the percentage of the aggregate ordinary voting power for the election of directors of Holdings that is at the time beneficially owned (within the meaning of Rule 13d-5 under the Exchange Act), directly or indirectly, by the Permitted Holders, taken together; or

(d) the sale, lease or transfer, in one or a series of related transactions, of all or substantially all of the assets of the Borrowers and their Subsidiaries, taken as a whole, to any Person other than a Borrower or a Subsidiary Guarantor; or

(e) at any time, a Change of Control (as defined in the Second Lien Credit Agreement) shall have occurred.

"Closing Date" means August 2, 2018.

"Code" means the U.S. Internal Revenue Code of 1986, as amended.

"Collateral" means all of the "Collateral" (or similar term) referred to in the Collateral Documents and all of the other property and assets that are or are required under the terms of the Collateral Documents to be subject to Liens in favor of the Collateral Agent for the benefit of the Secured Parties.

"Collateral Agent" means JPMCB, acting through such of its Affiliates or branches as it may designate, in its capacity as collateral agent under any of the Loan Documents, or any successor collateral agent permitted by the terms hereof.

"Collateral Documents" means, collectively, the Security Agreement, the Intellectual Property Security Agreement, the Mortgages (if any), each of the mortgages, collateral assignments, Security Agreement Supplements, Intellectual Property Security Agreement Supplements, security agreements, pledge agreements or other similar agreements delivered to the Collateral Agent pursuant to Section 6.12, Section 6.14 or Section 6.16, and each of the other agreements, instruments or documents that creates or purports to create a Lien in favor of the Collateral Agent for the benefit of the Secured Parties.

"Commitment" means a Term Commitment and/or a Revolving Credit Commitment, as the context may require.

"Committed Loan Notice" means a notice of (a) a Term Borrowing, (b) a Revolving Credit Borrowing, (c) a conversion of Loans from one Type to the other or (d) a continuation of Eurocurrency Rate Loans, pursuant to Section 2.02(a), which shall be substantially in the form of Exhibit A-1.

"Commodity Exchange Act" means the Commodity Exchange Act (7 U.S.C. § 1 *et. seq.*), as amended from time to time, and any successor statute.

"Company Competitor" means any Person that competes with the business of Holdings, the Borrowers and their direct and indirect Subsidiaries from time to time.

"Compliance Certificate" means a certificate substantially in the form of Exhibit D or such other form as may be agreed between the Parent Borrower and the Administrative Agent.

"Consolidated Current Assets" means, with respect to any Person and its Subsidiaries on a consolidated basis, all assets of such Person and its Subsidiaries on a consolidated basis that, in accordance with GAAP, would be classified as current assets on the balance sheet of a company conducting a business the same as or similar to that of such Person and its Subsidiaries on a consolidated basis, after deducting appropriate and adequate reserves therefrom in each case in which a reserve is proper in accordance with GAAP, but excluding (i) cash, (ii) Cash Equivalents, (iii) Swap Contracts to the extent that the mark-to-market Swap Termination Value would be reflected as an asset on the consolidated balance sheet of such Person, (iv) deferred financing fees, (v) amounts related to current or deferred taxes (but excluding assets held for sale, loans (permitted) to third parties, pension assets, deferred bank fees and derivative financial instruments) (so long as the items described in clauses (iv) and (v) are

non-cash items) and (vi) in the event that a Qualified Receivables Factoring or Qualified Receivables Financing is accounted for off balance sheet, (x) gross accounts receivable comprising part of the receivables and other related assets subject to such Qualified Receivables Factoring or Qualified Receivables Financing, as applicable, *minus* (y) collection by such Person against the amounts sold pursuant to clause (x) above.

"Consolidated Current Liabilities" means, with respect to any Person and its Subsidiaries on a consolidated basis, all liabilities in accordance with GAAP that would be classified as current liabilities on the consolidated balance sheet of such Person, but excluding (a) the current portion of Indebtedness (including the Swap Termination Value of any Swap Contracts) to the extent reflected as a liability on the consolidated balance sheet of such Person, (b) the current portion of interest, (c) accruals for current or deferred taxes based on income or profits, (d) accruals of any costs or expenses related to restructuring reserves or severance, (e) deferred revenue, (f) escrow account balances, (g) the current portion of pension liabilities, (h) liabilities in respect of unpaid earn-outs, (i) amounts related to derivative financial instruments and assets held for sale and (j) any L/C Obligations or Revolving Credit Loans and any letter of credit obligations, swing line loans or revolving loans under any other revolving credit facility.

"Consolidated EBITDA" means, with respect to any Person and its Subsidiaries on a consolidated basis for any period, the Consolidated Net Income of such Person and its Subsidiaries for such period:

(1) *increased,* in each case (other than with respect to clauses (k) and (m) below) to the extent deducted and not added back or excluded in calculating such Consolidated Net Income (and without duplication), by:

(a) provision for taxes based on income, profits or capital, including federal, state, franchise, excise, property and similar taxes and foreign withholding taxes paid or accrued, including giving effect to any penalties and interest with respect thereto, and state taxes in lieu of business fees (including business license fees) and payroll tax credits, income tax credits and similar credits and including an amount equal to the amount of tax distributions actually made to the holders of Equity Interests of such Person or its Subsidiaries or any direct or indirect parent of such Person or its Subsidiaries in respect of such period (in each case, to the extent attributable to the operations of such Person and its Subsidiaries), which shall be included as though such amounts had been paid as income taxes directly by such Person or its Subsidiaries; *plus*

(b) Consolidated Interest Expense; *plus*

(c) all depreciation and amortization charges and expenses, including amortization or expense recorded for upfront payments related to any contract signing and signing bonus and incentive payments; *plus*

(d) minority interest expense and the amount of any non-controlling interest expense consisting of income attributable to non-controlling interests of third parties in any Subsidiary of such Person that is not a Wholly Owned Subsidiary of such Person; *plus*

(e) the amount of management, monitoring, consulting, transaction and advisory fees (including termination fees) and related indemnities, charges and expenses paid or accrued to or on behalf of any direct or indirect parent of the Borrowers or any of the Permitted Holders, in each case, to the extent permitted by Section 6.18; *plus*

(f) earn-out obligations incurred in connection with any acquisition or other Investment and paid or accrued during the applicable period, including any mark to market adjustments; *plus*

(g) all charges, costs, expenses, accruals or reserves in connection with the rollover, acceleration or payout of equity interests held by management and all losses, charges and expenses related to payments made to holders of options or other derivative equity interests in the common

equity of such Person or any direct or indirect parent of the Parent Borrower in connection with, or as a result of, any distribution being made to equityholders of such Person or any of its direct or indirect parents, which payments are being made to compensate such optionholders as though they were equityholders at the time of, and entitled to share in, such distribution; *plus*

(h) all non-cash losses, charges and expenses, including any write-offs or write-downs; provided that if any such non-cash loss, charge or expense represents an accrual or reserve for potential cash items in any future four-fiscal quarter period, (i) such Person may determine not to add back such non-cash loss, charge or expense in the period for which Consolidated EBITDA is being calculated and (ii) to the extent such Person does decide to add back such non-cash loss, charge or expense, the cash payment in respect thereof in such future four-fiscal quarter period will be subtracted from Consolidated EBITDA for such future four-fiscal quarter period; *plus*

(i) all costs and expenses in connection with pre-opening and opening and closure and/or consolidation of facilities; *plus*

(j) restructuring charges, accruals or reserves and business optimization expense, including any restructuring costs and integration costs incurred in connection with the Transactions and any other acquisitions, start-up costs (including entry into new market/channels and new service offerings), costs related to the closure, relocation, reconfiguration and/or consolidation of facilities and costs to relocate employees, integration and transaction costs, retention charges, severance, contract termination costs, recruiting and signing bonuses and expenses, future lease commitments, systems establishment costs, conversion costs and excess pension charges and consulting fees, expenses attributable to the implementation of costs savings initiatives, costs associated with tax projects/audits, expenses relating to any decommissioning or reconfiguration of fixed assets for alternative uses and costs consisting of professional consulting or other fees relating to any of the foregoing; *plus*

(k) Pro Forma Cost Savings; provided that any amounts added back pursuant to this clause (k) shall be set forth in reasonable detail in a certificate of a Responsible Officer of the Parent Borrower and delivered to the Administrative Agent; provided, further, that the aggregate amount added back pursuant to this clause (k) for any period shall not exceed 30% of total Consolidated EBITDA for such period (calculated after giving effect to any increase pursuant to this clause (k)); *plus*

(l) [reserved]; *plus*

(m) the amount of loss or discount on sale of receivables and related assets to the Receivables Subsidiary in connection with a Receivables Financing;

(2) *decreased* (without duplication and to the extent increasing such Consolidated Net Income for such period) by (i) non-cash gains or income, excluding any non-cash gains that represent the reversal of any accrual of, or cash reserve for, anticipated cash charges that were deducted (and not added back) in the calculation of Consolidated EBITDA for any prior period ending after the Closing Date and (ii) the amount of any minority interest income consisting of a Subsidiary loss attributable to minority equity interest of third parties in any non-Wholly Owned Subsidiary (to the extent not deducted from Consolidated Net Income for such period);

(3) *increased* (with respect to losses) or *decreased* (with respect to gains) by, without duplication, any net realized gains and losses relating to (i) amounts denominated in foreign currencies resulting from the application of FASB ASC 830 (including net realized gains and losses from exchange rate fluctuations on intercompany balances and balance sheet items, net of realized gains or losses from related Swap Contracts (entered into in the ordinary course of business or consistent with past practice)) or (ii) any other amounts denominated in or otherwise trued-up to provide similar accounting as if it were denominated in foreign currencies; and

(4) *increased* (with respect to losses) or *decreased* (with respect to gains) by, without duplication, any gain or loss relating to Swap Contracts (excluding Swap Contracts entered into in the ordinary course of business or consistent with past practice).

In addition, to the extent not already included in the Consolidated EBITDA in any period, notwithstanding anything to the contrary in the foregoing, Consolidated EBITDA shall include additional adjustments of the type (1) evidenced by or contained in the Sponsor Model delivered to Administrative Agent on June 20, 2018, and/or (2) evidenced by or contained in a due diligence quality of earnings report made available to the Administrative Agent (who may share with the Lenders) (subject, in each case, to customary access letters) prepared with respect to the target of a permitted acquisition or other investment permitted hereunder by a "big-four" nationally recognized accounting firm.

Notwithstanding the foregoing and subject to adjustment on a Pro Forma Basis for events occurring after the Closing Date, Consolidated EBITDA (a) for the fiscal quarter ended September 30, 2017, shall be deemed to be $11,444,465.65, (b) for the fiscal quarter ended December 31, 2017, shall be deemed to be $9,320,522.51, (c) for the fiscal quarter ended March 31, 2018, shall be deemed to be $14,931,051.01 and (d) for the fiscal quarter ended June 30, 2018, shall be deemed to be $12,368,538.40.

"Consolidated First Lien Net Leverage Ratio" means, on any date of determination, with respect to the Borrower Parties on a consolidated basis, the ratio of (a) Consolidated Funded First Lien Indebtedness (less the amount of unrestricted cash and Cash Equivalents of the Borrower Parties as of such date in an aggregate amount not to exceed $15,000,000) of the Borrower Parties on such date to (b) Consolidated EBITDA of the Borrower Parties for the four fiscal quarter period most recently then ended for which financial statements have been delivered pursuant to Section 6.01(a) or (b), as applicable.

"Consolidated Funded First Lien Indebtedness" means Consolidated Funded Indebtedness that is secured by a Lien on the Collateral that does not rank junior in priority (but without regard to the control of remedies) to the Liens on the Collateral securing the Obligations. For the avoidance of doubt, Consolidated Funded First Lien Indebtedness shall not include Capitalized Lease Obligations other than those that are secured on an equal priority basis with the Liens on the Collateral securing the Obligations.

"Consolidated Funded Indebtedness" means all Indebtedness of the type described in clauses (a)(i), (a)(ii) (but excluding surety bonds, performance bonds or other similar instruments), (a)(iv) (but solely in respect of the amount of outstanding Indebtedness of the type described in (a)(iv) that is in excess of $5,000,000 in the aggregate) and (b) (in respect of Indebtedness of the type described in (a)(i), (a)(ii) (but excluding Indebtedness constituting surety bonds, performance bonds or other similar instruments) and (a)(iv) (but solely in respect of the amount of Indebtedness of the type described in (a)(iv) that is in excess of $5,000,000 in the aggregate)) of the definition of "Indebtedness," of a Person and its Subsidiaries on a consolidated basis, in an amount that would be reflected on a balance sheet prepared as of such date on a consolidated basis in accordance with GAAP (but (x) excluding the effects of any discounting of Indebtedness resulting from the application of purchase accounting in connection with the Transactions or any acquisition and (y) any Indebtedness that is issued at a discount to its initial principal amount shall be calculated based on the entire stated principal amount thereof, without giving effect to any discounts or upfront payments), excluding obligations in respect of letters of credit (including Letters of Credit), bank guarantees and guarantees on first demand, in each case, except to the extent of unreimbursed amounts thereunder. For the avoidance of doubt, it is understood that obligations under Swap Contracts, Cash Management Agreements, and any Receivables Financing, do not constitute Consolidated Funded Indebtedness.

"Consolidated Funded Senior Secured Indebtedness" means Consolidated Funded Indebtedness that is secured by a Lien on the Collateral.

"Consolidated Interest Expense" means, with respect to any Person for any period, the sum, without duplication, of:

(a) the aggregate interest expense of such Person and its Subsidiaries for such period, calculated on a consolidated basis in accordance with GAAP, to the extent such expense was deducted (and not added back) in computing Consolidated Net Income (including pay in kind interest payments,

amortization of original issue discount, the interest component of Capitalized Lease Obligations and net payments and receipts (if any) pursuant to interest rate Swap Contracts (other than in connection with the early termination thereof) but excluding any non-cash interest expense attributable to the movement in the mark-to-market valuation of Indebtedness, Swap Contracts or other derivative instruments, all amortization and write-offs of deferred financing fees, debt issuance costs, commissions, discounts, fees and expenses and expensing of any bridge, commitment or other financing fees, costs of surety bonds, charges owed with respect to letters of credit, bankers' acceptances or similar facilities, and all discounts, commissions, fees and other charges associated with any Receivables Financing); *plus*

(b) consolidated capitalized interest of the referent Person and its Subsidiaries for such period, whether paid or accrued; *less*

(c) interest income of the referent Person and its Subsidiaries for such period;

provided that (a) when determining Consolidated Interest Expense in respect of any four-quarter period ending prior to the first anniversary of the Closing Date, Consolidated Interest Expense will be calculated by multiplying the aggregate Consolidated Interest Expense accrued since the Closing Date by 365 and then dividing such product by the number of days from and including the Closing Date to and including the last day of such period and (b) in the case of any Person that became a Subsidiary of such Person after the commencement of such four-quarter period, the interest expense of such Person paid in cash prior to the date on which it became a Subsidiary of such Person will be disregarded. For purposes of this definition, interest on Capitalized Lease Obligations will be deemed to accrue at the interest rate reasonably determined by such Person to be the rate of interest implicit in such Capitalized Lease Obligations in accordance with GAAP.

"Consolidated Net Income" means, with respect to any Person for any period, the aggregate of the net income (or loss) of such Person and its Subsidiaries for such period, calculated on a consolidated basis in accordance with GAAP and before any reduction in respect of Preferred Stock dividends; provided that (without duplication):

(a) all net after-tax extraordinary, nonrecurring, infrequent, exceptional or unusual gains, losses, income, expenses and charges, and in any event including, without limitation, all restructuring, severance, relocation, retention and completion bonuses or payments, consolidation, integration or other similar charges and expenses, contract termination costs, system establishment charges, conversion costs, start-up or closure or transition costs, expenses related to any reconstruction, decommissioning, recommissioning or reconfiguration of fixed assets for alternative uses, fees, expenses or charges relating to curtailments, settlements or modifications to pension and post-retirement employee benefit plans in connection with any acquisition or Permitted Investment, expenses associated with strategic initiatives, facilities shutdown and opening costs, and any fees, expenses, charges or change in control payments related to any acquisition or Permitted Investment (including any transition-related expenses (including retention or transaction-related bonuses or payments) incurred before, on or after the Closing Date), will be excluded;

(b) all (i) losses, charges and expenses related to the Transactions, (ii) transaction fees, costs and expenses incurred in connection with the consummation of any equity issuances, investments, acquisitions, dispositions, recapitalizations, mergers, amalgamations, option buyouts and the Incurrence, modification or repayment of Indebtedness permitted to be Incurred under this Agreement (including any Refinancing Indebtedness in respect thereof) or any amendments, waivers or other modifications under the agreements relating to such Indebtedness or similar transactions, and (iii) without duplication of any of the foregoing, non-operating or non-recurring professional fees, costs and expenses for such period will be excluded;

(c) all net after-tax income, loss, expense or charge from abandoned, closed or discontinued operations and any netafter-tax gain or loss on the disposal of abandoned, closed or discontinued operations (and all related expenses) other than in the ordinary course of business (as determined in good faith by such Person) will be excluded;

(d) all net after-tax gain, loss, expense or charge attributable to business dispositions and asset dispositions, including the sale or other disposition of any Equity Interests of any Person, other than in the ordinary course of business (as determined in good faith by such Person), will be excluded;

(e) all net after-tax income, loss, expense or charge attributable to the early extinguishment or cancellation of Indebtedness, Swap Contracts or other derivative instruments (including deferred financing costs written off and premiums paid) will be excluded;

(f) all non-cash gains, losses, expenses or charges attributable to the movement in themark-to-market valuation of Indebtedness, Swap Contracts or other derivative instruments will be excluded;

(g) any non-cash or unrealized currency translation gains and losses related to changes in currency exchange rates (including, without limitation, remeasurements of Indebtedness and any net loss or gain resulting from (i) Swap Contracts for currency exchange risk and (ii) intercompany Indebtedness), will be excluded;

(h) (i) the net income for such period of any Person that is not a Subsidiary of the referent Person or that is accounted for by the equity method of accounting, will be included only to the extent of the amount of dividends or distributions to the referent Person or a Subsidiary thereof in respect of such period; and (ii) the net income for such period will include any ordinary course dividends or distributions received from any such Person during such period in excess of the amounts included in subclause (i) above;

(i) the cumulative effect of a change in accounting principles and changes as a result of the adoption or modification of accounting policies will be excluded;

(j) the effects of purchase accounting, fair value accounting or recapitalization accounting adjustments (including the effects of such adjustments pushed down to the referent Person and its Subsidiaries) resulting from the application of purchase accounting, fair value accounting or recapitalization accounting in relation to any acquisition consummated before or after the Closing Date, and the amortization, write-down or write-off of any amounts thereof, net of taxes, will be excluded;

(k) all non-cash impairment charges and asset write-ups, write-downs and write-offs, in each case pursuant to GAAP, and the amortization of intangibles arising from the application of GAAP will be excluded;

(l) all non-cash expenses realized in connection with or resulting from equity or equity-linked compensation plans, employee benefit plans or agreements or post-employment benefit plans or agreements, or grants or sales of stock, stock appreciation or similar rights, stock options, restricted stock, preferred stock or other similar rights will be excluded;

(m) any costs or expenses incurred in connection with the payment of dividend equivalent rights to option holders pursuant to any management equity plan, stock option plan or any other management or employee benefit plan or agreement or post-employment benefit plan or agreement will be excluded;

(n) accruals and reserves for liabilities or expenses that are established or adjusted as a result of the Transactions within 24 months after the Closing Date will be excluded;

(o) all amortization and write-offs of deferred financing fees, debt issuance costs, commissions, fees and expenses, costs of surety bonds, charges owed with respect to letters of credit, bankers' acceptances or similar facilities, and expensing of any bridge, commitment or other financing fees (including in connection with a transaction undertaken but not completed), will be excluded;

(p) all discounts, commissions, fees and other charges (including interest expense) associated with any Receivables Financing will be excluded;

(q) (i) the non-cash portion of "straight-line" rent expense will be excluded and (ii) the cash portion of "straight-line" rent expense that exceeds the amount expensed in respect of such rent expense will be included;

(r) expenses and lost profits with respect to liability or casualty events or business interruption will be disregarded to the extent covered by insurance and actually reimbursed, or, so long as such Person has made a determination that there exists reasonable evidence that such amount will in fact be reimbursed by the insurer, but only to the extent that such amount (i) has not been denied by the applicable carrier in writing and (ii) is in fact reimbursed within 365 days of the date on which such liability was discovered or such casualty event or business interruption occurred (with a deduction for any amounts so added back that are not reimbursed within such 365-day period); provided that any proceeds of such reimbursement when received will be excluded from the calculation of Consolidated Net Income to the extent the expense or lost profit reimbursed was previously disregarded pursuant to this clause (r);

(s) losses, charges and expenses that are covered by indemnification or other reimbursement provisions in connection with any asset disposition will be excluded to the extent actually reimbursed, or, so long as such Person has made a determination that a reasonable basis exists for indemnification or reimbursement, but only to the extent that such amount is in fact indemnified or reimbursed within 365 days of such determination (with a deduction in the applicable future period for any amount so added back to the extent not so indemnified or reimbursed within such 365 days);

(t) non-cash charges relating to increases or decreases of deferred tax asset valuation allowances will be excluded;

(u) [reserved];

(v) solely for the purpose of determining the amount available for Restricted Payments under clause (c) of the first paragraph of Section 7.05, and without duplication of provisions under clause (c) of the first paragraph of Section 7.05 with respect to returns on Investments, the net income (or loss) for such period of any Subsidiary (other than a Guarantor) will be excluded to the extent that the declaration or payment of dividends or similar distributions by that Subsidiary is not at the date of determination permitted without any prior governmental approval (which has not been obtained) or, directly or indirectly, by the operation of its charter or any agreement, instrument, judgment, decree, order, statute, rule or governmental regulation applicable to that Subsidiary or its stockholders, unless such restriction with respect to the payment of dividends or similar distributions has been legally waived; provided that Consolidated Net Income of such Person will be increased by the amount of dividends or other distributions or other payments actually paid in cash (or to the extent converted into cash) to such Person or any of its Subsidiaries in respect of such period, to the extent not already included therein (subject, in the case of a dividend to another Subsidiary (other than a Guarantor), to the limitation contained in this clause);

(w) any Initial Public Company Costs will be excluded;

(x) any (a) severance or relocation costs or expenses, (b) one-time non-cash compensation charges, (c) the costs and expenses related to employment of terminated employees, or (d) costs or expenses realized in connection with or resulting from stock appreciation or similar rights, stock options or other rights of officers, directors and employees, in each case of such Person or any of its Subsidiaries, shall be excluded; and

(y) any non-cash interest expense and non-cash interest income, in each case to the extent there is no associated cash disbursement or receipt, as the case may be, before the then applicable Latest Maturity Date, shall be excluded.

For the purpose of Section 7.05 only, there shall be excluded from Consolidated Net Income any income arising from the sale or other disposition of Restricted Investments, from repurchases or redemptions of Restricted Investments, from repayments of loans or advances which constituted Restricted Investments or from any dividends,

repayments of loans or advances or other transfers of assets, in each case to the extent such amounts increase the amount of Restricted Payments permitted under clause (c)(v) of the first paragraph of Section 7.05.

"Consolidated Net Tangible Assets" means the aggregate amount of assets (including deferred tax assets (without reducing such deferred tax assets by deferred tax liabilities), and less applicable reserves and other properly deductible items) after deducting therefrom all goodwill, trade names, trademarks, patents, unamortized debt discount and expense, investments and other like intangibles, all as set forth in the most recent consolidated balance sheet of the Parent Borrower and its Subsidiaries, determined on a Pro Forma Basis.

"Consolidated Senior Secured Net Leverage Ratio" means, on any date of determination, with respect to the Borrower Parties on a consolidated basis, the ratio of (a) Consolidated Funded Senior Secured Indebtedness (less the amount of cash and unrestricted Cash Equivalents of the Borrower Parties as of such date in an aggregate amount not to exceed $15,000,000) of the Borrower Parties on such date, calculated on a Pro Forma Basis to (b) Consolidated EBITDA of the Borrower Parties for the four fiscal quarter period most recently then ended for which financial statements have been delivered pursuant to Section 6.01(a) or 6.01(b), as applicable, calculated on a Pro Forma Basis.

"Consolidated Total Net Leverage Ratio" means, on any date of determination, with respect to the Borrower Parties on a consolidated basis, the ratio of (a) Consolidated Funded Indebtedness (less the amount of unrestricted cash and Cash Equivalents of the Borrower Parties as of such date in an aggregate amount not to exceed $15,000,000) of the Borrower Parties on such date, calculated on a Pro Forma Basis to (b) Consolidated EBITDA of the Borrower Parties for the four fiscal quarter period most recently then ended for which financial statements have been delivered pursuant to Section 6.01(a) or (b), as applicable, calculated on a Pro Forma Basis.

"Contingent Obligations" means, with respect to any Person, any obligation of such Person guaranteeing any leases, dividends or other obligations that do not constitute Indebtedness ("primary obligations") of any other Person (the "primary obligor") in any manner, whether directly or indirectly, including, without limitation, any obligation of such Person, whether or not contingent:

(1) to purchase any such primary obligation or any property constituting direct or indirect security therefor,

(2) to advance or supply funds:

(a) for the purchase or payment of any such primary obligation; or

(b) to maintain working capital or equity capital of the primary obligor or otherwise to maintain the net worth or solvency of the primary obligor; or

(3) to purchase property, securities or services primarily for the purpose of assuring the owner of any such primary obligation of the ability of the primary obligor to make payment of such primary obligation against loss in respect thereof.

"Contractual Obligation" means, as to any Person, any provision of any security issued by such Person or of any agreement, loan agreement, indenture, mortgage, deed of trust, lease, instrument or other undertaking to which such Person is a party or by which it or any of its property is bound.

"Contribution Indebtedness" means Indebtedness of the Borrowers or any Subsidiary in an aggregate principal amount not greater than the aggregate amount of cash contributions (other than Excluded Contributions) made to the capital of the Parent Borrower (other than Cure Equity) or any Subsidiary (other than, in the case of such Subsidiary, contributions by the Parent Borrower or any other Subsidiary to its capital) after the Closing Date and designated as a Cash Contribution Amount; provided that such Contribution Indebtedness (a) is incurred within 210 days after the date of such cash contribution and (b) is designated as Contribution Indebtedness pursuant to a certificate signed by a Responsible Officer of the Parent Borrower on the incurrence date thereof.

"Control Investment Affiliate" means, as to any Person, any other Person that (a) directly or indirectly, is in control of, is controlled by, or is under common control with, such Person and (b) is organized by such Person primarily for the purpose of making equity investments in one or more companies.

"Controlled Foreign Subsidiary" means any Subsidiary of the Parent Borrower (or of any Subsidiary Guarantor) that is a "controlled foreign corporation" within the meaning of Section 957 of the Code.

"Credit Agreement" means (i) this Agreement and (ii) whether or not this Agreement remains outstanding, if designated by the Parent Borrower to be included in the definition of "Credit Agreement," one or more (A) debt facilities, indentures or commercial paper facilities providing for revolving credit loans, term loans, notes, debentures, receivables financing (including through the sale of receivables to lenders or to special purpose entities formed to borrow from lenders against such receivables) or letters of credit, (B) debt securities, notes, mortgages, guarantees, collateral documents, indentures or other forms of debt financing (including convertible or exchangeable debt instruments or bank guarantees or bankers' acceptances), or (C) instruments or agreements evidencing any other Indebtedness, in each case, with the same or different borrower(s) or issuer(s) and, in each case, as amended, supplemented, modified, extended, restructured, renewed, refinanced, restated, increased (provided that such increase in borrowings is permitted under this Agreement), replaced or refunded in whole or in part from time to time and whether by the same or any other agent, lender or investor or group of lenders or investors.

"Credit Extension" means each of the following: (a) a Borrowing and (b) an L/C Credit Extension.

"Cure Amount" has the meaning specified in Section 8.03(a).

"Cure Equity" has the meaning specified in Section 8.03(a).

"Cure Right" has the meaning specified in Section 8.03(a).

"Debt Fund Affiliate" means any Affiliate of the Sponsor (other than Holdings and its Subsidiaries) that is primarily engaged in, or advises funds or other investment vehicles that are engaged in, making, purchasing, holding or otherwise investing in commercial loans, bonds and similar extensions of credit or securities in the ordinary course and with respect to which the Sponsor does not, directly or indirectly, possess the power to direct or cause the direction of the investment policies of any such Affiliate. Notwithstanding the foregoing, in no event shall a Natural Person be a Debt Fund Affiliate.

"Debtor Relief Laws" means the Bankruptcy Code of the United States, and all other liquidation, conservatorship, bankruptcy, assignment for the benefit of creditors, moratorium, rearrangement, receivership, insolvency, reorganization, or similar debtor relief Laws of the United States or other applicable jurisdictions from time to time in effect and affecting the rights of creditors generally.

"Declined Amounts" has the meaning specified in Section 2.05(b)(vi).

"Declining Lender" has the meaning specified in Section 2.05(b)(vi).

"Default" means any event or condition that constitutes an Event of Default or that, with the giving of any notice, the passage of time, or both, would be an Event of Default.

"Default Rate" means an interest rate equal to (after as well as before judgment), (a) with respect to any overdue principal for any Loan, the applicable interest rate for such Loan plus 2.00% per annum (provided that with respect to Eurocurrency Rate Loans, the determination of the applicable interest rate is subject to Section 2.02(c) to the extent that Eurocurrency Rate Loans may not be converted to, or continued as, Eurocurrency Rate Loans, pursuant thereto) and (b) with respect to any other overdue amount, including overdue interest, the interest rate applicable to Base Rate Loans that are Term Loans plus 2.00% per annum, in each case, to the fullest extent permitted by applicable Laws.

"Defaulting Lender" means, subject to Section 2.17(b), any Lender that (a) has failed to perform any of its funding obligations hereunder, including in respect of its Loans or participations in respect of Letters of Credit within two Business Days of the date required to be funded by it hereunder, (b) has notified the Parent Borrower or the Administrative Agent in writing that it does not intend or expect to comply with any of its funding obligations or has made a public statement to that effect with respect to its funding obligations hereunder or, solely with respect to a Revolving Credit Lender, under other agreements generally in which it commits to extend credit, (c) has failed, within two Business Days after reasonable request by the Administrative Agent, to confirm in a manner satisfactory to the Administrative Agent that it will comply with its funding obligations (provided that the Administrative Agent shall request such confirmation upon reasonable request from any L/C Issuer; provided, further, that such Lender shall cease to be a Defaulting Lender pursuant to this clause (c) upon receipt of such confirmation by the Administrative Agent) or (d) has, or has a direct or indirect parent company that has, other than via an Undisclosed Administration, (i) become the subject of a Bankruptcy Event, (ii) had a receiver, conservator, trustee, administrator, assignee for the benefit of creditors or similar Person charged with reorganization or liquidation of its business or a custodian appointed for it, (iii) taken any action in furtherance of, or indicated its consent to, approval of or acquiescence in any such proceeding or appointment or (iv) become the subject of a Bail-in Action; provided that no Lender shall be a Defaulting Lender solely by virtue of (x) the ownership or acquisition by a Governmental Authority of any Equity Interest in that Lender or any direct or indirect parent company thereof so long as such ownership interest does not result in or provide such Lender with immunity from the jurisdiction of courts within the United States or from the enforcement of judgments or writs of attachment on its assets or permit such Lender (or such Governmental Authority) to reject, repudiate, disavow or disaffirm any contracts or agreements made with such Lender, or (y) the occurrence of any of the events described in clause (d)(i), (d)(ii) or (d)(iii) of this definition which in each case has been dismissed or terminated prior to the date of this Agreement. Any determination by the Administrative Agent that a Lender is a Defaulting Lender under any one or more of clauses (a) through (d) above shall be conclusive and binding absent manifest error, and such Lender shall be deemed to be a Defaulting Lender (subject to Section 2.17(b)) upon delivery of written notice of such determination to the Parent Borrower, each L/C Issuer and each Lender.

"Designated Non-Cash Consideration" means the Fair Market Value of non-cash consideration received by the Parent Borrower or any of the Subsidiaries in connection with a Disposition made pursuant to Section 7.04(2)(c) that is designated as "Designated Non-Cash Consideration" on the date received pursuant to a certificate of a Responsible Officer of the Parent Borrower, less the amount of cash or Cash Equivalents received in connection with a subsequent sale of or collection on such Designated Non-Cash Consideration.

"Designated Preferred Stock" means Preferred Stock of Holdings or any direct or indirect parent of Holdings, as applicable (other than Excluded Equity), that is issued after the Closing Date for cash and is so designated as Designated Preferred Stock, pursuant to an officer's certificate of the Parent Borrower, on the issuance date thereof, the cash proceeds of which are contributed to the capital of the Parent Borrower (if issued by Holdings or any other direct or indirect parent of Holdings) and excluded from the calculation set forth in clause (c) of the first paragraph of Section 7.05.

"Discount Range" has the meaning specified in the definition of "Dutch Auction."

"Disposition" or "Dispose" means the sale, transfer, license, lease or other disposition of any property by any Person (including any sale and leaseback transaction and any issuance of Capital Stock by a Subsidiary of such Person), including any sale, assignment, transfer or other disposal, with or without recourse, of any notes or accounts receivable or any rights and claims associated therewith; provided, however, that "Disposition" and "Dispose" shall not be deemed to include any issuance by Holdings of any of its Capital Stock to another Person.

"Disqualified Institution" means (a) each person identified as a "Disqualified Institution" on a list delivered to the Administrative Agent by the Parent Borrower on or prior to the Closing Date, (b) any Company Competitor identified on a list delivered to the Administrative Agent by the Parent Borrower from time to time and (c) as to any entity referenced in each of clauses (a) and (b) above (the "Primary Disqualified Institution"), any of such Primary Disqualified Institution's Affiliates clearly identifiable as an Affiliate solely on the basis of the similarity of its name, but excluding any Affiliate that is primarily engaged in, or that advises funds or other investment vehicles that are engaged in, making, purchasing, holding or otherwise investing in commercial loans, bonds and similar extensions of credit or securities in the ordinary course and with respect to which the Primary Disqualified

Institution does not, directly or indirectly, possess the power to direct or cause the direction of the investment policies of such entity; provided that any additional designation, modification or deletion permitted by the foregoing shall not apply (i) retroactively to any prior assignment to any Lender or Participant and (ii) until at least three Business Days following receipt of such list by the Administrative Agent sent to JPMDQ_Contact@jpmorgan.com from the Parent Borrower. Notwithstanding the foregoing, any list of Disqualified Institutions shall only be required to be available to any Lender on the Approved Electronic Platform or another similar electronic system (i) to the extent the Parent Borrower desires to prevent any such Disqualified Institution from being a Lender or a Participant or (ii) upon written request by such Lender. For the purposes of clause (b), such list shall be made available to the Administrative Agent pursuant to Section 10.02.

"Disqualified Stock" means, with respect to any Person, any Equity Interests of such Person that, by its terms (or by the terms of any security into which it is convertible or for which it is puttable, redeemable or exchangeable), in each case, at the option of the holder thereof or upon the happening of any event:

(1) matures or is mandatorily redeemable, pursuant to a sinking fund obligation or otherwise (other than as a result of a change of control or asset sale; provided that any purchase requirement triggered thereby may not become operative until compliance with, in the case of an asset sale, the provisions of Section 7.04 or, in the case of a change of control, the repayment in full of the Obligations),

(2) is convertible or exchangeable for Indebtedness or Disqualified Stock, or

(3) is redeemable at the option of the holder thereof, in whole or in part,

in each case prior to the date that is 91 days after the Latest Maturity Date at the time of issuance of the respective Disqualified Stockprovided that only the portion of Equity Interests that so matures or is mandatorily redeemable, is so convertible or exchangeable or is so redeemable at the option of the holder thereof prior to such date shall be deemed to be Disqualified Stock; provided, further, that if such Equity Interests are issued to any employee or to any plan for the benefit of employees of the Parent Borrower or its Subsidiaries or a direct or indirect parent of the Parent Borrower or by any such plan to such employees, such Equity Interests shall not constitute Disqualified Stock solely because it may be required to be repurchased by the Parent Borrower or its Subsidiaries or a direct or indirect parent of the Parent Borrower in order to satisfy applicable statutory or regulatory obligations or as a result of such employee's termination, death or disability; provided, further, that any class of Equity Interests of such Person that by its terms authorizes such Person to satisfy its obligations thereunder by delivery of Equity Interests that are not Disqualified Stock shall not be deemed to be Disqualified Stock.

"Dollar" and "$" mean lawful money of the United States.

"Dollar Equivalent" means, for any amount, at the time of determination thereof, (a) if such amount is expressed in Dollars, such amount, (b) if such amount is expressed in an Alternative Currency, the equivalent of such amount in Dollars determined by using the rate of exchange for the purchase of Dollars with the Alternative Currency in the London foreign exchange market at or about 11:00 a.m. London time (or New York time, as applicable) on a particular day as displayed by ICE Data Services as the "ask price", or as displayed on such other information service which publishes that rate of exchange from time to time in place of ICE Data Services (or if such service ceases to be available, the equivalent of such amount in Dollars as determined by the Administrative Agent or the L/C Issuer, as the case may be, using any method of determination it deems appropriate in its sole discretion) and (c) if such amount is denominated in any other currency, the equivalent of such amount in Dollars as determined by the Administrative Agent or the L/C Issuer, as the case may be, using any method of determination it deems appropriate in its sole discretion.

"Domestic Subsidiary" means any Subsidiary of the Parent Borrower that is organized under the laws of the United States, any state thereof or the District of Columbia.

"Dutch Auction" means an auction (an "Auction") conducted by Holdings or one of its Subsidiaries in order to purchase any Term Loans under a Tranche (the "Purchase") in accordance with the following procedures or such other procedures as may be agreed to between the Administrative Agent and the Parent Borrower:

(a) Notice Procedures. In connection with any Auction, the Parent Borrower shall provide notification to the Administrative Agent (for distribution to the Appropriate Lenders) of the Term Loans under such Tranche that will be the subject of the Auction (an " Auction Notice"). Each Auction Notice shall be in a form reasonably acceptable to the Administrative Agent and shall specify (i) the total cash value of the bid, in a minimum amount of $5,000,000 with minimum increments of $1,000,000 in excess thereof (the "Auction Amount") and (ii) the discounts to par, which shall be expressed as a range of percentages of the par principal amount of the Term Loans under such Tranche at issue (the "Discount Range"), representing the range of purchase prices that could be paid in the Auction.

(b) Reply Procedures. In connection with any Auction, each applicable Lender may, in its sole discretion, participate in such Auction by providing the Administrative Agent with a notice of participation (the " Return Bid") which shall be in a form reasonably acceptable to the Administrative Agent and shall specify (i) a discount to par that must be expressed as a price (the "Reply Discount"), which must be within the Discount Range, and (ii) a principal amount of the applicable Loans such Lender is willing to sell, which must be in increments of $1,000,000 or in an amount equal to such Lender's entire remaining amount of the applicable Loans (the "Reply Amount"). Lenders may only submit one Return Bid per Auction. In addition to the Return Bid, each Lender wishing to participate in such Auction must execute and deliver, to be held in escrow by the Administrative Agent, an assignment and acceptance agreement in a form reasonably acceptable to the Administrative Agent.

(c) Acceptance Procedures. Based on the Reply Discounts and Reply Amounts received by the Administrative Agent, the Administrative Agent, in consultation with the Parent Borrower, will determine the applicable discount (the "Applicable Discount") for the Auction, which shall be the lowest Reply Discount for which Holdings or its Subsidiary, as applicable, can complete the Auction at the Auction Amount; provided that, in the event that the Reply Amounts are insufficient to allow Holdings or its Subsidiary, as applicable, to complete a purchase of the entire Auction Amount (any such Auction, a "Failed Auction"), Holdings or such Subsidiary shall either, at its election, (i) withdraw the Auction or (ii) complete the Auction at an Applicable Discount equal to the highest Reply Discount. Holdings or its Subsidiary, as applicable, shall purchase the applicable Loans (or the respective portions thereof) from each applicable Lender with a Reply Discount that is equal to or greater than the Applicable Discount ("Qualifying Bids") at the Applicable Discount; provided that if the aggregate proceeds required to purchase all applicable Loans subject to Qualifying Bids would exceed the Auction Amount for such Auction, Holdings or its Subsidiary, as applicable, shall purchase such Loans at the Applicable Discount ratably based on the principal amounts of such Qualifying Bids (subject to adjustment for rounding as specified by the Administrative Agent). Each participating Lender will receive notice of a Qualifying Bid as soon as reasonably practicable but in no case later than five Business Days from the date the Return Bid was due.

(d) Additional Procedures. Once initiated by an Auction Notice, Holdings or any of its Subsidiaries, as applicable, may not withdraw an Auction other than a Failed Auction. Furthermore, in connection with any Auction, upon submission by a Lender of a Qualifying Bid, such Lender will be obligated to sell the entirety or its allocable portion of the Reply Amount, as the case may be, at the Applicable Discount. The Purchase shall be consummated pursuant to and in accordance with Section 10.07 and, to the extent not otherwise provided herein, shall otherwise be consummated pursuant to procedures (including as to timing, rounding and minimum amounts, Interest Periods, and other notices by Holdings or such Subsidiary, as applicable) reasonably acceptable to the Administrative Agent and the Parent Borrower.

"EEA Financial Institution" means (a) any credit institution or investment firm established in any EEA Member Country which is subject to the supervision of an EEA Resolution Authority, (b) any entity established in an EEA Member Country which is a parent of an institution described in clause (a) of this definition, or (c) any financial institution established in an EEA Member Country which is a subsidiary of an institution described in clause (a) or (b) of this definition and is subject to consolidated supervision with its parent.

"EEA Member Country" means any of the member states of the European Union, Iceland, Liechtenstein, and Norway.

"EEA Resolution Authority" means any public administrative authority or any person entrusted with public administrative authority of any EEA Member Country (including any delegee) having responsibility for the resolution of any EEA Financial Institution.

"Electronic Signature" means an electronic sound, symbol, or process attached to, or associated with, a contract or other record and adopted by a person with the intent to sign, authenticate or accept such contract or record.

"Eligible Assignee" means any Person that meets the requirements to be an assignee under Section 10.07(b) (subject to receipt of such consents, if any, as may be required for the assignment of the applicable Loan and/or Commitments to such Person under Section 10.07(b)(iii)).

"EMU" means the economic and monetary union as contemplated in the EU Treaty.

"EMU Legislation" means the legislative measures of the EMU for the introduction of, changeover to, or operation of the Euro in one or more member states.

"Environment" shall mean ambient air, indoor air, surface water, groundwater, drinking water, land surface, sediments, and subsurface strata and natural resources such as wetlands, flora and fauna.

"Environmental Laws" means any and all applicable federal, state, local and foreign statutes, laws, including common law, regulations, ordinances, rules, judgments, orders, decrees, permits, concessions, grants, franchises, licenses or governmental restrictions relating to pollution, the protection of the Environment, human health and safety (to the extent relating to exposure to Hazardous Materials), including those related to Hazardous Materials, air emissions and discharges to public pollution control systems.

"Environmental Liability" means any liability, contingent or otherwise (including any liability for damages, costs of environmental remediation, monitoring or oversight by a Governmental Authority, fines, penalties or indemnities), of the Parent Borrower, any other Loan Party or any of their respective Subsidiaries directly or indirectly resulting from or based upon (a) any actual or alleged violation of any Environmental Law, (b) the generation, use, handling, transportation, storage or treatment of any Hazardous Materials, (c) human exposure to any Hazardous Materials, (d) the Release or threatened Release of any Hazardous Materials into the Environment or (e) any contract, agreement or other binding consensual arrangement pursuant to which liability is assumed or imposed with respect to any of the foregoing.

"Environmental Permit" means any permit, approval, identification number, license or other authorization required under any Environmental Law.

"Equity Interests" means Capital Stock and all warrants, options or other rights to acquire Capital Stock (but excluding any Capital Stock that arises only by reason of the happening of a contingency or any debt security that is convertible into, or exchangeable for, Capital Stock).

"Equity Issuance" means any issuance by any Person to any other Person of (a) its Equity Interests for cash, (b) any of its Equity Interests pursuant to the exercise of options or warrants, (c) any of its Equity Interests pursuant to the conversion of any debt securities to equity or (d) any options or warrants relating to its Equity Interests.

"ERISA" means the Employee Retirement Income Security Act of 1974, and the rules and regulations thereunder, each as amended or modified from time to time.

"ERISA Affiliate" means any Person who together with any Loan Party is treated as a single employer within the meaning of Section 414(b) or (c) of the Code (and Sections 414(m) and (o) of the Code for purposes of provisions relating to Section 412 of the Code) or Section 4001 of ERISA.

"ERISA Event" means (a) a Reportable Event with respect to a Plan; (b) the withdrawal of any Loan Party or any ERISA Affiliate from a Plan subject to Section 4063 of ERISA during a plan year in which such entity was a

"substantial employer" (as defined in Section 4001(a)(2) of ERISA) or a cessation of operations that is treated as such a withdrawal under Section 4062(e) of ERISA; (c) a complete or partial withdrawal by any Loan Party or any ERISA Affiliate from a Multiemployer Plan or written notification that a Multiemployer Plan is insolvent (within the meaning of Section 4245 of ERISA); (d) the filing of a written notice of intent to terminate or the treatment of a plan amendment as a termination under Section 4041 or 4041A of ERISA, respectively, (e) the institution by the PBGC of proceedings to terminate a Plan or Multiemployer Plan; (f) an event or condition which constitutes grounds under Section 4042 of ERISA for the termination of, or the appointment of a trustee to administer, any Plan or Multiemployer Plan; (g) the determination that any Plan is considered an at-risk plan within the meaning of Section 430 of the Code or Section 303 of ERISA; (h) the determination that any Multiemployer Plan is considered a plan in "endangered," "critical," or "critical and declining" status within the meaning of Section 432 of the Code or Section 305 of ERISA; (i) the imposition of any liability under Title IV of ERISA, other than for PBGC premiums due but not delinquent under Section 4007 of ERISA, upon any Loan Party or any ERISA Affiliate; (j) the conditions for the imposition of a Lien under Section 430(k) of the Code or Section 303(k) of ERISA shall have been met with respect to any Plan; or (k) any Foreign Benefit Event.

"EU Bail-In Legislation Schedule" means the EU Bail-In Legislation Schedule published by the Loan Market Association (or any successor person), as in effect from time to time.

"EU Treaty" means the Treaty on European Union.

"Euro" and "€" shall mean the single currency of the Participating Member States introduced in accordance with the provisions of Article 109(i)4 of the EU Treaty.

"Eurocurrency Rate" means, with respect to any Eurocurrency Rate Borrowing in Dollars and for any Interest Period, the Screen Rate at approximately 10:00 a.m., London time, two Business Days prior to the commencement of such Interest Period; provided that if the Screen Rate shall not be available at such time for such Interest Period (an "Impacted Interest Period") with respect to Dollars then the Eurocurrency Rate shall be the Interpolated Rate.

"Eurocurrency Rate Borrowing" means a Borrowing comprising Eurocurrency Rate Loans.

"Eurocurrency Rate Loan" means a Loan, whether denominated in Dollars or in an Alternative Currency, that bears interest at a rate based on the applicable Adjusted Eurocurrency Rate.

"Event of Default" has the meaning specified in Section 8.01.

"Excess Cash Flow" means, with respect to any Excess Cash Flow Period, an amount, not less than zero, equal to:

(a) Consolidated Net Income of the Borrower Parties for such Excess Cash Flow Period,*minus*

(b) the sum, without duplication (in each case, for the Parent Borrower and the Subsidiaries on a consolidated basis), of:

(i) repayments, prepayments, repurchases, redemptions and other cash payments made with respect to the principal of any Indebtedness (including principal representing capitalized interest) or the principal component of any Capitalized Lease Obligations of such Person or any of its Subsidiaries during such period (excluding voluntary and mandatory prepayments of Term Loans and any such payment from the proceeds of long-term Indebtedness, but including all premium, make-whole or penalty payments paid in cash (to the extent such payments are not expensed during such period or are not deducted in calculating Consolidated Net Income and such payments are not otherwise prohibited under this Agreement) and all repayments with respect to revolving Indebtedness to the extent accompanied by a corresponding reduction in commitments); provided that, with respect to any mandatory prepayment of Indebtedness (other

than, for the avoidance of doubt, Term Loans), such prepayments shall only be deducted pursuant to this clause (i) to the extent not deducted in the computation of net proceeds in respect of the asset disposition or condemnation giving rise thereto; *minus*

(ii) (A) cash payments made by such Person or any of its Subsidiaries during such period in respect of capital expenditures, acquisitions of intellectual property, acquisitions, Investments and Restricted Payments (excluding (x) Restricted Payments made pursuant to clause (c) of the first paragraph of Section 7.05 and pursuant to clauses (2), (3), (7), (8), (9), (17), (18), and (22) of the second paragraph of Section 7.05 (other than such Restricted Payments made to pay interest expense for Qualified Holding Company Indebtedness or any other Indebtedness of Holdings), and (y) any Permitted Investments pursuant to clauses (1), (2), (3), (5), (9), (14), (15), (17), (18), (20), (23) and (24) of the definition thereof), and (B) cash payments that such Person or any of its Subsidiaries has committed to make or is required to make in respect of capital expenditures, acquisitions of intellectual property, acquisitions and Investments within 365 days after the end of such period pursuant to binding obligations entered into prior to or during such period; provided that amounts described in this clause (B) will not reduce Excess Cash Flow in subsequent periods, and, to the extent not paid, will increase Excess Cash Flow in the subsequent period; *minus*

(iii) (A) cash payments made by such Person or any of its Subsidiaries during such period in respect of Taxes (including distributions to any Parent Holding Company in respect of Taxes), to the extent such payments exceed the amount of tax expense deducted in calculating such Consolidated Net Income, and (B) cash payments that such Person or any of its Subsidiaries will be required to make in respect of Taxes (including distributions to any Parent Holding Company in respect of Taxes) within 180 days after the end of such period; provided that amounts described in this clause (B) will not reduce Excess Cash Flow in subsequent periods, and, to the extent not paid, will increase Excess Cash Flow in the subsequent period; *minus*

(iv) all cash payments and other cash expenditures made by such Person or any of its Subsidiaries during such period (A) with respect to items that were excluded in the calculation of such Consolidated Net Income pursuant to clauses (a) through (y) of the definition of "Consolidated Net Income" or (B) that were not expensed during such period in accordance with GAAP; *minus*

(v) all non-cash credits or gains included in calculating such Consolidated Net Income (including insured or indemnified losses referred to in clauses (r) and (s) of the definition of "Consolidated Net Income" to the extent not reimbursed in cash during such period); *minus*

(vi) an amount equal to the sum of (A) the increase in the Working Capital of such Person during such period (measured as the excess, if any, of Working Capital at the end of such Excess Cash Flow Period minus Working Capital at the beginning of such Excess Cash Flow Period), if any, *plus* (B) the increase in long-term accounts receivable of such Person and its Subsidiaries, if any; *minus*

(vii) cash payments made in satisfaction of noncurrent liabilities (excluding payments of Indebtedness for borrowed money) not made directly or indirectly using proceeds, payments or any other amounts available from events or circumstances that were not included in determining Consolidated Net Income during such period; *minus*

(viii) to the extent not deducted in arriving at Consolidated Net Income, cash fees, expenses and purchase price adjustments incurred in connection with the Transactions, any acquisition consummated before or after the Closing Date or any Permitted Investment, Equity Issuance or debt issuance (whether or not consummated) and any Restricted Payment made to pay any of the foregoing incurred by Holdings; *minus*

(ix) the amount of cash payments made in respect of pensions and other postemployment benefits in such period to the extent not deducted in arriving at such Consolidated Net Income; *minus*

(x) cash payments made by such Person or any of its Subsidiaries during such period in respect of items for which an accrual or reserve was established in a prior period, in each case to the extent such payments are not expensed during such period or are not deducted in calculating Consolidated Net Income; *plus*

(xi) all non-cash charges, losses and expenses (including, without limitation, taxes) of such Person or any of its Subsidiaries that were deducted in calculating such Consolidated Net Income (provided, in each case, that if any non-cash charge represents an accrual or reserve for cash items in any future period, the cash payment in respect thereof in such future period shall be subtracted from Excess Cash Flow in such future period); *plus*

(xii) an amount equal to the sum of (A) the decrease in Working Capital of such Person during such period (measured as the excess, if any, of Working Capital at the beginning of such Excess Cash Flow Period minus Working Capital at the end of such Excess Cash Flow Period), if any, plus (B) the decrease in long-term accounts receivable of such Person and its Subsidiaries, if any (other than any such decreases contemplated by clauses (A) and (B) of this clause (xii) that are directly attributable to dispositions of a Person or business unit by the Parent Borrower and its Subsidiaries during such period); *plus*

(xiii) all amounts referred to in clauses (b)(i) and (b)(ii) above to the extent funded with the proceeds of the issuance or the incurrence of Indebtedness (other than proceeds of revolving loans) and the sale or issuance of Equity Interests.

"Excess Cash Flow Period" means any fiscal year of the Parent Borrower, commencing with the fiscal year ending on December 31, 2019.

"Exchange Act" means the U.S. Securities Exchange Act of 1934, as amended, and the rules and regulations of the SEC promulgated thereunder.

"Exchange Agent" means (a) the Administrative Agent or (b) any other financial institution or advisor employed by the Parent Borrower (whether or not an Affiliate of the Administrative Agent), after consultation with the Administrative Agent, to act as an arranger in connection with any Permitted Debt Exchange pursuant to Section 2.19; provided that the Parent Borrower shall not designate the Administrative Agent as the Exchange Agent without the written consent of the Administrative Agent (it being understood that the Administrative Agent shall be under no obligation to agree to act as the Exchange Agent); provided, further, that neither the Parent Borrower nor any of their Affiliates may act as the Exchange Agent.

"Excluded Contributions" means the net cash proceeds and Cash Equivalents, or the Fair Market Value of other assets, received by the Parent Borrower after the Closing Date from:

(1) contributions to its common equity capital, and

(2) the sale of Capital Stock (other than Excluded Equity) of the Parent Borrower,

in each case designated as Excluded Contributions pursuant to an officer's certificate of a Responsible Officer on or promptly after such contribution or sale, or that has been utilized to make a Restricted Payment pursuant to clause (2) of the second paragraph of Section 7.05. Excluded Contributions will be excluded from the calculation set forth in clause (c) of the first paragraph of Section 7.05.

"Excluded Equity" means (i) Disqualified Stock, (ii) any Equity Interests issued or sold to a Subsidiary or any employee stock ownership plan or trust established by Holdings or any of its Subsidiaries or a direct or indirect

parent of Holdings (to the extent such employee stock ownership plan or trust has been funded by Holdings or any Subsidiary or a direct or indirect parent of Holdings) and (iii) any Equity Interest that has already been used or designated (x) as (or the proceeds of which have been used or designated as) a Cash Contribution Amount, Designated Preferred Stock, an Excluded Contribution or Refunding Capital Stock, or (y) to increase the amount available under clause (5)(a) of the second paragraph under Section 7.05 or clause (14) of the definition of "Permitted Investments" or is proceeds of Indebtedness referred to in clause (14)(b) of the second paragraph in Section 7.05.

"Excluded Property" means, with respect to any Loan Party, (a) (i) any fee-owned real property not constituting Material Real Property, (ii) any real property leasehold or subleasehold interests and (iii) [reserved], (b) motor vehicles and other assets subject to certificates of title to the extent a Lien thereon cannot be perfected by filing a UCC financing statement, letter of credit rights (other than letter of credit rights that can be perfected by the filing of a UCC financing statement) with a value not in excess of $2,000,000 in the aggregate and commercial tort claims with a value not in excess of $2,000,000 in the aggregate, (c) assets to the extent a security interest in such assets would result in material adverse tax consequences (including, without limitation, as a result of the operation of Section 956 of the Code or any similar law or regulation in any applicable jurisdiction), or material adverse regulatory consequences, in each case, as reasonably determined by the Parent Borrower and notified to the Administrative Agent in writing, (d) pledges of, and security interests in, assets, in favor of the Collateral Agent which are prohibited by applicable Law; provided, that (i) any such limitation described in this clause (d) on the security interests granted shall only apply to the extent that any such prohibition could not be rendered ineffective pursuant to the Uniform Commercial Code of any applicable jurisdiction or any other applicable Law or principles of equity and shall not apply to any proceeds or receivables thereof, the assignment of which is expressly deemed effective under the UCC of any applicable jurisdiction notwithstanding such prohibition and (ii) in the event of the termination or elimination of any such prohibition contained in any applicable Law, a security interest in such assets shall be automatically and simultaneously granted under the applicable Collateral Documents and such asset shall be included as Collateral, (e) any governmental licenses (but not the proceeds thereof) or state or local franchises, charters and authorizations, to the extent security interests in favor of the Collateral Agent in such licenses, franchises, charters or authorizations are prohibited or restricted thereby, in each case, except to the extent such prohibition is unenforceable after giving effect to the applicable anti-assignment provisions of the Uniform Commercial Code of any applicable jurisdiction and other than proceeds and receivables thereof, the assignment of which is expressly deemed effective under the Uniform Commercial Code of any applicable jurisdiction notwithstanding such prohibition; provided that (i) any such limitation described in this clause (e) on the security interests granted shall only apply to the extent that any such prohibition or restriction could not be rendered ineffective pursuant to the Uniform Commercial Code of any applicable jurisdiction or any other applicable Law or principles of equity and (ii) in the event of the termination or elimination of any such prohibition or restriction contained in any applicable license, franchise, charter or authorization, a security interest in such licenses, franchises, charters or authorizations shall be automatically and simultaneously granted under the applicable Collateral Documents and such licenses, franchises, charters or authorizations shall be included as Collateral, (f) Equity Interests in (A) any Person (other than the Parent Borrower and Wholly Owned Subsidiaries of the Parent Borrower) to the extent and for so long as the pledge thereof in favor of the Collateral Agent is not permitted by the terms of such Person's joint venture agreement or other applicable Organization Documents; provided, that such prohibition exists on the Closing Date or at the time such Equity Interests are acquired (so long as such prohibition did not arise in contemplation of the Closing Date or such acquisition), (B) any not-for-profit Subsidiary, (C) any captive insurance Subsidiary, (D) any special purpose securitization vehicle (or similar entity), including any Receivables Subsidiary, (E) [reserved] and (F) any Person which is acquired after the date hereof to the extent and for so long as such Equity Interests are pledged in respect of Acquired Indebtedness (not created in contemplation of such acquisition) and such pledge constitutes a Permitted Lien to the extent and for so long as that a grant of security interest therein would violate the documentation governing such Acquired Indebtedness, (g) any lease, license or other agreement or any property subject to a purchase money security interest, Capitalized Lease Obligation or similar arrangement in each case permitted to be incurred under this Agreement, to the extent that a grant of a security interest therein would violate or invalidate such lease, license or agreement or purchase money arrangement or create a right of termination in favor of any other party thereto (other than a Loan Party or their Wholly Owned Subsidiaries), in each case, except to the extent such prohibition is unenforceable after giving effect to the applicable anti-assignment provisions of the Uniform Commercial Code of any applicable jurisdiction, other than proceeds and receivables thereof, the assignment of which is expressly deemed effective under the Uniform Commercial Code of any applicable jurisdiction notwithstanding such prohibition, (h) "intent-to-use" trademark applications prior to the

filing of a "Statement of Use" or "Amendment to Allege Use" filing, (i) any Receivables Assets sold pursuant to a Qualified Receivables Factoring or Qualified Receivables Financing, (j) voting Equity Interests in excess of 65% of the voting Equity Interests of (A) any Controlled Foreign Subsidiary or (B) any FSHCO, (k) Margin Stock, (l) trust accounts (held for third parties), payroll accounts and escrow accounts (held for third parties) in each case, as long as used solely for such purposes and (m) segregated cash to secure letter of credit reimbursement obligations (other than in respect of Letters of Credit) to the extent such letters of credit (and related Liens) are permitted by this Agreement. Other assets shall be deemed to be "Excluded Property" if the Administrative Agent and the Parent Borrower agree in writing that the cost of obtaining or perfecting a security interest in such assets (including, without limitation, any flood insurance compliance matters) is excessive in relation to the benefit of the Lenders of the security afforded thereby. Notwithstanding anything herein or the Collateral Documents to the contrary, Excluded Property shall not include any Proceeds (as defined in the UCC), substitutions or replacements of any Excluded Property (unless such Proceeds, substitutions or replacements would otherwise constitute Excluded Property referred to above).

"Excluded Subsidiary" means any direct or indirect Subsidiary of a Borrower that is (a) [reserved], (b) not wholly owned by a Borrower or one or more Wholly Owned Subsidiaries of a Borrower, (c) an Immaterial Subsidiary that is designated in writing to the Administrative Agent as such by the Parent Borrower, (d) a Domestic Subsidiary that is a FSHCO (or a Domestic Subsidiary that is a Subsidiary of a FSHCO or Controlled Foreign Subsidiary), (e) a Foreign Subsidiary; (f) a Subsidiary that is prohibited by applicable Law from guaranteeing the Facilities, or which would require governmental (including regulatory) consent, approval, license or authorization to provide a guarantee unless, such consent, approval, license or authorization has been received, in each case so long as the Administrative Agent shall have received a certification from a Responsible Officer of Holdings as to the existence of such prohibition or consent, approval, license or authorization requirement, (g) a Subsidiary that is prohibited from guaranteeing the Facilities by any Contractual Obligation in existence on the Closing Date (but not entered into in contemplation thereof) and is listed on Schedule 1.01(e) hereto and for so long as any such Contractual Obligation exists (or, in the case of any newly-acquired Subsidiary, in existence at the time of acquisition thereof but not entered into in contemplation thereof and for so long as any such Contractual Obligation exists), (h) a Subsidiary with respect to which a guarantee by it of the Facilities would result in material adverse tax consequences to Holdings, the Parent Borrower (or any member of a consolidated or affiliated tax group with the Parent Borrower) or one or more of its Subsidiaries, as reasonably determined by the Parent Borrower and notified in writing to the Administrative Agent, (i) any Receivables Subsidiary, (j) not-for-profit subsidiaries, (k) Subsidiaries that are special purpose entities, and (l) any other Subsidiary with respect to which, in the reasonable judgment of the Administrative Agent and the Parent Borrower, the cost or other consequences of guaranteeing the Facilities would be excessive in view of the benefits to be obtained by the Lenders therefrom; provided that, subject to the consent of the Administrative Agent in the case of any Excluded Subsidiary pursuant to clause (e) (such consent not to be unreasonably withheld, delayed or conditioned), if a Subsidiary executes the Subsidiary Guaranty as a "Subsidiary Guarantor," then it shall not constitute an "Excluded Subsidiary" (unless released from its obligations under the Subsidiary Guaranty as a "Subsidiary Guarantor" in accordance with the terms hereof and thereof); provided, further, that no Subsidiary of a Borrower shall be an Excluded Subsidiary if such Subsidiary is a guarantor with respect to any Refinancing Notes or any New Incremental Notes, in each case, with an aggregate outstanding principal amount in excess of $15,000,000.

"Excluded Swap Obligation" means, with respect to any Guarantor, (a) any Swap Obligation if, and to the extent that, all or a portion of the Guarantee of such Guarantor of, or the grant by such Guarantor of a security interest to secure, such Swap Obligation (or any Guarantee thereof) is or becomes illegal under the Commodity Exchange Act or any rule, regulation, or order of the Commodity Futures Trading Commission (or the application or official interpretation of any thereof) (i) by virtue of such Guarantor's failure to constitute an "eligible contract participant," as defined in the Commodity Exchange Act and the regulations thereunder (determined after giving effect to any applicable keepwell, support, or other agreement for the benefit of such Guarantor), at the time the guarantee of (or grant of such security interest by, as applicable) such Guarantor becomes or would become effective with respect to such Swap Obligation or (ii) in the case of a Swap Obligation that is subject to a clearing requirement pursuant to section 2(h) of the Commodity Exchange Act, because such Guarantor is a "financial entity," as defined in section 2(h)(7)(C) the Commodity Exchange Act, at the time the guarantee of (or grant of such security interest by, as applicable) such Guarantor becomes or would become effective with respect to such Swap Obligation or (b) any other Swap Obligation designated as an "Excluded Swap Obligation" of such Guarantor as specified in any agreement between the relevant Loan Parties and Hedge Bank applicable to such Swap Obligation.

"Excluded Taxes" means any of the following Taxes imposed on or with respect to a Recipient or required to be withheld or deducted from a payment to a Recipient: (a) Taxes imposed on or measured by such Recipient's net income (however denominated), franchise Taxes, and branch profits Taxes, in each case, (i) imposed as a result of such Recipient being organized under the laws of, or having its principal office or, in the case of any Lender, its applicable lending office located in, the jurisdiction imposing such Tax or (ii) that are Other Connection Taxes, (b) in the case of a Lender, any U.S. federal withholding Taxes imposed pursuant to a Law in effect on the date on which such Lender becomes a party hereto (other than any Lender becoming a party hereto pursuant to a request by any Loan Party under Section 3.08) or changes its lending office, except in each case to the extent that, pursuant to Section 3.01, additional amounts with respect to such Taxes were payable either to such Lender's assignor immediately before such Lender became a party hereto or to such Lender immediately before it changes its lending office, (c) Taxes attributable to such Recipient's failure to comply with Section 3.01(g) and (d) any Taxes imposed under FATCA.

"Executive Order" means Executive Order No. 13224 of September 23, 2001, entitled Blocking Property and Prohibiting Transactions With Persons Who Commit, Threaten to Commit, or Support Terrorism (66 Fed. Reg. 49079 (2001)).

"Existing Credit Agreements" means each of that certain (i) Amended and Restated Credit Agreement, dated as of September 15, 2016, among Vector, TriLink, the lenders party thereto from time to time, NXT Capital, LLC, as administrative agent, and the other parties thereto (as such agreement may be amended, restated, supplemented, waived or otherwise modified from time to time prior to the date hereof), (ii) Amended and Restated Note Purchase Agreement, dated September 15, 2016, among Vector, TriLink, the purchasers party thereto from time to time, Newstone Capital Partners, LLC, as purchaser representative, and the other parties thereto (as such agreement may be amended, restated, supplemented, waived or otherwise modified from time to time prior to the date hereof), (iii) Credit Agreement, dated as of October 26, 2016, by and among Cygnus, the lenders party thereto from time to time, Antares Capital LP, as administrative agent, and the other parties thereto (as such agreement may be amended, restated, supplemented, waived or otherwise modified from time to time prior to the date hereof) and (iv) Note Purchase Agreement, dated October 26, 2016, among Cygnus, the purchasers party thereto from time to time, Newstone Capital Partners, LLC, as purchaser representative, and the other parties thereto (as such agreement may be amended, restated, supplemented, waived or otherwise modified from time to time prior to the date hereof).

"Extendable Bridge Loans" means customary "bridge" loans which by their terms will be converted into loans that have, or extended such that they have, a maturity date later than the Latest Maturity Date then in effect.

"Facility" means the Term Facilities, the Revolving Credit Facility or the Letter of Credit Sublimit, as the context may require.

"Factoring Transaction" means any transaction or series of transactions that may be entered into by the Parent Borrower or any Subsidiary pursuant to which the Parent Borrower or such Subsidiary may sell, convey, assign or otherwise transfer Receivables Assets (which may include a backup or precautionary grant of security interest in such Receivables Assets so sold, conveyed, assigned or otherwise transferred or purported to be so sold, conveyed, assigned or otherwise transferred) to any Person other than a Receivables Subsidiary.

"Failed Auction" has the meaning specified in the definition of "Dutch Auction."

"Fair Market Value" means, with respect to any asset or property, the price that could be negotiated in anarm's-length, free market transaction, for cash, between a willing seller and a willing and able buyer, neither of whom is under undue pressure or compulsion to complete the transaction (as determined in good faith by the senior management or the Board of Directors of the Parent Borrower, Holdings or any Parent Holding Company, whose determination will be conclusive for all purposes under the Loan Documents).

"FATCA" means Sections 1471 through 1474 of the Code, as of the date of this Agreement (or any amended or successor version that is substantively comparable and not materially more onerous to comply with), any current or future Treasury regulations or official administrative interpretations thereof, any agreements entered into pursuant to current Section 1471(b)(1) of the Code (or any amended or successor version described above) and

any intergovernmental agreements implementing the foregoing (together with any Laws implementing such agreements).

"Federal Funds Effective Rate" means, for any day, the rate calculated by the NYFRB based on such day's federal funds transactions by depositary institutions, as determined in such manner as the NYFRB shall set forth on its public website from time to time, and published on the next succeeding Business Day by the NYFRB as the effective federal funds rate, provided that if the Federal Funds Effective Rate as so determined would be less than zero, such rate shall be deemed to zero for the purposes of this Agreement.

"Federal Reserve Board" means the Board of Governors of the Federal Reserve System of the United States of America.

"Fee Letter" means that certain Fee Letter, dated as of July 5, 2018, by and among JPMCB and Holdings.

"Financial Covenant" has the meaning specified in Section 7.08.

"Financial Covenant Event of Default" has the meaning specified in Section 8.01(b).

"First Lien/Second Lien Intercreditor Agreement" means the First Lien/Second Lien Intercreditor Agreement, dated as of the Closing Date, substantially in the form of Exhibit M, or otherwise in form and substance reasonably satisfactory to the Administrative Agent.

"Fixed GAAP Date" means the Closing Date; provided that at any time after the Closing Date, the Parent Borrower may by written notice to the Administrative Agent elect to change the Fixed GAAP Date to be the date specified in such notice, and upon such notice, the Fixed GAAP Date shall be such date for all periods beginning on and after the date specified in such notice.

"Fixed GAAP Terms" means (a) the definitions of the terms "Capitalized Lease Obligation," "Consolidated Interest Expense," "Consolidated Net Income," "Consolidated Net Tangible Assets," "Consolidated First Lien Net Leverage Ratio," "Consolidated Total Net Leverage Ratio," "Consolidated Senior Secured Net Leverage Ratio," "Consolidated Funded Indebtedness," "Consolidated Funded First Lien Indebtedness," "Consolidated Funded Senior Secured Indebtedness," "Consolidated EBITDA" and "Indebtedness," (b) all defined terms in this Agreement to the extent used in or relating to any of the foregoing definitions, and all ratios and computations based on any of the foregoing definitions, and (c) any other term or provision of this Agreement that, at the Parent Borrower's election, may be specified by the Parent Borrower by written notice to the Administrative Agent from time to time; provided that the Parent Borrower may elect to remove any term from constituting a Fixed GAAP Term.

"Flood Insurance Laws" means, collectively, (i) the National Flood Insurance Act of 1994 (which comprehensively revised the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973) as now or hereafter in effect or any successor statute thereto, (ii) the Flood Insurance Reform Act of 2004 as now or hereafter in effect or any successor statute thereto, (iii) the Biggert-Waters Flood Insurance Reform Act of 2012 as now or hereafter in effect or any successor statute thereto, and (iv) all other applicable laws relating to policies and procedures that address requirements placed on federally regulated lenders relating to flood matters, in each case, as now or hereafter in effect or any successor statute thereto.

"Foreign Benefit Event" means, with respect to any Foreign Plan, (a) the existence of unfunded liabilities in excess of the amount permitted under any applicable Law, or in excess of the amount that would be permitted absent a waiver from a Governmental Authority, (b) the failure to make the required contributions or payments, under any applicable Law, on or before the due date for such contributions or payments, (c) the receipt of a notice from a Governmental Authority relating to the intention to terminate any such Foreign Plan or to appoint a trustee or similar official to administer any such Foreign Plan, or alleging the insolvency of any such Foreign Plan, (d) the incurrence of any liability by the Borrowers or any of their Subsidiaries under applicable Law on account of the complete or partial termination of such Foreign Plan or the complete or partial withdrawal of any participating employer therein or (e) the occurrence of any transaction that is prohibited under any applicable Law and that could

reasonably be expected to result in the incurrence of any liability by the Borrowers or any of their Subsidiaries, or the imposition on the Borrowers or any of their Subsidiaries of, any fine, excise tax or penalty resulting from any noncompliance with any applicable Law.

"Foreign Casualty Event" shall have the meaning assigned to such term in Section 2.05(b)(viii).

"Foreign Disposition" shall have the meaning assigned to such term in Section 2.05(b)(viii).

"Foreign Lender" means a lender that is not a U.S. Person.

"Foreign Plan" means any pension plan, benefit plan, fund (including any superannuation fund) or other similar program established, maintained or contributed to by a Loan Party or any of its Subsidiaries primarily for the benefit of employees employed and residing outside the United States (other than plans, funds or other similar programs that are maintained exclusively by a Governmental Authority), and which plan is not subject to ERISA or the Code.

"Foreign Subsidiary" means any direct or indirect Subsidiary of the Parent Borrower that is not a Domestic Subsidiary.

"FRB" means the Board of Governors of the Federal Reserve System of the United States.

"Fronting Exposure" means, at any time there is a Defaulting Lender, such Defaulting Lender's Pro Rata Share of the outstanding L/C Obligations (other than L/C Obligations as to which such Defaulting Lender's participation obligation has been reallocated to other Non-Defaulting Lenders or Cash Collateralized in accordance with the terms hereof).

"FSHCO" means any direct or indirect Subsidiary of the Parent Borrower or any Subsidiary of a Guarantor, in each case, which Subsidiary owns no material assets other than Equity Interests (or, if applicable, Equity Interests and indebtedness) of one or more Controlled Foreign Subsidiaries or another FSHCO.

"Fund" means any Person (other than a natural person) that is (or will be) engaged in making, purchasing, holding or otherwise investing in commercial loans and similar extensions of credit in the ordinary course of its business.

"GAAP" means generally accepted accounting principles in the United States of America as in effect on the Fixed GAAP Date (for purposes of the Fixed GAAP Terms) and as in effect from time to time (for all other purposes of the Agreement), including those set forth in the opinions and pronouncements of the Accounting Principles Board of the American Institute of Certified Public Accountants and statements and pronouncements of the Financial Accounting Standards Board or in such other statements by such other entity as approved by a significant segment of the accounting profession (but excluding the policies, rules and regulations of the SEC applicable only to public companies); provided that the Parent Borrower may at any time elect by written notice to the Administrative Agent to use IFRS in lieu of GAAP for financial reporting purposes and, upon any such notice, references herein to GAAP shall thereafter be construed to mean (a) for periods beginning on and after the date specified in such notice, IFRS as in effect on the date specified in such notice (for purposes of the Fixed GAAP Terms) and as in effect from time to time (for all other purposes of this Agreement) and (b) for prior periods, GAAP as defined in the first sentence of this definition without giving effect to the proviso thereto. All ratios and computations based on GAAP contained in this Agreement shall be computed in conformity with GAAP.

"Governmental Authority" means any nation or government, any state or other political subdivision thereof, any agency, authority, instrumentality, regulatory body, court, administrative tribunal, central bank or other entity exercising executive, legislative, judicial, taxing, regulatory or administrative powers or functions of or pertaining to government, including any applicable supranational bodies (such as the European Union or the European Central Bank).

"Granting Lender" has the meaning specified in Section 10.07(g).

"Guarantee" means, as to any Person, without duplication, (a) any obligation, contingent or otherwise, of such Person guaranteeing or having the economic effect of guaranteeing any Indebtedness or other monetary obligation payable or performable by another Person (the "primary obligor") in any manner, whether directly or indirectly, and including any obligation of such Person, direct or indirect, (i) to purchase or pay (or advance or supply funds for the purchase or payment of) such Indebtedness or other monetary obligation, (ii) to purchase or lease property, securities or services for the purpose of assuring the obligee in respect of such Indebtedness or other monetary obligation of the payment or performance of such Indebtedness or other monetary obligation, (iii) to maintain working capital, equity capital or any other financial statement condition or liquidity or level of income or cash flow of the primary obligor so as to enable the primary obligor to pay such Indebtedness or other monetary obligation or (iv) entered into for the purpose of assuring in any other manner the obligee in respect of such Indebtedness or other monetary obligation of the payment or performance thereof or to protect such obligee against loss in respect thereof (in whole or in part) or (b) any Lien on any assets of such Person securing any Indebtedness or other monetary obligation of any other Person, whether or not such Indebtedness or other monetary obligation is assumed by such Person (or any right, contingent or otherwise, of any holder of such Indebtedness to obtain any such Lien); provided that the term "Guarantee" shall not include endorsements for collection or deposit, in either case in the ordinary course of business, or customary or reasonable indemnity obligations in effect on the Closing Date, or entered into in connection with any acquisition or Disposition of assets permitted under this Agreement (other than such obligations with respect to Indebtedness). The amount of any Guarantee shall be deemed to be an amount equal to the stated or determinable amount of the related primary obligation, or portion thereof, in respect of which such Guarantee is made or, if not stated or determinable, the maximum reasonably anticipated liability in respect thereof as determined by the guaranteeing Person in good faith. The term "Guarantee" as a verb has a corresponding meaning.

"Guarantors" means, collectively, Holdings and, as of the Closing Date, the Subsidiaries of the Borrowers listed on Schedule 1 and each other Subsidiary of the Borrowers that executes and delivers a Guaranty or guaranty supplement pursuant to the Guaranty, Section 6.12 or 6.16 (subject to the consent of the Administrative Agent in the case of any Excluded Subsidiary pursuant to clause (e) thereof, such consent not to be unreasonably withheld, delayed or conditioned), unless it has ceased to be a Guarantor pursuant to the terms hereof.

"Guaranty" means, collectively, the Holdings Guaranty and the Subsidiary Guaranty.

"Hazardous Materials" means all explosive or radioactive substances or wastes and all hazardous or toxic substances, materials or wastes, including petroleum or petroleum distillates, asbestos or asbestos-containing materials, toxic mold, polychlorinated biphenyls, radon gas, infectious or medical wastes and all other toxic substances, materials or wastes of any nature regulated pursuant to any Environmental Law.

"Hedge Bank" means any Person that (i) at the time it enters into a Swap Contract, is a Lender or an Agent or an Affiliate of a Lender or an Agent, (ii) within 30 days after the time it enters into a Swap Contract, becomes a Lender or an Agent or an Affiliate of a Lender or an Agent, (iii) with respect to Swap Contracts in effect as of the Closing Date, is, as of the Closing Date or within 30 days after the Closing Date, a Lender or an Agent or an Affiliate of a Lender or an Agent, in each case, in its capacity as a party to such Swap Contract or (iv)(A) is a party to a Swap Contract with a Loan Party and (B) at the Parent Borrower's request, delivers to the Administrative Agent a written notice (1) appointing the Administrative Agent as its agent under the applicable Loan Documents and (2) agreeing to be bound by Article IX and Sections 10.05, 10.15 and 10.17 as if such Person were a Lender; provided that the designation of any Hedge Bank pursuant to this clause (iv) shall not create in favor of such Hedge Bank any rights in connection with management or release of Collateral or the obligations of any Loan Party under the Loan Documents.

"Holdings" has the meaning specified in the introductory paragraph to this Agreement.

"Holdings Guaranty" means the Holdings Guaranty made by Holdings in favor of the Administrative Agent on behalf of the Secured Parties, substantially in the form of Exhibit F-1, as amended, supplemented or otherwise modified from time to time in accordance with the terms thereof.

"Honor Date" has the meaning specified in Section 2.03(d)(i).

"IFRS" means the International Financial Reporting Standards as issued by the International Accounting Standards Board.

"Immaterial Subsidiary" means any Subsidiary of any Borrower that, as of the date of the most recent financial statements required to be delivered pursuant to Section 6.01(a) or (b), does not have (a) assets (when combined with the assets of all other Immaterial Subsidiaries, after eliminating intercompany obligations) in excess of 5.0% of Consolidated Net Tangible Assets or (b) Consolidated EBITDA (when combined with the Consolidated EBITDA of all other Immaterial Subsidiaries, after eliminating intercompany obligations) for the period of four consecutive fiscal quarters ending on such date in excess of 5.0% of the Consolidated EBITDA of the Parent Borrower and the Subsidiaries for such period.

"Impacted Interest Period" has the meaning assigned to it in the definition of "Eurocurrency Rate."

"Increase Effective Date" has the meaning specified in Section 2.14(c).

"Incremental Amount" has the meaning specified in Section 2.14(a).

"Incremental Arranger" has the meaning specified in Section 2.14(a).

"Incremental Notes Arranger" has the meaning specified in Section 2.15(a).

"Incur" means, with respect to any Indebtedness, Capital Stock or Lien, to issue, assume, guarantee, incur or otherwise become liable for such Indebtedness, Capital Stock or Lien, as applicable; provided that any Indebtedness, Capital Stock or Lien of a Person existing at the time such Person becomes a Subsidiary (whether by merger, amalgamation, consolidation, acquisition or otherwise) shall be deemed to be Incurred by such Person at the time it becomes a Subsidiary.

"Indebtedness" means, with respect to any Person, without duplication:

(a) the principal of any indebtedness of such Person, whether or not contingent, (i) in respect of borrowed money, (ii) evidenced by bonds, notes, debentures or similar instruments or letters of credit or bankers' acceptances (or, without duplication, reimbursement agreements in respect thereof), (iii) representing the deferred and unpaid purchase price of any property, (iv) in respect of Capitalized Lease Obligations or (v) representing any Swap Contracts, in each case, if and to the extent that any of the foregoing Indebtedness (other than letters of credit and Swap Contracts) would appear as a liability on a balance sheet (excluding the footnotes thereto) of such Person prepared in accordance with GAAP;

(b) to the extent not otherwise included, any guarantee by such Person of the Indebtedness of another Person (other than by endorsement of negotiable instruments for collection in the ordinary course of business); and

(c) to the extent not otherwise included, Indebtedness of another Person secured by a Lien on any asset owned by such Person (whether or not such Indebtedness is assumed by such Person); provided, however, that the amount of such Indebtedness will be the lesser of: (a) the Fair Market Value of such asset at such date of determination, and (b) the amount of such Indebtedness of such other Person.

The term "Indebtedness" shall not include any lease, concession or license of property (or guarantee thereof) that would be considered an operating lease under GAAP as in effect on the Closing Date, any prepayments of deposits received from clients or customers in the ordinary course of business or consistent with past practices, or obligations under any license, permit or other approval (or guarantees given in respect of such obligations) Incurred prior to the Closing Date or in the ordinary course of business or consistent with past practices.

Notwithstanding the above provisions, in no event shall the following constitute Indebtedness:

(i) Contingent Obligations Incurred in the ordinary course of business or consistent with past practices;

(ii) obligations under or in respect of Receivables Financings;

(iii) any balance that constitutes a trade payable, accrued expense or similar obligation to a trade creditor, in each case Incurred in the ordinary course of business;

(iv) intercompany liabilities that would be eliminated on the consolidated balance sheet of the Parent Borrower and its consolidated Subsidiaries;

(v) prepaid or deferred revenue arising in the ordinary course of business;

(vi) Cash Management Services;

(vii) in connection with the purchase by the Parent Borrower or any Subsidiary of any business, any post-closing payment adjustments to which the seller may become entitled to the extent such payment is determined by a final closing balance sheet or such payment depends on the performance of such business after the closing; provided, however, that, at the time of closing, the amount of any such payment is not determinable and, to the extent such payment thereafter becomes fixed and determined, the amount is paid in a timely manner;

(viii) obligations, to the extent such obligations would otherwise constitute Indebtedness, under any agreement that have been defeased or satisfied and discharged pursuant to the terms of such agreement;

(ix) for the avoidance of doubt, any obligations in respect of workers' compensation claims, early retirement or termination obligations, deferred compensatory or employee or director equity plans, pension fund obligations or contributions or similar claims, obligations or contributions or social security or wage taxes; or

(x) Capital Stock (other than Disqualified Stock and Preferred Stock).

"Indemnified Liabilities" has the meaning specified in Section 10.05.

"Indemnified Taxes" means (a) all Taxes, other than Excluded Taxes, imposed on or with respect to any payment made by or on account of any obligation of any Loan Party under any Loan Document and (b) to the extent not otherwise described in (a), all Other Taxes.

"Indemnitees" has the meaning specified in Section 10.05.

"Independent Financial Advisor" means an accounting, appraisal or investment banking firm or consultant, in each case of nationally recognized standing that is, in the good faith determination of the Parent Borrower, qualified to perform the task for which it has been engaged.

"Information" has the meaning specified in Section 10.08.

"Initial Public Company Costs" means, as to any Person, costs relating to compliance with the provisions of the Securities Act and the Exchange Act (or similar regulations applicable in other listing jurisdictions), as applicable to companies with equity securities held by the public, costs associated with, or in anticipation of, or preparation for, compliance with the requirements of the Sarbanes Oxley Act of 2002 (or similar non-U.S. regulations) and the rules and regulations promulgated in connection therewith (or similar regulations applicable in other listing jurisdictions), the rules of national securities exchange companies with listed equity, directors' compensation, fees and expense reimbursement, costs relating to investor relations, shareholder meetings and reports to shareholders, directors' and officers' insurance and other executive costs, legal and other professional fees, and listing fees, in each case to the extent arising solely by virtue of the initial listing of such Person's equity

securities on a national securities exchange (or similar non-U.S. exchange); provided that any such costs arising from the costs described above in respect of the ongoing operation of such Person as a listed equity or its listed debt securities following the initial listing of such Person's equity securities or debt securities, respectively, on a national securities exchange (or similar non-U.S. exchange) shall not constitute Initial Public Company Costs.

"Initial Term Borrowing" means a borrowing consisting of simultaneous Initial Term Loans of the same Type and, in the case of Eurocurrency Rate Loans, having the same Interest Period made by each of the Term Lenders pursuant to Section 2.01(a), in each case, on the Closing Date.

"Initial Term Commitment" means, as to each Term Lender, its obligation to make Initial Term Loans to the Borrowers pursuant to Section 2.01(a) in an aggregate principal amount not to exceed the amount set forth opposite such Term Lender's name on Schedule 2.01 under the caption "Initial Term Commitment" as such amount may be adjusted from time to time in accordance with this Agreement. The initial aggregate amount of the Initial Term Commitments is $250,000,000.

"Initial Term Loans" has the meaning specified in Section 2.01(a).

"Intellectual Property Security Agreement" means, collectively, the intellectual property security agreement substantially in the form of Exhibit B to the Security Agreement, dated the date of this Agreement, together with each other intellectual property security agreement or Intellectual Property Security Agreement Supplement executed and delivered pursuant to Section 6.12, Section 6.14 or Section 6.16.

"Intellectual Property Security Agreement Supplement" means, collectively, any intellectual property security agreement supplement entered into in connection with, and pursuant to the terms of, any Intellectual Property Security Agreement.

"Intercompany Subordination Agreement" means an intercompany subordination agreement, in substantially the form ofExhibit J hereto, or otherwise in form and substance reasonably satisfactory to the Administrative Agent.

"Interest Payment Date" means, (a) as to any Loan other than a Base Rate Loan, the last day of each Interest Period applicable to such Loan and the Maturity Date of the Facility under which such Loan was made; provided, however, that if any Interest Period for a Eurocurrency Rate Loan exceeds three months, the respective dates that fall every three months after the beginning of such Interest Period shall also be Interest Payment Dates; and (b) as to any Base Rate Loan, the last Business Day of each March, June, September and December, and the Maturity Date of the Facility under which such Loan was made, commencing September 30, 2018.

"Interest Period" means, as to each Eurocurrency Rate Loan, the period commencing on the date such Eurocurrency Rate Loan is disbursed or converted to or continued as a Eurocurrency Rate Loan and ending on the date one (1), two (2), three (3) or six (6) months thereafter, or to the extent consented to by all Appropriate Lenders, twelve months thereafter (or such shorter interest period as may be agreed to by all Lenders of the applicable Tranche) as the Parent Borrower may elect; as selected by the Parent Borrower in a Committed Loan Notice; provided that:

(a) any Interest Period that would otherwise end on a day that is not a Business Day shall be extended to the next succeeding Business Day unless such Business Day falls in another calendar month, in which case such Interest Period shall end on the next preceding Business Day;

(b) any Interest Period that begins on the last Business Day of a calendar month (or on a day for which there is no numerically corresponding day in the calendar month at the end of such Interest Period) shall end on the last Business Day of the calendar month at the end of such Interest Period; and

(c) no Interest Period shall extend beyond the scheduled Maturity Date of the Facility under which such Loan was made.

"Interpolated Rate" means, at any time, for any Interest Period, the rate per annum (rounded to the same number of decimal places as the Screen Rate) determined by the Administrative Agent (which determination shall be conclusive and binding absent manifest error) to be equal to the rate that results from interpolating on a linear basis between: (a) the Screen Rate for the longest period for which the Screen Rate is available for Dollars) that is shorter than the Impacted Interest Period; and (b) the Screen Rate for the shortest period (for which that Screen Rate is available for Dollars) that exceeds the Impacted Interest Period, in each case, at such time.

"Investment" means, with respect to any Person, (i) all investments by such Person in other Persons (including Affiliates) in the form of (a) loans (including guarantees of Indebtedness), (b) advances or capital contributions (excluding accounts receivable, trade credit and advances or other payments made to customers, dealers, suppliers and distributors and payroll, commission, travel and similar advances to officers, directors, managers, employees consultants and independent contractors made in the ordinary course of business), and (c) purchases or other acquisitions for consideration of Indebtedness, Equity Interests or other securities issued by any other Person and (ii) investments that are required by GAAP to be classified on the balance sheet of the Parent Borrower in the same manner as the other investments included in clause (i) of this definition to the extent such transactions involve the transfer of cash or other property; provided that Investments shall not include, in the case of the Parent Borrower and the Subsidiaries, intercompany loans, advances, or Indebtedness having a term not exceeding 364 days (inclusive of any roll-over or extensions of terms) and made in the ordinary course of business. If the Parent Borrower or any Subsidiary sells or otherwise disposes of any Equity Interests of any Subsidiary, or any Subsidiary issues any Equity Interests, in either case, such that, after giving effect to any such sale or disposition, such Person is no longer a Subsidiary of the Parent Borrower, the Parent Borrower shall be deemed to have made an Investment on the date of any such sale or other disposition equal to the Fair Market Value of the Equity Interests of and all other Investments in such Subsidiary retained. In no event shall a guarantee of an operating lease of the Parent Borrower or any Subsidiary be deemed an Investment.

The amount of any Investment outstanding at any time (including for purposes of calculating the amount of any Investment outstanding at any time under any provision of Section 7.10 and otherwise determining compliance with Section 7.10) shall be the original cost of such Investment (determined, in the case of any Investment made with assets of the Parent Borrower or any Subsidiary, based on the Fair Market Value of the assets invested and without taking into account subsequent increases or decreases in value), reduced by any dividend, distribution, interest payment, return of capital, repayment or other amount received in cash by the Parent Borrower or a Subsidiary in respect of such Investment and shall be net of any Investment by such Person in the Parent Borrower or any Subsidiary.

"Investment Grade Rating" means a rating equal to or higher than Baa3 (or the equivalent) by Moody's andBBB- (or the equivalent) by S&P, or an equivalent rating by any other "nationally recognized statistical rating organization" within the meaning of Section 3 under the Exchange Act selected by the Parent Borrower as a replacement agency for Moody's or S&P, as the case may be.

"Investment Grade Securities" means:

(1) securities issued or directly and guaranteed or insured by the U.S. government or any agency or instrumentality thereof (other than Cash Equivalents),

(2) securities that have an Investment Grade Rating, but excluding any debt securities or instruments constituting loans or advances among the Parent Borrower and its Subsidiaries,

(3) investments in any fund that invests at least 95.0% of its assets in investments of the type described in clauses (1) and (2) above and clause (4) below which fund may also hold immaterial amounts of cash pending investment and/or distribution, and

(4) corresponding instruments in countries other than the United States customarily utilized for high quality investments and in each case with maturities not exceeding two years from the date of acquisition.

"IP Rights" has the meaning specified in Section 5.16.

"IRS" means the United States Internal Revenue Service.

"ISP" means, with respect to any Letter of Credit, the "International Standby Practices 1998" published by the Institute of International Banking Law & Practice, Inc. (or such later version thereof as may be in effect at the time of issuance and to which such Letter of Credit is subject).

"Issuer Documents" means with respect to any Letter of Credit, the Letter of Credit Application, and any other document, agreement and instrument entered into by the applicable L/C Issuer and the Borrowers (or, if applicable, a Subsidiary) or in favor of such L/C Issuer and relating to such Letter of Credit.

"joint venture" means any joint venture or similar arrangement (in each case, regardless of legal formation), including but not limited to collaboration arrangements, profit sharing arrangements or other contractual arrangements.

"JPMCB" has the meaning specified in the introductory paragraph to this Agreement.

"Judgment Currency" has the meaning specified in Section 10.23.

"Junior Financing" has the meaning specified in Section 7.05.

"Junior Financing Document" means any documentation governing any Junior Financing.

"JV Distribution" means, at any time, 50% of the aggregate amount of all cash dividends or distributions received by the Parent Borrower or any of its Subsidiaries as a return on an Investment in a Permitted Joint Venture that is not a Subsidiary during the period from the Closing Date through the end of the fiscal quarter most recently ended immediately prior to such date for which financial statements are internally available; provided that the Parent Borrower or any of its Subsidiaries are not required to reinvest such dividends or distributions in the Permitted Joint Venture.

"Latest Maturity Date" means, at any date of determination, the latest maturity or expiration date applicable to any Term Loan Tranche or Revolving Tranche at such time under this Agreement, in each case as extended in accordance with this Agreement from time to time.

"Laws" means, collectively, all applicable international, foreign, federal, state and local statutes, treaties, rules, guidelines, regulations, ordinances, codes and administrative or judicial precedents or authorities, including the interpretation or administration thereof by any Governmental Authority charged with the enforcement, interpretation or administration thereof, and all applicable administrative orders, directed duties, requests, licenses, authorizations and permits of, and agreements with, any Governmental Authority.

"L/C Advance" means, with respect to each Revolving Credit Lender, such Lender's funding of its participation in any L/C Borrowing in accordance with its applicable Pro Rata Share.

"L/C Borrowing" means an extension of credit resulting from a drawing under any Letter of Credit which has not been reimbursed by the Borrowers on the date required under Section 2.03(d)(i) or refinanced as a Revolving Credit Borrowing.

"L/C Credit Extension" means, with respect to any Letter of Credit, the issuance thereof or extension of the expiry date thereof, or the renewal or increase of the amount thereof.

"L/C Disbursement" means a payment made by an L/C Issuer pursuant to a Letter of Credit.

"L/C Issuer" means (a) JPMCB in its capacity as an issuer of Letters of Credit hereunder (it being understood that JPMCB shall not shall be obligated to issue any letters of credit hereunder other than standby letters

of credit denominated in Dollars), and (b) any other Lender reasonably acceptable to the Parent Borrower and the Administrative Agent (which consent shall not be unreasonably withheld, delayed or conditioned) that agrees to issue Letters of Credit pursuant hereto, in each case in its capacity as an issuer of Letters of Credit hereunder, or any successor issuer of Letters of Credit hereunder, and in each case, applicable Affiliates.

"L/C Obligations" means, as at any date of determination, the aggregate amount available to be drawn under all outstanding Letters of Credit plus the aggregate of all Unreimbursed Amounts, including all L/C Borrowings. For purposes of computing the amount available to be drawn under any Letter of Credit, the amount of such Letter of Credit shall be determined in accordance with Section 1.09. For all purposes of this Agreement, if on any date of determination a Letter of Credit has expired by its terms but (a) any amount may still be drawn thereunder by reason of the operation of Rule 3.13 or Rule 3.14 of the ISP, such Letter of Credit shall be deemed to be "outstanding" in the amount so remaining available to be drawn, or (b) any drawing was made thereunder on or before the last day permitted thereunder and such drawing has not been honored or refused by the applicable L/C Issuer, such Letter of Credit shall be deemed to be "outstanding" in the amount of such drawing.

"Lender" has the meaning specified in the introductory paragraph to this Agreement and, as the context requires, includes each L/C Issuer.

"Lender Parent" means, with respect to any Lender, any Person as to which such Lender is, directly or indirectly, a subsidiary.

"Lending Office" means, as to any Lender, the office or offices of such Lender described as such in such Lender's Administrative Questionnaire, or such other office or offices as a Lender may from time to time notify the Parent Borrower and the Administrative Agent.

"Letter of Credit" means any letter of credit issued hereunder. A Letter of Credit may be a commercial letter of credit or a standby letter of credit.

"Letter of Credit Application" means an application and agreement for the issuance or amendment of a Letter of Credit in the form from time to time in use by the applicable L/C Issuer, together with a request for L/C Credit Extension, substantially in the form of Exhibit A-2 hereto.

"Letter of Credit Expiration Date" means, subject to Section 2.03(a)(ii)(C), the day that is three Business Days prior to the scheduled Maturity Date then in effect for the Revolving Credit Facility (or, if such day is not a Business Day, the next preceding Business Day).

"Letter of Credit Sublimit" means an amount equal to $15,000,000. The Letter of Credit Sublimit is part of, and not in addition to, the Revolving Credit Facility.

"Lien" means, with respect to any asset, any mortgage, lien, pledge, hypothecation, charge, security interest, preference, priority or encumbrance of any kind in respect of such asset, whether or not filed, recorded or otherwise perfected under applicable law (including any conditional sale or other title retention agreement, any lease in the nature thereof, any option or other agreement to sell or give a security interest in and any filing of or agreement to give any financing statement under the Uniform Commercial Code (or equivalent or similar statutes) of any jurisdiction); provided that in no event shall an operating lease or an agreement to sell be deemed to constitute a Lien.

"Loan" means an extension of credit by a Lender to the Borrowers under Article II in the form of a Term Loan, a Revolving Credit Loan or a Specified Refinancing Revolving Loan.

"Loan Documents" means, collectively, (i) this Agreement, (ii) the Notes, (iii) the Guaranty, (iv) the Collateral Documents, (v) the Intercompany Subordination Agreement, (vi) the First Lien/Second Lien Intercreditor Agreement and any other intercreditor agreement required to be entered into pursuant to the terms of this Agreement, (vii) any agreement creating or perfecting rights in Cash Collateral pursuant to the provisions of Section 2.16 of this Agreement, and (viii) any Refinancing Amendment.

"Loan Parties" means, collectively, the Borrowers and each Guarantor.

"London Banking Day" means any day on which dealings in Dollar deposits are conducted by and between banks in the London interbank market.

"Majority Lenders" of any Tranche shall mean those Non-Defaulting Lenders which would constitute the Required Lenders under, and as defined in, this Agreement if all outstanding Obligations of the other Tranches under this Agreement were repaid in full and all Commitments with respect thereto were terminated.

"Management Agreement" means that certain Second Amended and Restated Advisory Agreement dated as of September 15, 2016 between GTCR Management XI LP, a Delaware limited liability partnership, Vector and TriLink, as the same may be amended, restated, modified or replaced, from time to time, to the extent such amendment, modification or replacement is not less advantageous to the Lenders in any material respect than such Management Agreement.

"Margin Stock" has the meaning assigned to such term in Regulation U of the Board as from time to time in effect.

"Material Adverse Effect" means (a) a material adverse effect on the business, assets, property, liabilities (actual or contingent), financial condition or results of operations of the Borrowers and the Subsidiaries, taken as a whole, (b) a material adverse effect on the ability of the Loan Parties (taken as a whole) to perform their respective obligations under the Loan Documents or (c) a material adverse effect on the rights or remedies of the Agents or the Lenders under the Loan Documents.

"Material Real Property" means any parcel of real property (other than a parcel with a Fair Market Value of less than $5,000,000 and other than a parcel constituting Excluded Property) owned in fee by a Loan Party and located in the United States; provided, however, that one or more parcels owned in fee by a Loan Party and located adjacent to, contiguous with, or in close proximity to, and comprising one property with a common street address, may, in the reasonable discretion of the Administrative Agent, be deemed to be one parcel for the purposes of this definition.

"Maturity Date" means: (a) with respect to the Revolving Credit Facility, the earlier of (i) August 2, 2023 and (ii) the date of termination in whole of the Revolving Credit Commitments pursuant to Section 2.06(a) or 8.02; and (b) with respect to the Initial Term Loans, the earliest of (i) August 2, 2025, (ii) the date of termination in whole of the Initial Term Commitments pursuant to Section 2.06(a) prior to any Initial Term Borrowing and (iii) the date that the Initial Term Loans are declared due and payable pursuant to Section 8.02; provided that the reference to Maturity Date with respect to (i) Term Loans and Revolving Credit Commitments that are the subject of a loan modification offer pursuant to Section 10.01 and (ii) Term Loans and Revolving Credit Commitments that are incurred pursuant to Section 2.14 or 2.18 shall, in each case, be the final maturity date as specified in the loan modification documentation, incremental documentation, or specified refinancing documentation, as applicable thereto.

"Maximum Leverage Requirement" means, with respect to any request made in reliance on this definition under Article II for an increase in any Revolving Tranche or any Term Loan Tranche, for a New Revolving Facility, for a New Term Facility or for the issuance of New Incremental Notes, the requirement that, on a Pro Forma Basis, after giving effect to such increase, such new Facility (assuming all commitments thereunder are fully drawn) or such New Incremental Notes (including, in each case, any acquisition consummated concurrently therewith) and excluding any increase to cash and Cash Equivalents resulting therefrom, (a) for any such increase, new Facility and/or New Incremental Notes that are secured on a *pari passu* basis with the Term Loans, the Consolidated First Lien Net Leverage Ratio as of the most recently ended fiscal quarter for which internal financial statements are available does not exceed 5.00:1.00, (b) for any such increase, new Facility and/or New Incremental Notes that are secured on a junior basis to the Term Loans, the Consolidated Senior Secured Net Leverage Ratio as of the most recently ended fiscal quarter for which internal financial statements are available does not exceed 7.25:1.00 or (c) for any such increase, new Facility and/or New Incremental Notes that are unsecured, the Consolidated Total Net Leverage Ratio as of the most recently ended fiscal quarter for which internal financial statements are available does not exceed 7.25:1.00.

"Maximum Rate" has the meaning specified in Section 10.10.

"Minimum Tender Condition" has the meaning specified in Section 2.19

"Moody's" means Moody's Investors Service, Inc. and any successor thereto.

"Mortgage" means, collectively, the deeds of trust, trust deeds, deeds to secure debt and mortgages in respect of Mortgaged Properties in the U.S. made by the Loan Parties in favor or for the benefit of the Collateral Agent on behalf of the Lenders in form and substance reasonably satisfactory to the Parent Borrower and Administrative Agent, in each case as the same may be amended, amended and restated, extended, supplemented, substituted or otherwise modified from time to time.

"Mortgage Policies" has the meaning specified in Section 6.14.

"Mortgaged Properties" means the parcels of real property identified on Schedule 5.08(b) and any other Material Real Property with respect to which a Mortgage is required pursuant to Section 6.12.

"Multiemployer Plan" means a "multiemployer plan" as defined in Section 4001(a)(3) of ERISA, to which any Loan Party or any ERISA Affiliate makes or is obligated to make contributions.

"Natural Person" means (a) any natural person or (b) a holding company, investment vehicle or trust for, or owned and operated for the primary benefit of a natural person or relatives thereof; provided that, with respect to clause (b) above, such holding company, investment vehicle or trust shall not constitute a Natural Person if it (x) has not been established for the primary purpose of acquiring any Loans or Commitments, (y) is managed by a professional advisor, who is not such natural person or a relative thereof, having significant experience in the business of making or purchasing commercial loans, and (z) has assets greater than $25,000,000 and a significant part of its activities consist of making or purchasing commercial loans and similar extensions of credit in the ordinary course of its business.

"Net Cash Proceeds" means:

(a) with respect to the Disposition of any asset by the Parent Borrower or any of its Subsidiaries (other than any Disposition of any Receivables Assets in a Qualified Receivables Factoring or Qualified Receivables Financing) or any Casualty Event, the excess, if any, of (i) the sum of cash and Cash Equivalents received in connection with such Disposition or Casualty Event (including any cash or Cash Equivalents received by way of deferred payment pursuant to, or by monetization of, a note receivable or otherwise, but only as and when so received and, with respect to any Casualty Event, any insurance proceeds or condemnation awards in respect of such Casualty Event received by or paid to or for the account of the Parent Borrower or any of its Subsidiaries and including any proceeds received as a result of unwinding any related Swap Contract in connection with such related transaction) over (ii) the sum of:

(A) the principal amount of any Indebtedness that is secured by a Lien on the asset subject to such Disposition or Casualty Event and that is required to be repaid in connection with such Disposition or Casualty Event (other than (x) Indebtedness under the Loan Documents and (y), if such asset constitutes Collateral, any Indebtedness secured by such asset with a Lien ranking *pari passu* with or junior to the Lien securing the Obligations), together with any applicable premiums, penalties, interest or breakage costs,

(B) the fees and out-of-pocket expenses incurred by the Parent Borrower or such Subsidiary in connection with such Disposition or Casualty Event (including attorneys' fees, accountants' fees, investment banking fees, survey costs, title insurance premiums, and related search and recording charges, transfer taxes, deed or mortgage recording taxes, other customary expenses and brokerage, consultant and other customary fees actually incurred in connection therewith),

(C) all taxes paid or reasonably estimated to be payable in connection with such Disposition or Casualty Event (or any tax distribution the Parent Borrower may make as a result of such Disposition or Casualty Event) and any repatriation costs associated with receipt or distribution by the applicable taxpayer of such proceeds,

(D) any costs associated with unwinding any related Swap Contract in connection with such transaction,

(E) any reserve for adjustment in respect of (x) the sale price of the property that is the subject of such Disposition established in accordance with GAAP and (y) any liabilities associated with such property and retained by the Parent Borrower or any of its Subsidiaries after such Disposition, including pension and other post-employment benefit liabilities and liabilities related to environmental matters or against any indemnification obligations associated with such transaction, and it being understood that "Net Cash Proceeds" shall include, without limitation, any cash or Cash Equivalents (i) received upon the Disposition of any non-cash consideration received by the Parent Borrower or any of its Subsidiaries in any such Disposition and (ii) upon the reversal (without the satisfaction of any applicable liabilities in cash in a corresponding amount) of any reserve described in this clause (E), and

(F) in the case of any Disposition or Casualty Event by a Subsidiary that is not a Wholly Owned Subsidiary, the*pro rata* portion of the Net Cash Proceeds thereof (calculated without regard to this clause (F)) attributable to the minority interests and not available for distribution to or for the account of the Parent Borrower or a Wholly Owned Subsidiary as a result thereof; and

(b) with respect to the incurrence or issuance of any Indebtedness by the Parent Borrower or any of its Subsidiaries, the excess, if any, of (i) the sum of the cash received in connection with such incurrence or issuance and in connection with unwinding any related Swap Contract in connection therewith over (ii) the investment banking fees, underwriting discounts and commissions, premiums, expenses, accrued interest and fees related thereto, taxes reasonably estimated to be payable and other out-of-pocket expenses and other customary expenses, incurred by the Parent Borrower or such Subsidiary in connection with such incurrence or issuance and any costs associated with unwinding any related Swap Contract in connection therewith and, in the case of Indebtedness of any Foreign Subsidiary, deductions in respect of withholding taxes that are or would otherwise be payable in cash if such funds were repatriated to the United States.

"New Incremental Notes" has the meaning specified in Section 2.15(a).

"New Incremental Notes Indentures" means, collectively, the indentures or other similar agreements pursuant to which any New Incremental Notes are issued, together with all instruments and other agreements in connection therewith, as amended, supplemented or otherwise modified from time to time in accordance with the terms thereof, but only to the extent permitted under the terms of the Loan Documents.

"New Loan Commitments" has the meaning specified in Section 2.14(a).

"New Revolving Commitment" has the meaning specified in Section 2.14(a).

"New Revolving Facility" has the meaning specified in Section 2.14(a).

"New Revolving Loan" has the meaning specified in Section 2.14(a).

"New Term Commitment" has the meaning specified in Section 2.14(a).

"New Term Facility" has the meaning specified in Section 2.14(a).

"New Term Loan" has the meaning specified in Section 2.14(a).

"Non-Consenting Lender" has the meaning specified in Section 3.08(c).

"Non-Defaulting Lender" means any Lender other than a Defaulting Lender.

"Non-Loan Party" means any Subsidiary of the Parent Borrower that is not a Loan Party.

"Note" means a Term Note or a Revolving Credit Note, as the context may require.

"NPL" means the National Priorities List under CERCLA.

"NYFRB" means the Federal Reserve Bank of New York.

"NYFRB Rate" means, for any day, the greater of (a) the Federal Funds Effective Rate in effect on such day and (b) the Overnight Bank Funding Rate in effect on such day (or for any day that is not a Business Day, for the immediately preceding Business Day); provided that if none of such rates are published for any day that is a Business Day, the term "NYFRB Rate" means the rate for a federal funds transaction quoted at 11:00 a.m. on such day received by the Administrative Agent from a federal funds broker of recognized standing selected by it; provided, further, that if any of the aforesaid rates as so determined be less than zero, such rate shall be deemed to be zero for purposes of this Agreement.

"Obligations" means all advances to, and debts, liabilities, obligations, covenants and duties of, any Loan Party arising under any Loan Document or otherwise with respect to any Loan, Letter of Credit, Secured Cash Management Agreement or Secured Hedge Agreement, in each case whether direct or indirect (including those acquired by assumption), absolute or contingent, due or to become due, now existing or hereafter arising and including interest and fees that accrue after the commencement by or against any Loan Party of any proceeding under any Debtor Relief Laws naming such Person as the debtor in such proceeding, regardless of whether such interest and fees are allowed claims in such proceeding; provided that (a) obligations of any Loan Party under any Secured Cash Management Agreement or Secured Hedge Agreement shall be secured and guaranteed pursuant to the Collateral Documents only to the extent that, and for so long as, the other Obligations are so secured and guaranteed, (b) any release of Collateral or Guarantors effected in the manner permitted by this Agreement shall not require the consent of holders of obligations under Secured Hedge Agreements or Secured Cash Management Agreements and (c) the Obligations with respect to any Guarantor shall not include Excluded Swap Obligations of such Guarantor. Without limiting the generality of the foregoing, the Obligations of the Loan Parties under the Loan Documents include (a) the obligation to pay principal, interest, Letter of Credit commissions, charges, expenses, fees, indemnities and other amounts payable by any Loan Party under any Loan Document and (b) the obligation of any Loan Party to reimburse any amount in respect of any of the foregoing pursuant to Section 10.04.

"OFAC" shall have the meaning specified in the definition of Sanctions Laws and Regulations.

"OID" means original issue discount.

"Organization Documents" means (a) with respect to any corporation, the certificate or articles of incorporation and the bylaws (or equivalent or comparable constitutive documents with respect to any non-U.S. jurisdiction), (b) with respect to any limited liability company, the certificate or articles of formation or organization and operating or limited liability company agreement (or equivalent or comparable constitutive documents with respect to any non-U.S. jurisdiction) and (c) with respect to any partnership, joint venture, trust or other form of business entity, the partnership, joint venture, trust or other applicable agreement of formation or organization and any agreement, instrument, filing or notice with respect thereto filed in connection with its formation or organization with the applicable Governmental Authority in the jurisdiction of its formation or organization and, if applicable, any certificate or articles of formation or organization of such entity.

"Other Affiliate" means the Sponsor and its Affiliates, other than Holdings, any Subsidiary of Holdings and any natural person.

"Other Connection Taxes" means, with respect to any Recipient, Taxes imposed as a result of a present or former connection between such Recipient and the jurisdiction imposing such Tax (other than connections arising from such Recipient having executed, delivered, become a party to, performed its obligations under, received payments under, received or perfected a security interest under, engaged in any other transaction pursuant to or enforced any Loan Document, or sold or assigned an interest in any Loan or Loan Document).

"Other LC" has the meaning specified in Section 2.03(c)(v).

"Other Taxes" means all present or future stamp, court or documentary, intangible, recording, filing or similar Taxes that arise from any payment made under, from the execution, delivery, performance, enforcement or registration of, from the receipt or perfection of a security interest under, or otherwise with respect to, any Loan Document, except any such Taxes that are imposed with respect to an assignment (other than an assignment made pursuant to Section 3.01(f) or Section 3.08).

"Outstanding Amount" means: (a) with respect to the Term Loans, Revolving Credit Loans and Specified Refinancing Revolving Loans on any date, the aggregate outstanding principal amount thereof after giving effect to any borrowings and prepayments or repayments of the Term Loans, Revolving Credit Loans (including any refinancing of outstanding unpaid drawings under Letters of Credit or L/C Credit Extensions as a Revolving Credit Borrowing) and Specified Refinancing Revolving Loans, as the case may be, occurring on such date; and (b) with respect to any L/C Obligations on any date, the amount of such L/C Obligations on such date after giving effect to any L/C Credit Extension occurring on such date and any other changes in the aggregate amount of the L/C Obligations as of such date, including as a result of any reimbursements of outstanding unpaid drawings under any Letters of Credit (including any refinancing of outstanding unpaid drawings under Letters of Credit or L/C Credit Extensions as a Revolving Credit Borrowing) or any reductions in the maximum amount available for drawing under Letters of Credit taking effect on such date.

"Overnight Bank Funding Rate" means, for any day, the rate comprised of both overnight federal funds and overnight Eurodollar borrowings by U.S.-managed banking offices of depository institutions, as such composite rate shall be determined by the NYFRB as set forth on its public website from time to time, and published on the next succeeding Business Day by the NYFRB as an overnight bank funding rate.

"Parent Borrower" has the meaning specified in the introductory paragraph to this Agreement.

"Parent Holding Company" means any direct or indirect parent entity of Holdings which holds directly or indirectly 100% of the Equity Interest of Holdings and which does not hold Capital Stock in any other Person (except for any other Parent Holding Company).

"Pari Passu Indebtedness" means:

(a) with respect to the Parent Borrower, any Indebtedness that ranks *pari passu* in right of security to the Loans; and

(b) with respect to any Guarantor, its guarantee of the Obligations and any Indebtedness that ranks *pari passu* in right of security to such Guarantor's guarantee of the Obligations.

"Participant" has the meaning specified in Section 10.07(d).

"Participant Register" has the meaning specified in Section 10.07(m).

"Participating Member State" means each state as described in any EMU Legislation.

"PATRIOT Act" has the meaning specified in Section 10.22.

"PBGC" means the Pension Benefit Guaranty Corporation.

"Pension Funding Rules" means the rules of the Code and ERISA regarding minimum required contributions (including any installment payment thereof) to Plans and set forth in Section 412 and 430 of the Code and Sections 302 and 303 of ERISA.

"Perfection Exceptions" means that no Loan Party shall be required to (i) enter into control agreements with respect to, or otherwise perfect any security interest by "control" (or similar arrangements) over securities accounts, deposit accounts, other bank accounts, cash and cash equivalents and accounts related to the clearing, payment processing and similar operations of Borrower and its Subsidiaries, (ii) perfect the security interest in the following other than by the filing of a UCC financing statement: (1) letter-of-credit rights (as defined in the UCC), (2) commercial tort claims (as defined in the UCC), (3) Fixtures (as defined in the UCC), except to the extent that the same are Equipment (as defined in the UCC) or are related to real property covered or intended by the Loan Documents to be covered by a Mortgage and (4) Assigned Agreements (as defined in the Security Agreement), (iii) send notices to account debtors or other contractual third-parties unless an Event of Default has not been cured or waived and is continuing and the Administrative Agent has exercised its rights pursuant to Section 8.02 of this Agreement, (iv) enter into any security documents to be governed by the law of any jurisdiction in which assets are located other than the United States, any state thereof (or the District of Columbia) except with respect to the equity and assets of any Foreign Subsidiary that becomes a Loan Party or (v) deliver landlord waivers, estoppels or collateral access letters.

"Permitted Asset Swap" means the substantially concurrent purchase and sale or exchange of Related Business Assets or a combination of Related Business Assets and cash or Cash Equivalents between Holdings or any of its Subsidiaries and another Person; provided that any cash or Cash Equivalents received must be applied in accordance with Section 7.04.

"Permitted Debt" has the meaning specified in Section 7.01.

"Permitted Debt Exchange" has the meaning specified in Section 2.19

"Permitted Debt Exchange Notes" means Indebtedness in the form of unsecured, first lien, second lien or other junior lien notes;provided that such Indebtedness (i) satisfies the Permitted Other Debt Conditions, (ii) such Indebtedness is not at any time guaranteed by any Person other than Guarantors, and (iii) to the extent secured, such Indebtedness is not secured by property other than the Collateral and the Liens securing such Indebtedness shall be subject to Applicable Intercreditor Arrangements and the security agreements governing such Liens shall be substantially the same as of the Collateral Documents (with such differences as are reasonably acceptable to the Administrative Agent).

"Permitted Debt Exchange Offer" has the meaning specified in Section 2.19(a).

"Permitted Holders" means each of (a) the Sponsor, (b) managers and members of management of the Parent Borrower (or any Permitted Parent (other than clause (c) of the definition thereof)) or its Subsidiaries that have ownership interests in the Parent Borrower (or such Permitted Parent (other than clause (c) of the definition thereof)), (c) any other beneficial owner in the common equity of the Parent Borrower (or such Permitted Parent (other than clause (c) of the definition thereof)) as of the Closing Date, (d) any group (within the meaning of Rule 13d-5 under the Exchange Act) of which any of the Persons described in clauses (a), (b) or (c) above are members; provided that, without giving effect to the existence of such group or any other group, any of the Persons described in clauses (a), (b) and (c), collectively, beneficially own Voting Stock representing 50% or more of the total voting power of the Voting Stock of the Parent Borrower (or any Permitted Parent (other than clause (c) of the definition thereof)) then held by such group, and (e) any Permitted Parent.

"Permitted Investments" means:

(1) any Investment in cash and Cash Equivalents or Investment Grade Securities and Investments that were Cash Equivalents or Investment Grade Securities when made;

(2) any Investment in the Borrowers or any Subsidiary;

(3) any Investments by Subsidiaries that are not Subsidiary Guarantors in other Subsidiaries that are not Subsidiary Guarantors;

(4) any Investment by the Borrowers or any Subsidiary in a Person that is primarily engaged in a Similar Business if as a result of such Investment (a) such Person becomes a Subsidiary, or (b) such Person, in one transaction or a series of related transactions, is merged, consolidated or amalgamated with or into, or transfers or conveys all or substantially all of its assets to, or is liquidated into, the Borrowers or a Subsidiary (and any Investment held by such Person that was not acquired by such Person in contemplation of so becoming a Subsidiary or in contemplation of such merger, consolidation, amalgamation, transfer, conveyance or liquidation);

(5) any Investment in securities or other assets received in connection with an Asset Sale made pursuant to Section 7.04 or any other Disposition of assets not constituting an Asset Sale;

(6) any Investment (x) existing on the Closing Date and listed on Schedule 7.10, (y) made pursuant to binding commitments in effect on the Closing Date and listed on Schedule 7.10 or (z) that replaces, refinances, refunds, renews or extends any Investment described under either of the immediately preceding clauses (x) or (y); provided that any such Investment is in an amount that does not exceed the amount replaced, refinanced, refunded, renewed or extended, except as contemplated pursuant to the terms of such Investment in existence on the Closing Date or as otherwise permitted under this definition or otherwise under Section 7.10;

(7) loans and advances to, or guarantees of Indebtedness of, employees, directors, officers, managers, consultants or independent contractors in an aggregate amount, taken together with all other Investments made pursuant to this clause (7) that are at the time outstanding, not in excess of $7,000,000 outstanding at any one time in the aggregate;

(8) loans and advances to officers, directors, employees, managers, consultants and independent contractors for business related travel and entertainment expenses, moving and relocation expenses and other similar expenses, in each case in the ordinary course of business;

(9) any Investment (x) acquired by the Borrowers or any of their Subsidiaries (a) in exchange for any other Investment or accounts receivable held by the Borrowers or any such Subsidiary in connection with or as a result of a bankruptcy, workout, reorganization or recapitalization of the issuer or obligor of such other Investment or accounts receivable, or (b) as a result of a foreclosure or other remedial action by the Borrowers or any of their Subsidiaries with respect to any Investment or other transfer of title with respect to any Investment in default and (y) received in compromise or resolution of (A) obligations of trade creditors or customers that were incurred in the ordinary course of business of the Borrowers or any Subsidiary, including pursuant to any plan of reorganization or similar arrangement upon the bankruptcy or insolvency of any trade creditor or customer, or (B) litigation, arbitration or other disputes;

(10) Swap Contracts and cash management services permitted under Section 7.01(j), including any payments in connection with the termination thereof;

(11) any Investment by the Borrowers or any of their Subsidiaries in a Similar Business in an aggregate amount, taken together with all other Investments made pursuant to this clause (11) that are at the time outstanding, not to exceed $20,000,000; provided, however, that if any Investment pursuant to this clause (11) is made in any Person that is not a Subsidiary at the date of the making of such Investment and such Person becomes a Subsidiary after such date, such Investment shall thereafter be deemed to have been made pursuant to clause (2) above and shall cease to have been made pursuant to this clause (11) for so long as such Person continues to be a Subsidiary;

(12) additional Investments by the Borrowers or any of their Subsidiaries in an aggregate amount, taken together with all other Investments made pursuant to this clause (12) that are at the time outstanding, not to exceed $30,000,000; provided, however, that if any Investment pursuant to this clause

(12) is made in any Person that is not a Subsidiary at the date of the making of such Investment and such Person becomes a Subsidiary after such date, such Investment shall thereafter be deemed to have been made pursuant to clause (2) above and shall cease to have been made pursuant to this clause (12) for so long as such Person continues to be a Subsidiary;

(13) any transaction to the extent it constitutes an Investment that is permitted and made in accordance with the provisions of Section 6.18(b) (except transactions described in clause (2), (3), (4), (8), (9), (13), (14) or (20) of such Section 6.18(b));

(14) Investments the payment for which consists of Equity Interests (other than Excluded Equity) of the Parent Borrower or any direct or indirect parent of the Parent Borrower, as applicable; provided, however, that such Equity Interests will not increase the amount available for Restricted Payments under clause (c) of the first paragraph of Section 7.05;

(15) Investments consisting of the leasing, licensing, sublicensing or contribution of intellectual property in the ordinary course of business or pursuant to joint marketing arrangements with other Persons;

(16) Investments consisting of purchases or acquisitions of inventory, supplies, materials and equipment or purchases, acquisitions, licenses, sublicenses or leases or subleases of intellectual property, or other rights or assets, in each case in the ordinary course of business;

(17) any Investment in a Receivables Subsidiary or any Investment by a Receivables Subsidiary in any other Person in connection with a Qualified Receivables Financing, including Investments of funds held in accounts permitted or required by the arrangements governing such Qualified Receivables Financing or any related Indebtedness;

(18) Investments of a Subsidiary acquired after the Closing Date or of an entity merged into or amalgamated or consolidated with a Subsidiary in a transaction that is not prohibited by Section 7.03 after the Closing Date to the extent that such Investments were not made in contemplation of such acquisition, merger, amalgamation or consolidation and were in existence on the date of such acquisition, merger, amalgamation or consolidation;

(19) [reserved];

(20) guarantees of Indebtedness permitted to be incurred under Section 7.01 and obligations relating to such Indebtedness and guarantees (other than guarantees of Indebtedness) in the ordinary course of business;

(21) advances, loans or extensions of trade credit in the ordinary course of business by the Borrowers or any of the Subsidiaries;

(22) Investments consisting of purchases and acquisitions of assets or services in the ordinary course of business;

(23) Investments in the ordinary course of business consisting of Uniform Commercial Code Article 3 endorsements for collection or deposit and Uniform Commercial Code Article 4 customary trade arrangements with customers;

(24) intercompany current liabilities owed to joint ventures Incurred in the ordinary course of business in connection with the cash management operations of the Borrowers and their Subsidiaries;

(25) Investments in joint ventures of the Borrowers or any of their Subsidiaries in an aggregate amount, taken together with all other Investments made pursuant to this clause (25) that are at the time outstanding, not to exceed $7,000,000; provided that the Investments permitted pursuant to this clause

may be increased by the amount of JV Distributions, without duplication of dividends or distributions increasing amounts available pursuant to clause (c) of the first paragraph of Section 7.05;

(26) the Transactions;

(27) accounts receivable, security deposits and prepayments and other credits granted or made in the ordinary course of business and any Investments received in satisfaction or partial satisfaction thereof from financially troubled account debtors and others, including in connection with the bankruptcy or reorganization of, or settlement of delinquent accounts and disputes with or judgments against, such account debtors and others, in each case in the ordinary course of business;

(28) Investments acquired as a result of a foreclosure by the Borrowers or any Subsidiary with respect to any secured Investments or other transfer of title with respect to any secured Investment in default;

(29) Investments resulting from pledges and deposits that are Permitted Liens;

(30) acquisitions of obligations of one or more officers or other employees of any direct or indirect parent of the Parent Borrower, the Borrowers or any Subsidiary of the Borrowers in connection with such officer's or employee's acquisition of Equity Interests of any direct or indirect parent of the Parent Borrower, so long as no cash is actually advanced by the Borrowers or any Subsidiary to such officers or employees in connection with the acquisition of any such obligations;

(31) guarantees of operating leases (for the avoidance of doubt, excluding Capitalized Lease Obligations) or of other obligations that do not constitute Indebtedness, in each case, entered into by the Borrowers or any Subsidiary in the ordinary course of business;

(32) Investments consisting of the redemption, purchase, repurchase or retirement of any Equity Interests permitted by Section 7.05;

(33) non-cash Investments made in connection with tax planning and reorganization activities;

(34) Investments made pursuant to obligations entered into when the Investment would have been permitted hereunder so long as such Investment when made reduces the amount available under the clause under which the Investment would have been permitted; and

(35) Investments made in the ordinary course of business in connection with obtaining, maintaining or renewing client and customer contracts and loans or advances made to, and guarantees with respect to obligations of, distributors, suppliers, licensors and licensees in the ordinary course of business.

"Permitted Joint Venture" means, with respect to any specified Person, a joint venture in any other Person engaged in a Similar Business in respect of which any Borrower or a Subsidiary beneficially owns at least 35% of the shares of Equity Interests of such Person.

"Permitted Liens" means, with respect to any Person:

(1) Liens Incurred in connection with workers' compensation laws, unemployment insurance laws or similar legislation, or in connection with bids, tenders, contracts (other than for the payment of Indebtedness) or leases to which such Person is a party, or to secure public or statutory obligations of such Person or to secure surety, stay, customs or appeal bonds to which such Person is a party, or as security for contested taxes or import duties or for the payment of rent, in each case Incurred in the ordinary course of business;

(2) Liens imposed by law, such as carriers', warehousemen's, landlords', materialmen's, repairman's, construction contractors', mechanics' or other like Liens, in each case for sums not yet

overdue by more than 30 days or being contested in good faith by appropriate proceedings or other Liens arising out of judgments or awards against such Person with respect to which such Person shall then be proceeding with an appeal or other proceedings for review (or which, if due and payable, are being contested in good faith by appropriate proceedings and for which adequate reserves are being maintained, to the extent required by GAAP) or with respect to which the failure to make payment could not reasonably be expected to have a Material Adverse Effect;

(3) Liens for taxes, assessments or other governmental charges or levies (i) that are not yet delinquent or (ii) that are being contested in good faith by appropriate proceedings and for which adequate reserves are being maintained to the extent required by GAAP, or for property taxes on property such Person or one of its Subsidiaries has determined to abandon if the sole recourse for such tax, assessment, charge, levy or claim is to such property;

(4) Liens in favor of the issuers of performance and surety bonds, bid, indemnity, warranty, release, appeal or similar bonds or with respect to regulatory requirements or letters of credit or bankers' acceptances issued and completion of guarantees provided for, in each case, pursuant to the request of and for the account of such Person in the ordinary course of its business;

(5) survey exceptions, encumbrances, easements or reservations of, or rights of others for, licenses, rights-of-way, servitudes, sewers, electric lines, drains, telegraph and telephone and cable television lines, gas and oil pipelines and other similar purposes, reservations of rights, or zoning, building codes or other restrictions (including, without limitation, minor defects or irregularities in title and similar encumbrances) as to the use of real properties or Liens incidental to the conduct of the business of such Person or to the ownership of its properties which do not in the aggregate materially adversely interfere with the ordinary conduct of the business of such Person;

(6) Liens Incurred to secure obligations in respect of Indebtedness permitted to be Incurred pursuant to Section 7.01(a) or (d) and obligations secured ratably thereunder; provided that, in the case of such clause (d), such Lien extends only to the assets and/or Capital Stock the acquisition, lease, construction, repair, replacement or improvement of which is financed thereby and any replacements, additions and accessions thereto and any income or profits thereof; provided that individual financings provided by a lender of the type described in such clause (d) may be cross collateralized to other financings provided by such lender or its affiliates;

(7) Liens of the Borrowers or any of the Guarantors existing on the Closing Date and listed on Schedule 7.02 and any modifications, replacements, renewals or extensions thereof; provided that (i) the Lien does not extend to any additional property other than (A) after-acquired property that is affixed or incorporated into the property covered by such Lien or (B) proceeds and products thereof; provided that individual financings provided by a lender may be cross collateralized to other financings provided by such lender or its affiliates and (ii) the modification, replacement, renewal, extension or refinancing of the obligations secured or benefited by such Liens (if such obligations constitute Permitted Debt) shall constitute a Permitted Refinancing;

(8) Liens on assets of, or Equity Interests (other than Equity Interests in any Subsidiary that is required to become a Guarantor pursuant to this Agreement) in, a Person at the time such Person becomes a Subsidiary; provided, however, that such Liens are not created or Incurred in connection with, or in contemplation of, such other Person becoming such a Subsidiary; provided, further, that such Liens are limited to all or a portion of the assets (and improvements on such assets) that secured (or, under the written arrangements under which the Liens arose, could secure) the obligations to which such Liens relate; provided, further, that for purposes of this clause (8), if a Person becomes a Subsidiary, any Subsidiary of such Person shall be deemed to become a Subsidiary of the Parent Borrower, and any property or assets of such Person or any Subsidiary of such Person shall be deemed acquired by the Parent Borrower at the time of such merger, amalgamation or consolidation;

(9) Liens on assets at the time the Borrowers or any Subsidiary acquired the assets, including any acquisition by means of a merger, amalgamation or consolidation with or into the Borrowers or such

Subsidiary; provided, however, that such Liens are not created or Incurred in connection with, or in contemplation of, such acquisition; provided, further, that such Liens are limited to all or a portion of the property or assets (and improvements on such property or assets) that secured (or, under the written arrangements under which the Liens arose, could secure) the obligations to which such Liens relate; provided, further, that for purposes of this clause (9), if, in connection with an acquisition by means of a merger, amalgamation or consolidation with or into any Borrower or any Subsidiary, a Person other than such Borrower or Subsidiary is the successor company with respect thereto, any Subsidiary of such Person shall be deemed to become a Subsidiary of such Borrower or such Subsidiary, as applicable, and any property or assets of such Person or any such Subsidiary of such Person shall be deemed acquired by such Borrower or such Subsidiary, as the case may be, at the time of such merger, amalgamation or consolidation;

(10) [reserved];

(11) Liens on cash and Cash Equivalents securing Swap Contracts Incurred in accordance with Section 7.01;

(12) Liens on specific items of inventory or other goods and proceeds of any Person securing such Person's obligations in respect of bankers' acceptances or letters of credit entered into in the ordinary course of business issued or created for the account of such Person to facilitate the purchase, shipment or storage of such inventory or other goods;

(13) leases, subleases, licenses, sublicenses, occupancy agreements or assignments of or in respect of real or personal property;

(14) Liens arising from, or from Uniform Commercial Code financing statement filings regarding, operating leases or consignments entered into by the Borrowers and the Guarantors in the ordinary course of business;

(15) Liens in favor of any Borrower or any Subsidiary Guarantor;

(16) (i) Liens on Receivables Assets and related assets sold, conveyed, assigned or otherwise transferred or purported to be so sold, conveyed, assigned or otherwise transferred in connection with a Qualified Receivables Factoring and/or Qualified Receivables Financing and (ii) Liens securing Indebtedness or other obligations of any Receivables Subsidiary;

(17) deposits made or other security provided in the ordinary course of business to secure liability to insurance carriers or under self-insurance arrangements in respect of such obligations;

(18) [reserved];

(19) Non-exclusive and exclusive (in the ordinary course of business) grants of intellectual property, software and other technology licenses;

(20) judgment and attachment Liens not giving rise to an Event of Default pursuant to Section 8.01(f), (g) or (h) and notices of *lis pendens* and associated rights related to litigation being contested in good faith by appropriate proceedings and for which adequate reserves have been made;

(21) Liens arising out of conditional sale, title retention, consignment or similar arrangements for the sale of goods entered into in the ordinary course of business;

(22) Liens incurred to secure Cash Management Services and other "bank products" (including those described in Sections 7.01(j) and (w));

(23) Liens to secure any refinancing, refunding, extension, renewal or replacement (or successive refinancings, refundings, extensions, renewals or replacements) as a whole, or in part, of any Indebtedness secured by any Lien referred to in the foregoing clauses (7), (8), (9) or (11), or succeeding clauses (24) or (25) of this definition; provided, however, that (x) such new Lien shall be limited to all or part of the same property that secured (or, under the written arrangements under which the original Lien arose, could secure) the original Lien (plus any replacements, additions, accessions and improvements on such property), (y) the Indebtedness secured by such Lien at such time is not increased to any amount greater than the sum of (A) the outstanding principal amount of the Indebtedness described under clause (7), (8), (9), (11), (24) or (25) of this definition at the time the original Lien became a Permitted Lien, and (B) an amount necessary to pay any fees and expenses, including unpaid accrued interest and the aggregate amount of premiums (including tender premiums), and underwriting discounts, defeasance costs and fees and expenses in connection therewith, related to such refinancing, refunding, extension, renewal or replacement and (z)(A) any amounts Incurred under this clause (23) as a refinancing indebtedness of clause (24) of this definition hereunder shall be secured to the same extent, including with respect to any subordination provisions, and subject to Applicable Intercreditor Arrangements and (B) any amounts Incurred under this clause (23) as a refinancing indebtedness of clause (25) of this definition hereunder shall reduce the amount available under such clause (25);

(24) Liens securing Indebtedness permitted to be Incurred pursuant to Section 7.01 if at the time of any Incurrence of such Indebtedness and after giving pro forma effect thereto (i) for any such Indebtedness that is secured by the Collateral on a *pari passu* basis with the Liens securing the Obligations, the Consolidated First Lien Net Leverage Ratio would not exceed 5.00 to 1.00 or (ii) for any such Indebtedness that is secured by the Collateral on a "junior" basis to the Liens securing the Obligations, the Consolidated Senior Secured Net Leverage Ratio would not exceed 7.25 to 1.00; provided that (x) such Indebtedness shall be secured by the Collateral on a first lien "equal and ratable" basis with the Liens securing the Obligations or on a "junior" basis to the Liens securing the Obligations (in each case pursuant to Applicable Intercreditor Arrangements), (y) solely for purposes of this clause (24), any Indebtedness secured pursuant to clause (i) of this clause (24) shall be deemed to constitute Consolidated Funded First Lien Indebtedness and (z) solely for purposes of this clause (24), any Indebtedness secured pursuant to clause (ii) of this clause (24) shall be deemed to constitute Consolidated Funded Senior Secured Indebtedness;

(25) other Liens securing obligations the principal amount of which does not exceed $20,000,000 at any one time outstanding (after giving effect to clause (23) above as applicable);

(26) Liens on the Equity Interests or assets of a joint venture to secure Indebtedness of such joint venture Incurred pursuant to Section 7.01(u);

(27) Liens on equipment of any Borrower or any Guarantor granted in the ordinary course of business to such Borrower's or such Guarantor's client at which such equipment is located;

(28) Liens on the Collateral that rank junior in priority to the Liens securing the Obligations pursuant to the First Lien/Second Lien Intercreditor Agreement securing obligations incurred pursuant to Section 7.01(b);

(29) Liens on property or assets used to redeem, repay, defease or to satisfy and discharge Indebtedness;provided that such redemption, repayment, defeasance or satisfaction and discharge is not prohibited by this Agreement and that such deposit shall be deemed for purposes of Section 7.05 (to the extent applicable) to be a prepayment of such Indebtedness;

(30) Liens in favor of customs and revenue authorities arising as a matter of law to secure payment of customs duties in connection with the importation and exportation of goods in the ordinary course of business;

(31) Liens (i) of a collection bank arising under Section 4-210 of the Uniform Commercial Code, or any comparable or successor provision, on items in the course of collection; (ii) attaching to

pooling, commodity trading accounts or other commodity brokerage accounts Incurred in the ordinary course of business; and (iii) in favor of banking or other financial institutions or entities, or electronic payment service providers, arising as a matter of law encumbering deposits (including the right of setoff) and which are within the general parameters customary in the banking or finance industry;

(32) Liens that are contractual rights of set-off (i) relating to the establishment of depository relations with banks or other Persons not given in connection with the issuance of Indebtedness; (ii) relating to pooled deposit or sweep accounts of any Borrower or any Guarantor to permit satisfaction of overdraft or similar obligations Incurred in the ordinary course of business of the Borrowers and the Guarantors; or (iii) relating to purchase orders and other agreements entered into with customers of any Borrower or any Guarantor in the ordinary course of business;

(33) any encumbrance or restriction (including put and call arrangements) with respect to Equity Interests of any joint venture or similar arrangement pursuant to any joint venture or similar agreement;

(34) Liens on insurance policies and the proceeds thereof securing the financing of the premiums with respect thereto;

(35) Liens on vehicles or equipment of any Borrower or any Guarantor granted in the ordinary course of business;

(36) Liens on assets of Non-Loan Parties securing Indebtedness Incurred in accordance with Section 7.01(t);

(37) Liens disclosed by the title insurance policies delivered on or subsequent to the Closing Date for any Mortgaged Property and any replacement, extension or renewal of any such Liens (so long as the Indebtedness and other obligations secured by such replacement, extension or renewal Liens are permitted by this Agreement); provided that such replacement, extension or renewal Liens do not cover any property other than the property that was subject to such Liens prior to such replacement, extension or renewal;

(38) Liens arising solely by virtue of any statutory or common law provision or customary business provision relating to banker's liens, rights of setoff or similar rights;

(39) (a) Liens solely on any cash earnest money deposits made by any Borrower or any Subsidiary in connection with any letter of intent or other agreement in respect of any Permitted Investment and (b) Liens on advances of cash or Cash Equivalents in favor of the seller of any property to be acquired in a Permitted Investment to be applied against the purchase price for such Investment;

(40) the prior rights of consignees and their lenders under consignment arrangements entered into in the ordinary course of business;

(41) Liens on securities that are the subject of repurchase agreements constituting Cash Equivalents under clause (4) of the definition thereof;

(42) Liens encumbering reasonable customary initial deposits and margin deposits and similar Liens attaching to commodity trading accounts or other brokerage accounts Incurred in the ordinary course of business and not for speculative purposes;

(43) rights reserved or vested in any Person by the terms of any lease, license, franchise, grant or permit held by the Borrowers or any of their Subsidiaries or by a statutory provision, to terminate any such lease, license, franchise, grant or permit, or to require annual or periodic payments as a condition to the continuance thereof;

(44) restrictive covenants affecting the use to which real property may be put; provided that such covenants are complied with;

(45) security given to a public utility or any municipality or governmental authority when required by such utility or authority in connection with the operations of that Person in the ordinary course of business;

(46) zoning by-laws and other land use restrictions, including, without limitation, site plan agreements, development agreements and contract zoning agreements;

(47) Liens on property constituting Collateral securing obligations issued or incurred under (i) any Refinancing Notes and the Refinancing Notes Indentures related thereto, and (ii) any New Incremental Notes and the New Incremental Notes Indentures related thereto and, in each case, any Permitted Refinancings thereof (or successive Permitted Refinancings thereof); provided that such Liens are subject to customary Applicable Intercreditor Arrangements; and

(48) Liens on cash proceeds of Indebtedness (and related escrow accounts) in connection with the issuance of such Indebtedness into (and pending the release from) a customary escrow arrangement, to the extent such Indebtedness is incurred in compliance with Section 7.01.

For purposes of determining compliance with this definition, (x) a Lien need not be Incurred solely by reference to one category of Permitted Liens described in this definition but may be Incurred under any combination of such categories (including in part under one such category and in part under any other such category), (y) in the event that a Lien (or any portion thereof) meets the criteria of one or more of such categories of Permitted Liens, the Parent Borrower shall, in its sole discretion, classify or reclassify such Lien (or any portion thereof) in any manner that complies with this definition, and (z) in the event that a portion of the Indebtedness secured by a Lien could be classified as secured in part pursuant to clause (6) or (24) above (giving effect to the Incurrence of such portion of such Indebtedness), the Parent Borrower, in its sole discretion, may classify such portion of such Indebtedness (and any obligations in respect thereof) as having been secured pursuant to clause (6) or (24) above and thereafter the remainder of the Indebtedness as having been secured pursuant to one or more of the other clauses of this definition.

"Permitted Other Debt Conditions" means that such applicable Indebtedness (i) does not mature or have scheduled amortization payments of principal and is not subject to mandatory redemption, repurchase, prepayment or sinking fund obligations (except (x) customary offers or obligations to repurchase, repay or redeem upon a change of control, asset sale, casualty or condemnation event or initial public offering, (y) maturity payments and customary mandatory prepayments for a customary bridge financing which, subject to customary conditions, provides for automatic conversion or exchange into Indebtedness that otherwise complies with the requirements of this definition or (z) "AHYDO" payments), in each case prior to the Latest Maturity Date at the time such Indebtedness is incurred and (ii) the covenants of such Indebtedness are, taken as a whole, not more restrictive to the Borrowers and the Subsidiaries than those contained in the Loan Documents (taken as a whole) (except for (x) covenants or other provisions applicable only to periods after the Maturity Date of the applicable Facilities existing at the time of incurrence or issuance thereof and (y) any financial maintenance covenant to the extent such covenant is also added for the benefit of the lenders under the Facilities).

"Permitted Parent" means (a) any direct or indirect parent of the Parent Borrower so long as a Permitted Holder pursuant to clause (a), (b), (c) or (d) of the definition thereof holds 50% or more of the Voting Stock of such direct or indirect parent of the Parent Borrower, (b) Holdings, so long as it is a Permitted Holder pursuant to clause (a), (b), (c) or (d) of the definition thereof, and (c) any Public Company (or Wholly Owned Subsidiary of such Public Company) to the extent and until such time as any Person or group (other than a Permitted Holder under clause (a), (b), (c) or (d) of the definition thereof) is deemed to be or become a beneficial owner of Voting Stock of such Public Company representing more than 50% of the total voting power of the Voting Stock of such Public Company.

"Permitted Refinancing" means, with respect to any Person, any modification, refinancing, refunding, renewal, replacement, exchange or extension of any Indebtedness of such Person; provided that (a) the principal amount (or accreted value, if applicable) thereof does not exceed the principal amount (or accreted value, if

applicable) of the Indebtedness so modified, refinanced, refunded, renewed, replaced, exchanged or extended except by an amount equal to accrued and unpaid interest and a reasonable premium thereon plus other reasonable amounts paid, and fees and expenses reasonably incurred (including original issue discount and upfront fees), in connection with such modification, refinancing, refunding, renewal, replacement, exchange or extension and by an amount equal to any existing commitments unutilized thereunder; (b) other than with respect to Indebtedness under Section 7.01(d), such modification, refinancing, refunding, renewal, replacement, exchange or extension has a final maturity date equal to or later than the final maturity date of, and has a Weighted Average Life to Maturity equal to or greater than the Weighted Average Life to Maturity of, the Indebtedness being modified, refinanced, refunded, renewed, replaced, exchanged or extended; (c) if the Indebtedness being modified, refinanced, refunded, renewed, replaced, exchanged or extended is subordinated in right of payment to the Obligations, such modification, refinancing, refunding, renewal, replacement, exchange or extension is subordinated in right of payment to the Obligations on terms, taken as a whole, as favorable in all material respects to the Lenders (including, if applicable, as to Collateral) as those contained in the documentation governing the Indebtedness being modified, refinanced, refunded, renewed, replaced, exchanged or extended or otherwise acceptable to the Administrative Agent; (d) if the Indebtedness being modified, refinanced, refunded, renewed, replaced, exchanged or extended is (i) unsecured, such modification, refinancing, refunding, renewal, replacement, exchange or extension is unsecured, or (ii) if secured by Liens on the Collateral, such modification, refinancing, refunding, replacement, renewal or extension is secured to the same extent, including with respect to any subordination provisions, and subject to Applicable Intercreditor Arrangements; (e) the terms and conditions (including, if applicable, as to collateral) of any such modified, refinanced, refunded, renewed, replaced, exchanged or extended (other than to the extent permitted by any other clause of this definition or with respect to interest rate, optional prepayment premiums and optional redemption provisions) Indebtedness are, either (i) substantially identical to or less favorable to the investors providing such Permitted Refinancing, taken as a whole, than the terms and conditions of the Indebtedness being modified, refinanced, refunded, renewed, replaced, exchanged or extended, or (ii) when taken as a whole (other than interest rate, prepayment premiums and redemption premiums), not more restrictive to the Borrowers and the Subsidiaries than those set forth in this Agreement (provided that a certificate of a Responsible Officer of the Parent Borrower delivered to the Administrative Agent in good faith at least five Business Days prior to the incurrence of such Indebtedness, together with a reasonably detailed description of the material terms and conditions of such Indebtedness or drafts of the documentation relating thereto, stating that the Parent Borrower has determined in good faith that such terms and conditions satisfy the requirement set out in this clause (e), shall be conclusive evidence that such terms and conditions satisfy such requirement unless the Administrative Agent provides notice to the Parent Borrower of its objection during such five Business Day period (including a reasonable description of the basis upon which it objects)), in each case, except for terms and conditions only applicable to periods after the Latest Maturity Date; (f) such modification, refinancing, refunding, renewal, replacement, exchange or extension is incurred by the Person who is or would have been permitted to be the obligor or guarantor (or any successor thereto) on the Indebtedness being modified, refinanced, refunded, renewed, replaced or extended (it being understood that the roles of such obligors as a borrower or a guarantor with respect to such obligations may be interchanged); and (g) at the time thereof, other than with respect to Indebtedness under Section 7.01(d) and Section 7.01(j), no Event of Default shall have occurred and be continuing.

"Person" means any natural person, corporation, limited liability company, trust, joint venture, association, company, partnership, Governmental Authority, unincorporated organization or other entity.

"Plan" means any "employee benefit plan" (other than a Multiemployer Plan) within the meaning of Section 3(3) of ERISA that is maintained or is contributed to by a Loan Party or any ERISA Affiliate and is subject to Title IV of ERISA or the minimum funding standards under Section 412 of the Code or Section 302 of ERISA.

"Plan Asset Regulations" means 29 CFR § 2510.3-101 *et seq.*, as modified by Section 3(42) of ERISA, as amended from time to time.

"Pledged Debt" means "Pledged Debt" as defined in the Security Agreement.

"Pledged Interests" means "Pledged Interests" as defined in the Security Agreement.

"Pounds Sterling" and "£" means freely transferable lawful money of the United Kingdom (expressed in Pounds Sterling).

"Preferred Stock" means any Equity Interest with preferential right of payment of dividends or upon liquidation, dissolution or winding up.

"Prepayment Amount" has the meaning specified in Section 2.05(b)(vi).

"Prepayment Date" has the meaning specified in Section 2.05(b)(vi).

"Primary Disqualified Institution" has the meaning specified in the definition of "Disqualified Institution."

"Prime Rate" means the rate of interest last quoted by *The Wall Street Journal* as the "Prime Rate" in the U.S. or, if The Wall Street Journal ceases to quote such rate, the highest per annum interest rate published by the Federal Reserve Board in Federal Reserve Statistical Release H.15 (519) (Selected Interest Rates) as the "bank prime loan" rate or, if such rate is no longer quoted therein, any similar rate quoted therein (as determined by the Administrative Agent) or any similar release by the Federal Reserve Board (as determined by the Administrative Agent). Each change in the Prime Rate shall be effective from and including the date such change is publicly announced or quoted as being effective.

"Pro Forma Basis," "Pro Forma Compliance" and "Pro Forma Effect" mean, with respect to the calculation of any test, financial ratio, basket or covenant under this Agreement, including the Consolidated First Lien Net Leverage Ratio, the Consolidated Total Net Leverage Ratio and the Consolidated Senior Secured Net Leverage Ratio and the calculation of Consolidated Net Tangible Assets, of any Person and its Subsidiaries, as of any date, that pro forma effect will be given to the Transactions, any acquisition, merger, amalgamation, consolidation, Investment, any issuance, Incurrence, assumption or repayment or redemption of Indebtedness (including Indebtedness issued, Incurred or assumed or repaid or redeemed as a result of, or to finance, any relevant transaction and for which any such test, financial ratio, basket or covenant is being calculated), any issuance or redemption of Preferred Stock or Disqualified Stock, all sales, transfers and other dispositions or discontinuance of any Subsidiary, line of business, division, segment or operating unit, any operational change (including the entry into any material contract or arrangement) that have occurred during the four consecutive fiscal quarter period of such Person being used to calculate such test, financial ratio, basket or covenant (the "Reference Period"), or, except for purposes of the Financial Covenant, subsequent to the end of the Reference Period but prior to such date or prior to or substantially simultaneously with the event for which a determination under this definition is made (including any such event occurring at a Person who became a Subsidiary of the subject Person or was merged, amalgamated or consolidated with or into the subject Person or any other Subsidiary of the subject Person after the commencement of the Reference Period), as if each such event occurred on the first day of the Reference Period; provided that (x) pro forma effect will be given to reasonably identifiable and quantifiable pro forma cost savings or expense reductions related to operational efficiencies (including the entry into any material contract or arrangement), strategic initiatives or purchasing improvements and other cost savings, improvements or synergies, in each case, that have been realized, or are reasonably expected to be realized, by such Person and its Subsidiaries based upon actions to be taken within 24 months after the consummation of the action as if such cost savings, expense reductions, improvements and synergies occurred (or were realized) on the first day of the Reference Period and (y) no amount shall be added back pursuant to this definition to the extent duplicative of amounts that are otherwise included in computing Consolidated EBITDA for such Reference Period.

For purposes of making any computation referred to above:

(1) if any Indebtedness bears a floating rate of interest and is being given pro forma effect, the interest on such Indebtedness shall be calculated as if the rate in effect on the date for which a determination under this definition is made had been the applicable rate for the entire period (taking into account any Swap Contracts applicable to such Indebtedness if such Swap Contracts has a remaining term in excess of 12 months);

(2) interest on a Capitalized Lease Obligation shall be deemed to accrue at an interest rate reasonably determined by a responsible financial or accounting officer, in his or her capacity as such and not in his or her personal capacity, of the Borrowers or a direct or indirect parent of the Borrowers to be the rate of interest implicit in such Capitalized Lease Obligation in accordance with GAAP;

(3) interest on Indebtedness that may optionally be determined at an interest rate based upon a factor of a prime or similar rate, a eurocurrency interbank offered rate, or other rate, shall be deemed to have been based upon the rate actually chosen, or, if none, then based upon such optional rate chosen as the Parent Borrower may designate;

(4) interest on any Indebtedness under a revolving credit facility or a Qualified Receivables Financing computed on a pro forma basis shall be computed based upon the average daily balance of such Indebtedness during the applicable period; and

(5) to the extent not already covered above, any such calculation may include adjustments calculated in accordance with Regulation S-X under the Securities Act.

Any pro forma calculation may include, without limitation, (1) adjustments calculated in accordance with Regulation S-X under the Securities Act and (2) adjustments calculated to give effect to any Pro Forma Cost Savings, to the extent such adjustments, without duplication, continue to be applicable to the Reference Period; provided that any such adjustments that consist of reductions in costs and other operating improvements or synergies shall be calculated in accordance with, and satisfy the requirements specified in, the definition of "Pro Forma Cost Savings."

"Pro Forma Cost Savings" means, without duplication of any amounts referenced in the definition of "Pro Forma Basis," an amount equal to the amount of cost savings, operating expense reductions, operating improvements (including the entry into any material contract or arrangement) and synergies, in each case, projected in good faith to be realized (calculated on a pro forma basis as though such items had been realized on the first day of such period) as a result of actions taken or to be taken by any Borrower (or any successor thereto) or any Subsidiary, net of the amount of actual benefits realized or expected to be realized during such period that are otherwise included in the calculation of Consolidated EBITDA from such actions; provided that such cost savings, operating expense reductions, operating improvements and synergies are factually supportable and reasonably identifiable (as determined in good faith by a responsible financial or accounting officer, in his or her capacity as such and not in his or her personal capacity, of the Parent Borrower (or any successor thereto) or any direct or indirect parent of the Parent Borrower) and are reasonably anticipated to result from actions taken or to be taken within 18 months after the consummation of any change that is expected to result in such cost savings, expense reductions, operating improvements or synergies; provided, further, that no cost savings, operating expense reductions, operating improvements and synergies shall be added pursuant to this definition to the extent duplicative of any expenses or charges otherwise added to Consolidated Net Income or Consolidated EBITDA, whether through a pro forma adjustment, add back, exclusion or otherwise, for such period.

"Pro Rata Share" means, with respect to each Lender and any Facility or all the Facilities or any Tranche or all the Tranches (as the case may be) at any time, a fraction (expressed as a percentage, carried out to the ninth decimal place, and subject to adjustment as provided in Section 2.17), the numerator of which is the amount of the Commitments of such Lender under the applicable Facility or the Facilities or Tranche or Tranches (and, in the case of any Term Loan Tranche after the applicable borrowing date and without duplication, the outstanding principal amount of Term Loans under such Tranche, of such Lender, at such time) at such time and the denominator of which is the amount of the Aggregate Commitments under the applicable Facility or the Facilities or Tranche or Tranches at such time (and, in the case of any Term Loan Tranche and without duplication, the outstanding principal amount of Term Loans under such Tranche, at such time); provided that if the commitment of each Lender to make Loans and the obligation of each L/C Issuer to make L/C Credit Extensions have been terminated pursuant to Section 8.02, then the Pro Rata Share of each Lender shall be determined based on the Pro Rata Share of such Lender immediately prior to such termination and after giving effect to any subsequent assignments made pursuant to the terms hereof. The initial Pro Rata Share of each Lender is set forth opposite the name of such Lender on Schedule 2.01 or in the Assignment and Assumption pursuant to which such Lender became a party hereto, as applicable.

"PTE" means a prohibited transaction class exemption issued by the U.S. Department of Labor, as any such exemption may be amended from time to time.

"Public Company" means any Person with a class or series of Voting Stock that is traded on a stock exchange or in the over-the-counter market.

"Public Sider" means a Lender whose representatives may trade in securities of the Borrowers or its controlling person or any of its Subsidiaries while in possession of the financial statements provided by the Parent Borrower under the terms of this Agreement.

"Qualified Holding Company Indebtedness" means Indebtedness of Holdings (A) that is not subject to any Guarantee by any Subsidiary of Holdings (other than a Subsidiary as contemplated under clause (i) of the proviso in Section 7.09 of this Agreement), (B) that has no scheduled amortization or scheduled payments of principal and is not subject to mandatory redemption, repurchase, prepayment or sinking fund obligation (it being understood that such Indebtedness may have mandatory prepayment, repurchase or redemption provisions satisfying the requirements of clause (C) below), (C) that has mandatory prepayment, repurchase or redemption, covenant, default and remedy provisions customary for senior notes (or no more restrictive than is customary) of an issuer that is the parent of a borrower under senior secured credit facilities, and in any event, with respect to covenant, default and remedy provisions, no more restrictive (taken as a whole) than those set forth in this Agreement (other than provisions customary for senior notes of a holding company, including (x) customary assets sale, change of control provisions and customary acceleration rights after an event of default and (y) customary "AHYDO" payments) and (D) if such Indebtedness is secured, it shall only be secured by assets of any Parent Holding Company (other than Holdings) and any Subsidiary of Holdings that is not prohibited from guaranteeing such Indebtedness as provided in clause (A) of this definition; provided that Holdings shall have delivered a certificate of a Responsible Officer to the Administrative Agent at least five Business Days (or such shorter period as may be agreed by the Administrative Agent) prior to the incurrence of such Indebtedness, together with a reasonably detailed description of the material terms and conditions of such Indebtedness or drafts of the documentation relating thereto, stating that Holdings has reasonably determined in good faith that such terms and conditions satisfy the foregoing requirement (and such certificate shall be conclusive evidence that such terms and conditions satisfy the foregoing requirement unless the Administrative Agent notifies Holdings within such applicable period that it disagrees with such determination (including a reasonably detailed description of the basis upon which it disagrees)); provided, further, that any such Indebtedness shall constitute Qualified Holding Company Indebtedness only if immediately after giving effect to the issuance or incurrence thereof and the use of proceeds thereof, no Event of Default shall have occurred and be continuing.

"Qualified IPO" means the issuance by Holdings or any Parent Holding Company of its common Capital Stock in an underwritten primary public offering (other than a public offering pursuant to a registration statement on Form S-8) or through merger with a special purpose acquisition company resulting in such Capital Stock being listed on a nationally-recognized stock exchange in the applicable jurisdiction.

"Qualified Receivables Factoring" means any Factoring Transaction that meets the following conditions:

(1) such Factoring Transaction is non-recourse to, and does not obligate, any Borrower or any Subsidiary, or their respective properties or assets (other than Receivables Assets) in any way other than pursuant to Standard Securitization Undertakings,

(2) all sales, conveyances, assignments and/or contributions of Receivables Assets by any Borrower or any Subsidiary are made at Fair Market Value (as determined in good faith by the Borrower), and

(3) such Factoring Transaction (including financing terms, covenants, termination events (if any) and other provisions thereof) is on market terms at the time such Factoring Transaction is first entered into (as determined in good faith by the Parent Borrower) and may include Standard Securitization Undertakings.

The grant of a security interest in any accounts receivable of the Borrowers or any of their Subsidiaries (other than a Receivables Subsidiary) to secure any Credit Agreement shall not be deemed a Qualified Receivables Factoring.

Notwithstanding the foregoing, the aggregate principal amount of accounts receivables at any time with stated due dates after such time that are subject to Qualified Receivables Factorings or Qualified Receivables Financings shall not exceed $20,000,000.

"Qualified Receivables Financing" means any Receivables Financing that meets the following conditions:

(1) the Board of Directors of the Parent Borrower, Holdings or any Parent Holding Company shall have determined in good faith that such Qualified Receivables Financing (including financing terms, covenants, termination events and other provisions) is in the aggregate economically fair and reasonable to the Borrowers and their Subsidiaries,

(2) all sales, conveyances, assignments and/or contributions of Receivables Assets by any Borrower or any Subsidiary to any Receivables Subsidiary and by any Receivables Subsidiary to any other Person are made at Fair Market Value (as determined in good faith by the Parent Borrower), and

(3) the financing terms, covenants, termination events and other provisions thereof shall be market terms at the time such Receivables Financing is first entered into (as determined in good faith by the Parent Borrower) and may include Standard Securitization Undertakings.

The grant of a security interest in any accounts receivable of the Borrowers or any of their Subsidiaries (other than a Receivables Subsidiary) to secure any Credit Agreement shall not be deemed a Qualified Receivables Financing.

Notwithstanding the foregoing, the aggregate principal amount of accounts receivables at any time with stated due dates after such time that are subject to Qualified Receivables Factorings or Qualified Receivables Financings shall not exceed $20,000,000.

"Qualifying Bids" has the meaning specified in the definition of "Dutch Auction."

"Ratio-Based Incremental Facility" has the meaning specified in the Section 2.14(a).

"Ratio Debt" has the meaning specified in the first paragraph of Section 7.01.

"Receivables Assets" means accounts receivable (whether now existing or arising in the future) of the Borrowers or any of their Subsidiaries, and any assets related thereto including, without limitation, all collateral securing such accounts receivable, all contracts and all guarantees or other obligations in respect of such accounts receivable, proceeds of such accounts receivable and other assets which are customarily transferred or in respect of which security interests are customarily granted in connection with non-recourse, asset securitization or factoring transactions involving accounts receivable and any Swap Contracts entered into by any Borrower or any such Subsidiary in connection with such accounts receivable.

"Receivables Fees" means distributions or payments made directly or by means of discounts with respect to any participation interest issued or sold in connection with, and other fees paid to a Person that is not a Subsidiary in connection with, any Receivables Financing.

"Receivables Financing" means any transaction or series of transactions that may be entered into by any Borrower or any Subsidiary pursuant to which such Borrower or any such Subsidiary may sell, contribute, convey, assign or otherwise transfer Receivables Assets to (a) a Receivables Subsidiary (in the case of a transfer by the Borrowers or any of their Subsidiaries), and (b) any other Person (in the case of a transfer by a Receivables Subsidiary), which in either case, may include a backup or precautionary grant of security interest in such Receivables Assets so sold, contributed, conveyed, assigned or otherwise transferred.

"Receivables Repurchase Obligation" means any obligation of a seller of receivables in a Qualified Receivables Factoring or Qualified Receivables Financing to repurchase receivables arising as a result of a breach of a representation, warranty or covenant or otherwise, including as a result of a receivable or portion thereof becoming

subject to any asserted defense, dispute, off-set or counterclaim of any kind as a result of any action taken by, any failure to take action by or any other event relating to the seller, in each case, that are customary (as determined in good faith by the Parent Borrower) for non-recourse receivables financings.

"Receivables Subsidiary" means a Wholly Owned Subsidiary of the Parent Borrower (or another Person formed for the purposes of engaging in a Qualified Receivables Financing with the Parent Borrower in which the Parent Borrower or any Subsidiary of the Parent Borrower or a direct or indirect parent of the Parent Borrower makes an Investment and to which the Parent Borrower or any Subsidiary of the Parent Borrower or a direct or indirect parent of the Parent Borrower sells, conveys, assigns or otherwise transfers Receivables Assets (which may include a backup or precautionary grant of security interest in such Receivables Assets sold, conveyed, assigned or otherwise transferred or purported to be so sold, conveyed, assigned or otherwise transferred)) which engages in no activities other than in connection with the purchase, acquisition or financing of Receivables Assets of the Parent Borrower and its Subsidiaries or a direct or indirect parent of the Parent Borrower, all proceeds thereof and all rights (contractual or other), collateral and other assets relating thereto, and any business or activities incidental or related to such business, and which is designated by the Board of Directors of the Parent Borrower or any Parent Holding Company (as provided below) as a Receivables Subsidiary and:

(1) no portion of the Indebtedness or any other obligations (contingent or otherwise) of which (i) is guaranteed by the Parent Borrower or any Subsidiary (other than a Receivables Subsidiary, excluding guarantees of obligations (other than the principal of, and interest on, Indebtedness) pursuant to Standard Securitization Undertakings), (ii) is recourse to or obligates the Parent Borrower or any Subsidiary (other than a Receivables Subsidiary) in any way other than pursuant to Standard Securitization Undertakings, or (iii) subjects any property or asset of the Parent Borrower or any Subsidiary (other than a Receivables Subsidiary), directly or indirectly, contingently or otherwise, to the satisfaction thereof, other than pursuant to Standard Securitization Undertakings,

(2) with which neither the Parent Borrower nor any Subsidiary (other than a Receivables Subsidiary) has any material contract, agreement, arrangement or understanding other than on terms which the Parent Borrower reasonably believes to be no less favorable to the Parent Borrower or such Subsidiary than those that might be obtained at the time from Persons that are not Affiliates of the Parent Borrower, and

(3) to which neither the Parent Borrower nor any other Subsidiary of the Parent Borrower has any obligation to maintain or preserve such entity's financial condition or cause such entity to achieve certain levels of operating results.

Any such designation by the Board of Directors of the Parent Borrower or any Parent Holding Company shall be evidenced to the Administrative Agent by filing with the Administrative Agent a certified copy of the resolution of the Board of Directors of the Parent Borrower or such Parent Holding Company giving effect to such designation and an officer's certificate certifying that such designation complied with the foregoing conditions.

"Recipient" means the Administrative Agent, any Lender and any L/C Issuer.

"Reference Period" has the meaning given to such term in the definition of "Pro Forma Basis."

"Refinancing" has the meaning given to such term in the definition of "Transactions."

"Refinancing Amendment" means an amendment to this Agreement, in form and substance reasonably satisfactory to the Administrative Agent, among the Borrowers, the Administrative Agent and the Lenders providing Specified Refinancing Debt, effecting the incurrence of such Specified Refinancing Debt in accordance with Section 2.18.

"Refinancing Indebtedness" has the meaning specified in Section 7.01.

"Refinancing Notes" means one or more series of senior unsecured notes, or senior secured notes secured by the Collateral on a *pari passu* basis with the Liens securing the Obligations or senior secured notes secured by the Collateral on a "junior" basis to the Liens securing the Obligations, in each case issued in respect of a refinancing of outstanding Indebtedness of the Borrowers under any one or more Term Loan Tranches; provided that, (a) if such Refinancing Notes shall be secured, then (i) such Refinancing Notes shall only be secured by a security interest in the Collateral that secured the Term Loan Tranche being refinanced, and (ii) such Refinancing Notes shall be issued subject to Applicable Intercreditor Arrangements; (b) no Refinancing Notes shall (i) mature prior to the Latest Maturity Date with respect to Term Loans then in effect immediately after giving effect to such refinancing or (ii) be subject to any amortization prior to the final maturity thereof, or be subject to any mandatory redemption or prepayment provisions or rights (except (x) customary assets sale, casualty events or similar event, change of control provisions, special mandatory redemptions in connection with customary escrow arrangements and customary acceleration rights after an event of default and (y) customary "AHYDO" payments); (c) the covenants, events of default, guarantees, collateral and other terms of such Refinancing Notes are customary for similar debt securities in light of then-prevailing market conditions at the time of issuance (it being understood that no Refinancing Notes shall include any financial maintenance covenants (including indirectly by way of a cross-default to this Agreement), but that customary cross-acceleration provisions may be included and that any negative covenants with respect to indebtedness, investments, liens or restricted payments shall be incurrence-based) and in any event are not more favorable to the investors providing such Refinancing Notes, taken as a whole, than the terms and conditions of the Indebtedness being refinanced by such Refinancing Notes (excluding pricing and optional prepayment or redemption terms), except for covenants or other provisions (x) applicable only to periods after the Latest Maturity Date then in effect immediately after giving effect to such refinancing or (y) reasonably satisfactory to the Administrative Agent or as are, in consultation with the Administrative Agent, incorporated into this Agreement (or any other applicable Loan Document) for the benefit of all existing Lenders (to the extent applicable to such Lender) without further amendment requirements (provided that a certificate of a Responsible Officer of the Parent Borrower delivered to the Administrative Agent in good faith at least five Business Days (or such shorter period as may be agreed by the Administrative Agent) prior to the incurrence of such Refinancing Notes, together with a reasonably detailed description of the material terms and conditions of such Refinancing Notes or drafts of the documentation relating thereto, stating that the Parent Borrower has determined in good faith that such terms and conditions satisfy the requirement set forth in this clause (c), shall be conclusive evidence that such terms and conditions satisfy such requirement unless the Administrative Agent provides notice to the Parent Borrower of its objection during such five Business Day period (or shorter) (including a reasonable description of the basis upon which it objects)); (d) such Refinancing Notes may not have obligors or Liens that are more extensive than those which applied to the Indebtedness being refinanced (it being understood that the roles of such obligors as a borrower or a guarantor with respect to such obligations may be interchanged); and (e) the Net Cash Proceeds of such Refinancing Notes shall be applied, substantially concurrently with the incurrence thereof, to the pro rata prepayment of outstanding Term Loans under the applicable Term Loan Tranche being so refinanced and the payment of fees, expenses and premiums, if any, payable in connection therewith.

"Refinancing Notes Indentures" means, collectively, the indentures or other similar agreements pursuant to which any Refinancing Notes are issued, together with all instruments and other agreements in connection therewith, as amended, supplemented or otherwise modified from time to time in accordance with the terms thereof, but only to the extent permitted under the terms of the Loan Documents.

"Refunding Capital Stock" has the meaning specified in Section 7.05

"Register" has the meaning specified in Section 10.07(c).

"Regulation S-X" means Regulation S-X under the Securities Act.

"Related Business Assets" means assets (other than cash or Cash Equivalents) used or useful in a Similar Business;provided that any assets received by the Borrowers or a Subsidiary in exchange for assets transferred by the Borrowers or a Subsidiary will not be deemed to be Related Business Assets if they consist of securities of a Person, unless such Person is, or upon receipt of the securities of such Person, such Person would become, a Subsidiary.

"Related Parties" means, with respect to any Person, such Person's Affiliates and the partners, members, directors, managers, officers, employees, agents, attorneys-in-fact, trustees and advisors of such Person and of such Person's Affiliates.

"Release" means any release, spill, emission, leaking, dumping, injection, pouring, deposit, disposal, discharge, dispersal, migration or leaching into or through the Environment.

"Relevant Transaction" has the meaning specified in Section 2.05(b)(ii).

"Replaceable Lender" has the meaning specified in Section 3.08(a).

"Replacement Assets" means (1) substantially all the assets of a Person primarily engaged in a Similar Business or (2) a majority of the Voting Stock of any Person primarily engaged in a Similar Business that will become, on the date of acquisition thereof, a Subsidiary.

"Reply Amount" has the meaning specified in the definition of "Dutch Auction."

"Reply Discount" has the meaning specified in the definition of "Dutch Auction."

"Reportable Event" means any of the events set forth in Section 4043(c) of ERISA or the regulations issued thereunder, other than events for which the 30-day notice period has been waived.

"Repricing Event" means (i) any prepayment or repayment of the Initial Term Loans, in whole or in part, with the proceeds of, or conversion of any portion of the Initial Term Loans into, any new or replacement tranche of syndicated term loans under credit facilities which results in the repaying, refinancing, or replacing Initial Term Loans with loans bearing interest with an All-in Yield less than the All-in Yield applicable to such portion of the Initial Term Loans (as such comparative yields are determined in the reasonable judgment of the Administrative Agent consistent with generally accepted financial practices) and (ii) any amendment to the Term Facility which reduces the All-in Yield applicable to the Initial Term Loans; provided that a Repricing Event shall not include any event described above that is consummated in the context of a transaction involving an initial public offering, a Change of Control or a Transformative Event.

"Request for Credit Extension" means (a) with respect to a Borrowing, conversion or continuation of Loans, a Committed Loan Notice, and (b) with respect to an L/C Credit Extension, a Letter of Credit Application.

"Required Lenders" means, as of any date of determination, Lenders having more than 50% of the sum of the (a) Total Outstandings (with the aggregate amount of each Lender's risk participation and funded participation in L/C Obligations being deemed "held" by such Lender for purposes of this definition), (b) aggregate unused Term Commitments and (c) aggregate unused Revolving Credit Commitments; provided that the unused Term Commitments of, unused Revolving Credit Commitment of, and the portion of the Total Outstandings held or deemed held by (x) any Defaulting Lender shall be excluded for purposes of making a determination of Required Lenders and (y) any Affiliate Lenders (other than Debt Fund Affiliates) shall be deemed to have voted in the same proportion as Lenders that are not Affiliate Lenders vote on such matter; provided that, for purposes of this definition, the outstanding principal amount of Alternative Currency Loans at any time shall be determined using the Dollar Equivalent thereof.

"Required Revolving Lenders" means, as of any date of determination, Revolving Credit Lenders holding more than 50% of the sum of (a) Total Revolving Credit Outstandings (with the aggregate amount of each Revolving Credit Lender's risk participation and funded participation in L/C Obligations being deemed "held" by such Revolving Credit Lender for purposes of this definition) and (b) aggregate unused Revolving Credit Commitments; provided that the unused Revolving Credit Commitment of, and the portion of the Total Revolving Credit Outstandings held or deemed held by, any Defaulting Lender shall be excluded for purposes of making a determination of Required Revolving Lenders; provided that, for purposes of this definition, the outstanding principal amount of Alternative Currency Loans at any time shall be determined using the Dollar Equivalent thereof.

"Responsible Officer" means the chief executive officer, representative, director, manager, president, vice president, executive vice president, chief financial officer, treasurer or assistant treasurer, secretary or assistant secretary, an authorized signatory, an attorney-in-fact (to the extent empowered by the board of directors/managers of Holdings or the Parent Borrower), or other similar officer of a Loan Party. Any document delivered hereunder that is signed by a Responsible Officer of a Loan Party shall be conclusively presumed to have been authorized by all necessary corporate, partnership and/or other action on the part of such Loan Party and such Responsible Officer shall be conclusively presumed to have acted on behalf of such Loan Party.

"Restricted Investment" means an Investment other than a Permitted Investment.

"Restricted Payment" has the meaning specified in Section 7.05.

"Retained Asset Sale Proceeds" has the meaning specified in Section 2.05(b)(ii).

"Retained Excess Cash Flow Amount" means, at any date of determination, an amount, no less than zero and determined on a cumulative basis, that is equal to the aggregate cumulative sum of Excess Cash Flow that is not required to be applied to make a payment under Section 2.05(b)(i) for each completed fiscal year commencing with the first full fiscal year after the Closing Date.

"Retired Capital Stock" has the meaning specified in Section 7.05.

"Return Bid" has the meaning specified in the definition of "Dutch Auction."

"Revaluation Date" means (a) with respect to any Alternative Currency Loan, each of the following: (i) each date of a Eurocurrency Rate Borrowing of a Revolving Credit Loan denominated in an Alternative Currency, (ii) each date of a continuation of a Eurocurrency Rate Revolving Credit Loan denominated in an Alternative Currency pursuant to Section 2.02, and (iii) such additional dates as the Administrative Agent shall determine or the Majority Lenders under the Revolving Credit Facility shall require; and (b) with respect to any Letter of Credit denominated in an Alternative Currency, each of the following: (i) each date of issuance of any such Letter of Credit, (ii) each date of an amendment of any such Letter of Credit having the effect of increasing the amount thereof, (iii) each date of any payment by the L/C Issuer under any such Letter of Credit, and (iv) such additional dates as the Administrative Agent or the L/C Issuer shall determine or the Majority Lenders under the Revolving Credit Facility shall require.

"Revolving Commitment Increase Lender" has the meaning specified in Section 2.14(e).

"Revolving Credit Borrowing" means a borrowing under the Revolving Credit Facility consisting of simultaneous Revolving Credit Loans of the same Type and, in the case of Eurocurrency Rate Loans, having the same Interest Period made by each of the Revolving Credit Lenders pursuant to Section 2.01(b).

"Revolving Credit Commitments" means, as to any Revolving Credit Lender, its obligation to (a) make Revolving Credit Loans to the Borrowers pursuant to Section 2.01(b), and (b) purchase participations in L/C Obligations, in an aggregate principal amount not to exceed the amount set forth under the heading "Revolving Credit Commitment" opposite such Lender's name on Schedule 2.01, or in the Assignment and Assumption pursuant to which such Lender became a party hereto, as applicable, as the same may be adjusted from time to time in accordance with this Agreement. The aggregate Revolving Credit Commitments shall be $50,000,000 on the Closing Date, as such amount may be adjusted from time to time in accordance with the terms of this Agreement.

"Revolving Credit Commitment Increase" has the meaning specified in Section 2.14(a).

"Revolving Credit Facility" means, at any time, the aggregate amount of the Revolving Credit Lenders' Revolving Credit Commitments at such time.

"Revolving Credit Lender" means, at any time, any Lender that has a Revolving Credit Commitment at such time (and after the termination of all Revolving Credit Commitments, any Lender that holds any Outstanding Amount in respect of Revolving Credit Loans and/or L/C Obligations).

"Revolving Credit Loan" has the meaning specified in Section 2.01(b).

"Revolving Credit Note" means a promissory note of the Borrowers payable to any Revolving Credit Lender or its registered assigns, in substantially the form of Exhibit C-2 hereto, evidencing the aggregate indebtedness of the Borrowers to such Revolving Credit Lender resulting from the Revolving Credit Loans made by such Revolving Credit Lender.

"Revolving Tranche" means (a) the Revolving Credit Facility and (b) any Specified Refinancing Debt constituting revolving credit facility commitments, in each case, including the extensions of credit made thereunder. Additional Revolving Tranches may be added after the Closing Date as provided in Section 2.14, *i.e.*, New Revolving Commitments.

"Sale/Leaseback Transaction" means an arrangement relating to property now owned or hereafter acquired by any Borrower or a Subsidiary whereby any Borrower or a Subsidiary transfers such property to a Person and such Borrower or such Subsidiary leases it from such Person, other than leases between a Borrower and a Subsidiary or between Subsidiaries.

"Sanctions Laws and Regulations" means economic or financial sanctions or trade embargoes imposed, administered or enforced from time to time by (a) the U.S. government, including those administered by the U.S. Department of the Treasury's Office of Foreign Assets Control ("OFAC") or the U.S. Department of State, or (b) the United Nations Security Council, the European Union, any European Union member state or Her Majesty's Treasury of the United Kingdom or any other governmental authority with jurisdiction over Holdings, the Borrowers or any of their respective Subsidiaries.

"S&P" means Standard & Poor's Financial Services LLC, and any successor thereto.

"Screen Rate" means, for any day and time, with respect to any Eurocurrency Rate Borrowing in Dollars and for any Interest Period, the London interbank offered rate as administered by ICE Benchmark Administration (or any other Person that takes over the administration of such rate for the relevant currency for a period equal in length to such Interest Period as displayed on such day and time on pages LIBOR01 or LIBOR02 of the Reuters screen that displays such rate (or, in the event such rate does not appear on a Reuters page or screen, on any successor or substitute page on such screen that displays such rate, or on the appropriate page of such other information service that publishes such rate from time to time as selected by the Administrative Agent in its reasonable discretion); provided that if the Screen Rate as so determined would be less than zero, such rate shall be deemed to zero for the purposes of this Agreement.

"SEC" means the Securities and Exchange Commission, or any Governmental Authority succeeding to any of its principal functions.

"Second Lien Additional Indebtedness" shall mean, collectively, any Second Lien Incremental Loans and any Second Lien Incremental Notes.

"Second Lien Administrative Agent" shall mean Antares, in its capacity as administrative agent and collateral agent under the Second Lien Facility Documentation, or any successor administrative agent and collateral agent under the Second Lien Credit Agreement.

"Second Lien Cash-Capped Incremental Amount" shall mean any amounts incurred under the "Cash-Capped Incremental Facility" (or any comparable provision) under the Second Lien Credit Agreement.

"Second Lien Credit Agreement" shall mean that certain second lien credit agreement, dated as of the date hereof, among Holdings, the Borrowers, the lenders party thereto from time to time and the Second Lien

Administrative Agent, as the same may be amended, restated, modified, supplemented, extended, increased, or refinanced or replaced pursuant to a Permitted Refinancing from time to time in one or more agreements (in each case with the same or new lenders, investors or agents), in each case as and to the extent permitted by this Agreement and the First Lien/Second Lien Intercreditor Agreement.

"Second Lien Credit Agreement Refinancing Indebtedness" shall mean "Specified Refinancing Debt" (including Specified Refinancing Term Loans) and "Refinancing Notes" (or any comparable term), each as defined in the Second Lien Credit Agreement (as in effect on the Closing Date, as the same may be subsequently amended or restated in accordance with the provisions of this Agreement and the terms of the First Lien/Second Lien Intercreditor Agreement).

"Second Lien Facility" shall mean the second lien term loan facility under the Second Lien Credit Agreement.

"Second Lien Facility Documentation" shall mean the Second Lien Credit Agreement and all security agreements, guarantees, pledge agreements, notes and other agreements or instruments executed in connection therewith, including all "Loan Documents" (as defined in the Second Lien Credit Agreement).

"Second Lien Incremental Loans" shall mean the "New Term Loans" or any "Term Commitment Increase," each as defined in the Second Lien Credit Agreement.

"Second Lien Incremental Notes" shall mean the "New Incremental Notes" as defined in the Second Lien Credit Agreement.

"Second Lien Loans" shall have the meaning provided to the term "Loans" (or any equivalent thereto) in the Second Lien Credit Agreement.

"Second Lien Term Facility Indebtedness" shall mean the Second Lien Loans, any Second Lien Additional Indebtedness, any Second Lien Credit Agreement Refinancing Indebtedness and any Permitted Refinancing in respect thereof.

"Secured Cash Management Agreement" means any Cash Management Agreement that is entered into by and between any Loan Party and any Cash Management Bank, except for any such Cash Management Agreement designated by the Parent Borrower in writing to the Administrative Agent and the relevant Cash Management Bank or Hedge Bank, as applicable, as an "unsecured cash management agreement" as of the Closing Date or, if later, on or about the time of entering into such Cash Management Agreement.

"Secured Hedge Agreement" means any Swap Contract permitted under Article VII that is entered into by and between any Loan Party and any Hedge Bank, except for any such Swap Contract designated by the Parent Borrower and the applicable Hedge Bank in writing to the Administrative Agent as an "unsecured hedge agreement" as of the Closing Date or, if later, as of the time of entering into such Swap Contract.

"Secured Obligations" has the meaning specified in the Security Agreement.

"Secured Parties" means, collectively, the Administrative Agent, the Collateral Agent, the Lenders (including, for the avoidance of doubt, the L/C Issuers), the Hedge Banks to the extent they are party to one or more Secured Hedge Agreements, the Cash Management Banks to the extent they are party to one or more Secured Cash Management Agreements and each co-agent or subagent appointed by the Administrative Agent or the Collateral Agent from time to time pursuant to Article IX.

"Securities Act" means the U.S. Securities Act of 1933, as amended, and the rules and regulations of the SEC promulgated thereunder.

"Security Agreement" means, collectively, the Security Agreement dated as of the date hereof executed by the Loan Parties party thereto, substantially in the form of Exhibit G, as amended, supplemented or otherwise

modified from time to time in accordance with the terms thereof, together with each other security agreement and security agreement supplement executed and delivered pursuant to Section 6.12, 6.14 or 6.16.

"Security Agreement Supplement" has the meaning specified in the Security Agreement.

"Similar Business" means any business engaged or proposed to be engaged in by Holdings and its Subsidiaries on the Closing Date and any business or other activities that are similar, ancillary, complementary, incidental or related thereto, or an extension, development or expansion of, the businesses in which Holdings and its Subsidiaries are engaged on the Closing Date.

"Solvent" means, with respect to any Person on any date of determination, that on such date (a) the fair value of the assets of such Person is greater than the total amount of liabilities, including contingent liabilities, of such Person, (b) the present fair salable value of the assets of such Person is greater than or equal to the total amount that will be required to pay the probable liabilities, including contingent liabilities, of the Loan Parties as they become absolute and matured, (c) the capital of such Person is not unreasonably small in relation to its business as contemplated on such date of determination, (d) such Person has not and does not intend to, and does not believe that it will, incur debts or other obligations, including current obligations, beyond its ability to pay such debts and liabilities as they become due (whether at maturity or otherwise) and (e) such Person is "solvent" within the meaning given to that term and similar terms under Laws applicable to such Person relating to fraudulent transfers and conveyances, transactions at an undervalue, unfair preferences or equivalent concepts. The amount of contingent liabilities at any time shall be computed as the amount that, in the light of all the facts and circumstances existing at such time, represents the amount that can reasonably be expected to become an actual or matured liability or, if a different methodology is prescribed by applicable Laws, as prescribed by such Laws.

"SPC" has the meaning specified in Section 1.01(g).

"Specified Refinancing Agent" has the meaning specified in Section 2.18(a).

"Specified Refinancing Debt" has the meaning specified in Section 2.18(a).

"Specified Refinancing Revolving Credit Commitment" has the meaning specified in Section 2.18(a).

"Specified Refinancing Revolving Loans" means Specified Refinancing Debt constituting revolving loans.

"Specified Refinancing Term Commitment" has the meaning specified in Section 2.18(a).

"Specified Refinancing Term Loans" means Specified Refinancing Debt constituting term loans.

"Specified Transaction" means any incurrence or repayment of Indebtedness (excluding Indebtedness incurred for working capital purposes other than pursuant to this Agreement) or Investment that results in a Person becoming a Subsidiary, any acquisition or any Disposition that results in a Subsidiary ceasing to be a Subsidiary of a Borrower, any Investment constituting an acquisition of assets constituting a business unit, line of business or division of another Person or any Disposition of a business unit, line of business or division of the Borrowers or any of the Subsidiaries, in each case whether by merger, consolidation, amalgamation or otherwise or any material restructuring of the Borrowers or implementation of any initiative not in the ordinary course of business.

"Sponsor" means GTCR LLC or any of its Control Investment Affiliates and, in each case (whether individually or as a group), Affiliates of each of the foregoing (but excluding any operating portfolio companies of the foregoing).

"Sponsor Model" means the model delivered to the Arrangers on June 20, 2018 (together with any updates or modifications thereto reasonably agreed between Holdings and the Arrangers).

"Standard Securitization Undertakings" means representations, warranties, covenants, indemnities and guarantees of performance entered into by any Borrower or any Subsidiary of a Borrower which the Parent

Borrower has determined in good faith to be customary in a Factoring Transaction or Receivables Financing, including, without limitation, those relating to the servicing of the assets of a Receivables Subsidiary, it being understood that any Receivables Repurchase Obligation shall be deemed to be a Standard Securitization Undertaking.

"Stated Maturity" means with respect to any security, the date specified in such security as the fixed date on which the final payment of principal of such security is due and payable, including pursuant to any mandatory redemption provision (but excluding any provision providing for the repurchase of such security at the option of the holder thereof upon the happening of any contingency unless such contingency has occurred).

"Statutory Reserve Rate" means a fraction (expressed as a decimal), the numerator of which is the number one and the denominator of which is the number one minus the aggregate of the maximum reserve percentages (including any marginal, special, emergency or supplemental reserves) expressed as a decimal established by the FRB to which the Administrative Agent is subject with respect to the Adjusted Eurocurrency Rate, for Eurocurrency funding (currently referred to as "Eurocurrency Liabilities" in Regulation D of the FRB). Such reserve percentages shall include those imposed pursuant to such Regulation D. Eurocurrency Rate Loans shall be deemed to constitute Eurocurrency funding and to be subject to such reserve requirements without benefit of or credit for proration, exemptions or offsets that may be available from time to time to any Lender under such Regulation D or any comparable regulation. The Statutory Reserve Rate shall be adjusted automatically on and as of the effective date of any change in any reserve percentage.

"Stock Certificates" has the meaning specified in Section 4.01.

"Subject Lien" has the meaning specified in Section 7.02.

"Subordinated Indebtedness" means (a) with respect to any Borrower, any Indebtedness of such Borrower which is by its terms expressly subordinated in right of payment to the Obligations, and (b) with respect to any Guarantor, any Indebtedness of such Guarantor which is by its terms expressly subordinated in right of payment to its Guarantee of the Obligations.

"Subsidiary" means, with respect to any Person (1) any corporation, association or other business entity (other than a partnership, joint venture, limited liability company or similar entity) of which more than 50% of the total voting power of the Voting Stock is at the time of determination owned or controlled, directly or indirectly, by such Person or one or more of the other Subsidiaries of that Person or a combination thereof, (2) any partnership, joint venture, limited liability company or similar entity of which (x) more than 50% of the capital accounts, distribution rights, total equity and voting interests or general and limited partnership interests, as applicable, are owned or controlled, directly or indirectly, by such Person or one or more of the other Subsidiaries of that Person or a combination thereof, whether in the form of membership, general, special or limited partnership interests or otherwise, and (y) such Person or any Subsidiary of such Person is a controlling general partner or otherwise controls such entity and (3) any Person that is consolidated in the consolidated financial statements of the specified Person in accordance with GAAP.

"Subsidiary Guarantor" means, collectively, all Guarantors other than Holdings.

"Subsidiary Guaranty" means, collectively, the Subsidiary Guaranty made by the Subsidiary Guarantors in favor of the Administrative Agent on behalf of the Secured Parties, substantially in the form of Exhibit F-2, as amended, supplemented or otherwise modified from time to time in accordance with the terms thereof, together with each other guaranty and guaranty supplement delivered pursuant to Section 6.12 or 6.16.

"Supplemental Agent" has the meaning specified in Section 9.14(a).

"Swap Contract" means (a) any and all rate swap transactions, basis swaps, credit derivative transactions, forward rate transactions, commodity swaps, commodity options, forward commodity contracts, equity or equity index swaps or options, bond or bond price or bond index swaps or options or forward bond or forward bond price or forward bond index transactions, interest rate options, forward foreign exchange transactions, cap transactions,

floor transactions, collar transactions, currency swap transactions, cross-currency rate swap transactions, currency options, spot contracts, or any other similar transactions or any combination of any of the foregoing (including any options to enter into any of the foregoing), whether or not any such transaction is governed by or subject to any master agreement, and (b) any and all transactions of any kind, and the related confirmations, which are subject to the terms and conditions of, or governed by, any form of master agreement published by the International Swaps and Derivatives Association, Inc., any International Foreign Exchange Master Agreement, or any other master agreement, including any obligations or liabilities under any such master agreement.

"Swap Obligation" means, with respect to any Guarantor, any obligation to pay or perform under any agreement, contract or transaction that constitutes a "swap" within the meaning of section 1a(47) of the Commodity Exchange Act.

"Swap Termination Value" means, in respect of any one or more Swap Contracts, after taking into account the effect of any legally enforceable netting agreement relating to such Swap Contracts, (a) for any date on or after the date such Swap Contracts have been closed out and termination value(s) determined in accordance therewith, such termination value(s), and (b) for any date prior to the date referenced in clause (a), the amount(s) determined as the mark-to-market value(s) for such Swap Contracts, as determined based upon one or more mid-market or other readily available quotations provided by any recognized dealer in such Swap Contracts (which may include a Lender or any Affiliate of a Lender).

"Tax Distributions" has the meaning assigned to such term in Section 7.05(13).

"Taxes" means all present or future taxes, levies, imposts, duties, deductions, withholdings (including backup withholding), assessments, fees or other charges imposed by any Governmental Authority, including any interest, additions to tax or penalties applicable thereto.

"Term Borrowing" means a borrowing of the same Type of Term Loan of a single Tranche from all the Lenders having Term Commitments or Term Loans of the respective Tranche on a given date (or resulting from a conversion or conversions on such date) having in the case of Eurocurrency Rate Loans, the same Interest Period.

"Term Commitment" means, as to each Term Lender, (i) its Initial Term Commitment, (ii) its Term Commitment Increase, (iii) its New Term Commitment or (iv) its Specified Refinancing Term Commitment. The amount of each Lender's Initial Term Commitment is as set forth in the definition thereof and the amount of each Lender's other Term Commitments shall be as set forth in the Assignment and Assumption, or in the amendment or agreement relating to the respective Term Commitment Increase, New Term Commitment or Specified Refinancing Term Commitment pursuant to which such Lender shall have assumed its Term Commitment, as the case may be, as such amounts may be adjusted from time to time in accordance with this Agreement.

"Term Commitment Increase" has the meaning specified in Section 2.14(a).

"Term Facility" means a facility in respect of any Term Loan Tranche, as the context may require.

"Term Lender" means (a) at any time on or prior to the Closing Date, any Lender that has an Initial Term Commitment at such time and (b) at any time after the Closing Date, any Lender that holds Term Loans and/or Term Commitments at such time.

"Term Loan" means an advance made by any Term Lender under any Term Facility.

"Term Loan Tranche" means the respective facility and commitments utilized in making Term Loans hereunder, with there being one Tranche on the Closing Date, i.e., Initial Term Loans and Initial Term Commitments. Additional Term Loan Tranches may be added after the Closing Date pursuant to the terms hereof, i.e., New Term Loans, Specified Refinancing Term Loans, New Term Commitments and Specified Refinancing Term Commitments.

"Term Note" means a promissory note of the Borrowers payable to any Term Lender or its registered assigns, in substantially the form of Exhibit C-1 hereto, evidencing the indebtedness of the Borrowers to such Term Lender resulting from the Term Loans under the same Term Loan Tranche made or held by such Term Lender.

"Threshold Amount" means the greater of (x) $14,000,000 and (y) 30% of Consolidated EBITDA.

"Total Outstandings" means the aggregate Outstanding Amount of all Loans and all L/C Obligations.

"Total Revolving Credit Outstandings" means the aggregate Outstanding Amount of all Revolving Credit Loans and L/C Obligations.

"Tranche" means any Term Loan Tranche or any Revolving Tranche.

"Transactions" means, collectively, each of the following transactions:

(a) the Borrowers obtaining the Facilities;

(b) the Borrowers obtaining the Second Lien Facility;

(c) the repayment, redemption, repurchase, defeasance, discharge, refinancing or termination (or the giving of notice for the repayment or redemption thereof to the extent accompanied by any prepayments or deposits required to defease, terminate and satisfy and discharge in full the obligations under any related indentures or notes) of all existing third party Indebtedness for borrowed money of the Borrowers and their Subsidiaries under the Existing Credit Agreements and the termination and release of all related guaranties and security interests (or making arrangements for such release that are reasonably satisfactory to the Administrative Agent) (the "Refinancing");

(d) the payment of a dividend to the Borrower's indirect equityholders in an amount not to exceed $52,000,000; and

(e) the payment of all fees, costs and expenses incurred in connection with the transactions described in the foregoing provisions of this definition (the "Transaction Costs").

"Transaction Agreement Date" has the meaning specified in Section 1.02.

"Transaction Costs" has the meaning given to such term in the definition of "Transactions."

"Transformative Event" means any merger, acquisition, investment, dissolution, liquidation, consolidation or disposition that is either (a) not permitted by the terms of the Loan Documents immediately prior to the consummation of such transaction or (b) if permitted by the terms of the Loan Documents immediately prior to the consummation of such transaction, would not provide Holdings, the Borrowers and their Subsidiaries with adequate flexibility under the Loan Documents for the continuation and/or expansion of their combined operations following such consummation, as reasonably determined by the Borrowers acting in good faith.

"Type" means, with respect to a Loan, its character as a Base Rate Loan or a Eurocurrency Rate Loan.

"Undisclosed Administration" means in relation to a Lender or its direct or indirect parent company the appointment of an administrator, provisional liquidator, conservator, receiver, trustee, custodian or other similar official by a supervisory authority or regulator under or based on the law in the country where such Person is subject to home jurisdiction supervision if applicable law requires that such appointment is not to be publicly disclosed.

"UCC Filing Collateral" has the meaning specified in Section 4.01.

"Unfunded Advances/Participations" means (a) with respect to the Administrative Agent, the aggregate amount, if any (i) made available to the Borrowers on the assumption that each Lender has made available to the

Administrative Agent such Lender's share of the applicable Borrowing available to the Administrative Agent as contemplated by Section 2.12(b) and (ii) with respect to which a corresponding amount shall not in fact have been returned to the Administrative Agent by the Borrowers or made available to the Administrative Agent by any such Lender, and (b) with respect to any L/C Issuer, the aggregate amount, if any, of amounts drawn under Letters of Credit in respect of which a Revolving Credit Lender shall have failed to make Revolving Credit Loans or L/C Advances to reimburse such L/C Issuer pursuant to Section 2.03(d).

"Unfunded Pension Liability" means the excess of a Plan's benefit liabilities under Section 4001(a) of ERISA over the current value of such Plan's assets, determined in accordance with assumptions used for funding the Plan pursuant to Section 412 of the Code for the applicable plan year.

"Uniform Commercial Code" or "UCC" means the Uniform Commercial Code as the same may from time to time be in effect in the State of New York or the Uniform Commercial Code (or similar code or statute) of another jurisdiction, to the extent it may be required to apply to any item or items of Collateral.

"United States" and "U.S." mean the United States of America.

"Unpaid Amount" has the meaning specified in Section 7.05.

"Unreimbursed Amount" has the meaning specified in Section 2.03(d)(i).

"U.S. Person" means any Person that is a "United States person" as defined in Section 7701(a)(30) of the Code.

"U.S. Tax Compliance Certificate" has the meaning assigned to such term in Section 3.01(g)(ii).

"Voting Stock" of any Person as of any date means the Capital Stock of such Person that is at the time entitled to vote (without regard to the occurrence of any contingency) in the election of the Board of Directors of such Person.

"Weighted Average Life to Maturity" means, when applied to any Indebtedness or Disqualified Stock or Preferred Stock, as the case may be, at any date, the number of years (and/or portion thereof) obtained by dividing: (a) the sum of the products obtained by multiplying (i) the amount of each then remaining installment, sinking fund, serial maturity or other required payments of principal, including payment at final maturity, in respect of such Indebtedness or redemption or similar payment, in respect of such Disqualified Stock or Preferred Stock, by (ii) the number of years (calculated to the nearest one-twelfth) that will elapse between such date and the making of such payment; by (b) the then outstanding principal amount of such Indebtedness.

"Wholly Owned Subsidiary" of any Person means a direct or indirect Subsidiary of such Person 100% of the outstanding Capital Stock or other ownership interests of which (other than directors' qualifying shares or shares or interests required to be held by foreign nationals or other third parties to the extent required by applicable law) shall at the time be owned by such Person or by one or more Wholly Owned Subsidiaries of such Person.

"Withholding Agent" shall mean any Loan Party, the Administrative Agent and any other applicable withholding agent.

"Working Capital" means, with respect to the Borrowers and the Subsidiaries on a consolidated basis, Consolidated Current Assets minus Consolidated Current Liabilities.

"Write-Down and Conversion Powers" means, with respect to any EEA Resolution Authority, the write-down and conversion powers of such EEA Resolution Authority from time to time under the Bail-In Legislation for the applicable EEA Member Country, which write-down and conversion powers are described in the EU Bail-In Legislation Schedule.

Section 1.02 Other Interpretive Provisions. With reference to this Agreement and each other Loan Document, unless otherwise specified herein or in such other Loan Document:

(a) The meanings of defined terms are equally applicable to the singular and plural forms of the defined terms.

(b) The words "herein," "hereto," "hereof" and "hereunder" and words of similar import when used in any Loan Document shall refer to such Loan Document as a whole and not to any particular provision thereof.

(c) References in this Agreement to an Exhibit, Schedule, Article, Section, clause or subclause refer (A) to the appropriate Exhibit or Schedule to, or Article, Section, clause or subclause in this Agreement or (B) to the extent such references are not present in this Agreement, to the Loan Document in which such reference appears.

(d) The term "including" is by way of example and not limitation.

(e) The term "documents" includes any and all instruments, documents, agreements, certificates, notices, reports, financial statements and other writings, however evidenced, whether in physical or electronic form.

(f) Any reference herein to any Person shall be construed to include such Person's successors and assigns.

(g) In the computation of periods of time from a specified date to a later specified date, the word "from" means "from and including;" the words "to" and "until" each mean "to but excluding;" and the word "through" means "to and including."

(h) Section headings herein and in the other Loan Documents are included for convenience of reference only and shall not affect the interpretation of this Agreement or any other Loan Document.

(i) In measuring compliance with this Agreement with respect to any (x) Investment or acquisition, in each case, for which Holdings or any Subsidiary thereof may not terminate its obligations under the documentation therefor due to a lack of financing for such Investment or acquisition (whether by merger, consolidation or other business combination or acquisition of Capital Stock or otherwise) as applicable and (y) repayment, repurchase or refinancing of Indebtedness with respect to which an irrevocable notice of repayment (or similar irrevocable notice), which may be conditional, has been delivered, in each case for purposes of determining:

(1) whether any Indebtedness (including Acquired Indebtedness) that is being incurred in connection with such Investment, acquisition or repayment, repurchase or refinancing of Indebtedness is permitted to be incurred in compliance with Section 7.01;

(2) whether any Lien being incurred in connection with such Investment, acquisition or repayment, repurchase or refinancing of Indebtedness or to secure any such Indebtedness is permitted to be incurred in accordance with Section 7.02 or the definition of "Permitted Liens";

(3) whether any other transaction undertaken or proposed to be undertaken in connection with such Investment, acquisition or repayment, repurchase or refinancing of Indebtedness complies with the covenants or agreements contained in this Agreement; and

(4) any calculation of the ratios or baskets, including Consolidated First Lien Net Leverage Ratio, Consolidated Total Net Leverage Ratio, Consolidated Senior Secured Net Leverage Ratio, Consolidated Net Income, Consolidated EBITDA and/or Pro Forma Cost Savings

and baskets determined by reference to Consolidated EBITDA or Consolidated Net Tangible Assets and, whether a Default or Event of Default exists in connection with the foregoing,

at the option of the Parent Borrower, the date that the definitive agreement for such Investment, acquisition or repayment, repurchase or refinancing of Indebtedness is entered into or notice, which may be conditional, of such repayment, repurchase or refinancing of Indebtedness is given to the holders of such Indebtedness (the "Transaction Agreement Date") may be used as the applicable date of determination, as the case may be, in each case with such pro forma adjustments as are appropriate and consistent with the pro forma adjustment provisions set forth in the definition of "Pro Forma Basis" or "Consolidated EBITDA." For the avoidance of doubt, if the Parent Borrower elects to use the Transaction Agreement Date as the applicable date of determination in accordance with the foregoing, (a) any fluctuation or change in the Consolidated First Lien Net Leverage Ratio, Consolidated Total Net Leverage Ratio, Consolidated Senior Secured Net Leverage Ratio, Consolidated Net Income, Consolidated EBITDA, Consolidated Net Tangible Assets and/or Pro Forma Cost Savings of the Borrowers from the Transaction Agreement Date to the consummation of such Investment, acquisition or repayment, repurchase or refinancing of Indebtedness, will not be taken into account for purposes of determining whether any Indebtedness or Lien that is being incurred in connection with such Investment, acquisition or repayment, repurchase or refinancing of Indebtedness, or in connection with compliance by the Borrowers or any of the Subsidiaries with any other provision of the Loan Documents or any other transaction undertaken in connection with such Investment, acquisition or repayment, repurchase or refinancing of Indebtedness, is permitted to be incurred and (b) until such Investment, acquisition or repayment, repurchase or refinancing of Indebtedness is consummated or such definitive agreements are terminated (or conditions in any conditional notice can no longer be met or such notice is otherwise revoked or withdrawn by the Parent Borrower), such Investment, acquisition or repayment, repurchase or refinancing of Indebtedness and all transactions proposed to be undertaken in connection therewith (including the incurrence of Indebtedness and Liens) will be given pro forma effect when determining compliance of other transactions (including the incurrence of Indebtedness and Liens unrelated to such Investment, acquisition or repayment, repurchase or refinancing of Indebtedness) that are consummated after the Transaction Agreement Date and on or prior to the consummation of such Investment, acquisition or repayment, repurchase or refinancing of Indebtedness and any such transactions (including any incurrence of Indebtedness and the use of proceeds thereof) will be deemed to have occurred on the date the definitive agreements are entered and outstanding thereafter for purposes of calculating any baskets or ratios under the Loan Documents after the date of such agreement and before the consummation of such Investment, acquisition or repayment, repurchase or refinancing of Indebtedness; provided that the calculation of Consolidated Net Income (and any defined term a component of which is Consolidated Net Income) shall not include the Consolidated Net Income of the Person or assets to be acquired in the relevant Investment or acquisition for purposes of calculating whether the Borrowers or any Subsidiary are permitted to make any Restricted Payment pursuant to Section 7.05 until such time as such Investment or acquisition is actually consummated.

(j) As used in Article VII and the definitions of "Permitted Investments" and "Permitted Liens", the term "Consolidated EBITDA" is deemed to refer to Consolidated EBITDA of the Borrower Parties for the four fiscal quarter period most recently then ended for which financial statements have been delivered pursuant to Section 6.01(a) or (b), as applicable, calculated on a Pro Forma Basis.

Section 1.03 Accounting Term.

(a) All accounting terms not specifically or completely defined herein shall be construed in conformity with, and all financial data (including financial ratios and other financial calculations) required to be submitted pursuant to this Agreement shall be prepared in conformity with, GAAP, as in effect from time to time.

(b) If at any time any change in GAAP or the application thereof would affect the computation or interpretation of any financial ratio, basket, requirement or other provision set forth in any Loan Document, and either the Parent Borrower or the Required Lenders shall so request, the Administrative Agent and the Parent Borrower shall negotiate in good faith to amend such ratio, basket, requirement or other provision to preserve the original intent thereof in light of such change in GAAP or the application thereof (subject to the approval of the Required Lenders not to be unreasonably withheld, conditioned or delayed) (provided that any change affecting the

computation of the ratio set forth in Section 7.08 shall be subject solely to the approval of the Required Revolving Lenders (not to be unreasonably withheld, conditioned or delayed) and the Parent Borrower); provided that, until so amended, (i) (A) such ratio, basket, requirement or other provision shall continue to be computed or interpreted in accordance with GAAP or the application thereof prior to such change therein and (B) the Parent Borrower shall provide to the Administrative Agent and the Lenders a written reconciliation in form and substance reasonably satisfactory to the Administrative Agent, between calculations of such ratio, basket, requirement or other provision made before and after giving effect to such change in GAAP or the application thereof or (ii) the Parent Borrower may elect to fix GAAP (for purposes of such ratio, basket, requirement or other provision) as of another later date notified in writing to the Administrative Agent from time to time.

(c) Notwithstanding anything to the contrary contained herein, all such financial statements shall be prepared, and all financial covenants contained herein or in any other Loan Document shall be calculated, in each case, without giving effect to any election under FASB ASC 825 (or any similar accounting principle) permitting a Person to value its financial liabilities at the fair value thereof.

Section 1.04 Rounding. Any financial ratios required to be maintained by the Parent Borrower, or satisfied in order for a specific action to be permitted, under this Agreement shall be calculated by dividing the appropriate component by the other component, carrying the result to one place more than the number of places by which such ratio is expressed herein and rounding the result up or down to the nearest number (with a rounding-up if there is no nearest number).

Section 1.05 References to Agreements and Laws. Unless otherwise expressly provided herein, (a) references to Organization Documents, agreements (including the Loan Documents) and other contractual instruments shall be deemed to include all subsequent amendments, restatements, extensions, supplements and other modifications thereto, but only to the extent that such amendments, restatements, extensions, supplements and other modifications are permitted by any Loan Document and (b) references to any Law shall include all statutory and regulatory provisions consolidating, amending, replacing, supplementing or interpreting such Law. References to specific provisions (or defined terms) in the Second Lien Facility Documentation shall be to such provisions (or defined terms) as amended or replaced (to the extent such amendment or replacement is permitted by the Loan Documents), and cross-references shall be deemed amended as necessary to refer to the same provisions that are referenced in the Second Lien Facility Documentation as in effect on the Closing Date.

Section 1.06 Times of Day. Unless otherwise specified, all references herein to times of day shall be references to Eastern time (daylight savings or standard, as applicable).

Section 1.07 Timing of Payment or Performance. When the payment of any obligation or the performance of any covenant, duty or obligation is stated to be due or performance required on a day which is not a Business Day, the date of such payment (other than as specifically provided in Section 2.12 or as described in the definition of Interest Period) or performance shall extend to the immediately succeeding Business Day.

Section 1.08 Currency Equivalents Generally.

(a) Any amount specified in this Agreement (other than in Articles II, IX and X or as set forth in clause (b) of this Section 1.08) or any of the other Loan Documents to be in Dollars shall also include the equivalent of such amount in any currency other than Dollars, such equivalent amount to be determined at the rate of exchange quoted by the Reuters World Currency Page for such other currency at 11:00 a.m. (London time) on such day (or, in the event such rate does not appear on any Reuters World Currency Page, by reference to such other publicly available service for displaying exchange rates as may be agreed upon by the Administrative Agent and the Parent Borrower, or, in the absence of such agreement, such rate shall instead be the arithmetic average of the spot rates of exchange of the Administrative Agent in the market where its foreign currency exchange operations in respect of such currency are then being conducted, at or about 10:00 a.m. (New York City time) on such date for the purchase of Dollars for delivery two Business Days later); provided that if any basket is exceeded solely as a result of fluctuations in applicable currency exchange rates after the last time such basket was utilized, such basket will not be deemed to have been exceeded solely as a result of such fluctuations in currency exchange rates. Any determinations as to the Dollar Equivalent of Revolving Credit Loans or Letters of Credit denominated in an Alternative Currency, the amount of fees owing in respect of Letters of Credit denominated in an Alternative

Currency and the amount of the Unreimbursed Amount owing to each L/C Issuer shall be made by the Administrative Agent as of the most recent Revaluation Date and such determination shall be conclusive absent manifest error.

(b) For purposes of determining the Consolidated First Lien Net Leverage Ratio, the Consolidated Total Net Leverage Ratio and the Consolidated Senior Secured Net Leverage Ratio, amounts denominated in a currency other than Dollars will be converted to Dollars for the purposes of (A) testing the Financial Covenant, at the Dollar Equivalent at such date, and (B) calculating any Consolidated Total Net Leverage Ratio, the Consolidated First Lien Net Leverage Ratio (other than for the purposes of determining compliance with Section 7.08) and Consolidated Senior Secured Net Leverage Ratio, at the Dollar Equivalent at such date, and will, in the case of Indebtedness and Consolidated Funded Indebtedness, be the weighted average exchange rates used for determining Consolidated EBITDA for the relevant period, provided that if any Borrower Party has entered into any currency Swap Contracts in respect of any borrowings, the currency and amount of such borrowings shall be determined by first taking into account the effects of that currency Swap Contract.

(c) The Administrative Agent or any L/C Issuer, as applicable, shall use the currency exchange rate as of each Revaluation Date for the purpose of calculating Dollar Equivalent amounts of the Revolving Credit Loans denominated in an Alternative Currency. Such currency exchange rates shall become effective as of such Revaluation Date and shall be the currency exchange rate employed in converting any amounts between the applicable currencies for such purposes until the next Revaluation Date to occur.

(d) The Administrative Agent does not warrant, nor accept responsibility, nor shall the Administrative Agent have any liability with respect to the administration, submission or any other matter related to the rates in the definition of "Eurocurrency Rate" or with respect to any comparable or successor rate thereto.

Section 1.09 Letter of Credit Amounts. Unless otherwise specified herein, the amount of a Letter of Credit at any time shall be deemed to be the Dollar Equivalent of the stated amount of such Letter of Credit in effect at such time after giving effect to any expiration periods applicable thereto; provided, however, that (i) if any presentation of drawing documents shall have been made on or prior to the expiration date of such Letter of Credit and the applicable L/C Issuer shall not yet have honored such drawing or given notice of dishonor, the amount of such Letter of Credit that is the subject of such drawing shall be treated as still outstanding and (ii) with respect to any Letter of Credit that, by its terms or the terms of any Issuer Document related thereto, provides for one or more automatic increases in the stated amount thereof, the amount of such Letter of Credit shall be deemed to be the Dollar Equivalent of the maximum stated amount of such Letter of Credit after giving effect to all such increases, whether or not such maximum stated amount is in effect at such time.

Section 1.10 Pro Forma Calculations. Notwithstanding anything to the contrary herein (subject to Section 1.02(i)), the Consolidated First Lien Net Leverage Ratio, the Consolidated Total Net Leverage Ratio, the Consolidated Senior Secured Net Leverage Ratio, Consolidated EBITDA and Consolidated Net Tangible Assets shall be calculated (including for purposes of Sections 2.14 and 2.15) on a Pro Forma Basis with respect to each Specified Transaction occurring during the applicable four quarter period to which such calculation relates, and/or subsequent to the end of such four-quarter period but not later than the date of such calculation; provided that notwithstanding the foregoing, when calculating the Consolidated First Lien Net Leverage Ratio for purposes of (i) determining the applicable percentage of Excess Cash Flow for purposes of Section 2.05(b), (ii) the Applicable Rate, (iii) the Applicable Commitment Fee and (iv) determining actual compliance (and not Pro Forma Compliance or compliance on a Pro Forma Basis) with the Financial Covenant, any Specified Transaction and any related adjustment contemplated in the definition of Pro Forma Basis (and corresponding provisions of the definition of Consolidated EBITDA) that occurred subsequent to the end of the applicable four quarter period shall not be given Pro Forma Effect.

Section 1.11 Calculation of Baskets. If any of the baskets set forth in this Agreement are exceeded solely as a result of fluctuations to Consolidated Net Tangible Assets for the most recently completed fiscal quarter after the last time such baskets were calculated for any purpose under this Agreement, such baskets will not be deemed to have been exceeded solely as a result of such fluctuations.

ARTICLE II.
The Commitments and Credit Extensions

Section 2.01 The Loans.

(a) The Initial Term Borrowing. Subject to the terms and conditions set forth herein, each Term Lender with an Initial Term Commitment severally agrees to make a single loan denominated in Dollars (the "Initial Term Loans") to the Borrowers on the Closing Date in an amount not to exceed such Term Lender's Initial Term Commitment. The Initial Term Borrowing shall consist of Initial Term Loans made simultaneously by the Term Lenders in accordance with their respective Initial Term Commitments. Amounts borrowed under this Section 2.01(a) and subsequently repaid or prepaid may not be reborrowed. Initial Term Loans may be Base Rate Loans or Eurocurrency Rate Loans as further provided herein. Notwithstanding the Borrowers' joint and several liability for all payments to be made under this Agreement, as of the Closing Date, each Borrower hereby agrees, solely as between such Persons that, including for federal or state income tax purposes, the initial principal amount of the outstanding Initial Term Borrowing of the Parent Borrower is $45,220,218.33, the initial principal amount of the outstanding Initial Term Borrowing of Vector is $86,282,549.30, the initial principal amount of the outstanding Initial Term Borrowing of Cygnus is $84,822,371.77 and the initial principal amount of the outstanding Initial Term Borrowing of TriLink is $33,674,860.60.

(b) The Revolving Credit Borrowings. Subject to the terms and conditions set forth herein, each Revolving Credit Lender severally agrees to make loans denominated in Dollars or in one or more Alternative Currencies (each such loan, a "Revolving Credit Loan") to the Borrowers from time to time after the Closing Date, on any Business Day until and excluding the Business Day preceding the Maturity Date for the Revolving Credit Facility, in an aggregate amount not to exceed at any time outstanding the amount of such Lender's Revolving Credit Commitment; provided, however, that after giving effect to any Revolving Credit Borrowing, (i) the Total Revolving Credit Outstandings shall not exceed the Revolving Credit Facility and (ii) the aggregate Outstanding Amount of the Revolving Credit Loans of any Lender, plus such Lender's Pro Rata Share of the Outstanding Amount of all L/C Obligations shall not exceed such Lender's Revolving Credit Commitment. Within the limits of each Lender's Revolving Credit Commitment, and subject to the other terms and conditions hereof, the Borrowers may borrow under this Section 2.01(b), prepay under Section 2.05, and reborrow under this Section 2.01(b). Revolving Credit Loans may be Base Rate Loans (in the case of Revolving Credit Loans denominated in Dollars) or Eurocurrency Rate Loans, as further provided herein. To the extent that any portion of the Revolving Credit Facility has been refinanced with one or more new revolving credit facilities constituting Specified Refinancing Debt, each Revolving Credit Borrowing (including any deemed Revolving Credit Borrowings made pursuant to Section 2.03) shall be allocated pro rata among the Revolving Tranches.

(c) After the Closing Date, subject to and upon the terms and conditions set forth herein, each Lender with a Term Commitment (other than an Initial Term Commitment) with respect to any Tranche of Term Loans (other than Initial Term Loans) severally agrees to make a Term Loan denominated in Dollars under such Tranche to the Borrowers in an amount not to exceed such Term Lender's Term Commitment under such Tranche on the date of incurrence thereof, which Term Loans under such Tranche shall be incurred pursuant to a single drawing on the date set forth for such incurrence. Such Term Loans may be Base Rate Loans or Eurocurrency Rate Loans as further provided herein. Once repaid, Term Loans incurred hereunder may not be reborrowed.

Section 2.02 Borrowings, Conversions and Continuations of Loans.

(a) Each Term Borrowing, each Revolving Credit Borrowing, each conversion of Term Loans, Specified Refinancing Revolving Loans or Revolving Credit Loans from one Type to the other, and each continuation of Eurocurrency Rate Loans, shall be made upon irrevocable notice by the Parent Borrower to the Administrative Agent. Each such notice must be in writing and must be received by the Administrative Agent not later than (i) 12:00 p.m. (New York City time) three Business Days prior to the requested date of any Borrowing of, conversion of Base Rate Loans to, or continuation of, Eurocurrency Rate Loans (or in the case of any such Term Borrowing to be made on the Closing Date, one Business Day prior to the Closing Date), (ii) 12:00 p.m. on the requested date of any Term Borrowing of Base Rate Loans or of any conversion of Eurocurrency Rate Loans to Base Rate Loans and (iii) 12:00 p.m. on the requested date of any Revolving Credit Borrowing of Base Rate Loans or of any conversion of Eurocurrency Rate Loans to Base Rate Loan. Each notice pursuant to this Section 2.02(a)

shall be delivered to the Administrative Agent in the form of a written Committed Loan Notice, appropriately completed and signed by a Responsible Officer of the Parent Borrower.

Each Borrowing of, conversion to or continuation of Eurocurrency Rate Loans shall be (i) in a principal amount of $2,000,000 (or the Alternative Currency Equivalent of such amount), or (ii) a whole multiple of $1,000,000 (or the Alternative Currency Equivalent of such amount) in excess thereof. Except as provided in Section 2.03(d), each Borrowing of, or conversion to, Base Rate Loans shall be (i) in a principal amount of $500,000, or (ii) a whole multiple of $500,000 (or the Alternative Currency Equivalent of such amount) in excess thereof.

Each Committed Loan Notice shall specify (i) whether the Borrowers are requesting a Term Borrowing, a Revolving Credit Borrowing, a conversion of a Tranche of Term Loans, Specified Refinancing Revolving Loans or Revolving Credit Loans from one Type to the other, or a continuation of Eurocurrency Rate Loans, (ii) the requested date of the Borrowing, conversion or continuation, as the case may be (which shall be a Business Day), (iii) the principal amount of Loans to be borrowed, converted or continued, (iv) the Type of Loans to be borrowed or to which existing Tranche of Term Loans, Specified Refinancing Revolving Loans or Revolving Credit Loans are to be converted, (v) if applicable, the duration of the Interest Period with respect thereto, (vi) the applicable Borrower to which such Loan shall be made, and (vii) if applicable, the currency in which the Revolving Credit Loans to be borrowed are to be denominated. If, with respect to any Eurocurrency Rate Loans, the Parent Borrower fails to specify a Type of Loan in a Committed Loan Notice or if the Parent Borrower fails to give a timely notice requesting a conversion or continuation, then the applicable Tranche of Term Loans, Specified Refinancing Revolving Loans, or Revolving Credit Loans shall be made as, or converted to, Eurocurrency Rate Loans with an Interest Period of 1 month. Any such automatic conversion or continuation pursuant to the immediately preceding sentence shall be effective as of the last day of the Interest Period then in effect with respect to the applicable Eurocurrency Rate Loans. If the Parent Borrower requests a Borrowing of, conversion to, or continuation of Eurocurrency Rate Loans in any such Committed Loan Notice, but fails to specify an Interest Period, it will be deemed to have specified an Interest Period of one month. If no currency for a Borrowing of Revolving Credit Loans is specified, the requested Borrowing shall be in Dollars.

(b) Following receipt of a Committed Loan Notice, the Administrative Agent shall promptly notify each applicable Lender of the amount of its ratable share of the applicable Tranche of Term Loans, Specified Refinancing Revolving Loans or Revolving Credit Loans, and if no timely notice of a conversion or continuation of Eurocurrency Rate Loan is provided by the Parent Borrower, the Administrative Agent shall notify each Lender of the details of any automatic conversion to Eurocurrency Rate Loans with an Interest Period of one month as described in Section 2.02(a). In the case of a Term Borrowing or a Revolving Credit Borrowing, each Appropriate Lender shall make the amount of its Loan available to the Administrative Agent in immediately available funds at the Administrative Agent's Office not later than 1:00 p.m. (New York City time), on the Business Day specified in the applicable Committed Loan Notice. Each Lender may, at its option, make any Loan available to the Borrowers by causing any foreign or domestic branch or Affiliate of such Lender to make such Loan; provided that any exercise of such option shall not affect the obligation of the Borrowers to repay such Loan in accordance with the terms of this Agreement. Upon satisfaction of the applicable conditions set forth in Section 4.02 (or, if such Borrowing is the initial Credit Extension, Section 4.01 and Section 4.02), the Administrative Agent shall make all funds so received available to the Borrowers in like funds as received by the Administrative Agent either by (i) crediting the account of the Borrowers on the books of the Administrative Agent with the amount of such funds or (ii) wire transfer of such funds, in each case in accordance with instructions provided to (and reasonably acceptable to) the Administrative Agent by the Parent Borrower; provided, however, that if, on the date the Committed Loan Notice with respect to such Borrowing is given by the Borrower, there are L/C Borrowings outstanding, then the proceeds of such Borrowing shall be applied, first, to the payment in full of any such L/C Borrowings, and second, to the Borrowers as provided above.

(c) Except as otherwise provided herein, a Eurocurrency Rate Loan may be continued or converted only on the last day of an Interest Period for such Eurocurrency Rate Loan unless the Borrowers pay the amount due under Section 3.06 in connection therewith. During the existence of an Event of Default, at the election of the Administrative Agent or the Required Lenders, no Loans may be requested as, converted to or continued as Eurocurrency Rate Loans.

(d) The Administrative Agent shall promptly notify the Parent Borrower and the Lenders of the interest rate applicable to any Interest Period for Eurocurrency Rate Loans upon determination of such interest rate. The determination of the Eurocurrency Rate by the Administrative Agent shall be conclusive in the absence of manifest error.

(e) After giving effect to all Term Borrowings, all Revolving Credit Borrowings, all conversions of Term Loans or Revolving Credit Loans from one Type to the other, and all continuations of Term Loans or Revolving Credit Loans of the same Type, there shall not be more than ten Interest Periods in effect.

(f) The failure of any Lender to make the Loan to be made by it as part of any Borrowing shall not relieve any other Lender of its obligation, if any, hereunder to make its Loan on the date of such Borrowing, but no Lender shall be responsible for the failure of any other Lender to make the Loan to be made by such other Lender on the date of any Borrowing, which for the avoidance of doubt does not limit such Lender's obligations under Section 2.17.

Section 2.03 Letters of Credit.

(a) The Letter of Credit Commitment. (i) Subject to the terms and conditions set forth herein, (A) each L/C Issuer agrees, in reliance upon (among other things) the agreements of the other Revolving Credit Lenders set forth in this Section 2.03, (1) from time to time on any Business Day after the Closing Date until the Letter of Credit Expiration Date, to issue Letters of Credit denominated in Dollars or an Alternative Currency for the account of the Parent Borrower or any Subsidiary (provided that the Borrowers hereby irrevocably agree to reimburse the applicable L/C Issuer for amounts drawn on any Letters of Credit issued for the account of the Parent Borrower or any Subsidiary on a joint and several basis with such Subsidiary) and to amend or renew Letters of Credit previously issued by it, in accordance with Section 2.03(c), and (2) to honor drafts under the Letters of Credit and (B) the Revolving Credit Lenders severally agree to participate in Letters of Credit issued for the account of the Parent Borrower or any Subsidiary; provided that no L/C Issuer shall be obligated to make any L/C Credit Extension with respect to any Letter of Credit, and no Lender shall be obligated to participate in any Letter of Credit, if as of the date of such L/C Credit Extension (x) the Total Revolving Credit Outstandings would exceed the Revolving Credit Facility, (y) the aggregate Outstanding Amount of the Revolving Credit Loans of any Lender, plus such Lender's Pro Rata Share of the Outstanding Amount of all L/C Obligations, would exceed such Lender's Revolving Credit Commitment or (z) the Outstanding Amount of the L/C Obligations would exceed the Letter of Credit Sublimit. Within the foregoing limits, and subject to the terms and conditions hereof, the Borrowers' ability to obtain Letters of Credit shall be fully revolving, and accordingly the Borrowers may, during the foregoing period, obtain Letters of Credit to replace Letters of Credit that have expired or that have been drawn upon and reimbursed. All Letters of Credit shall be denominated in Dollars or an Alternative Currency. In the event of any inconsistency between the terms and conditions of this Agreement and the terms and conditions of any Letter of Credit, the terms and conditions of this Agreement shall control.

(ii) No L/C Issuer shall be under any obligation to issue any Letter of Credit (and, in the case of clause (B) and (C), no L/C Issuer shall issue any Letter of Credit) if:

(A) any order, judgment or decree of any Governmental Authority or arbitrator shall by its terms purport to enjoin or restrain such L/C Issuer from issuing such Letter of Credit, or any Law applicable to such L/C Issuer or any request or directive (whether or not having the force of Law) from any Governmental Authority with jurisdiction over such L/C Issuer shall prohibit, or request that such L/C Issuer refrain from, the issuance of letters of credit generally or such Letter of Credit in particular or shall impose upon such L/C Issuer with respect to such Letter of Credit any restriction, reserve or capital requirement (for which such L/C Issuer is not otherwise compensated hereunder) not in effect on the Closing Date, or shall impose upon such L/C Issuer any unreimbursed loss, cost or expense which was not applicable on the Closing Date and which, in each case, such L/C Issuer in good faith deems material to it;

(B) subject to Section 2.03(c)(iii), the expiry date of such requested Letter of Credit would occur more than 12 months after the date of issuance or last renewal, unless the Required Revolving Lenders and the applicable L/C Issuer, in their sole discretion, have approved such expiry date;

(C) the expiry date of such requested Letter of Credit would occur after the Letter of Credit Expiration Date, unless (i) all the Revolving Credit Lenders and the applicable L/C Issuer have approved such expiry date and/or (ii) the applicable L/C Issuer has approved such expiry date and such requested Letter of Credit has been Cash Collateralized by the applicant requesting such Letter of Credit in accordance with Section 2.16 at least three Business Days prior to the Letter of Credit Expiration Date;

(D) the issuance of such Letter of Credit would violate one or more generally applicable policies of such L/C Issuer in place at the time of such request;

(E) such Letter of Credit is in an initial stated amount of less than $5,000 (or the Alternative Currency Equivalent of such amount) or such lesser amount as is acceptable to the applicable L/C Issuer in its sole discretion;

(F) such Letter of Credit is denominated in a currency other than Dollars or an Alternative Currency;

(G) such Letter of Credit is not a standby letter of credit; or

(H) any Revolving Credit Lender is at that time a Defaulting Lender, unless the applicable L/C Issuer has entered into arrangements, including reallocation of the Defaulting Lender's Pro Rata Share of the outstanding L/C Obligations pursuant to Section 2.17(a)(iv) or the delivery of Cash Collateral in accordance with Section 2.16 with the Borrowers or such Lender to eliminate such L/C Issuer's actual or potential Fronting Exposure (after giving effect to Section 2.17(a)(iv) with respect to the Defaulting Lender arising from either the Letter of Credit then proposed to be issued or that Letter of Credit and all other L/C Obligations as to which such L/C Issuer has actual or potential Fronting Exposure under such Tranche.

(iii) No L/C Issuer shall be under any obligation to amend any Letter of Credit if (A) such L/C Issuer would have no obligation at such time to issue such Letter of Credit in its amended form under the terms hereof or (B) the beneficiary of such Letter of Credit does not accept the proposed amendment to such Letter of Credit.

(iv) Each L/C Issuer shall act on behalf of the Revolving Credit Lenders with respect to any Letters of Credit issued by it and the documents associated therewith, and each L/C Issuer shall have all of the benefits and immunities (A) provided to the Administrative Agent in Article IX with respect to any acts taken or omissions suffered by such L/C Issuer in connection with Letters of Credit issued by it or proposed to be issued by it and Issuer Documents pertaining to such Letters of Credit as fully as if the term "Administrative Agent" as used in Article IX included each L/C Issuer with respect to such acts or omissions, and (B) as additionally provided herein with respect to each L/C Issuer.

(b) The foregoing benefits and immunities shall not excuse any L/C Issuer from liability to the Borrowers to the extent of any direct damages (as opposed to indirect, special, consequential, punitive or exemplary damages claims which are hereby waived by the Borrowers to the extent permitted by applicable law) suffered by the Borrowers that are caused by such the L/C Issuer's gross negligence or willful misconduct as determined by a court of competent jurisdiction in a final and nonappealable judgment.

(c) Procedures for Issuance and Amendment of Letters of Credit; Auto-Renewal Letters of Credit (i) Each Letter of Credit shall be issued or amended, as the case may be, upon the request of the Parent Borrower delivered to the applicable L/C Issuer (with a copy to the Administrative Agent) in the form of a Letter of Credit Application, including agreed-upon draft language for such Letter of Credit reasonably acceptable to the applicable L/C Issuer (it being understood that such draft language for each such Letter of Credit must be in English or, if agreed to in the sole discretion of the applicable L/C issuer, accompanied by an English translation certified by the Parent Borrower to be a true and correct English translation), appropriately completed and signed by a Responsible Officer of the Parent Borrower. Such Letter of Credit Application must be received by the applicable L/C Issuer and the Administrative Agent not later than 2:00 p.m. (New York City time) at least five Business Days (or such shorter period as such L/C Issuer and the Administrative Agent may agree in a particular instance in their sole discretion) prior to the proposed issuance date or date of amendment, as the case may be. In the case of a request for an initial

issuance of a Letter of Credit, such Letter of Credit Application shall specify in form and detail reasonably satisfactory to the applicable L/C Issuer: (A) the proposed issuance date of the requested Letter of Credit (which shall be a Business Day not later than 30 days prior to the Maturity Date of the Revolving Credit Facility, unless the Administrative Agent and the applicable L/C Issuer otherwise agree); (B) the amount thereof and the currency in which such Letter of Credit is to be denominated; (C) the expiry date thereof; (D) the name and address of the beneficiary thereof; (E) the documents to be presented by such beneficiary in case of any drawing thereunder; (F) the full text of any certificate or other documents to be presented by such beneficiary in case of any drawing thereunder; (G) the Person for whose account the requested Letter of Credit is to be issued (which must be a Borrower Party); and (H) such other matters as the applicable L/C Issuer may reasonably request. In the case of a request for an amendment of any outstanding Letter of Credit, such Letter of Credit Application shall specify in form and detail reasonably satisfactory to the applicable L/C Issuer: (1) the Letter of Credit to be amended; (2) the proposed date of amendment thereof (which shall be a Business Day); (3) the nature of the proposed amendment and (4) such other matters as the applicable L/C Issuer may reasonably request.

(ii) Promptly following delivery of any Letter of Credit Application to the applicable L/C Issuer, the Parent Borrower will confirm with the Administrative Agent that the Administrative Agent has received a copy of such Letter of Credit Application and, if the Administrative Agent has not received a copy of such Letter of Credit Application, then the Parent Borrower will provide the Administrative Agent with a copy thereof. Upon receipt by such L/C Issuer of confirmation from the Administrative Agent that the requested issuance or amendment is permitted in accordance with the terms hereof, then, subject to the terms and conditions hereof, such L/C Issuer shall, on the requested date, issue a Letter of Credit for the account of the Parent Borrower or any Subsidiary (as designated in the Letter of Credit Application) or enter into the applicable amendment, as the case may be. Immediately upon the issuance of each Letter of Credit, each Revolving Credit Lender shall be deemed to, and hereby irrevocably and unconditionally agrees to, purchase from the applicable L/C Issuer a risk participation in such Letter of Credit in an amount equal to such Lender's Pro Rata Share of the Revolving Credit Facility multiplied by the amount of such Letter of Credit.

(iii) If the Parent Borrower on behalf of the applicable Borrower Party so requests in any applicable Letter of Credit Application, the applicable L/C Issuer may, in its sole and absolute discretion, agree to issue a Letter of Credit that has automatic renewal provisions (each, an "Auto-Renewal Letter of Credit"); provided that any such Auto-Renewal Letter of Credit must permit such L/C Issuer to prevent any such renewal at least once in each twelve-month period (commencing with the date of issuance of such Letter of Credit) by giving prior notice to the beneficiary thereof not later than a day in each such twelve-month period to be agreed upon at the time such Letter of Credit is issued. Unless otherwise directed by the applicable L/C Issuer, the Parent Borrower shall not be required to make a specific request to such L/C Issuer for any such renewal. Once an Auto-Renewal Letter of Credit has been issued, the Revolving Credit Lenders shall be deemed to have authorized (but may not require) the applicable L/C Issuer to permit the renewal of such Letter of Credit at any time to an expiry date not later than the Letter of Credit Expiration Date; provided, however, that such L/C Issuer shall not be required to permit any such renewal if such L/C Issuer has determined that it would have no obligation at such time to issue such Letter of Credit in its renewed form under the terms hereof (by reason of the provisions of Section 2.03(a)(ii) or otherwise).

(iv) Promptly after its delivery of any Letter of Credit or any amendment to a Letter of Credit to an advising bank with respect thereto or to the beneficiary thereof, the applicable L/C Issuer will also (A) deliver to the Parent Borrower, the applicable Borrower Party and the Administrative Agent a true and complete copy of such Letter of Credit or amendment and (B) the Administrative Agent in turn will notify each Revolving Credit Lender of such issuance or amendment and the amount of such Revolving Credit Lender's Pro Rata Share therein.

(v) Notwithstanding anything to the contrary set forth above, the issuance of any Letters of Credit by any L/C Issuer under this Agreement shall be subject to such reasonable additional letter of credit issuance procedures and requirements as may be required by such L/C Issuer's internal letter of credit issuance policies and procedures, in its sole discretion, as in effect at the time of such issuance, including requirements with respect to the prior receipt by such L/C Issuer of customary "know your customer" information regarding a prospective account party or applicant that is not a Borrower hereunder, as well as regarding any beneficiaries of a requested Letter of Credit. Additionally, if (a) the beneficiary of a Letter of Credit issued hereunder is an issuer of a letter of credit not governed by this Agreement for the account of the Parent Borrower or any Subsidiary (an "Other LC"), and (b) such

Letter of Credit is issued to provide credit support for such Other LC, no amendments may be made to such Other LC without the consent of the applicable L/C Issuer hereunder.

(d) Drawings and Reimbursements; Funding of Participations. (i) Upon receipt from the beneficiary of any Letter of Credit drawing under such Letter of Credit, the applicable L/C Issuer shall notify the Parent Borrower thereof. Each L/C Issuer shall notify the Parent Borrower on the date of any payment by such L/C Issuer under a Letter of Credit (each such date, an "Honor Date"), and the Borrowers shall reimburse such L/C Issuer through the Administrative Agent in the Dollar Equivalent of such drawing no later than on the next succeeding Business Day (and any reimbursement made on such next Business Day shall be taken into account in computing interest and fees in respect of any such Letter of Credit) after the Parent Borrower shall have received notice of such payment with interest on the amount so paid or disbursed by such L/C Issuer, to the extent not reimbursed prior to 3:00 p.m. (New York City time) on the applicable Honor Date, from and including the date paid or disbursed to but excluding the date such L/C Issuer was reimbursed by the Borrowers therefor at a rate per annum equal to the Base Rate as in effect from time to time *plus* the Applicable Rate as in effect from time to time for Revolving Credit Loans that are maintained as Base Rate Loans. If the Borrowers fail to so reimburse such L/C Issuer on such next Business Day, the Administrative Agent shall promptly notify each Revolving Credit Lender of the Honor Date, the amount of the unreimbursed drawing (the "Unreimbursed Amount"), and the amount of such Revolving Credit Lender's Pro Rata Share thereof. In such event, in the case of an Unreimbursed Amount, the Borrowers shall be deemed to have requested a Revolving Credit Borrowing of Base Rate Loans in Dollars to be disbursed on such date in an amount equal to the Dollar Equivalent of the Unreimbursed Amount, in accordance with the requirements of Section 2.02 but without regard to the minimum and multiples specified in Section 2.02 for the principal amount of Base Rate Loans or Eurocurrency Rate Loans, as the case may be, but subject to the amount of the unutilized portion of the Revolving Credit Commitments and the conditions set forth in Section 4.02 (other than the delivery of a Committed Loan Notice). Any notice given by an L/C Issuer or the Administrative Agent pursuant to this Section 2.03(d)(i) may be given by telephone if promptly confirmed in writing; provided that the lack of such a prompt confirmation shall not affect the conclusiveness or binding effect of such notice.

(ii) Each Revolving Credit Lender (including each Lender acting as an L/C Issuer) shall upon any notice pursuant to Section 2.03(d)(i) make funds available (and the Administrative Agent may apply Cash Collateral provided for this purpose) for the account of the applicable L/C Issuer, at the Administrative Agent's Office in an amount equal to, and in the same currency as, its applicable Pro Rata Share of the Unreimbursed Amount not later than 3:00 p.m. (New York City time) on the Business Day specified in such notice by the Administrative Agent, whereupon, subject to the provisions of Section 2.03(d)(iii), each Revolving Credit Lender that so makes funds available shall be deemed to have made a Base Rate Revolving Credit Loan to the Borrowers in such amount. The Administrative Agent shall promptly remit the funds so received to the applicable L/C Issuer.

(iii) With respect to any Unreimbursed Amount that is not fully refinanced by a Revolving Credit Borrowing of Base Rate Loans because the conditions set forth in Section 4.02 cannot be satisfied or for any other reason, the Borrowers shall be deemed to have incurred from the applicable L/C Issuer an L/C Borrowing denominated in Dollars in the Dollar Equivalent amount of the Unreimbursed Amount that is not so refinanced, which L/C Borrowing shall be due and payable on demand (together with interest) and shall bear interest at the Default Rate then applicable to Base Rate Revolving Credit Loans. In such event, each Revolving Credit Lender's payment to the Administrative Agent for the account of the applicable L/C Issuer pursuant to Section 2.03(d)(ii) shall be deemed payment in respect of its participation in such L/C Borrowing and shall constitute an L/C Advance from such Lender in satisfaction of its participation obligation under this Section 2.03.

(iv) Until each Revolving Credit Lender funds its Revolving Credit Loan or L/C Advance pursuant to this Section 2.03(d) to reimburse the applicable L/C Issuer for any amount drawn under any Letter of Credit, interest in respect of such Lender's applicable Pro Rata Share of such amount shall be solely for the account of such L/C Issuer.

(v) Each Revolving Credit Lender's obligation to make Revolving Credit Loans or L/C Advances to reimburse the applicable L/C Issuer for amounts drawn under Letters of Credit, as contemplated by this Section 2.03(d), shall be absolute and unconditional and shall not be affected by any circumstance, including (A) any setoff, counterclaim, recoupment, defense or other right which such Lender may have against such L/C Issuer, the Borrowers or any other Person for any reason whatsoever, (B) the occurrence or continuance of a Default or (C) any

other occurrence, event or condition, whether or not similar to any of the foregoing; provided, however, that each Revolving Credit Lender's obligation to make Revolving Credit Loans pursuant to this Section 2.03(d) is subject to the conditions set forth in Section 4.02 (other than delivery by the Parent Borrower of a Committed Loan Notice). No such making of an L/C Advance shall relieve or otherwise impair the obligation of the Borrowers to reimburse the applicable L/C Issuer for the amount of any payment made by the applicable L/C Issuer under any Letter of Credit, together with interest as provided herein.

(vi) If any Revolving Credit Lender fails to make available to the Administrative Agent for the account of the applicable L/C Issuer any amount required to be paid by such Lender pursuant to the foregoing provisions of this Section 2.03(d) by the time specified in Section 2.03(d)(ii), then, without limiting the other provisions of this Agreement, such L/C Issuer shall be entitled to recover from such Lender (acting through the Administrative Agent), on demand, such amount with interest thereon for the period from the date such payment is required to the date on which such payment is immediately available to such L/C Issuer at a rate per annum equal to the greater of the NYFRB Rate from time to time in effect and a rate reasonably determined by such L/C Issuer in accordance with banking industry rules on interbank compensation, plus any reasonable administrative, processing or similar fees customarily charged by such L/C Issuer in connection with the foregoing. If such Lender pays such principal amount, the amount so paid (less interest and fees) shall constitute such Lender's Loan included in the relevant Borrowing or L/C Advance in respect of the relevant L/C Borrowing, as the case may be. A certificate of the applicable L/C Issuer submitted to any Revolving Credit Lender (through the Administrative Agent) with respect to any amounts owing under this Section 2.03(d)(vi) shall be conclusive absent manifest error.

(e) Repayment of Participations. (i) If, at any time after an L/C Issuer has made a payment under any Letter of Credit issued by it and has received from any Revolving Credit Lender such Lender's L/C Advance in respect of such payment in accordance with Section 2.03(d), the Administrative Agent receives for the account of such L/C Issuer any payment in respect of the related Unreimbursed Amount or interest thereon (whether directly from the Borrowers or otherwise, including proceeds of Cash Collateral applied thereto by the Administrative Agent), the Administrative Agent will distribute to such Lender its applicable Pro Rata Share thereof (appropriately adjusted, in the case of interest payments, to reflect the period of time during which such Lender's L/C Advance was outstanding) in the same funds as those received by the Administrative Agent.

(ii) If any payment received by the Administrative Agent for the account of an L/C Issuer pursuant to Section 2.03(d)(i) is required to be returned under any of the circumstances described in Section 10.06 (including pursuant to any settlement entered into by such L/C Issuer in its discretion), each Revolving Credit Lender shall pay to the Administrative Agent for the account of such L/C Issuer its applicable Pro Rata Share thereof on demand of the Administrative Agent, plus interest thereon from the date of such demand to the date such amount is returned by such Lender, at a rate per annum equal to the NYFRB Rate from time to time in effect. The obligations of the Lenders under this clause shall survive the payment in full of the Obligations and the termination of this Agreement.

(f) Obligations Absolute. The obligation of the Borrowers to reimburse the applicable L/C Issuer for each drawing under each Letter of Credit and to repay each L/C Borrowing shall be absolute, unconditional and irrevocable, and shall be paid strictly in accordance with the terms of this Agreement under all circumstances, including the following:

(i) any lack of validity or enforceability of such Letter of Credit, this Agreement, or any other agreement or instrument relating thereto;

(ii) the existence of any claim, counterclaim, setoff, defense or other right that the Parent Borrower or any Subsidiary may have at any time against any beneficiary or any transferee of such Letter of Credit (or any Person for whom any such beneficiary or any such transferee may be acting), the applicable L/C Issuer or any other Person, whether in connection with this Agreement, the transactions contemplated hereby or by such Letter of Credit or any agreement or instrument relating thereto, or any unrelated transaction;

(iii) any draft, demand, certificate or other document presented under such Letter of Credit proving to be forged, fraudulent, invalid or insufficient in any respect or any statement therein being untrue

or inaccurate in any respect; or any loss or delay in the transmission or otherwise of any document required in order to make a drawing under such Letter of Credit;

(iv) any payment by the applicable L/C Issuer under such Letter of Credit against presentation of a draft, certificate or other drawing document that does not comply with the terms of such Letter of Credit; or any payment made by the applicable L/C Issuer under such Letter of Credit to any Person purporting to be a trustee in bankruptcy, debtor-in-possession, assignee for the benefit of creditors, administrator, administrative receiver, judicial manager, liquidator, receiver or other representative of or successor to any beneficiary or any transferee of such Letter of Credit, including any arising in connection with any proceeding under any Debtor Relief Law;

(v) any exchange, release or non-perfection of any Collateral, or any release or amendment or waiver of or consent to departure from the Guaranty or any other guarantee, for all or any of the Obligations of the Borrowers in respect of such Letter of Credit; or

(vi) any other circumstance or happening whatsoever, whether or not similar to any of the foregoing, including any other circumstance that might otherwise constitute a defense available to, or a legal or equitable discharge of, or provide a right of setoff against the Borrowers' obligations hereunder.

The Borrowers shall promptly examine a copy of each Letter of Credit and each amendment thereto that is delivered to it and, in the event of any claim of noncompliance with the instructions of the Borrowers or other irregularity, the Parent Borrower will promptly notify the applicable L/C Issuer. The Borrowers shall be conclusively deemed to have waived any such claim against any L/C Issuer and its correspondents unless such notice is given as aforesaid.

(g) Role of L/C Issuer. Each Lender and each Borrower agree that, in paying any drawing under a Letter of Credit, the applicable L/C Issuer shall not have any responsibility to obtain any document (other than any sight draft, certificates and other documents expressly required by the Letter of Credit) or to ascertain or inquire as to the validity or accuracy of any such document or the authority of the Person executing or delivering any such document. None of the applicable L/C Issuer, any Agent-Related Person nor any of the respective correspondents, participants or assignees of the applicable L/C Issuer shall be liable to any Lender for (i) any action taken or omitted in connection herewith at the request or with the approval of the Revolving Credit Lenders or the Required Revolving Lenders, as applicable; (ii) any action taken or omitted in the absence of gross negligence or willful misconduct as determined by a court of competent jurisdiction in a final and nonappealable judgment or (iii) the due execution, effectiveness, validity or enforceability of any document or instrument related to any Letter of Credit or Letter of Credit Application. The Borrowers hereby assume all risks of the acts or omissions of any beneficiary or transferee with respect to its use of any Letter of Credit; provided, however, that this assumption is not intended to, and shall not, preclude the Borrowers from pursuing such rights and remedies as it may have against the beneficiary or transferee at Law or under any other agreement. None of the applicable L/C Issuer, any Agent-Related Person, nor any of the respective correspondents, participants or assignees of such L/C Issuer, shall be liable or responsible for any of the matters described in clauses (i) through (v) of Section 2.03(f); provided, however, that anything in such clauses to the contrary notwithstanding, the Borrowers may have a claim against such L/C Issuer, and such L/C Issuer may be liable to the Borrowers, to the extent, but only to the extent, of any direct, as opposed to indirect, special, punitive, consequential or exemplary, damages suffered by the Borrowers which a court of competent jurisdiction determines in a final non-appealable judgment were caused by such L/C Issuer's willful misconduct or gross negligence. In furtherance and not in limitation of the foregoing, the applicable L/C Issuer may, in its sole discretion, either accept documents that appear on their face to be in order and make payment upon such documents, without responsibility for further investigation, regardless of any notice or information to the contrary, and such L/C Issuer shall not be responsible for the validity or sufficiency of any instrument transferring or assigning or purporting to transfer or assign a Letter of Credit or the rights or benefits thereunder or proceeds thereof, in whole or in part, which may prove to be invalid or ineffective for any reason or refuse to accept and make payment upon such documents if such documents are not in strict compliance with the terms of such Letter of Credit.

(h) Letter of Credit Fees. The Borrowers shall pay to the Administrative Agent for the account of each Revolving Credit Lender in accordance with its applicable Pro Rata Share, a Letter of Credit fee in Dollars which shall accrue for each Letter of Credit in an amount equal to the Applicable Rate then in effect for

Eurocurrency Rate Loans with respect to the Revolving Credit Facility multiplied by the daily maximum Dollar Equivalent amount then available to be drawn under such Letter of Credit (whether or not such maximum amount is then in effect under such Letter of Credit if such maximum amount increases automatically pursuant to the terms of such Letter of Credit); provided, however, that any Letter of Credit fees otherwise payable for the account of a Defaulting Lender with respect to any Letter of Credit as to which such Defaulting Lender has not provided Cash Collateral satisfactory to the applicable L/C Issuer pursuant to this Section 2.03 shall be payable, to the maximum extent permitted by applicable Law, to the other Revolving Credit Lenders in accordance with the upward adjustments in their respective applicable Pro Rata Shares allocable to such Letter of Credit pursuant to Section 2.17(a)(iv) with the balance of such fee, if any, payable to the applicable L/C Issuer for its own account. Such Letter of Credit fees shall be computed on a quarterly basis in arrears and shall be due and payable on the last Business Day of each fiscal quarter, in respect of the quarterly period then ending (or portion thereof, in the case of the first payment), commencing with the first such date to occur after the issuance of such Letter of Credit, on the Letter of Credit Expiration Date and thereafter on demand. If there is any change in the Applicable Rate during any quarter, the daily maximum amount of each Letter of Credit shall be computed and multiplied by the Applicable Rate separately for each period during such quarter that such Applicable Rate was in effect.

(i) Fronting Fee and Documentary and Processing Charges Payable to an L/C Issuer. The Borrowers shall pay directly to the applicable L/C Issuer for its own account a fronting fee in Dollars equal to 0.125% of the maximum daily Dollar Equivalent amount available to be drawn under such Letter of Credit on a quarterly basis in arrears. Such fronting fee shall be due and payable on the last Business Day of each fiscal quarter beginning with the last Business Day of the first full fiscal quarter to end after the Closing Date in respect of the quarterly period then ending (or portion thereof, in the case of the first payment), commencing with the first such date to occur after the issuance of such Letter of Credit, on the Letter of Credit Expiration Date and thereafter on demand. For purposes of computing the maximum daily amount available to be drawn under any Letter of Credit, the amount of such Letter of Credit shall be determined in accordance with Section 1.09. In addition, the Borrowers shall pay directly to the applicable L/C Issuer for its own account the customary issuance, presentation, administration, amendment and other processing fees, and other standard costs and charges, of such L/C Issuer relating to letters of credit as from time to time in effect. Such customary fees and standard costs and charges are due and payable within five Business Days of demand and are nonrefundable.

(j) Conflict with Letter of Credit Application. In the event of any conflict between the terms hereof and the terms of any Letter of Credit Application, the terms hereof shall control.

(k) Reporting. To the extent that any Letters of Credit are issued by an L/C Issuer other than the Administrative Agent, each such L/C Issuer shall furnish to the Administrative Agent a report detailing the daily L/C Obligations outstanding under all Letters of Credit issued by it, such report to be in a form and at reporting intervals as shall be agreed between the Administrative Agent and such L/C Issuer; provided that in no event shall such reports be furnished at intervals greater than 31 days.

(l) Provisions Related to Extended Revolving Credit Commitments. If the Maturity Date in respect of any Tranche of Revolving Credit Commitments occurs prior to the expiration of any Letter of Credit, then (i) if one or more other Tranches of Revolving Credit Commitments in respect of which the Maturity Date shall not have occurred are then in effect, such Letters of Credit shall automatically be deemed to have been issued (including for purposes of the obligations of the Revolving Credit Lenders to purchase participations therein and to make Revolving Credit Loans and payments in respect thereof pursuant to this Section 2.03) under (and ratably participated in by Lenders pursuant to) the Revolving Credit Commitments in respect of such non-terminating Tranches up to an aggregate amount not to exceed the aggregate principal amount of the unutilized Revolving Credit Commitments thereunder at such time (it being understood that no partial face amount of any Letter of Credit may be so reallocated) and to the extent any Letters of Credit are not able to be reallocated pursuant to this clause (l) and there are outstanding Revolving Credit Loans under the non-terminating Tranches, the Borrowers agree to repay all such Revolving Credit Loans (or such lesser amount as is necessary to reallocate all Letters of Credit pursuant to this clause (l)) or (ii) to the extent not reallocated pursuant to immediately preceding clause (i), the Borrowers shall Cash Collateralize any such Letter of Credit in accordance with Section 2.16 but only up to the amount of such Letter of Credit not so reallocated. Except to the extent of reallocations of participations pursuant to clause (i) of the immediately preceding sentence, the occurrence of a Maturity Date with respect to a given tranche of Revolving

Credit Commitments shall have no effect upon (and shall not diminish) the percentage participations of the Revolving Credit Lenders in any Letter of Credit issued before such Maturity Date.

Section 2.04 [Reserved].

Section 2.05 Prepayments.

(a) Optional. (i) A Borrower may, upon notice by the Parent Borrower substantially in the form of Exhibit L-1 to the Administrative Agent, at any time or from time to time voluntarily prepay Loans in whole or in part without premium or penalty except as set forth in Section 2.05(a)(iii) below; provided that (1) such notice must be received by the Administrative Agent not later than 2:00 p.m. (New York City time) (A) three Business Days prior to any date of prepayment of Eurocurrency Rate Loan and (B) on the date of prepayment of Base Rate Loans (or such shorter period as the Administrative Agent shall agree); (2) any prepayment of Eurocurrency Rate Loans shall be (x) in a principal amount of $2,000,000 (or the Alternative Currency Equivalent of such amount), or (y) a whole multiple of $1,000,000 (or the Alternative Currency Equivalent of such amount) in excess thereof; and (3) any prepayment of Base Rate Loans shall be (x) in a principal amount of $500,000 (or the Alternative Currency Equivalent of such amount), or (y) a whole multiple of $500,000 (or the Alternative Currency Equivalent of such amount) in excess thereof or, in each case, if less, the entire principal amount thereof then outstanding. Each such notice shall specify the date, amount and currency of such prepayment, the Tranche of Loans to be prepaid, the Type(s) of Loans to be prepaid and, if Eurocurrency Rate Loans are to be prepaid, the Interest Period(s) of such Loans (except that if the class of Loans to be prepaid includes both Base Rate Loans and Eurocurrency Rate Loans, absent direction by the Parent Borrower, the applicable prepayment shall be applied first to Base Rate Loans to the full extent thereof before application to Eurocurrency Rate Loans, in each case in a manner that minimizes the amount payable by the applicable Borrower in respect of such prepayment pursuant to Section 3.06). The Administrative Agent will promptly notify each Lender of its receipt of each such notice, and of the amount of such Lender's ratable portion of such prepayment (based on such Lender's ratable share of the relevant Facility). If such notice is given by the Parent Borrower, subject to clause (ii) below, the applicable Borrower shall make such prepayment and the payment amount specified in such notice shall be due and payable on the date specified therein. Any prepayment of a Eurocurrency Rate Loan shall be accompanied by all accrued interest thereon, together with any additional amounts required pursuant to Section 2.05(a)(iii) and Section 3.06. Each prepayment of the principal of, and interest on, any Revolving Credit Loans denominated in an Alternative Currency shall be made in the relevant Alternative Currency. Subject to Section 2.17, each prepayment of outstanding Term Loan Tranches pursuant to this Section 2.05(a) shall be applied to the Term Loan Tranche or Term Loan Tranches designated on such notice on a *pro rata* basis within such Term Loan Tranche. Subject to Section 2.17, each prepayment of an outstanding Term Loan Tranche pursuant to this Section 2.05(a) shall be applied to the remaining amortization payments of such Term Loan Tranche as directed by the Parent Borrower (or, if the Parent Borrower has not made such designation, in direct order of maturity), but, in any event, on a pro rata basis to the Lenders within such Term Loan Tranche.

(ii) Notwithstanding anything to the contrary contained in this Agreement, any notice of prepayment under Section 2.05(a)(i) may state that it is conditioned upon the occurrence or non-occurrence of any event specified therein (including the effectiveness of other credit facilities), in which case such notice may be revoked by the Parent Borrower (by written notice to the Administrative Agent on or prior to the specified effective date) if such condition is not satisfied.

(iii) If the Borrowers, in connection with, or resulting in, any Repricing Event (A) make a voluntary prepayment of any Initial Term Loans pursuant to Section 2.05(a), (B) make a repayment of any Initial Term Loans pursuant to Section 2.05(b)(iii) or (C) effects any amendment with respect to the Initial Term Loans, in each case, on or prior to the date that is 12 months after the Closing Date, the Borrowers shall pay to the Administrative Agent, for the ratable account of the applicable Term Lenders (x) with respect to clauses (A) and (B), a prepayment premium in an amount equal to 1.00% of the principal amount of Term Loans prepaid or repaid and (y) with respect to clause (C), a prepayment premium in an amount equal to 1.00% of the principal amount of the affected Term Loans held by the Term Lenders not consenting to such amendment.

(b) Mandatory. (i) For any Excess Cash Flow Period, within ten Business Days after financial statements have been delivered pursuant to Section 6.01(a) and the related Compliance Certificate has been

delivered pursuant to Section 6.02(b) (or, if later, the date on which such financial statements and such Compliance Certificate are required to be delivered), the Parent Borrower shall prepay an aggregate principal amount of Term Loans in an amount equal to (A) 50% (as may be adjusted pursuant to the proviso below) of Excess Cash Flow for such Excess Cash Flow Period, *minus* (B) the sum of (1) the aggregate amount of voluntary principal prepayments of the Loans, in each case, made during the period commencing on the first day of the relevant Excess Cash Flow Period and ending on the date immediately prior to the date on which the relevant Excess Cash Flow prepayment is or would be required to be made (excluding prepayments at a discount to par and open market purchases) (except prepayments of Loans under any Revolving Tranche that are not accompanied by a corresponding permanent commitment reduction of the Revolving Tranches), in each case other than to the extent that any such prepayment is funded with the proceeds of Specified Refinancing Debt, Refinancing Notes or any other long-term Indebtedness and (2) any amount not required to be applied to such prepayment pursuant to Section 2.05(b)(viii) or (ix); provided that such percentage in respect of any Excess Cash Flow Period shall be reduced to 25% or 0% if the Consolidated First Lien Net Leverage Ratio as of the last day of the fiscal year to which such Excess Cash Flow Period relates was equal to or less than 4.00:1.00 or 3.50:1.00, respectively; provided, further, that no prepayment shall be required with respect to any Excess Cash Flow Period to the extent Excess Cash Flow for such period is equal to or less than $1,000,000 (and for such period such prepayment shall be limited to the amount in excess of $1,000,000); provided, further, that, if the Consolidated First Lien Net Leverage Ratio on a Pro Forma Basis after giving effect to any Excess Cash Flow prepayment would result in the percentage in respect of the applicable Excess Cash Flow Period being reduced to 25% or 0%, then such reduced percentage applicable to the Excess Cash Flow prepayment required to be made shall apply.

(ii) If any Asset Sale or Casualty Event (or series of related Asset Sales or Casualty Events) results in the receipt by any Borrower or any Subsidiary of aggregate Net Cash Proceeds in excess of $2,500,000 ("Relevant Transaction"), then, except to the extent the Parent Borrower elects in a written notice to reinvest all or a portion of such Net Cash Proceeds in accordance with Section 7.04, the Borrowers shall prepay, subject to Section 2.05(b)(viii), an aggregate principal amount of Term Loans in an amount equal to 100% (as may be adjusted pursuant to the second proviso below) of the Net Cash Proceeds received from such Relevant Transaction within 15 Business Days of receipt thereof (or within 15 Business Days after the later of the date the threshold referred to above is first exceeded and the date the relevant Net Cash Proceeds are received) by such Borrower or such Subsidiary; provided that such Borrower may use a portion of the Net Cash Proceeds received from such Relevant Transaction to prepay or repurchase any other Indebtedness (and, in the case of revolving indebtedness, permanently reduce related commitments) that is secured by the Collateral on a *pari passu* basis with Liens securing the Obligations to the extent such other Indebtedness and the Liens securing the same are permitted hereunder and the documentation governing such other Indebtedness requires such a prepayment or repurchase thereof with the proceeds of such Relevant Transaction, to the extent not deducted in the calculation of Net Cash Proceeds, in each case in an amount not to exceed the product of (1) the amount of such Net Cash Proceeds and (2) a fraction, the numerator of which is the outstanding principal amount of such other Indebtedness (or to the extent such amount is not in Dollars, such equivalent amount of such Indebtedness converted into Dollars as determined in accordance with Section 1.08) and the denominator of which is the aggregate outstanding principal amount of Term Loans and such other Indebtedness (or to the extent such amount is not in Dollars, such equivalent amount of such Indebtedness converted into Dollars as determined in accordance with Article I); provided, further, that, so long as no Event of Default shall have occurred and be continuing or would result therefrom, such prepayment percentage shall be reduced from 100% to 50% or 0% if, on a Pro Forma Basis after giving effect to such Asset Sale or Casualty Event, as the case may be, and the use of proceeds therefrom, the Consolidated First Lien Net Leverage Ratio would be equal to or less than 4.50:1.00 or 4.00:1.00 (such amounts not required to be prepaid as a result of such prepayment percentage reduction, the "Retained Asset Sale Proceeds"), respectively; provided, further, that only the amount of Net Cash Proceeds in excess of $2,500,000 in any fiscal year shall be subject to prepayment pursuant to this Section 2.05(b)(ii).

(iii) Upon the incurrence or issuance by any Borrower or any Subsidiary of any Refinancing Notes, any Specified Refinancing Term Loans or any Indebtedness not expressly permitted to be incurred or issued pursuant to Section 7.01, the Borrowers shall prepay an aggregate principal amount of Term Loan Tranches in an amount equal to 100% of all Net Cash Proceeds received therefrom immediately upon receipt thereof by such Borrower or such Subsidiary.

(iv) Upon the incurrence by any Borrower or any Subsidiary of any Specified Refinancing Debt constituting revolving credit facilities, the Borrowers shall prepay an aggregate principal amount of Revolving Credit Loans (and correspondingly reduce commitments) in an amount equal to 100% of all Net Cash Proceeds received therefrom immediately upon receipt thereof by the Borrowers or such Subsidiary.

(v) If for any reason the sum of the Total Revolving Credit Outstandings or the sum of outstanding Specified Refinancing Revolving Loans at any time exceed the sum of the Revolving Tranche in respect thereof (including after giving effect to any reduction in the Revolving Credit Commitments pursuant to Section 2.06), the Borrowers shall immediately prepay the Loans under the applicable Revolving Tranche and/or Cash Collateralize the L/C Obligations related thereto in an aggregate amount equal to such excess; provided, however, that the Borrowers shall not be required to Cash Collateralize the L/C Obligations pursuant to this Section 2.05(b)(v) unless after the prepayment in full of the Loans under the applicable Revolving Tranche the sum of the Total Revolving Credit Outstandings or the outstanding Specified Refinancing Revolving Loans, as the case may be, exceed the aggregate Revolving Credit Commitments or the commitments to make Specified Refinancing Revolving Loans, as the case may be, then in effect.

(vi) Subject to Section 2.17, each prepayment of Term Loans pursuant to this Section 2.05(b) shall be applied to each Term Loan Tranche on a *pro rata* basis (or, if agreed to in writing by the Majority Lenders of a Term Loan Tranche, in a manner that provides for more favorable prepayment treatment of other Term Loan Tranches, so long as each other such Term Loan Tranche receives its Pro Rata Share of any amount to be applied more favorably, except to the extent otherwise agreed by the Majority Lenders of each Term Loan Tranche receiving less than such Pro Rata Share) (other than a prepayment of (x) Term Loans or Revolving Credit Loans, as applicable, with the proceeds of Indebtedness incurred pursuant to Section 2.18, which shall be applied to the Term Loan Tranche or Revolving Tranche, as applicable, being refinanced pursuant thereto or (y) Term Loans with the proceeds of any Refinancing Notes issued to the extent permitted under Section 7.01(a), which shall be applied to the Term Loan Tranche being refinanced pursuant thereto). Amounts to be applied to a Term Loan Tranche in connection with prepayments made pursuant to this Section 2.05(b) shall be applied to the remaining scheduled installments with respect to such Term Loan Tranche in direct order of maturity. Each prepayment of Term Loans under a Facility pursuant to this Section 2.05(b) shall be applied on a *pro rata* basis to the then outstanding Base Rate Loans and Eurocurrency Rate Loans under such Facility; provided that, if there are no Declining Lenders with respect to such prepayment, then the amount thereof shall be applied first to Base Rate Loans under such Facility to the full extent thereof before application to Eurocurrency Rate Loans, in each case in a manner that minimizes the amount payable by the Borrowers in respect of such prepayment pursuant to Section 3.06.

(vii) All prepayments under this Section 2.05 shall be made together with, in the case of any such prepayment of a Eurocurrency Rate Loan on a date other than the last day of an Interest Period therefor, any amounts owing in respect of such Eurocurrency Rate Loan pursuant to Section 3.06 and, to the extent applicable, any additional amounts required pursuant to Section 2.05(a)(iii). Notwithstanding any of the other provisions of this Section 2.05(b), so long as no Event of Default shall have occurred and be continuing, if any prepayment of Eurocurrency Rate Loans is required to be made under this Section 2.05(b), other than on the last day of the Interest Period therefor, the Borrowers may, in its sole discretion, deposit the amount of any such prepayment otherwise required to be made thereunder into a Cash Collateral account until the last day of such Interest Period, at which time the Administrative Agent shall be authorized (without any further action by or notice to or from the Borrowers or any other Loan Party) to apply such amount to the prepayment of such Loans in accordance with this Section 2.05(b) (it being agreed, for clarity, that interest shall continue to accrue on the Loans so prepaid until the amount so deposited is actually applied to prepay such Loans). Upon the occurrence and during the continuance of any Event of Default, the Administrative Agent shall also be authorized (without any further action by or notice to or from the Borrowers or any other Loan Party) to apply such amount to the prepayment of the outstanding Loans in accordance with this Section 2.05(b).

(viii) Notwithstanding any other provisions of this Section 2.05, to the extent that any or all of the Net Cash Proceeds of any Asset Sale by a Foreign Subsidiary (or a Domestic Subsidiary of a Foreign Subsidiary) (a "Foreign Disposition") or the Net Cash Proceeds of any Casualty Event from a Foreign Subsidiary (or a Domestic Subsidiary of a Foreign Subsidiary) (a "Foreign Casualty Event"), in each case giving rise to a prepayment event pursuant to Section 2.05(b)(ii), or Excess Cash Flow giving rise to a prepayment event pursuant to Section 2.05(b)(i) are or is prohibited, restricted or delayed by applicable local law, rule or regulation (including, without limitation,

financial assistance and corporate benefit restrictions and fiduciary and statutory duties of any director or officer of such Subsidiaries) from being repatriated to the Parent Borrower or so prepaid or such repatriation or prepayment would present a material risk of liability for the applicable Subsidiary or its directors or officers (or gives rise to a material risk of breach of fiduciary or statutory duties by any director or officer), the portion of such Net Cash Proceeds or Excess Cash Flow so affected will not be required to be applied to repay Term Loans at the times provided in this Section 2.05 but may be retained by the applicable Foreign Subsidiary.

(ix) Notwithstanding any other provisions of this Section 2.05, to the extent that the Parent Borrower has determined in good faith that repatriation of any or all of the Net Cash Proceeds of any Foreign Disposition or any Foreign Casualty Event, in each case giving rise to a prepayment event pursuant to Section 2.05(b)(ii), or Excess Cash Flow giving rise to a prepayment event pursuant to Section 2.05(b)(i) would have a material adverse tax cost consequence on the Parent Borrower or any Subsidiary or their Affiliates (taking into account any foreign tax credit or benefit actually realized in connection with such repatriation) with respect to such Net Cash Proceeds or Excess Cash Flow, the Net Cash Proceeds or Excess Cash Flow so affected may be retained by the applicable Foreign Subsidiary.

(c) Term Lender Opt-Out. With respect to any prepayment of Initial Term Loans and, unless otherwise specified in the documents therefor, other Term Loan Tranches pursuant to Section 2.05(b)(i) or (ii), any Appropriate Lender, at its option (but solely to the extent the Parent Borrower elects for this clause (c) to be applicable to a given prepayment), other than in connection with any Refinancing Notes or any Specified Refinancing Term Loans, may elect not to accept such prepayment as provided below. The Parent Borrower may notify the Administrative Agent of any event giving rise to a prepayment under Section 2.05(b)(i) or (ii) at least ten Business Days prior to the date of such prepayment. Each such notice shall specify the date of such prepayment and provide a reasonably detailed calculation of the amount of such prepayment that is required to be made under Section 2.05(b)(ii) or (iii) (the "Prepayment Amount"). The Administrative Agent will promptly notify each Appropriate Lender of the contents of any such prepayment notice so received from the Parent Borrower, including the date on which such prepayment is to be made (the "Prepayment Date"). Any Appropriate Lender may (but solely to the extent the Parent Borrower elects for this clause (c) to be applicable to a given prepayment) decline to accept all (but not less than all) of its share of any such prepayment (any such Lender, a "Declining Lender") by providing written notice to the Administrative Agent no later than five Business Days after the date of such Appropriate Lender's receipt of notice from the Administrative Agent regarding such prepayment. If any Appropriate Lender does not give a notice to the Administrative Agent on or prior to such fifth Business Day informing the Administrative Agent that it declines to accept the applicable prepayment, then such Lender will be deemed to have accepted such prepayment. On any Prepayment Date, an amount equal to the Prepayment Amount minus the portion thereof allocable to Declining Lenders, in each case for such Prepayment Date, shall be paid to the Administrative Agent by the Parent Borrower and applied by the Administrative Agent ratably to prepay Term Loans under the Term Loan Tranches owing to Appropriate Lenders (other than Declining Lenders) in the manner described in Section 2.05(b) for such prepayment. Any amounts that would otherwise have been applied to prepay Term Loans owing to Declining Lenders shall be applied in accordance with the Second Lien Facility Documentation and, to the extent required by the terms thereof, shall be applied to the repayment of Second Lien Term Facility Indebtedness under the Second Lien Credit Agreement, and any amounts not required to be applied to repay such Second Lien Term Facility Indebtedness shall be retained by the Parent Borrower (such amounts, "Declined Amounts").

(d) All Loans shall be repaid, whether pursuant to this Section 2.05 or otherwise, in the currency in which they were made.

Section 2.06 Termination or Reduction of Commitments.

(a) Optional. The Borrowers may, upon written notice by the Parent Borrower to the Administrative Agent, terminate the unused portions of the Commitments under any Term Loan Tranche, the Letter of Credit Sublimit, or the unused Revolving Credit Commitments under any Revolving Tranche, or from time to time permanently reduce the unused portions of the Commitments under any Term Loan Tranche, the Letter of Credit Sublimit, or the unused Revolving Credit Commitments under any Revolving Tranche; provided that (i) any such notice shall be received by the Administrative Agent three Business Days (or such shorter period as the Administrative Agent shall agree) prior to the date of termination or reduction, (ii) any such partial reduction shall

be in an aggregate amount of $500,000 or any whole multiple of $100,000 in excess thereof and (iii) the Borrowers shall not terminate or reduce (A) the Commitments under any Tranche of the Revolving Credit Facility if, after giving effect thereto and to any concurrent prepayments hereunder, (x) the Total Revolving Credit Outstandings would exceed the Revolving Credit Facility or (y) the Total Revolving Credit Outstandings with respect to such Tranche would exceed the Revolving Credit Commitments under such Tranche, or (B) the Letter of Credit Sublimit if, after giving effect thereto, the Outstanding Amount of L/C Obligations not fully Cash Collateralized hereunder would exceed the Letter of Credit Sublimit. Any such notice of termination or reduction of commitments pursuant to this Section 2.06(a) may state that it is conditioned upon the occurrence or non-occurrence of any event specified therein (including the effectiveness of other credit facilities), in which case such notice may be revoked by the Parent Borrower (by written notice to the Administrative Agent on or prior to the specified effective date) if such condition is not satisfied. For the avoidance of doubt, (i) upon termination of the Aggregate Commitments and payment in full of all Obligations in cash and in immediately available funds (other than (A) contingent indemnification obligations as to which no claim has been asserted and (B) obligations and liabilities under Secured Cash Management Agreements and Secured Hedge Agreements) and the expiration without any pending drawing or termination of all Letters of Credit (other than Letters of Credit which have been Cash Collateralized), this Agreement shall automatically terminate and the Administrative Agent shall comply with Section 9.01(c) and Section 9.11.

(b) Mandatory. (i) The Aggregate Commitments under a Term Loan Tranche shall be automatically and permanently reduced to zero on the date of the initial incurrence of Term Loans under such Term Loan Tranche, which in the case of the Initial Term Commitments shall be the Closing Date.

(ii) Upon the incurrence by the Borrowers or any Subsidiary of any Specified Refinancing Debt constituting revolving credit facilities, the Revolving Credit Commitments of the Lenders under the Tranche of Revolving Credit Loans being refinanced shall be automatically and permanently reduced on a ratable basis by an amount equal to 100% of the Commitments under such revolving credit facilities.

(iii) If after giving effect to any reduction or termination of Revolving Credit Commitments under this Section 2.06, the Letter of Credit Sublimit exceeds the amount of the Revolving Credit Facility at such time, the Letter of Credit Sublimit shall be automatically reduced by the amount of such excess.

(iv) The aggregate Revolving Credit Commitments with respect to any Tranche of the Revolving Credit Facility shall automatically and permanently be reduced to zero on the Maturity Date with respect to such Tranche of the Revolving Credit Facility.

(c) Application of Commitment Reductions; Payment of Fees. The Administrative Agent will promptly notify the applicable Lenders of the applicable Facility of any termination or reduction of the Commitments under any Term Loan Tranche, the Letter of Credit Sublimit or the Revolving Credit Commitments under this Section 2.06. Upon any reduction of Commitments under a Facility or a Tranche thereof, the Commitment of each Lender under such Facility or Tranche thereof shall be reduced by such Lender's ratable share of the amount by which such Facility or Tranche thereof is reduced (other than the termination of the Commitment of any Lender as provided in Section 3.08). All commitment fees accrued until the effective date of any termination of the Aggregate Commitments and unpaid, shall be paid on the effective date of such termination. For the avoidance of doubt, to the extent that any portion of the Revolving Credit Loans have been refinanced with one or more new revolving credit facilities constituting Specified Refinancing Debt, any prepayments of revolving Loans made pursuant to this Section 2.06 (other than any prepayments of revolving Loans made pursuant to Section 2.06(b)(ii)) shall be allocated ratably among the Revolving Tranches.

Section 2.07 Repayment of Loans.

(a) Initial Term Loans. The Borrowers shall repay to the Administrative Agent for the ratable account of the applicable Term Lenders the aggregate principal amount of all Initial Term Loans outstanding in consecutive quarterly installments as follows (which installments shall, to the extent applicable, be reduced as a result of the application of prepayments in accordance with the order of priority set forth in Sections 2.05 and 2.06, or be increased as a result of any increase in the amount of Initial Term Loans pursuant to Section 2.14 (such increased amortization payments to be calculated in the same manner (and on the same basis) as the schedule set forth below for the Initial Term Loans made as of the Closing Date)):

Date	Amount
The last Business Day of each fiscal quarter ending prior to the Maturity Date for the Term Facilities starting with the last Business Day in the fiscal quarter ending on December 31, 2018	0.25% of the aggregate principal amount of the aggregate initial principal amount of the Initial Term Loans on the Closing Date
Maturity Date for the Initial Term Loans	All unpaid aggregate principal amounts of any outstanding Initial Term Loans

provided, however, that (i) if the date scheduled for any principal repayment installment is not a Business Day, such principal repayment installment shall be repaid on the next preceding Business Day, and (ii) the final principal repayment installment of the Initial Term Loans shall be repaid on the Maturity Date for the Initial Term Loans and in any event shall be in an amount equal to the aggregate principal amount of all Initial Term Loans outstanding on such date.

(b) Revolving Credit Loans. The Borrowers shall repay in the currencies in which such Revolving Credit Loans are denominated to the Administrative Agent for the ratable account of the Appropriate Lenders on the applicable Maturity Date for the Revolving Credit Facilities of a given Tranche the aggregate principal amount of all of the Revolving Credit Loans of such Tranche outstanding on such date.

(c) All Loans shall be repaid, whether pursuant to this Section 2.07 or otherwise, in the currency in which they were made.

Section 2.08 Interest.

(a) Subject to the provisions of the following sentence, (i) each Eurocurrency Rate Loan under a Facility shall bear interest on the outstanding principal amount thereof for each Interest Period at a rate per annum equal to the sum of (A) the Adjusted Eurocurrency Rate for such Interest Period *plus* (B) the Applicable Rate for Eurocurrency Rate Loans under such Facility; and (ii) each Base Rate Loan under a Facility shall bear interest on the outstanding principal amount thereof from the applicable borrowing date or conversion date, as the case may be, at a rate per annum equal to the sum of (A) the Base Rate *plus* (B) the Applicable Rate for Base Rate Loans under such Facility. The Borrowers shall pay interest on all overdue Obligations hereunder, which shall include all Obligations following an acceleration pursuant to Section 8.02 (including an automatic acceleration) at a fluctuating interest rate per annum at all times equal to the Default Rate to the fullest extent permitted by applicable Laws. Accrued and unpaid interest on past due amounts (including interest on past due interest) shall be due and payable upon demand.

(b) Accrued interest on each Loan shall be due and payable in arrears on each Interest Payment Date applicable thereto and at such other times as may be specified herein; provided that in the event of any repayment or prepayment of any Loan (other than Revolving Credit Loans bearing interest based on the Base Rate that are repaid or prepaid without any corresponding termination or reduction of the Revolving Credit Commitments, accrued interest on the principal amount repaid or prepaid shall be payable on the date of such repayment or prepayment. Interest hereunder shall be due and payable in accordance with the terms hereof before and after judgment, and before and after the commencement of any proceeding under any Debtor Relief Law.

(c) Interest on each Loan shall be payable in the currency in which each Loan was made.

(d) All computations of interest hereunder shall be made in accordance with Section 2.10 of this Agreement.

Section 2.09 Fees. In addition to certain fees described in Sections 2.03(h) and (i):

(a) Commitment Fee. The Borrowers shall pay to the Administrative Agent for the account of each Revolving Credit Lender in accordance with its Pro Rata Share of each Tranche of the Revolving Credit Facility, a commitment fee equal to the Applicable Commitment Fee multiplied by the actual daily amount by which the aggregate Revolving Credit Commitments under such Tranche exceed the sum of (A) the Outstanding Amount of Revolving Credit Loans under such Tranche and (B) the Outstanding Amount of L/C Obligations under such Tranche, subject to adjustment as provided in Section 2.17. The commitment fee shall accrue at all times from the Closing Date until the Maturity Date for the Revolving Credit Facility, and shall be due and payable quarterly in arrears on the last Business Day of each fiscal quarter, commencing with the last Business Day of the first full fiscal quarter to end following the Closing Date, and on the Maturity Date for the Revolving Credit Facility.

(b) Other Fees. The Borrowers shall pay to the Lenders, the Arrangers and the Administrative Agent such fees as shall have been separately agreed upon in writing in the amounts and at the times so specified.

Section 2.10 Computation of Interest and Fees; Retroactive Adjustments of Applicable Rate.

(a) All computations of interest for Base Rate Loans shall be made on the basis of a year of 365 or 366 days, as the case may be, and actual days elapsed. All other computations of fees and interest shall be made on the basis of a 360-day year and actual days elapsed (which results in more fees or interest, as applicable, being paid than if computed on the basis of a 365-day year) or, in the case of interest in respect of Revolving Credit Loans denominated in an Alternative Currency as to which generally accepted market practice differs from the foregoing, in accordance with such generally accepted market practice as determined by the Administrative Agent in accordance with its customary practices. Interest shall accrue on each Loan for the day on which the Loan is made, and shall not accrue on a Loan, or any portion thereof, for the day on which the Loan or such portion is paid; provided that any Loan that is repaid on the same day on which it is made shall, subject to Section 2.12(a), bear interest for one day. Each determination by the Administrative Agent of an interest rate or fee hereunder shall be conclusive and binding for all purposes, absent manifest error.

(b) If, as a result of any restatement of or other adjustment to the financial statements of Holdings or for any other reason, the Parent Borrower or the Lenders determine that (i) the Consolidated First Lien Net Leverage Ratio as calculated by the Parent Borrower as of any applicable date was inaccurate and (ii) a proper calculation of such ratio would have resulted in higher interest and/or fees for any period, the Borrowers shall be obligated to pay to the Administrative Agent for the account of the applicable Lenders or the applicable L/C Issuer, as the case may be, promptly on demand by the Administrative Agent (or, after the occurrence of an actual or deemed entry of an order for relief with respect to the Borrowers under the Bankruptcy Code of the United States, automatically and with any such demand by the Administrative Agent being excused), an amount equal to the excess of the amount of interest and fees that should have been paid for such period over the amount of interest and fees actually paid for such period. This clause shall not limit the rights of the Administrative Agent, any Lender or the applicable L/C Issuer, as the case may be, under Section 2.03(d)(iii), Section 2.03(h) or (i), Section 2.08(b) or under Article VIII. Except in any case where a demand is excused as provided above, any additional interest and fees under this Section 2.10(b) shall not be due and payable until a demand is made for such payment by the Administrative Agent and accordingly, any nonpayment of such interest and fees as result of any such inaccuracy shall not constitute a Default (whether retroactively or otherwise), and none of such additional amounts shall be deemed overdue or accrue interest at the Default Rate, in each case at any time prior to the date that is five Business Days following such demand.

Section 2.11 Evidence of Indebtedness.

(a) The Credit Extensions made by each Lender shall be evidenced by one or more accounts or records maintained by such Lender and evidenced by one or more entries in the Register maintained by the Administrative Agent, acting solely for purposes of Treasury Regulations Section 5f.103-1(c), as a non-fiduciary

agent for the Borrowers, in each case in the ordinary course of business. The accounts or records maintained by the Administrative Agent and each Lender shall be prima facie evidence absent manifest error of the amount of the Credit Extensions made by the Lenders to the Borrowers and the interest and payments thereon. Any failure to so record or any error in doing so shall not, however, limit the obligation of the Borrowers hereunder to pay any amount owing with respect to the Obligations. In the event of any conflict between the accounts and records maintained by any Lender and the accounts and records of the Administrative Agent in respect of such matters, the accounts and records of the Administrative Agent shall control in the absence of manifest error. Upon the written request of any Lender made through the Administrative Agent, the Borrowers shall execute and deliver to such Lender (through the Administrative Agent) a Note payable to such Lender, which shall evidence such Lender's Loans in addition to such accounts or records. Each Lender may attach schedules to its Note and endorse thereon the date, Type (if applicable), amount and maturity of its Loans and payments with respect thereto.

(b) In addition to the accounts and records referred to in Section 2.11(a), each Lender and the Administrative Agent shall maintain in accordance with its usual practice accounts or records and, in the case of the Administrative Agent, entries in the Register, evidencing the purchases and sales by such Lender of participations in Letters of Credit. In the event of any conflict between the accounts and records maintained by the Administrative Agent and the accounts and records of any Lender in respect of such matters, the accounts and records of the Administrative Agent shall control in the absence of manifest error.

(c) Entries made in good faith by the Administrative Agent in the Register pursuant to Sections 2.11(a) and (b), and by each Lender in its accounts or records pursuant to Sections 2.11(a) and (b), shall be *prima facie* evidence of the amount of principal and interest due and payable or to become due and payable from the Borrowers to, in the case of the Register, each Lender and, in the case of such accounts or records, such Lender, under this Agreement and the other Loan Documents, absent manifest error; provided that the failure of the Administrative Agent or such Lender to make an entry, or any finding that an entry is incorrect, in the Register or such accounts or records shall not limit the obligations of the Borrowers under this Agreement and the other Loan Documents.

Section 2.12 Payments Generally; Administrative Agent's Clawback.

(a) General. All payments to be made by the Borrowers shall be made without condition or deduction for any counterclaim, defense, recoupment or setoff. Except as otherwise expressly provided herein, all payments by the Borrowers hereunder shall be made to the Administrative Agent, for the account of the respective Lenders to which such payment is owed, at the Administrative Agent's Office in Dollars and in immediately available funds not later than 3:00 p.m. (New York City time) on the date specified herein. The Administrative Agent will promptly distribute to each Lender its ratable share in respect of the relevant Facility or Tranche thereof (or other applicable share as provided herein) of such payment in like funds as received by wire transfer to such Lender's Lending Office. All payments received by the Administrative Agent after 3:00 p.m. (New York City time) shall, at the option of the Administrative Agent, be deemed received on the next succeeding Business Day and any applicable interest or fee shall continue to accrue. If any payment to be made by the Borrowers shall come due on a day other than a Business Day, payment shall be made on the next following Business Day, and such extension of time shall be reflected in computing interest or fees, as the case may be; provided, however, that, if such extension would cause payment of interest on or principal of Eurocurrency Rate Loans to be made in the next succeeding calendar month, such payment shall be made on the immediately preceding Business Day.

(b) (i) Funding by Lenders; Presumption by Administrative Agent. Unless the Administrative Agent shall have received notice from a Lender prior to the proposed date of any Borrowing of Eurocurrency Rate Loans (or, in the case of any Term Borrowing or Revolving Credit Borrowing of Base Rate Loans, prior to 1:00 p.m. (New York City time) on the date of such Borrowing) that such Lender will not make available to the Administrative Agent such Lender's share of such Borrowing, the Administrative Agent may assume that such Lender has made such share available on such date in accordance with and at the time required by Section 2.02(b) and may, in reliance upon such assumption, make available to the Borrowers a corresponding amount. In such event, if any Lender does not in fact make its share of the applicable Borrowing available to the Administrative Agent, then such Lender and the Borrowers severally agree to pay to the Administrative Agent forthwith on demand an amount equal to such applicable share in immediately available funds with interest thereon, for each day from and including the date such amount is made available to the Borrowers by the Administrative Agent to but excluding the date of payment to the Administrative Agent, at (A) in the case of a payment to be made by such Lender, the greater of the

NYFRB Rate and a rate reasonably determined by the Administrative Agent in accordance with banking industry rules on interbank compensation, plus any reasonable administrative, processing or similar fees customarily charged by the Administrative Agent in connection with the foregoing and (B) in the case of a payment to be made by the Borrowers, the interest rate applicable to Base Rate Loans under the applicable Facility. If both the Borrowers and such Lender pay such interest to the Administrative Agent for the same or an overlapping period, the Administrative Agent shall promptly remit to the Borrowers the amount of such interest paid by the Borrowers for such period. If such Lender pays its share of the applicable Borrowing to the Administrative Agent, then the amount so paid (less interest and fees) shall constitute such Lender's Loan included in such Borrowing. Any payment by the Borrowers shall be without prejudice to any claim the Borrowers may have against a Lender that shall have failed to make its share of any Borrowing available to the Administrative Agent.

(ii) Payments by the Borrowers; Presumptions by Administrative Agent. Unless the Administrative Agent shall have received notice from the Parent Borrower prior to the date on which any payment is due to the Administrative Agent for the account of the Lenders or an L/C Issuer hereunder that the Borrowers will not make such payment, the Administrative Agent may assume that the Borrowers have made such payment on such date in accordance herewith and may, in reliance upon such assumption, distribute to the Appropriate Lenders or the applicable L/C Issuer, as the case may be, the amount due. In such event, if the Borrowers do not in fact make such payment, then each of the Appropriate Lenders or the applicable L/C Issuer, as the case may be, severally agrees to repay to the Administrative Agent forthwith on demand the amount so distributed to such Lender or such L/C Issuer, in immediately available funds with interest thereon, for each day from and including the date such amount is distributed by the Administrative Agent to but excluding the date of payment to the Administrative Agent, at the greater of the NYFRB Rate and a rate reasonably determined by the Administrative Agent in accordance with banking industry rules on interbank compensation, plus any reasonable administrative, processing or similar fees customarily charged by the Administrative Agent in connection with the foregoing.

A notice of the Administrative Agent to any Lender or the Parent Borrower with respect to any amount owing under this Section 2.12(b) shall be conclusive, absent manifest error.

(c) Failure to Satisfy Conditions Precedent. If any Lender makes available to the Administrative Agent funds for any Loan to be made by such Lender as provided in the foregoing provisions of this Article II, and such funds are not made available to the Borrowers by the Administrative Agent because the conditions to the applicable Credit Extension set forth in Article IV are not satisfied or waived in accordance with the terms hereof, the Administrative Agent shall return such funds (in like funds as received from such Lender) to such Lender on demand, without interest.

(d) Obligations of the Lenders Several. The obligations of the Lenders hereunder to make Loans, to fund participations in Letters of Credit and to make payments pursuant to Section 9.07 are several and not joint. The failure of any Lender to make any Loan or to fund any such participation or to make any payment under Section 9.07 on any date required hereunder shall not relieve any other Lender of its corresponding obligation to do so on such date, and no Lender shall be responsible for the failure of any other Lender to so make its Loan, to fund its participation or to make its payment under Section 9.07.

(e) Funding Source. Nothing herein shall be deemed to obligate any Lender to obtain the funds for any Loan in any particular place or manner or to constitute a representation by any Lender that it has obtained or will obtain the funds for any Loan in any particular place or manner.

(f) Insufficient Funds. If at any time insufficient funds are received by and available to the Administrative Agent to pay fully all amounts of principal, L/C Borrowings, interest and fees then due hereunder, such funds shall be applied (i) first, toward payment of interest and fees then due hereunder, ratably among the parties entitled thereto in accordance with the amounts of interest and fees then due to such parties, and (ii) second, toward payment of principal and L/C Borrowings then due hereunder, ratably among the parties entitled thereto in accordance with the amounts of principal and L/C Borrowings then due to such parties.

(g) Unallocated Funds. If the Administrative Agent receives funds for application to the Obligations of the Loan Parties under or in respect of the Loan Documents under circumstances for which the Loan Documents do not specify the manner in which such funds are to be applied, the Administrative Agent may, but shall not be

obligated to, elect to distribute such funds to each of the Lenders in accordance with such Lender's ratable share of the sum of (a) the Outstanding Amount of all Loans outstanding at such time and (b) the Outstanding Amount of all L/C Obligations outstanding at such time, in repayment or prepayment of such of the outstanding Loans or other Obligations then owing to such Lender.

Section 2.13 Sharing of Payments. If, other than as expressly provided elsewhere herein (including the application of funds arising from the existence of a Defaulting Lender), any Lender shall obtain on account of the Loans made by it, or the participations in L/C Obligations held by it, any payment (whether voluntary, involuntary, through the exercise of any right of setoff, or otherwise) in excess of its ratable share (or other share contemplated hereunder) thereof, such Lender shall immediately (a) notify the Administrative Agent of such fact and (b) purchase from the other Lenders such participations in the Loans made by them and/or such subparticipations in the participations in L/C Obligations held by them, as the case may be, as shall be necessary to cause such purchasing Lender to share the excess payment in respect of such Loans or such participations, as the case may be, *pro rata* with each of them; provided, however, that if all or any portion of such excess payment is thereafter recovered from the purchasing Lender under any of the circumstances described in Section 10.06 (including pursuant to any settlement entered into by the purchasing Lender in its discretion), such purchase shall to that extent be rescinded and each other Lender shall repay to the purchasing Lender the purchase price paid therefor, together with an amount equal to such paying Lender's ratable share (according to the proportion of (i) the amount of such paying Lender's required repayment to (ii) the total amount so recovered from the purchasing Lender) of any interest or other amount paid or payable by the purchasing Lender in respect of the total amount so recovered, without further interest thereon. The Borrowers agree that any Lender so purchasing a participation from another Lender may, to the fullest extent permitted by Law, exercise all its rights of payment (including the right of setoff, but subject to Section 10.09) with respect to such participation as fully as if such Lender were the direct creditor of the Borrowers in the amount of such participation. The Administrative Agent will keep records (which shall be conclusive and binding in the absence of manifest error) of participations purchased under this Section 2.13 and will in each case notify the Lenders following any such purchases or repayments. Each Lender that purchases a participation pursuant to this Section 2.13 shall from and after such purchase have the right to give all notices, requests, demands, directions and other communications under this Agreement with respect to the portion of the Obligations purchased to the same extent as though the purchasing Lender were the original owner of the Obligations purchased. For the avoidance of doubt, the provisions of this Section shall not be construed to apply to (A) the application of Cash Collateral provided for in Section 2.16, (B) the assignments and participations (including by means of a Dutch Auction and open market debt repurchases) described in Section 10.07, (C) (i) the incurrence of any New Term Loans in accordance with Section 2.14, (ii) the prepayment of Revolving Credit Loans in accordance with Section 2.14(e) in connection with a Revolving Credit Commitment Increase or (iii) any Specified Refinancing Debt in accordance with Section 2.18, (D) any loan modification offer described in Section 10.01, or (E) any applicable circumstances contemplated by Sections 2.05(b), 2.14, 2.17 or 3.08.

Section 2.14 Incremental Facilities.

(a) The Borrowers may, from time to time after the Closing Date, upon notice by the Parent Borrower to the Administrative Agent specifying the proposed amount thereof and the proposed currency denomination thereof, request (i) an increase in the Commitments under any Revolving Tranche (which shall be on the same terms as, and become part of, the Revolving Tranche proposed to be increased) (a "Revolving Credit Commitment Increase"), (ii) an increase in any Term Loan Tranche then outstanding (which shall be on the same terms as, and become part of, the Term Loan Tranche proposed to be increased hereunder (except as otherwise provided in clause (d) below with respect to amortization)) (each, a "Term Commitment Increase"), (iii) the addition of one or more new revolving credit facilities to the Facilities, in each case, in such currency or currencies as the Parent Borrower identifies in such notice (each, a "New Revolving Facility" and, any advance made by a Lender thereunder, a "New Revolving Loan"; and the commitments thereof, the "New Revolving Commitment") and (iv) the addition of one or more new term loan facilities, in each case, in such currency or currencies as the Parent Borrower identifies in such notice (each, a "New Term Facility"; and any advance made by a Lender thereunder, a "New Term Loan"; and the commitments thereof, the "New Term Commitment" and together with the Revolving Credit Commitment Increase, the New Revolving Commitments and the Term Commitment Increase, the "New Loan Commitments") in an amount not to exceed the sum of (x) $25,000,000*minus* the amount incurred prior to the date of incurrence thereof under the Second Lien Cash-Capped Incremental Amount (the "Cash-Capped Incremental Facility") and (y) an unlimited amount (the "Ratio-Based Incremental Facility") so long as the Maximum Leverage Requirement is

satisfied (such sum, at any such time, the "Incremental Amount"); provided that any such request for an increase shall be in a minimum amount of the lesser of (x) $3,500,000 or, in the case of any New Loan Commitments denominated in an Alternative Currency, the Alternative Currency Equivalent of such amount, and (y) the entire amount of any increase that may be requested under this Section 2.14; provided, further, that for purposes of any New Loan Commitments established pursuant to this Section 2.14 and New Incremental Notes issued pursuant to Section 2.15:

(A) the Borrowers shall be deemed to have used the Ratio-Based Incremental Facility (to the extent compliant therewith) prior to utilization of the Cash-Capped Incremental Facility,

(B) New Loan Commitments pursuant to this Section 2.14 and New Incremental Notes pursuant to Section 2.15 may be incurred under the Ratio-Based Incremental Facility (to the extent compliant therewith) and the Cash-Capped Incremental Facility, and proceeds from any such incurrence may be utilized in a single transaction by first calculating the incurrence under the Ratio-Based Incremental Facility (without inclusion of any amounts substantially concurrently utilized pursuant to the Cash-Capped Incremental Facility) and then calculating the incurrence under the Cash-Capped Incremental Facility, and

(C) solely for the purpose of calculating the Consolidated First Lien Net Leverage Ratio, the Consolidated Senior Secured Net Leverage Ratio or the Consolidated Total Net Leverage Ratio to determine the availability under the Ratio-Based Incremental Facility at the time of incurrence, any cash proceeds incurred pursuant to this Section 2.14 and/or New Incremental Notes being incurred at such test date in calculating such Consolidated First Lien Net Leverage Ratio, Consolidated Senior Secured Net Leverage Ratio or Consolidated Total Net Leverage Ratio shall be excluded.

The Borrowers may designate any Person (such Person, the "Incremental Arranger") with such titles under the New Loan Commitments as Borrowers may deem appropriate.

(b) Any Lender approached to participate in any New Loan Commitments may elect or decline, in its sole discretion, to participate in such increase or new facility. The Borrowers may also invite additional Eligible Assignees with the consent of the Administrative Agent and, solely in connection with a Revolving Credit Commitment Increase or New Revolving Facility, each L/C Issuer (in each case, to the extent the consent of any of the foregoing would be required to assign Revolving Credit Loans or Term Loans, as applicable, to such Eligible Assignee, which consents shall not be unreasonably withheld or delayed) to become Lenders pursuant to a joinder agreement to this Agreement.

(c) If (i) a Revolving Tranche or a Term Loan Tranche is increased in accordance with this Section 2.14 or (ii) a New Term Loan Facility or New Revolving Facility is added in accordance with this Section 2.14, the Borrowers shall determine the effective date (the "Increase Effective Date") and the final allocation of such increase, New Term Facility or New Revolving Facility among the applicable Lenders. In connection with (i) any increase in a Term Loan Tranche or Revolving Tranche or (ii) any addition of a New Term Facility or New Revolving Facility, in each case, pursuant to this Section 2.14, this Agreement and the other Loan Documents shall be amended in a writing (which shall be executed and delivered by the Borrowers and the Administrative Agent (and the Lenders hereby authorize the Administrative Agent to execute and deliver any such documentation)) in order to establish the New Term Facility or New Revolving Facility or to effectuate the increases to the Term Loan Tranche or Revolving Tranche and to reflect any technical changes necessary or appropriate to give effect to such increase or new facility in accordance with its terms as set forth herein. As of the Increase Effective Date, in the case of an increase to an existing Term Loan Tranche, the amortization schedule for the Term Loan Tranche then increased set forth in Section 2.07(a) (or any other applicable amortization schedule for New Term Loans or Specified Refinancing Term Loans) shall be amended to increase the then-remaining unpaid installments of principal by an aggregate amount equal to the additional Loans under such Term Loan Tranche being made on such date, such aggregate amount to be applied to increase such installments ratably in accordance with the amounts in effect immediately prior to the Increase Effective Date.

(d) With respect to any Revolving Credit Commitment Increase, Term Commitment Increase or addition of New Term Facility or New Revolving Facility pursuant to this Section 2.14, (i) no Event of Default (subject to Section 1.02(i) in connection with any acquisition or investment) would exist after giving effect to such

increase; (ii) (A) in the case of any increase of the Revolving Tranche, (1) the final maturity shall be the same as the Maturity Date applicable to the Revolving Credit Facility, (2) no amortization or mandatory commitment reduction prior to the Maturity Date applicable to the Revolving Credit Facility shall be required and (3) the terms and documentation applicable to the Revolving Credit Facility shall apply, (B) in the case of any New Revolving Facility, (1) the final maturity shall be no earlier than the Maturity Date applicable to the Revolving Credit Facility and (2) no amortization or mandatory commitment reduction prior to the Maturity Date applicable to the Revolving Credit Facility shall be required, (C) in the case of any increase of a Term Loan Tranche, the final maturity of the Term Loans, New Term Loans or Specified Refinancing Term Loans increased pursuant to this Section shall be no earlier than the Latest Maturity Date for, and such additional Loans shall not have a Weighted Average Life to Maturity shorter than the longest remaining Weighted Average Life to Maturity of, any other outstanding Term Loans, New Term Loans or Specified Refinancing Term Loans, as applicable; provided that Extendable Bridge Loans may have a maturity date earlier than the Latest Maturity Date of all then outstanding Term Loans and (D) in the case of any New Term Facility, (1) other than in the case of Extendable Bridge Loans, such New Term Facility shall have a final maturity no earlier than the then Latest Maturity Date of any Term Loan Tranche and (2) the Weighted Average Life to Maturity of such New Term Facility shall be no shorter than that of any existing Term Loan Tranche; (iii) except with respect to All-in Yield and as set forth in subclause (D) above with respect to final maturity and Weighted Average Life to Maturity, any such New Term Facility or New Revolving Facility shall have terms reasonably satisfactory to the Administrative Agent; provided, that (x) to the extent such terms are more favorable to the existing Lenders than comparable terms existing in the Loan Documents, such terms shall be, as determined by the Parent Borrower in consultation with the Administrative Agent, incorporated into this Agreement (or any other applicable Loan Document) for the benefit of all existing Lenders (to the extent applicable to such Lender) without further amendment requirements, including, for the avoidance of doubt, at the option of the Parent Borrower, any increase in the Applicable Rate relating to any existing Term Facility to bring such Applicable Rate in line with the New Term Facility to achieve fungibility with such existing Term Facility and (y) otherwise, may be incorporated if reasonably satisfactory to the Parent Borrower, the Incremental Arranger and the Administrative Agent and (iv) to the extent reasonably requested by the Incremental Arranger, the Incremental Arranger shall have received legal opinions, resolutions, officers' certificates and/or reaffirmation agreements consistent with those delivered on the Closing Date under Section 4.01 or delivered from time to time pursuant to Section 6.12, Section 6.14 and/or Section 6.16 with respect to Holdings and the Borrowers and each material Subsidiary Guarantor to the extent reasonably requested by the Administrative Agent. Subject to the foregoing, the conditions precedent to each such increase or New Loan Commitment shall be agreed to by the Lenders providing such increase or New Loan Commitment, as applicable, and the Borrowers.

(e) On the Increase Effective Date with respect to an increase to an existing Revolving Tranche, (x) each Revolving Credit Lender immediately prior to such increase will automatically and without further act be deemed to have assigned to each Lender providing a portion of the increase to the Revolving Credit Commitments (each, a "Revolving Commitment Increase Lender"), and each such Revolving Commitment Increase Lender will automatically and without further act (except that each Revolving Commitment Increase Lender shall be required to purchase at par any L/C Advance so acquired) be deemed to have assumed, a portion of such Revolving Credit Lender's participations hereunder in outstanding L/C Obligations such that, after giving effect to each such deemed assignment and assumption of participations, the percentage of the aggregate outstanding participations hereunder in L/C Obligations represented by such Revolving Commitment Increase Lender will equal the percentage of the aggregate Revolving Credit Commitments of all Revolving Credit Lenders represented by such Revolving Commitment Increase Lender's Revolving Credit Commitment and (y) if, on the date of such increase, there are any Revolving Credit Loans outstanding, such Revolving Credit Loans shall on or prior to the Increase Effective Date be prepaid from the proceeds of Revolving Credit Loans made hereunder (reflecting such increase in Revolving Credit Commitments), which prepayment shall be accompanied by accrued interest on the Revolving Credit Loans being prepaid and any costs incurred by any Lender in accordance with Section 3.06. The Administrative Agent and the Lenders hereby agree that the minimum borrowing, pro rata borrowing and pro rata payment requirements contained elsewhere in this Agreement shall not apply to the transactions effected pursuant to the immediately preceding sentence. The additional Term Loans made under the Term Loan Tranche subject to the increases shall be made by the applicable Lenders participating therein pursuant to the procedures set forth in Sections 2.01 and 2.02 and on the date of the making of such new Term Loans, and notwithstanding anything to the contrary set forth in Sections 2.01 and 2.02, such new Loans shall be added to (and form part of) each Borrowing of outstanding Term Loans under such Term Loan Tranche on a *pro rata* basis (based on the relative sizes of the various outstanding Borrowings), so

that each Lender under such Term Loan Tranche will participate proportionately in each then outstanding Borrowing of Term Loans under the Term Loan Tranche.

(f) (i) Any New Revolving Facility and New Term Facility shall rank *pari passu* in right of payment with the other Facilities, not be guaranteed by any Person that is not a Borrower or Guarantor under each of the other Facilities, and be unsecured, secured either on a *pari passu* basis with the other Facilities or on a "junior" basis to the other Facilities (and on a *pari passu* or junior basis to the Second Lien Facility), in each case over the same (or less) Collateral that secures the Facilities (and in the case of any such junior secured New Revolving Facility or New Term Facility, such New Revolving Facility or New Term Facility shall be subject to intercreditor arrangements that are reasonably satisfactory to the Administrative Agent (provided that, if the New Revolving Facility or New Term Facility are secured on a junior basis to the Facilities, the First Lien/Second Lien Intercreditor Agreement shall be deemed satisfactory), (ii) the New Term Facility or New Revolving Facility, as applicable, shall, for purposes of prepayments, be treated substantially the same as (and in any event no more favorably than) the Term Facility or Revolving Credit Facility, as the case may be, unless the Borrowers otherwise elect (but in any event no more favorably than the existing Term Loans or Revolving Credit Loans, as applicable), and (iii) with respect to any New Term Facility that is secured on a *pari passu* basis with the other Facilities, the All-in Yield payable by the Borrowers applicable to such New Term Facility shall be determined by the Borrowers and the Lenders providing such New Term Facility and shall not be more than 50 basis points higher than the corresponding All-in Yield payable by the Borrowers for the Initial Term Loans, unless the All-in Yield with respect to the Initial Term Loans is increased to the amount necessary so that the difference between the All-in Yield with respect to such New Term Facility and the corresponding All-in Yield on the Initial Term Loans is equal to 50 basis points.

(g) To the extent any New Revolving Facility or New Term Facility shall be denominated in an Alternative Currency, this Agreement and the other Loan Documents shall be amended to the extent necessary or appropriate to provide for the administrative and operational provisions applicable to such Alternative Currency, in each case as are reasonably satisfactory to the Administrative Agent.

Section 2.15 New Incremental Notes.

(a) The Borrowers may from time to time after the Closing Date incur one or more series of senior secured, senior unsecured, senior subordinated, subordinated notes or Extendable Bridge Loans (which notes and/or Extendable Bridge Loans, if secured, are secured by the Collateral on a *pari passu* basis with the Liens securing the Obligations or on a "junior" basis to the Liens securing the Obligations) and guaranteed only by Loan Parties or entities who become Loan Parties (such notes and/or Extendable Bridge Loans, collectively, "New Incremental Notes") in an amount not to exceed the Incremental Amount (at the time of issuance); provided that no Event of Default would exist after giving Pro Forma Effect to any such request, subject to Section 1.02(i); provided, further, that any New Loan Commitment established pursuant to Section 2.14 and New Incremental Notes issued pursuant to this Section 2.15, (A) will count, first, to reduce the amount available under the Ratio-Based Incremental Facilities (to the extent compliant therewith) and, second, to reduce the maximum amount under the Cash-Capped Incremental Facilities and (B) New Incremental Notes pursuant to this Section 2.15 may be incurred under the Ratio-Based Incremental Facilities and the Cash-Capped Incremental Facilities, and proceeds from any such incurrence may be utilized in a single transaction, by first calculating the incurrence under the Ratio-Based Incremental Facilities (without inclusion of any amounts utilized pursuant to the Cash-Capped Incremental Facility) and then calculating the incurrence under the Cash-Capped Incremental Facility. With respect to any New Incremental Notes that are secured on a *pari passu* basis in right of payment and security with the Initial Term Loans, the All-in Yield payable by the Borrowers applicable to such New Incremental Notes shall be determined by the Borrowers and the Lenders providing such New Incremental Notes and shall not be more than 50 basis points higher than the corresponding All-in Yield payable by the Borrowers for the Initial Term Loans, unless the All-in Yield with respect to the Initial Term Loans is increased to the amount necessary so that the difference between the All-in Yield with respect to such New Incremental Notes and the corresponding All-in Yield on the Initial Term Loans is equal to 50 basis points. The Parent Borrower may appoint any Person as arranger of such New Incremental Notes (such Person (who may be the Administrative Agent, if it so agreed), the "Incremental Notes Arranger").

(b) As a condition precedent to the issuance of any New Incremental Notes pursuant to this Section 2.15, (i) such New Incremental Notes shall not be guaranteed by any Person that is not a Loan Party or that does not become a Loan Party and shall not be secured by a lien on any assets of a Loan Party that is not part of the

Collateral, (ii) to the extent secured by the Collateral, such New Incremental Notes shall be subject to intercreditor arrangements that are reasonably satisfactory to the Incremental Notes Arranger and, if such Incremental Notes Arranger is not the Administrative Agent, the Administrative Agent (provided that, if the New Incremental Notes are secured on a junior basis to the Facilities, the First Lien/Second Lien Intercreditor Agreement shall be deemed satisfactory), (iii) such New Incremental Notes shall have a final maturity no earlier than the then Latest Maturity Date, provided, that Extendable Bridge Loans may have a maturity date earlier than the Latest Maturity Date, (iv) the Weighted Average Life to Maturity of such New Incremental Notes shall not (A) be shorter than that of any then-existing Term Loan Tranche, or (B) to the extent unsecured, be subject to any amortization prior to the final maturity thereof, or be subject to any mandatory redemption or prepayment provisions or rights (except (x) customary assets sale, event of loss or similar event or change of control provisions and customary acceleration rights after an event of default or (y) so-called "AHYDO" payments); provided, that, with respect to Extendable Bridge Loans, the Weighted Average Life to Maturity may be shorter than the longest remaining Weighted Average Life to Maturity of any then outstanding Term Loans, (v) such New Incremental Notes shall not be subject to any mandatory redemption or prepayment provisions or rights (except to the extent any such mandatory redemption or prepayment is required to be applied pro rata to the Term Loans and other Indebtedness that is secured on a *pari passu* basis with the Obligations) and (vi) the covenants and events of default of such New Incremental Notes are no more restrictive to the Borrowers and the Subsidiaries (taken as a whole) than those contained in this Agreement (it being understood that (x) no New Incremental Notes shall include any financial maintenance covenants (including indirectly by way of a cross-default to this Agreement), but that customary cross-acceleration provisions may be included and (y) any negative covenants with respect to indebtedness, investments, liens or restricted payments shall be incurrence-based) (provided that a certificate of a Responsible Officer of the Parent Borrower delivered to the Incremental Notes Arranger in good faith at least three Business Days prior to the incurrence of such New Incremental Notes, together with a reasonably detailed description of the material terms and conditions of such New Incremental Notes or drafts of the documentation relating thereto, stating that the Parent Borrower has determined in good faith that such terms and conditions satisfy the requirement set forth in this clause (b), shall be conclusive evidence that such terms and conditions satisfy such requirement unless the Incremental Notes Arranger provides notice to the Parent Borrower of its objection during such three Business Day period (including a reasonable description of the basis upon which it objects)) and, for the avoidance of doubt, New Incremental Notes shall not benefit from any "most favored nation" pricing protection. Subject to the foregoing, the conditions precedent to each such increase shall be agreed to by the Lenders providing such increase and the Borrower.

(c) The Lenders hereby authorize the Incremental Notes Arranger (and the Lenders hereby authorize the Incremental Notes Arranger) to enter into any Applicable Intercreditor Agreement or amendment thereto in order to establish the Lien priority of any New Incremental Notes on terms consistent with this Section 2.15. If the Incremental Notes Arranger is not the Administrative Agent, the actions authorized to be taken by the Incremental Notes Arranger herein shall be done in consultation with the Administrative Agent and, with respect to applicable documentation (including amendments to this Agreement and the other Loan Documents), any comments to such documentation reasonably requested by the Administrative Agent shall be reflected therein.

Section 2.16 Cash Collateral.

(a) Upon the request of the Administrative Agent or the applicable L/C Issuer (i) if the applicable L/C Issuer has honored any full or partial drawing request under any Letter of Credit and such drawing has resulted in an L/C Borrowing or (ii) if, as of the Letter of Credit Expiration Date, any L/C Obligation for any reason remains outstanding, the Borrowers shall, in each case, promptly deliver to the Administrative Agent Cash Collateral in an amount sufficient to cover 103% of the then Outstanding Amount of all L/C Obligations. At any time that there shall exist a Defaulting Lender, promptly upon the request of the Administrative Agent or the applicable L/C Issuer, the Borrowers shall deliver to the Administrative Agent Cash Collateral in an amount sufficient to cover 103% of all Fronting Exposure of such Defaulting Lender after giving effect to Section 2.17(a)(iv) and any Cash Collateral provided by such Defaulting Lender.

(b) All Cash Collateral (other than credit support not constituting funds subject to deposit) shall be maintained in blocked,non-interest bearing deposit accounts at the Administrative Agent or the Collateral Agent (or other financial institution selected by any of them). The Borrowers, and to the extent provided by any Lender, such Lender, hereby grants to (and subjects to the control of) the Administrative Agent and the Collateral Agent, for the benefit of the Administrative Agent, the applicable L/C Issuer and the Lenders, and agrees to maintain, a first

priority security interest in all such cash, deposit accounts and all balances therein, and all other property so provided as collateral pursuant hereto, and in all proceeds of the foregoing, all as security for the obligations to which such Cash Collateral may be applied pursuant to Section 2.16(c). If at any time the Administrative Agent determines that Cash Collateral is subject to any right or claim of any Person other than the Administrative Agent as herein provided or that the total amount of such Cash Collateral is less than the applicable Fronting Exposure and other obligations secured thereby, the Borrowers and the relevant Defaulting Lender shall, promptly upon demand by the Administrative Agent, pay or provide to the Administrative Agent additional Cash Collateral in an amount sufficient to eliminate such deficiency.

(c) Notwithstanding anything to the contrary contained in this Agreement, Cash Collateral provided under any of this Section 2.16 or Sections 2.03, 2.05, 2.06, 2.17, 8.02 or 8.04 in respect of Letters of Credit shall be held and applied to the satisfaction of the specific L/C Obligations, obligations to fund participations therein (including, as to Cash Collateral provided by a Defaulting Lender, any interest accrued on such obligation) and other obligations for which the Cash Collateral was so provided prior to any other application of such property as may be provided for herein.

(d) Cash Collateral (or the appropriate portion thereof) provided to reduce Fronting Exposure or other obligations shall be released promptly following (i) the elimination of the applicable Fronting Exposure (after giving effect to such release) or other obligations giving rise thereto (including by the termination of Defaulting Lender status of the applicable Lender (or, as appropriate, its assignee following compliance with Section 10.07(b)(viii))) or (ii) the Administrative Agent's good faith determination that there exists excess Cash Collateral; provided, however, (x) that Cash Collateral furnished by or on behalf of a Loan Party shall not be released during the continuance of a Default under Sections 8.01(a), (f) or (g) or an Event of Default (and following application as provided in this Section 2.16 may be otherwise applied in accordance with Section 8.04) and (y) the Person providing Cash Collateral and the applicable L/C Issuer may agree that Cash Collateral shall not be released but instead held to support future anticipated Fronting Exposure or other obligations.

Section 2.17 Defaulting Lenders.

(a) Notwithstanding anything to the contrary contained in this Agreement, if any Lender becomes a Defaulting Lender, then, until such time as that Lender is no longer a Defaulting Lender, to the extent permitted by applicable Law:

(i) That Defaulting Lender's right to approve or disapprove any amendment, waiver or consent with respect to this Agreement shall be restricted as set forth in Section 10.01.

(ii) Any payment of principal, interest, fees or other amounts received by the Administrative Agent for the account of that Defaulting Lender (whether voluntary or mandatory, at maturity, pursuant to Article VIII or otherwise, and including any amounts made available to the Administrative Agent by that Defaulting Lender pursuant to Section 10.09), shall be applied at such time or times as may be determined by the Administrative Agent as follows: first, to the payment of any amounts owing by that Defaulting Lender to the Administrative Agent hereunder; second, to the payment on a *pro rata* basis of any amounts owing by that Defaulting Lender to the L/C Issuers hereunder;third, if so reasonably determined by the Administrative Agent or reasonably requested by the any L/C Issuer, to be held as Cash Collateral for future funding obligations of that Defaulting Lender of any participation in any Letter of Credit; fourth, as the Parent Borrower may request (so long as no Default or Event of Default exists), to the funding of any Loan in respect of which that Defaulting Lender has failed to fund its portion thereof as required by this Agreement, as determined by the Administrative Agent; fifth, if so determined by the Administrative Agent and the Parent Borrower, to be held in a non-interest bearing deposit account and released in order to satisfy obligations of that Defaulting Lender to fund Loans under this Agreement;sixth, to the payment of any amounts owing to the Lenders or any L/C Issuer as a result of any non-appealable judgment of a court of competent jurisdiction obtained by any Lender or any L/C Issuer against that Defaulting Lender as a result of that Defaulting Lender's breach of its obligations under this Agreement; seventh, so long as no Default or Event of Default exists, to the payment of any amounts owing to the Borrowers as a result of any non-appealable judgment of a court of competent jurisdiction obtained by the Borrowers against that Defaulting Lender as a result of that Defaulting Lender's breach of its obligations under this Agreement;

and eighth, to that Defaulting Lender or as otherwise directed by a court of competent jurisdiction; provided that if (x) such payment is a payment of the principal amount of any Loans or L/C Borrowings in respect of which that Defaulting Lender has not fully funded its appropriate share and (y) such Loans or L/C Borrowings were made at a time when the conditions set forth in Section 4.02 were satisfied or waived, such payment shall be applied solely to pay the Loans of, and L/C Borrowings owed to, all non-Defaulting Lenders on a *pro rata* basis prior to being applied to the payment of any Loans of, or L/C Borrowings owed to, that Defaulting Lender. Any payments, prepayments or other amounts paid or payable to a Defaulting Lender that are applied (or held) to pay amounts owed by a Defaulting Lender or to post Cash Collateral pursuant to this Section 2.17(a)(ii) shall be deemed paid to and redirected by that Defaulting Lender, and each Lender irrevocably consents hereto.

(iii) That Defaulting Lender (x) shall not be entitled to receive any commitment fee pursuant to Section 2.09(a) for any period during which that Lender is a Defaulting Lender (and the Borrowers shall not be required to pay any such fee that otherwise would have been required to have been paid to that Defaulting Lender) and (y) shall be limited in its right to receive Letter of Credit fees as provided in Section 2.03(h).

(iv) During any period in which there is a Defaulting Lender, for purposes of computing the amount of the obligation of each non-Defaulting Lender to acquire, refinance or fund participations in Letters of Credit pursuant to Section 2.03, the Pro Rata Share of each non-Defaulting Lender under a Revolving Tranche shall be determined without giving effect to the Commitment under such Revolving Tranche of that Defaulting Lender; provided that (i) each such reallocation shall be given effect unless an Event of Default exists; and (ii) the aggregate obligation of each non-Defaulting Lender under a Revolving Tranche to acquire, refinance or fund participations in Letters of Credit issued under such Revolving Tranche shall not exceed the positive difference, if any, of (1) the Commitment under such Revolving Tranche of that non-Defaulting Lender *minus* (2) the aggregate Outstanding Amount of the Loans under such Revolving Tranche of that Revolving Credit Lender.

(b) If the Parent Borrower, the Administrative Agent and each L/C Issuer agree in writing in their sole discretion that a Defaulting Lender should no longer be deemed to be a Defaulting Lender, the Administrative Agent will so notify the parties hereto, whereupon as of the effective date specified in such notice and subject to any conditions set forth therein (which may include arrangements with respect to any Cash Collateral), that Lender will, to the extent applicable, purchase that portion of outstanding Loans of the other Lenders or take such other actions as the Administrative Agent may reasonably determine to be necessary to cause the Loans and funded and unfunded participations in Letters of Credit to be held on a *pro rata* basis by the Lenders in accordance with their ratable shares (without giving effect to the application of Section 2.17(a)(iv) in respect of that Lender, whereupon that Lender will cease to be a Defaulting Lender; provided that no adjustments will be made retroactively with respect to fees accrued or payments made by or on behalf of the Borrowers while that Lender was a Defaulting Lender; and provided, further, that except to the extent otherwise expressly agreed by the affected parties, no change hereunder from Defaulting Lender to Lender will constitute a waiver or release of any claim of any party hereunder arising from that Lender having been a Defaulting Lender.

(c) If (i) a Bankruptcy Event or a Bail-In Action with respect to a Lender Parent shall occur following the date hereof and for so long as such event shall continue or (ii) any L/C Issuer has a good faith belief that any Lender has defaulted in fulfilling its obligations under one or more other agreements in which such Lender commits to extend credit, no L/C Issuer shall be required to issue, amend or increase any Letter of Credit, unless the L/C Issuer Banks shall have entered into arrangements with the Borrowers or such Lender, satisfactory to such L/C Issuer to defease any risk to it in respect of such Lender hereunder. In the event that each of the Administrative Agent, the Borrowers and each L/C Issuer agrees that a Defaulting Lender has adequately remedied all matters that caused such Lender to be a Defaulting Lender, then the L/C Obligations of the Lenders shall be readjusted to reflect the inclusion of such Lender's Commitment and on such date such Lender shall purchase at par such of the Loans of the other Lenders as the Administrative Agent shall determine may be necessary in order for such Lender to hold such Loans in accordance with its Pro Rata Share.

Section 2.18 Specified Refinancing Debt.

(a) The Borrowers may, from time to time after the Closing Date, add one or more new term loan facilities and new revolving credit facilities to the Facilities ("Specified Refinancing Debt"; and the commitments in respect of such new term facilities, the "Specified Refinancing Term Commitment" and the commitments in respect of such new revolving credit facilities, the "Specified Refinancing Revolving Credit Commitment") pursuant to procedures reasonably specified by any Person appointed by the Parent Borrower, after consultation with the Administrative Agent, as agent under such Specified Refinancing Debt (such Person (who may be the Administrative Agent, if it so agrees), the "Specified Refinancing Agent") and reasonably acceptable to the Parent Borrower, to refinance (i) all or any portion of any Term Loan Tranches then outstanding under this Agreement and (ii) all or any portion of any Revolving Tranches then in effect under this Agreement, in each case pursuant to a Refinancing Amendment; provided that such Specified Refinancing Debt: (i) will rank *pari passu* in right of payment as the other Loans and Commitments hereunder; (ii) will not have obligors other than the Loan Parties or entities who shall have become Loan Parties (it being understood that the roles of such obligors as Borrower or guarantors with respect to such obligations may be interchanged); (iii) will be (x) unsecured or (y) secured by the Collateral on a *pari passu* basis with the Liens securing the Obligations or on a "junior" basis to the Liens securing the Obligations (in each case pursuant to intercreditor arrangements reasonably satisfactory to the Specified Refinancing Agent and, if the Specified Refinancing Agent is not the Administrative Agent, the Administrative Agent (provided that, if the Specified Refinancing Debt is secured on a junior basis to the Facilities, the First Lien/Second Lien Intercreditor Agreement shall be deemed satisfactory)); (iv) will have such pricing and optional prepayment terms as may be agreed by the Parent Borrower and the applicable Lenders thereof; (v) (x) to the extent constituting revolving credit facilities, will not have a maturity date (or have mandatory commitment reductions or amortization) that is prior to the scheduled Maturity Date of the Revolving Tranche being refinanced and (y) to the extent constituting term loan facilities, will have a maturity date that is not prior to the date that is the scheduled Maturity Date of, and will have a Weighted Average Life to Maturity that is not shorter than the Weighted Average Life to Maturity of, the Term Loans being refinanced; provided, that Extendable Bridge Loans may have a maturity date earlier than the Latest Maturity Date of all then outstanding Term Loans and, with respect to Extendable Bridge Loans, the Weighted Average Life to Maturity thereof may be shorter than the then longest remaining Weighted Average Life to Maturity of any then outstanding Term Loans; (vi) any Specified Refinancing Term Loans shall share ratably in any prepayments of Term Loans pursuant to Section 2.05 (or otherwise provide for more favorable prepayment treatment for the then outstanding Term Loan Tranches than the Specified Refinancing Term Loans); (vii) each Revolving Credit Borrowing (including any deemed Revolving Credit Borrowings made pursuant to Section 2.03) and participations in Letters of Credit pursuant to Section 2.03 shall be allocated *pro rata* among the Revolving Tranches; (viii) subject to clauses (iv) and (v) above, will have terms and conditions (other than pricing and optional prepayment and redemption terms) that are substantially identical to, or less favorable, when taken as a whole, to the investors providing such Specified Refinancing Debt than, the terms and conditions of the Facilities and Loans being refinanced (as reasonably determined by the Parent Borrower in good faith, which determination shall be conclusive evidence that such terms and conditions satisfy such requirement unless the Specified Refinancing Agent provides notice to the Parent Borrower of an objection (including a reasonable description of the basis upon which it objects) within five Business Days after being notified of such determination by the Parent Borrower); and (ix) the Net Cash Proceeds of such Specified Refinancing Debt shall be applied, substantially concurrently with the incurrence thereof, to the pro rata prepayment of outstanding Loans being so refinanced (and, in the case of Revolving Credit Loans, a corresponding amount of Revolving Credit Commitments shall be permanently reduced), in each case pursuant to Section 2.05 and 2.06, as applicable, and the payment of fees, expenses and premiums, if any, payable in connection therewith; provided, however, that such Specified Refinancing Debt (x) may provide for any additional or different financial or other covenants or other provisions that are agreed among the Borrowers and the Lenders thereof and applicable only during periods after the then Latest Maturity Date in effect and (y) shall not have a principal or commitment amount (or accreted value) greater than the Loans being refinanced (plus an amount equal to accrued interest, fees, discounts, premiums and expenses). Any Lender approached to provide all or a portion of any Specified Refinancing Debt may elect or decline, in its sole discretion, to provide such Specified Refinancing Debt. To achieve the full amount of a requested issuance of Specified Refinancing Debt, and subject to the approval of the Administrative Agent (and each L/C Issuer in the case of Specified Refinancing Revolving Credit Commitments), the Borrowers may also invite additional Eligible Assignees to become Lenders in respect of such Specified Refinancing Debt pursuant to a joinder agreement to this Agreement in form and substance reasonably satisfactory to the Specified Refinancing Agent.

(b) The effectiveness of any Refinancing Amendment shall be subject to conditions as are mutually agreed with the participating Lenders providing such Specified Refinancing Debt and to the extent reasonably

requested by the Specified Refinancing Agent, receipt by the Specified Refinancing Agent of legal opinions, board resolutions, officers' certificates and/or reaffirmation agreements with respect to the Borrowers and the Guarantors, including any supplements or amendments to the Collateral Documents providing for such Specified Refinancing Debt to be secured thereby, consistent with those delivered on the Closing Date under Section 4.01 or delivered from time to time pursuant to Section 6.12, 6.14 and/or Section 6.16 (other than changes to such legal opinions resulting from a change in Law, change in fact or change to counsel's form of opinion reasonably satisfactory to the Specified Refinancing Agent). The Lenders hereby authorize the Specified Refinancing Agent to enter into amendments to this Agreement and the other Loan Documents with the Borrowers as may be necessary in order to establish new Tranches of Specified Refinancing Debt and to make such technical amendments as may be necessary or appropriate in the reasonable opinion of the Administrative Agent and the Parent Borrower in connection with the establishment of such new Tranches, in each case on terms consistent with and/or to effect the provisions of this Section 2.18.

(c) Each class of Specified Refinancing Debt incurred under this Section 2.18 shall be in an aggregate principal amount that is (x) not less $3,500,000 and (y) an integral multiple of $1,000,000 in excess thereof. Any Refinancing Amendment may provide for the issuance of Letters of Credit for the account of the Borrowers in respect of a Revolving Tranche pursuant to any revolving credit facility established thereby, in each case on terms substantially equivalent to the terms applicable to Letters of Credit under the Revolving Credit Commitments.

(d) The Specified Refinancing Agent shall promptly notify each Lender as to the effectiveness of each Refinancing Amendment. Each of the parties hereto hereby agrees that, upon the effectiveness of any Refinancing Amendment, this Agreement shall be deemed amended to the extent (but only to the extent) necessary to reflect the existence and terms of the Specified Refinancing Debt incurred pursuant thereto (including the addition of such Specified Refinancing Debt as separate "Facilities" hereunder and treated in a manner consistent with the Facilities being refinanced, including for purposes of prepayments and voting). Any Refinancing Amendment may, without the consent of any Person other than the Borrowers, the Specified Refinancing Agent and the Lenders providing such Specified Refinancing Debt, effect such amendments to this Agreement and the other Loan Documents as may be necessary or appropriate, in the reasonable opinion of the Specified Refinancing Agent and the Parent Borrower, to effect the provisions of or consistent with this Section 2.18. In addition, if so provided in the relevant Refinancing Amendment and with the consent of each L/C Issuer, participations in Letters of Credit expiring on or after the scheduled Maturity Date in respect of a Revolving Tranche shall be reallocated from Lenders holding Revolving Credit Commitments to Lenders holding extended revolving commitments in accordance with the terms of such Refinancing Amendment; provided, however, that such participation interests shall, upon receipt thereof by the relevant Lenders holding extended revolving commitments, be deemed to be participation interests in respect of such extended revolving commitments and the terms of such participation interests (including the commission applicable thereto) shall be adjusted accordingly. If the Specified Refinancing Agent is not the Administrative Agent, the actions authorized to be taken by the Specified Refinancing Agent herein shall be done in consultation with the Administrative Agent and, with respect to the preparation of any documentation necessary or appropriate to carry out the provisions of this Section 2.18 (including amendments to this Agreement and the other Loan Documents), any comments to such documentation reasonably requested by the Administrative Agent shall be reflected therein.

Section 2.19 Permitted Debt Exchanges.

(a) Notwithstanding anything to the contrary contained in this Agreement, pursuant to one or more offers (each, a "Permitted Debt Exchange Offer") made from time to time by the Parent Borrower, the Borrowers may from time to time following the Closing Date consummate one or more exchanges of Term Loans for Permitted Debt Exchange Notes (each such exchange a "Permitted Debt Exchange"), so long as the following conditions are satisfied: (i) no Event of Default shall have occurred and be continuing at the time the final offering document in respect of a Permitted Debt Exchange Offer is delivered to the relevant Lenders, (ii) the aggregate principal amount (calculated on the face amount thereof) of Term Loans exchanged shall equal no more than the aggregate principal amount (calculated on the face amount thereof) of Permitted Debt Exchange Notes issued in exchange for such Term Loans; provided that the aggregate principal amount of the Permitted Debt Exchange Notes may include accrued interest and premium (if any) under the Term Loans exchanged and underwriting discounts, fees, commissions and expenses in connection with the issuance of such Permitted Debt Exchange Notes, (iii) the aggregate principal amount (calculated on the face amount thereof) of all Term Loans exchanged by the Borrowers

pursuant to any Permitted Debt Exchange shall automatically be cancelled and retired by the Borrowers on the date of the settlement thereof (and, if requested by the Administrative Agent, any applicable exchanging Lender shall execute and deliver to the Administrative Agent an Assignment and Assumption, or such other form as may be reasonably requested by the Administrative Agent, in respect thereof pursuant to which the respective Lender assigns its interest in the Term Loans being exchanged pursuant to the Permitted Debt Exchange to the Borrowers for immediate cancellation), (iv) if the aggregate principal amount of all Term Loans (calculated on the face amount thereof) tendered by Lenders in respect of the relevant Permitted Debt Exchange Offer (with no Lender being permitted to tender a principal amount of Term Loans which exceeds the principal amount thereof actually held by it) shall exceed the maximum aggregate principal amount of such Term Loans offered to be exchanged by the Borrowers pursuant to such Permitted Debt Exchange Offer, then the Borrowers shall exchange Term Loans subject to such Permitted Debt Exchange Offer tendered by such Lenders ratably up to such maximum amount based on the respective principal amounts so tendered, (v) all documentation in respect of such Permitted Debt Exchange shall be consistent with the foregoing, and all written communications generally directed to the Lenders in connection therewith shall be in form and substance consistent with the foregoing and made in consultation with the Parent Borrower and the Exchange Agent and (vi) any applicable Minimum Tender Condition (as defined below) shall be satisfied.

(b) With respect to all Permitted Debt Exchanges effected by the Borrowers pursuant to this Section 2.19, (i) such Permitted Debt Exchanges (and the cancellation of the exchanged Term Loans in connection therewith) shall not constitute voluntary or mandatory payments or prepayments for purposes of Section 2.05(a) or (b), and (ii) such Permitted Debt Exchange Offer shall be made for not less than $3,500,000 in aggregate principal amount of Term Loans; provided that subject to the foregoing clause (ii) the Parent Borrower may at its election specify as a condition (a "Minimum Tender Condition") to consummating any such Permitted Debt Exchange that a minimum amount (to be determined and specified in the relevant Permitted Debt Exchange Offer in the Parent Borrower's discretion) of Term Loans of any or all applicable classes be tendered.

(c) In connection with each Permitted Debt Exchange, the Parent Borrower and the Exchange Agent shall mutually agree to such procedures as may be necessary or advisable to accomplish the purposes of this Section 2.19 and without conflict with Section 2.19(d); provided that the terms of any Permitted Debt Exchange Offer shall provide that the date by which the relevant Lenders are required to indicate their election to participate in such Permitted Debt Exchange shall be not less than a reasonable period (in the discretion of the Parent Borrower and the Exchange Agent) of time following the date on which the Permitted Debt Exchange Offer is made.

(d) The Borrowers shall be responsible for compliance with, and hereby agrees to comply with, all applicable securities and other laws and regulations in connection with each Permitted Debt Exchange, it being understood and agreed that (x) none of the Exchange Agent, the Administrative Agent nor any Lender assumes any responsibility in connection with the Borrowers' compliance with such laws and regulations in connection with any Permitted Debt Exchange and (y) each Lender shall be solely responsible for its compliance with any applicable "insider trading" laws and regulations to which such Lender may be subject under the Securities Exchange Act of 1934, as amended, and/or other applicable securities laws and regulations.

(e) If the Exchange Agent is not the Administrative Agent, the actions authorized to be taken by the Exchange Agent herein shall be done in consultation with the Administrative Agent.

Section 2.20 Co-Borrowers.

(a) Each Borrower accepts joint and several liability hereunder in consideration of the financial accommodation to be provided by the Administrative Agent, the Lenders and the L/C Issuers under this Agreement and the other Loan Documents, for the mutual benefit, directly and indirectly, of each Borrower and in consideration of the undertakings of each Borrower to accept joint and several liability for the obligations of each Borrower.

(b) Each Borrower shall be jointly and severally liable for the Obligations, regardless of which Borrower actually receives the Loans hereunder or the amount of the Obligations received or the manner in which the Administrative Agent or any Lender accounts for the Obligations on its books and records. Each Borrower's obligations with respect to Loans made to it, and each Borrower's obligations arising as a result of the joint and several liability of such Borrower hereunder, with respect to Loans or L/C Obligations made to and other

Obligations owing by the Borrowers hereunder, shall be separate and distinct obligations, but all such obligations shall be primary obligations of each Borrower.

(c) Each Borrower's obligations arising as a result of the joint and several liability of such Borrower hereunder with respect to Loans made to, Letters of Credit issued on behalf of, and other Obligations owing by the Borrowers hereunder shall, to the fullest extent permitted by law, be unconditional irrespective of (A) the validity or enforceability, avoidance or subordination of the obligations of any other Borrower or of any promissory note or other document evidencing all or any part of the obligations of any other Borrower, (B) the absence of any attempt to collect the Obligations from any other Borrower, any other guarantor, or any other security therefor, or the absence of any other action to enforce the same, (C) the waiver, consent, extension, forbearance or granting of any indulgence by the Administrative Agent or any Lender with respect to any provision of any instrument evidencing the obligations of any other Borrower, or any part thereof, or any other agreement now or hereafter executed by any other Borrower and delivered to the Administrative Agent or any Lender, (D) the failure by the Administrative Agent or any Lender to take any steps to perfect and maintain its security interest in, or to preserve its rights to, any security or collateral for the obligations of any other Borrower, (E) the Administrative Agent's or any Lender's election, in any proceeding instituted under the Bankruptcy Code, of the application of Section 1111(b)(2) of the Bankruptcy Code of the United States, (F) any borrowing or grant of a security interest by any other Borrower, as Debtor In Possession under Section 364 of the Bankruptcy Code of the United States, (G) the disallowance of all or any portion of the Administrative Agent's or any Lender's claim(s) for the repayment of the obligations of any other Borrower under Section 502 of the Bankruptcy Code of the United States, or (H) any other circumstances which might constitute a legal or equitable discharge or defense of a guarantor or of any other Borrower. With respect to each Borrower's obligations arising as a result of the joint and several liability of such Borrower hereunder with respect to Loans made to the Borrowers hereunder, such Borrower waives, until the Obligations shall have been paid in full and this Agreement and the other Loan Documents shall have been terminated, any right to enforce any right of subrogation or any remedy which the Administrative Agent or any Lender now has or may hereafter have against such Borrower, any endorser or any guarantor of all or any part of the Obligations, and any benefit of, and any right to participate in, any security or collateral given to the Administrative Agent or any Lender to secure payment of the Obligations or any other liability of any Borrower to the Administrative Agent or any Lender.

(d) Upon the occurrence and during the continuation of any Event of Default, the Administrative Agent and the Lenders may proceed directly and at once, without notice, against any Borrower to collect and recover the full amount, or any portion of the Obligations, without first proceeding against any other Borrower or any other Person, or against any security or collateral for the Obligations. Each Borrower consents and agrees that the Administrative Agent and the Lenders shall be under no obligation to marshal any assets in favor of any Borrower or against or in payment of any or all of the Obligations.

(e) Each Borrower hereby irrevocably appoints the Parent Borrower as the borrowing agent andattorney-in-fact for the Borrowers, which appointment shall remain in full force and effect unless and until the Administrative Agent shall have received prior written notice signed by all of the Borrowers that such appointment has been revoked and that another Borrower has been appointed in the place of the Parent Borrower. Each Borrower hereby irrevocably appoints and authorizes the Parent Borrower (i) to provide to the Administrative Agent and receive from the Administrative Agent all notices with respect to Loans obtained for the benefit of any Borrower and all other notices and instructions under this Agreement and the other Loan Documents and (ii) to take such action as the Parent Borrower deems appropriate on its behalf to obtain Loans and to exercise such other powers as are reasonably incidental thereto to carry out the purposes of this Agreement. It is understood that the handling of the Collateral of the Borrowers in a combined fashion, as more fully set forth herein and in the Collateral Documents, is done solely as an accommodation to the Borrowers in order to utilize the collective borrowing powers of the Borrowers in the most efficient and economical manner and at their request, and that neither the Agents nor the Lenders shall incur liability to the Borrowers as a result hereof. Each of the Borrowers expects to derive benefit, directly or indirectly, from the handling of the Collateral in a combined fashion since the successful operation of each Borrower is dependent on the continued successful performance of the integrated group

(f) In any action or proceeding involving any state corporate limited partnership or limited liability company law, or any applicable state, federal or foreign bankruptcy, insolvency, reorganization or other Law affecting the rights of creditors generally, if the obligations of any Borrower hereunder would otherwise be held or determined to be void, voidable, invalid or unenforceable, or subordinated to the claims of any other creditors, on

account of the amount of its liability hereunder, then, notwithstanding any other provision to the contrary, the amount of such liability shall, without any further action by such Borrower, any Loan Party or any other Person, be automatically limited and reduced to the highest amount that is valid and enforceable and not subordinated to the claims of other creditors as determined in such action or proceeding.

(g) After the Closing Date, the Parent Borrower may, at any time and from time to time, designate any Subsidiary that is a Domestic Subsidiary as a Borrower by delivery to the Administrative Agent of a Borrower Joinder Agreement executed by such Subsidiary and the Parent Borrower, together with any documentation and other information with respect to such additional Borrower required by regulatory authorities under applicable "know your customer" and anti-money laundering rules and regulations, including, without limitation, the PATRIOT Act requested by the Administrative Agent (and to the extent not theretofore delivered on the Closing Date or otherwise), and upon such delivery and satisfaction, such Subsidiary shall for all purposes of this Agreement and the other Loan Documents be a Borrower and a party to this Agreement. As soon as practicable upon receipt of a Borrower Joinder Agreement, the Administrative Agent shall furnish a copy thereof to each Lender.

ARTICLE III.
Taxes, Increased Costs Protection and Illegality

Section 3.01 Taxes.

(a) All payments by or on account of any obligation of the Borrowers or any other Loan Party hereunder or under any other Loan Document shall be made without deduction or withholding for any Taxes, except as required by applicable Law. If any applicable Law (as determined in the good faith discretion of an applicable Withholding Agent) requires the deduction or withholding of any Tax from or in respect of any such payment, then the applicable Withholding Agent shall be entitled to make such deduction or withholding and shall timely pay the full amount deducted or withheld to the relevant Governmental Authority in accordance with applicable Law and, if such Tax is an Indemnified Tax, the sum payable by the Borrowers or other applicable Loan Party shall be increased as necessary so that after all such deductions or withholdings for Indemnified Taxes have been made (including such deductions and withholdings for Indemnified Taxes applicable to additional sums payable under this Section 3.01) the applicable Recipient receives an amount equal to the sum it would have received had no such deduction or withholding for Indemnified Taxes been made.

(b) In addition but without duplication, the Loan Parties shall timely pay to the relevant Governmental Authority in accordance with applicable Law, or at the option of the Administrative Agent timely reimburse it for the payment of, any Other Taxes.

(c) Without duplication of amounts paid pursuant to Section 3.01, the Loan Parties shall jointly and severally indemnify each Recipient, within 20 days after written demand therefor, for the full amount of any Indemnified Taxes (including Indemnified Taxes imposed or asserted on or attributable to amounts payable under this Section 3.01) payable or paid by such Recipient or required to be withheld or deducted from a payment to such Recipient and any reasonable out-of-pocket expenses arising therefrom or with respect thereto, whether or not such Indemnified Taxes were correctly or legally imposed or asserted by the relevant Governmental Authority. The relevant Recipient shall notify the Parent Borrower of the imposition of any Indemnified Tax reasonably promptly after becoming aware of the imposition of such Tax. A certificate as to the amount of such payment or liability delivered to the Parent Borrower by a Lender (with a copy to the Administrative Agent), or by the Administrative Agent on its own behalf or on behalf of a Lender, shall be conclusive absent manifest error.

(d) Within 30 days after any payment of Taxes by any Loan Party to a Governmental Authority pursuant to this Section 3.01, such Loan Party shall deliver to the Administrative Agent the original or a certified copy of a receipt issued by such Governmental Authority evidencing such payment, a copy of the return reporting such payment or other evidence of such payment reasonably satisfactory to the Administrative Agent.

(e) If any Recipient determines, in its sole discretion exercised in good faith, that it has received a refund of any Indemnified Taxes as to which it has been indemnified pursuant to this Section 3.01 (including by the payment of additional amounts pursuant to this Section 3.01), it shall pay to the indemnifying party an amount equal to such refund (but only to the extent of indemnity payments made under this Section 3.01 with respect to the

Indemnified Taxes giving rise to such refund), net of all out-of-pocket expenses (including Taxes) of such indemnified party and without interest (other than any interest paid by the relevant Governmental Authority with respect to such refund). Such indemnifying party, upon the request of such indemnified party, shall promptly repay to such indemnified party the amount paid over pursuant to this clause (e) (plus any penalties, interest or other charges imposed by the relevant Governmental Authority) in the event that such indemnified party is required to repay such refund to such Governmental Authority. Notwithstanding anything to the contrary in this clause (e), in no event will the indemnified party be required to pay any amount to an indemnifying party pursuant to this clause (e) the payment of which would place the indemnified party in a less favorable net after-Tax position than the indemnified party would have been in if the Tax subject to indemnification and giving rise to such refund had not been deducted, withheld or otherwise imposed and the indemnification payments or additional amounts with respect to such Tax had never been paid. This clause (e) shall not be construed to require any indemnified party to make available its Tax returns (or any other information relating to its Taxes that it deems confidential) to the indemnifying party or any other Person.

(f) Each Lender agrees that, upon the occurrence of any event giving rise to the operation of Section 3.01(a) or (c) or Section 3.05 with respect to such Lender it will, if requested by the Parent Borrower, use commercially reasonable efforts (subject to such Lender's overall internal policies of general application and legal and regulatory restrictions) to avoid or reduce to the greatest extent possible any indemnification or additional amounts being due under this Section 3.01 or Section 3.05, including to designate another Lending Office for any Loan or Letter of Credit affected by such event; provided that such efforts are made on terms that, in the reasonable judgment of such Lender, cause such Lender and its Lending Office(s) to suffer no material economic, legal or regulatory disadvantage; and provided, further, that nothing in this Section 3.01(f) shall affect or postpone any of the Obligations of any of the Borrowers or the rights of such Lender pursuant to Sections 3.01(a) and (c) and Section 3.05. The Borrowers hereby agree to pay all reasonable costs and expenses incurred by any Lender as a result of a request by the Parent Borrower under this Section 3.01(f).

(g) (i) Any Lender that is entitled to an exemption from or reduction of withholding Tax with respect to any payments made under any Loan Document shall deliver to the Parent Borrower and the Administrative Agent, at the time or times reasonably requested by the Parent Borrower or the Administrative Agent, such properly completed and executed documentation reasonably requested by the Parent Borrower or the Administrative Agent as will permit such payments to be made without withholding or at a reduced rate of withholding. In addition, any Lender, if reasonably requested by the Parent Borrower or the Administrative Agent, shall deliver such other documentation prescribed by applicable Law or reasonably requested by the Parent Borrower or the Administrative Agent as will enable the Parent Borrower or the Administrative Agent to determine whether or not such Lender is subject to backup withholding or information reporting requirements. Notwithstanding anything to the contrary in the preceding two sentences, the completion, execution and submission of such documentation shall not be required if in the Lender's reasonable judgment such completion, execution or submission would subject such Lender to any material unreimbursed cost or expense or would materially prejudice the legal or commercial position of such Lender.

(ii) Without limiting the generality of the foregoing,

(A) any Lender that is a U.S. Person shall deliver to the Parent Borrower and the Administrative Agent (in such number of copies as shall be requested by the recipient) on or prior to the date on which such Lender becomes a Lender under this Agreement (and from time to time thereafter upon the reasonable request of the Parent Borrower or the Administrative Agent) executed copies of IRS Form W-9 (or any successor form) certifying that such Lender is exempt from U.S. federal backup withholding;

(B) any Foreign Lender shall deliver to the Parent Borrower and the Administrative Agent (in such number of copies as shall be requested by the recipient) on or prior to the date on which such Foreign Lender becomes a Lender under this Agreement (and from time to time thereafter upon the reasonable request of the Parent Borrower or the Administrative Agent), whichever of the following is applicable:

(a) in the case of a Foreign Lender claiming the benefits of an income tax treaty to which the United States is a party, (x) with respect to payments of interest under any Loan Document, executed copies of IRS Form W-8BEN or IRS Form W-8BEN-E establishing an

exemption from, or reduction of, U.S. federal withholding Tax pursuant to the "interest" article of such tax treaty and (y) with respect to any other applicable payments under any Loan Document, IRS Form W-8BEN or IRS Form W-8BEN-E establishing an exemption from, or reduction of, U.S. federal withholding Tax pursuant to the "business profits" or "other income" article of such tax treaty;

(b) executed copies of IRS Form W-8ECI (or any successor form);

(c) in the case of a Foreign Lender claiming the benefits of the exemption for portfolio interest under Section 871(h) or Section 881(c) of the Code, (x) a certificate substantially in the form of Exhibit K-1 to the effect that such Foreign Lender is not a "bank" within the meaning of Section 881(c)(3)(A) of the Code, a "10-percent shareholder" of any Borrower within the meaning of Section 871(h)(3)(B) of the Code, a "controlled foreign corporation" related to any Borrower, as described in Section 881(c)(3)(C), of the Code and that no payments in connection with any Loan Document are effectively connected with such Lender's conduct of a U.S. trade or business (a "U.S. Tax Compliance Certificate") and (y) executed copies of IRS Form W-8BEN or IRS Form W-8BEN-E, as applicable (or any successor form); or

(d) to the extent a Foreign Lender is not the beneficial owner (*e.g.*, where the Foreign Lender is a partnership or a participating Lender), executed copies of IRS Form W-8IMY, accompanied by IRS Form W-8ECI, IRS Form W-8BEN, IRS Form W-8BEN-E, a certificate substantially in the form of Exhibit K-2 or Exhibit K-3, IRS Form W-9, and/or other certification documents from each beneficial owner, as applicable; provided that if the Foreign Lender is a partnership (and not a participating Lender) and one or more direct or indirect partners of such Foreign Lender are claiming the portfolio interest exemption, such Foreign Lender shall provide a certificate substantially in the form of Exhibit K-4 on behalf of each such direct and indirect partner;

(C) any Foreign Lender shall, to the extent it is legally entitled to do so, deliver to the Parent Borrower or the Administrative Agent (in such number of copies as shall be requested by the recipient) on or prior to the date on which such Foreign Lender becomes a Lender under this Agreement (and from time to time thereafter upon the reasonable request of the Parent Borrower or the Administrative Agent), executed copies of any other form prescribed by applicable Law as a basis for claiming exemption from or a reduction in U.S. federal withholding Tax, duly completed, together with such supplementary documentation as may be prescribed by applicable Law to permit the Parent Borrower or the Administrative Agent to determine the withholding or deduction required to be made;

(D) if a payment made to a Recipient under any Loan Document would be subject to Tax imposed by FATCA if such Lender or the Administrative Agent were to fail to comply with the applicable reporting requirements of FATCA (including those contained in Section 1471(b) or 1472(b) of the Code, as applicable), such Recipient shall deliver to the Parent Borrower and the Administrative Agent at the time or times prescribed by Law and at such time or times reasonably requested by the Parent Borrower or the Administrative Agent such documentation prescribed by applicable Law (including as prescribed by Section 1471(b)(3)(C)(i) of the Code) and such additional documentation reasonably requested by the Parent Borrower or the Administrative Agent as may be necessary for the relevant Borrower and the Administrative Agent to comply with their obligations under FATCA and to determine whether such Recipient has complied with such Recipient's obligations under FATCA or to determine the amount to deduct and withhold from such payment. Solely for purposes of this clause (D), "FATCA" shall include any amendments made to FATCA after the date of this Agreement; and

(E) the Administrative Agent, and any successor or supplemental Administrative Agent, shall deliver to the Parent Borrower (in such number of copies as shall be requested by the recipient) on or prior to the date on which the Administrative Agent becomes the administrative agent hereunder or under any other Loan Document (and from time to time thereafter upon the reasonable request of the Parent Borrower) executed copies of either (i) IRS Form W-9 (or any successor form) or (ii) a U.S. branch withholding certificate on IRS Form W-8IMY (or any successor form) evidencing its agreement with the

Borrowers to be treated as a U.S. person (with respect to amounts received on account of any Lender) and IRS Form W-8ECI (with respect to amounts received on its own account), with the effect that, in either case, the Borrowers will be entitled to make payments hereunder to the Administrative Agent without withholding or deduction on account of U.S. federal withholding tax.

Each Recipient agrees that if any documentation it previously delivered expires or becomes obsolete or inaccurate in any respect, it shall promptly update and deliver such form or certification to the Parent Borrower and the Administrative Agent or promptly notify the Parent Borrower and the Administrative Agent in writing of its legal ineligibility to do so. Notwithstanding any other provision of this Section 3.01, a Lender shall not be required to deliver any documentation that such Lender is not legally eligible to deliver.

Each Lender hereby authorizes the Administrative Agent to deliver to the Loan Parties and to any successor Administrative Agent any documentation provided by such Lender to the Administrative Agent pursuant to Section 3.01(g).

(h) Each Lender shall severally indemnify the Administrative Agent, within 10 days after demand therefor, for (i) any Indemnified Taxes attributable to such Lender (but only to the extent that any Loan Party has not already indemnified the Administrative Agent for such Indemnified Taxes and without limiting the obligation of the Loan Parties to do so), (ii) any Taxes attributable to such Lender's failure to comply with the provisions of Section 10.07(m) relating to the maintenance of a Participant Register and (iii) any Excluded Taxes attributable to such Lender, in each case, that are payable or paid by the Administrative Agent in connection with any Loan Document, and any reasonable expenses arising therefrom or with respect thereto, whether or not such Taxes were correctly or legally imposed or asserted by the relevant Governmental Authority. A certificate as to the amount of such payment or liability delivered to any Lender by the Administrative Agent shall be conclusive absent manifest error. Each Lender hereby authorizes the Administrative Agent to setoff and apply any and all amounts at any time owing to such Lender under any Loan Document or otherwise payable by the Administrative Agent to the Lender from any other source against any amount due to the Administrative Agent under this paragraph (h).

(i) The agreements in this Section 3.01 shall survive the resignation and/or replacement of the Administrative Agent, any assignment of rights by, or the replacement of, a Lender, the termination of the Commitments and the repayment, satisfaction or discharge of all other Obligations.

(j) For the avoidance of doubt, the term "Lender" shall, for purposes of this Section 3.01, include any L/C Issuer, and the term "applicable law" includes FATCA.

Section 3.02 [Reserved].

Section 3.03 Illegality. If any Lender reasonably determines that any Law has made it unlawful, or that any Governmental Authority has asserted that it is unlawful, for any Lender or its applicable Lending Office to make, maintain or fund Loans whose interest is determined by reference to the Eurocurrency Rate, or to determine or charge interest rates based upon the Adjusted Eurocurrency Rate, or any Governmental Authority has imposed material restrictions on the authority of such Lender to purchase or sell, or to take deposits of, Dollars in the applicable interbank market, then, on notice thereof by such Lender to the Parent Borrower through the Administrative Agent, (i) any obligation of such Lender to make or continue Eurocurrency Rate Loans or to convert Base Rate Loans to Eurocurrency Rate Loans shall be suspended and (ii) if such notice asserts the illegality of such Lender making or maintaining Base Rate Loans, the interest rate on which is determined by reference to the Adjusted Eurocurrency Rate component of the Base Rate, the interest rate on which Base Rate Loans of such Lender, shall, if necessary to avoid such illegality, be determined by the Administrative Agent without reference to the Eurocurrency Rate component of the Base Rate, in each case until such Lender notifies the Administrative Agent and the Parent Borrower that the circumstances giving rise to such determination no longer exist. Upon receipt of such notice, (x) the Borrowers shall, upon demand from such Lender (with a copy to the Administrative Agent), prepay or (A) if applicable and such Lender's Eurocurrency Rate Loans are denominated in Dollars, convert all of such Lender's Eurocurrency Rate Loans to Base Rate Loans (the interest rate on which Base Rate Loans of such Lender shall, if necessary to avoid such illegality, be determined by the Administrative Agent without reference to the Adjusted Eurocurrency Rate component of the Base Rate) or (B) if applicable and such Lender's Eurocurrency Rate Loans are denominated in an Alternative Currency, the interest rate with respect to such Eurocurrency Rate

Loans shall be determined by an alternative rate mutually acceptable to the Parent Borrower and the applicable Revolving Credit Lenders, in each case, either on the last day of the Interest Period therefor, if such Lender may lawfully continue to maintain such Eurocurrency Rate Loans to such day, or promptly after such demand, if such Lender may not lawfully continue to maintain such Eurocurrency Rate Loans. Upon any such prepayment or conversion, the Borrowers shall also pay accrued interest on the amount so prepaid or converted and all amounts due, if any, in connection with such prepayment or conversion under Section 3.06. Each Lender agrees to designate a different Lending Office if such designation will avoid the need for such notice and will not, in the good faith judgment of such Lender, otherwise be materially disadvantageous to such Lender.

Section 3.04 Inability to Determine Rates.

(a) If the Administrative Agent reasonably determines (which determination shall be conclusive absent manifest error) that (i) for any reason, adequate and reasonable means do not exist for determining the Eurocurrency Rate for any requested Interest Period and currency with respect to a proposed Eurocurrency Rate Loan, or (ii) is informed by the Required Lenders that the Eurocurrency Rate for any requested Interest Period and currency with respect to a proposed Eurocurrency Rate Loan does not adequately and fairly reflect the cost to such Lenders of funding such Loan, or (iii) that deposits are not being offered to banks in the relevant interbank market for the applicable amount, currency and the Interest Period of such Eurocurrency Rate Loan, the Administrative Agent will promptly so notify the Parent Borrower and each Lender. Thereafter, (x) the obligation of the Lenders to make or maintain Eurocurrency Rate Loans of such currency shall be suspended and (y) in the event of a determination described in the preceding sentence with respect to the Eurocurrency Rate component of the Base Rate, the utilization of the Eurocurrency Rate component in determining the Base Rate shall be suspended, in each case until the Administrative Agent (upon the instruction of the Required Lenders) revokes such notice. Upon receipt of such notice, the Parent Borrower may revoke any pending request for a Borrowing of, conversion to or continuation of Eurocurrency Rate Loans of such currency or, failing that, will be deemed to have converted such request into a request for a Borrowing of Base Rate Loans in the amount specified therein (or, in the case of a pending request for a Revolving Credit Loan denominated in an Alternative Currency, the Borrower, the Administrative Agent and the applicable Revolving Credit Lenders may establish a mutually acceptable alternative rate).

(b) If at any time the Administrative Agent determines (which determination shall be conclusive absent manifest error) that (i) the circumstances set forth in clause (a)(i) have arisen and such circumstances are unlikely to be temporary or (ii) the circumstances set forth in clause (a)(i) above have not arisen but either (w) the supervisor for the administrator of the Screen Rate of a currency has made a public statement that the administrator of the Screen Rate of such currency is insolvent (and there is no successor administrator that will continue publication of the Screen Rate of such currency), (x) the administrator of the Screen Rate of a currency has made a public statement identifying a specific date after which the Screen Rate of such currency will permanently or indefinitely cease to be published by it (and there is no successor administrator that will continue publication of the Screen Rate of such currency), (y) the supervisor for the administrator of the Screen Rate of a currency has made a public statement identifying a specific date after which the Screen Rate of such currency will permanently or indefinitely cease to be published or (z) the supervisor for the administrator of the Screen Rate of a currency or a Governmental Authority having jurisdiction over the Administrative Agent has made a public statement identifying a specific date after which the Screen Rate of such currency may no longer be used for determining interest rates for loans, then the Administrative Agent and the Parent Borrower shall endeavor to establish an alternate rate of interest of to the Eurocurrency Rate for such currency that gives due consideration to the then prevailing market convention for determining a rate of interest for syndicated loans in the United States of such currency at such time, and shall enter into an amendment to this Agreement to reflect such alternate rate of interest for such currency and such other related changes to this Agreement as may be applicable (but for the avoidance of doubt, such related changes shall not include a reduction of the Applicable Rate); provided that, if such alternate rate of interest for such currency as so determined would be less than zero (or for Initial Term Loans, 1.00%), such rate shall be deemed to be zero (or for Initial Term Loans, 1.00%) for the purposes of this Agreement. Notwithstanding anything to the contrary in Section 10.01, such amendment shall become effective without any further action or consent of any other party to this Agreement so long as the Administrative Agent shall not have received, within five Business Days of the date notice of such alternate rate of interest for such currency is provided to the Lenders, a written notice from the Required Lenders stating that such Required Lenders object to such amendment. Until an alternate rate of interest shall be determined in accordance with this clause (b) for such currency (but, in the case of the circumstances

described in clause (ii) of the first sentence of this Section 3.04(b), only to the extent the Screen Rate for the applicable currency and such Interest Period is not available or published at such time on a current basis), (x) any Committed Loan Notice that requests the conversion of any Revolving Credit Borrowing to, or continuation of any Revolving Credit Borrowing as, a Eurocurrency Rate Borrowing of such currency shall be ineffective and (y) if any Committed Loan Notice requests a Revolving Credit Borrowing of such currency, such Borrowing shall be made as a Base Rate Borrowing.

Section 3.05 Increased Cost and Reduced Return; Capital Adequacy and Liquidity Requirements.

(a) If any Lender reasonably determines that as a result of the introduction of or any change in or in the interpretation of any Law, in each case after the date hereof, or such Lender's compliance therewith, there shall be any material increase in the cost to such Lender of agreeing to make or making, funding or maintaining any Loan the interest on which is determined by reference to the Eurocurrency Rate or (as the case may be) issuing or participating in Letters of Credit, or a material reduction in the amount received or receivable by such Lender in connection with any of the foregoing (including Taxes on or in respect of its loans, letters of credit, commitments, or other obligations, or its deposits, reserves, other liabilities or capital attributable thereto, but excluding for purposes of this Section 3.05(a) any such increased costs or reduction in amount resulting from (i) Indemnified Taxes indemnifiable under Section 3.01 and (ii) Excluded Taxes), then within 15 days after demand of such Lender setting forth in reasonable detail such increased costs (with a copy of such demand to the Administrative Agent given in accordance with Section 3.06), the Borrowers shall pay to such Lender such additional amounts as will compensate such Lender for such increased cost or reduction.

(b) If any Lender reasonably determines that the introduction of any Law regarding capital adequacy and liquidity requirements or any change therein or in the interpretation thereof, in each case after the date hereof, or compliance by such Lender (or its Lending Office) therewith, has the effect of materially reducing the rate of return on the capital of such Lender or any corporation controlling such Lender as a consequence of such Lender's obligations hereunder (taking into consideration its policies with respect to capital adequacy and liquidity and such Lender's desired return on capital), then within 15 days after demand of such Lender setting forth in reasonable detail the charge and the calculation of such reduced rate of return (with a copy of such demand to the Administrative Agent given in accordance with Section 3.06), the Borrowers shall pay to such Lender such additional amounts as will compensate such Lender for such reduction.

(c) The Borrowers shall pay to each Lender, (i) as long as such Lender shall be required to maintain reserves or liquidity with respect to liabilities or assets consisting of or including Eurocurrency Rate funds or deposits, additional interest on the unpaid principal amount of each Eurocurrency Rate Loan equal to the actual costs of such reserves or liquidity allocated to such Loan by such Lender (as determined by such Lender in good faith, which determination shall be conclusive in the absence of manifest error), and (ii) as long as such Lender shall be required to comply with any liquidity requirement, reserve ratio requirement or analogous requirement of any other central banking or financial regulatory authority imposed in respect of the maintenance of the Commitments or the funding of the Eurocurrency Rate Loans, such additional costs (expressed as a percentage per annum and rounded upwards, if necessary, to the nearest five decimal places) equal to the actual costs allocated to such Commitment or Loan by such Lender (as determined by such Lender in good faith, which determination shall be conclusive absent manifest error) which in each case shall be due and payable on each date on which interest is payable on such Loan; provided the Parent Borrower shall have received at least 15 days' prior written notice (with a copy to the Administrative Agent) of such additional interest or cost from such Lender. If a Lender fails to give written notice fifteen days prior to the relevant Interest Payment Date, such additional interest or cost shall be due and payable 15 days from receipt of such written notice.

(d) For purposes of this Section 3.05, (i) the Dodd-Frank Wall Street Reform and Consumer Protection Act and all requests, rules, regulations, guidelines or directives thereunder or issued in connection therewith and (ii) all requests, rules, guidelines, requirements and directives promulgated by the Bank for International Settlements, the Basel Committee on Banking Supervision (or any successor or similar authority) or the United States or foreign regulatory authorities (other than foreign regulatory authorities in Switzerland), in each case pursuant to Basel III, shall, in each case, be deemed to have gone into effect after the date hereof, regardless of the date enacted, adopted or issued.

Section 3.06 Funding Losses. Upon written demand of any Lender (with a copy to the Administrative Agent) from time to time, setting forth in reasonable detail the basis for calculating such compensation, the Borrowers shall promptly compensate such Lender for and hold such Lender harmless from any loss, cost or expense incurred by it as a result of:

(a) any continuation, conversion, payment or prepayment of any Eurocurrency Rate Loan on a day other than the last day of the Interest Period for such Loan (whether voluntary, mandatory, automatic, by reason of acceleration, or otherwise);

(b) any failure by the Borrowers (for a reason other than the failure of such Lender to make a Loan or pursuant to a conditional notice) to prepay, borrow, continue or convert any Eurocurrency Rate Loan on the date or in the amount notified by the Parent Borrower;

(c) any failure by the Borrowers to make payment of any Loan or drawing under any Letter of Credit (or interest due thereon) denominated in an Alternative Currency on its scheduled due date or any payment of any Loan or drawing under any Letter of Credit (or interest due thereon) in a different currency from such Loan or Letter of Credit drawing; or

(d) any mandatory assignment of such Lender's Eurocurrency Rate Loans pursuant to Section 3.08 on a day other than the last day of the Interest Period for such Loans,

including any loss or expense arising from the liquidation or reemployment of funds obtained by it to maintain such Loan or from fees payable to terminate the deposits from which such funds were obtained (but excluding anticipated profits). The Borrowers shall also pay any customary administrative fees charged by such Lender in connection with the foregoing.

Section 3.07 Matters Applicable to All Requests for Compensation.

(a) A certificate of any Agent or any Lender claiming compensation under this Article III and setting forth in reasonable detail a calculation of the additional amount or amounts to be paid to it hereunder shall be conclusive in the absence of manifest error. In determining such amount, such Agent or such Lender may use any reasonable averaging and attribution methods. With respect to any Lender's claim for compensation under Section 3.03, 3.04 or 3.05, the Loan Parties shall not be required to compensate such Lender for any amount incurred more than 180 days prior to the date that such Lender notifies the Parent Borrower of the event that gives rise to such claim; provided that, if the circumstance giving rise to such claim is retroactive, then such 180-day period referred to above shall be extended to include the period of retroactive effect thereof.

(b) If any Lender requests compensation under Section 3.05, or the Borrowers are required to pay any additional amount to any Lender, any L/C Issuer, or any Governmental Authority for the account of any Lender or any L/C Issuer pursuant to Section 3.01, or if any Lender gives a notice pursuant to Section 3.03, then such Lender or the L/C Issuer, as applicable, will, if requested by the Parent Borrower and at the Borrowers' expense, use commercially reasonable efforts to designate another Lending Office for any Loan or Letter of Credit affected by such event; provided that such efforts (i) would eliminate or reduce amounts payable pursuant to Section 3.01 or 3.04, as applicable, in the future and (ii) would not, in the judgment of such Lender or such L/C Issuer, as applicable, be inconsistent with the internal policies of, or otherwise be disadvantageous in any material legal, economic or regulatory respect to such Lender or its Lending Office or such L/C Issuer. The provisions of this clause (b) shall not affect or postpone any Obligations of the Borrowers or rights of such Lender pursuant to Section 3.05.

(c) If any Lender requests compensation by the Borrowers under Section 3.05, the Parent Borrower may, by notice to such Lender (with a copy to the Administrative Agent), suspend the obligation of such Lender to make or continue from one Interest Period to another Eurocurrency Rate Loans, or to convert Base Rate Loans into Eurocurrency Rate Loans, until the event or condition giving rise to such request ceases to be in effect (in which case the provisions of Section 3.07(e) shall be applicable); provided that such suspension shall not affect the right of such Lender to receive the compensation so requested.

(d) If the obligation of any Lender to make or continue from one Interest Period to another any Eurocurrency Rate Loan, or to convert Base Rate Loans into Eurocurrency Rate Loans shall be suspended pursuant to Section 3.07(c) hereof, such Lender's Eurocurrency Rate Loans shall be automatically converted into Base Rate Loans on the last day(s) of the then current Interest Period(s) for such Eurocurrency Rate Loans (or, in the case of an immediate conversion required by Section 3.03, on such earlier date as required by Law) and, unless and until such Lender gives notice as provided below that the circumstances specified in Section 3.03, 3.04 or 3.05 hereof that gave rise to such conversion no longer exist:

(i) to the extent that such Lender's Eurocurrency Rate Loans have been so converted, all payments and prepayments of principal that would otherwise be applied to such Lender's Eurocurrency Rate Loans shall be applied instead to its Base Rate Loans; and

(ii) all Loans that would otherwise be made or continued from one Interest Period to another by such Lender as Eurocurrency Rate Loans shall be made or continued instead as Base Rate Loans, and all Base Rate Loans of such Lender that would otherwise be converted into Eurocurrency Rate Loans shall remain as Base Rate Loans.

(e) If any Lender gives notice to the Parent Borrower (with a copy to the Administrative Agent) that the circumstances specified in Section 3.03, 3.04 or 3.05 hereof that gave rise to the conversion of such Lender's Eurocurrency Rate Loans pursuant to this Section 3.07 no longer exist (which such Lender agrees to do promptly upon such circumstances ceasing to exist) at a time when Eurocurrency Rate Loans made by other Lenders are outstanding, such Lender's Base Rate Loans shall be automatically converted, on the first day(s) of the next succeeding Interest Period(s) for such outstanding Eurocurrency Rate Loans, to the extent necessary so that, after giving effect thereto, all Loans held by the Lenders holding Eurocurrency Rate Loans and by such Lender are held pro rata (as to principal amounts, interest rate basis, and Interest Periods) in accordance with their respective Commitments.

(f) A Lender shall not be entitled to any compensation pursuant to the foregoing sections to the extent such Lender is not imposing such charges or requesting such compensation from borrowers (similarly situated to the Borrowers hereunder) under comparable syndicated credit facilities.

Section 3.08 Replacement of Lenders under Certain Circumstances.

(a) If at any time (i) the Borrowers become obligated to pay additional amounts or indemnity payments described in Section 3.01 or 3.05 (other than with respect to Other Taxes) as a result of any condition described in such Sections or any Lender ceases to make Eurocurrency Rate Loans as a result of any condition described in Section 3.03 or 3.04, (ii) any Lender becomes a Defaulting Lender or (iii) any Lender becomes a Non-Consenting Lender (as defined below in this Section 3.08) (collectively, a "Replaceable Lender"), then the Parent Borrower may, on written notice from the Parent Borrower to the Administrative Agent and such Lender, either (i) replace such Lender by causing such Lender to (and such Lender shall be obligated to) assign pursuant to Section 10.07(b) (with the assignment fee to be paid by the Borrowers in such instance unless waived by the Administrative Agent) all of its rights and obligations under this Agreement (or, in the case of a Non-Consenting Lender, all of its rights and obligations under this Agreement with respect to the Facility or Facilities for which its consent is required) to one or more Eligible Assignees; provided that neither the Administrative Agent nor any Lender shall have any obligation to the Borrowers to find a replacement Lender or other such Person or (ii) so long as no Default or Event of Default shall have occurred and be continuing, terminate the Commitment of such Lender or L/C Issuer, as the case may be, and (1) in the case of a Lender (other than an L/C Issuer), repay all Obligations of the Borrowers owing (and the amount of all accrued interest and fees in respect thereof) to such Lender relating to the Loans and participations held by such Lender as of such termination date and (2) in the case of an L/C Issuer, repay all obligations of the Borrowers owing to such L/C Issuer relating to the Loans and participations held by such L/C Issuer as of such termination date and cancel or backstop on terms satisfactory to such L/C Issuer any Letters of Credit issued by it; provided that (i) in the case of any such replacement of, or termination of Commitments with respect to a Non-Consenting Lender such replacement or termination shall be sufficient (together with all other consenting Lenders including any other replacement Lender) to cause the adoption of the applicable modification, waiver or amendment of the Loan Documents and (ii) in the case of any such replacement as a result of the Borrowers having become obligated to pay amounts described in Section 3.01 or 3.05, such replacement would

eliminate or reduce payments pursuant to Section 3.01 or 3.05, as applicable, in the future. Any Lender being replaced pursuant to this Section 3.08(a) (i) need not be a party to an Assignment and Assumption in order for such assignment to be effective and shall be deemed to have consented to an be bound by the terms thereof; provided that, following the effectiveness of any such assignment, the other parties to such assignment agree to execute and deliver such documents necessary to evidence such assignment as reasonably requested by the applicable Lender, provided that any such documents shall be without recourse to or warranty by the parties thereto and (ii) shall deliver any Notes evidencing such Loans to the Borrowers (for return to the Borrower) or the Administrative Agent. Pursuant to such Assignment and Assumption, (A) the assignee Lender shall acquire all or a portion, as the case may be, of the assigning Lender's Commitment and outstanding Loans and participations in L/C Obligations, (B) all Obligations relating to the Loans and participations (and the amount of all accrued interest, fees and premiums in respect thereof) so assigned shall be paid in full by the assignee Lender to such assigning Lender concurrently with such assignment and assumption and (C) upon such payment and, if so requested by the assignee Lender, the assigning Lender shall deliver to the assignee Lender the applicable Note or Notes executed by the Borrower, the assignee Lender shall become a Lender hereunder and the assigning Lender shall cease to constitute a Lender hereunder with respect to such assigned Loans, Commitments and participations, except with respect to indemnification provisions under this Agreement, which shall survive as to such assigning Lender. In connection with any such replacement, if any such Replaceable Lender does not execute and deliver to the Administrative Agent a duly executed Assignment and Assumption reflecting such replacement within two Business Days of the date on which the assignee Lender executes and delivers such Assignment and Assumption to such Replaceable Lender, then such Replaceable Lender shall be deemed to have executed and delivered such Assignment and Assumption without any action on the part of the Replaceable Lender. In connection with the replacement of any Lender pursuant to this Section 3.08(a), the Borrowers shall pay to such Lender such amounts as may be required pursuant to Section 3.06.

(b) Notwithstanding anything to the contrary contained above, (i) any Lender that acts as an L/C Issuer may not be replaced hereunder at any time that it has any Letter of Credit outstanding hereunder unless arrangements satisfactory to such L/C Issuer (including the furnishing of a back-up standby letter of credit in form and substance, and issued by an issuer reasonably satisfactory to such L/C Issuer or the depositing of Cash Collateral into a cash collateral account in amounts and pursuant to arrangements consistent with the requirements of Section 2.16) have been made with respect to such outstanding Letter of Credit and (ii) the Lender that acts as the Administrative Agent may not be replaced hereunder except in accordance with the terms of Section 9.09.

(c) In the event that (i) the Parent Borrower or the Administrative Agent has requested the Lenders to consent to a waiver of any provisions of the Loan Documents or to agree to any amendment or other modification thereto, (ii) the waiver, amendment or modification in question requires the agreement of all affected Lenders in accordance with the terms of Section 10.01 or all the Lenders with respect to a certain class of the Loans and (iii) the Required Lenders have agreed to such waiver, amendment or modification, then any Lender who does not agree to such waiver, amendment or modification, in each case, shall be deemed a "Non-Consenting Lender"; provided, that the term "Non-Consenting Lender" shall also include any Lender that rejects (or is deemed to reject) (x) a loan modification offer under Section 10.01, which loan modification has been accepted by at least the Majority Lenders of the respective Tranche of Loans whose Loans and/or Commitments are to be extended pursuant to such loan modification and (y) any Lender that does not elect to become a lender in respect of any Specified Refinancing Debt pursuant to Section 2.18. For the avoidance of doubt, if any applicable Lender shall be deemed a Non-Consenting Lender and is required to assign all or any portion of its Initial Term Loans or its Initial Term Loans are prepaid by the Borrowers, pursuant to Section 3.08(a) on or prior to the date that is 12 months after the Closing Date in connection with any such waiver, amendment or modification constituting a Repricing Event, the Borrowers shall pay such Non-Consenting Lender a fee equal to 1.00% of the principal amount of the Initial Term Loans so assigned or prepaid.

(d) Survival. All of the Loan Parties' obligations under this Article III shall survive termination of the Aggregate Commitments and repayment of all other Obligations hereunder, any assignment by or replacement of a Lender and any resignation or removal of the Administrative Agent.

ARTICLE IV.
Conditions Precedent to Credit Extensions

Section 4.01 Conditions to the Initial Credit Extension on the Closing Date. The obligation of each

Lender to make its initial Credit Extension hereunder on the Closing Date is subject to satisfaction or due waiver in accordance with Section 10.01 of each of the following conditions precedent, except as otherwise agreed between the Parent Borrower and the Administrative Agent:

(a) The Administrative Agent shall have received all of the following, each of which shall be originals or facsimiles or "pdf" files (followed promptly by originals) unless otherwise specified, each properly executed by a Responsible Officer of the signing Loan Party, each dated as of the Closing Date (or, in the case of certificates of governmental officials, as of a recent date before the Closing Date), each in form and substance reasonably satisfactory to the Administrative Agent, and each accompanied by their respective required schedules and other attachments (and set forth thereon shall be all required information with respect to Holdings and its Subsidiaries, giving effect to the Transactions):

(i) executed counterparts of (A) this Agreement from Holdings and the Borrowers, (B) the Holdings Guaranty from Holdings, (C) the Subsidiary Guaranty from each Subsidiary Guarantor and (D) the Intercompany Subordination Agreement;

(ii) a customary perfection certificate, duly executed by the Loan Parties;

(iii) the Security Agreement, duly executed by Holdings, the Borrowers and each Subsidiary Guarantor, together with (subject to the last paragraph of this Section 4.01):

(1) certificates, if any, representing the Pledged Interests in each Borrower and each wholly owned Domestic Subsidiary other than Immaterial Subsidiaries, accompanied by undated stock powers executed in blank (or stock transfer forms, as applicable) and instruments evidencing the Pledged Debt indorsed in blank (or instrument of transfer, as applicable) shall have been delivered to the Collateral Agent following pay-off of the Existing Credit Agreements,

(2) copies of proper financing statements, filed or duly prepared for filing under the Uniform Commercial Code in all United States jurisdictions that the Administrative Agent may deem reasonably necessary in order to perfect and protect the Liens on assets of Holdings, each Borrower and each Subsidiary Guarantor created under the Security Agreement, covering the Collateral described in the Security Agreement, and

(3) evidence that all other actions, recordings and filings of or with respect to the Security Agreement that the Administrative Agent may deem reasonably necessary or desirable in order to perfect and protect the Liens created thereby (subject to the Perfection Exceptions) shall have been taken, completed or otherwise provided for in a manner reasonably satisfactory to the Administrative Agent (including receipt of duly executed payoff letters, customary lien searches and UCC-3 termination statements);

(iv) an Intellectual Property Security Agreement, duly executed by each Loan Party that owns intellectual property (and, to the extent applicable, is the exclusive licensee of registered copyrights) that is required to be pledged in accordance with the Security Agreement;

(v) a Note executed by the Borrowers in favor of each Lender requesting a Note reasonably in advance of the Closing Date;

(vi) a Committed Loan Notice and a Letter of Credit Application, if applicable, in each case relating to the initial Credit Extension;

(vii) a solvency certificate executed by the chief financial officer or similar officer, director or authorized signatory of the Parent Borrower (after giving effect to the Transactions) substantially in the form attached hereto as Exhibit I;

(viii) such documents and certifications (including Organization Documents and, if applicable, good standing certificates) as the Administrative Agent may reasonably require to evidence (A) the identity, authority and capacity of each Responsible Officer of the Loan Parties acting as such in connection with this Agreement and the other Loan Documents and (B) that Holdings, each Borrower and each Subsidiary Guarantor is duly organized or formed, and that each of them is validly existing and, to the extent applicable, in good standing, except to the extent that failure to be so qualified could not reasonably be expected to have a Material Adverse Effect; and

(ix) an opinion of Kirkland & Ellis LLP, special New York and California counsel to Holdings, the Borrowers and the Subsidiary Guarantors, addressed to each Secured Party, in form and substance reasonably satisfactory to the Administrative Agent.

(b) The Arrangers and the Administrative Agent shall have received (i) audited consolidated balance sheets and the related consolidated statements of income and cash flows of the Parent Borrower as of and for the fiscal year ended December 31, 2017 and (ii) unaudited condensed consolidated balance sheets and the related consolidated statements of income of the Parent Borrower as of the end of and for the three month period ended March 31, 2018 and as of and for any fiscal quarter (other than the fourth fiscal quarter) ended at least 45 days prior to the Closing Date.

(c) The Arrangers and the Administrative Agent shall have received a pro forma consolidated balance sheet and related pro forma consolidated statement of income of the Parent Borrower or a direct or indirect parent of the Parent Borrower and its Subsidiaries as of and for the twelve-month period ending on March 31, 2018, prepared so as to give effect to the Transactions as if the Transactions had occurred as of such date (in the case of such balance sheet) or as if the Transactions had occurred at the beginning of such period (in the case of such other financial statements), which need not be prepared in compliance with Regulation S-X, or include adjustments for purchase accounting.

(d) (i) Holdings and the Borrowers shall have provided the documentation and other information reasonably requested in writing at least ten days prior to the Closing Date by the Arrangers as they reasonably determine is required by regulatory authorities under applicable "know your customer" and anti-money-laundering rules and regulations, including, without limitation, the PATRIOT Act, in each case at least three business days prior to the Closing Date (or such shorter period as the Administrative Agent shall otherwise agree) and (ii) to the extent any Borrower qualifies as a "legal entity customer" under the Beneficial Ownership Regulation, at least five days prior to the Closing Date, any Lender that has requested, in a written notice to the Parent Borrower at least 10 days prior to the Closing Date, a Beneficial Ownership Certification in relation to the Borrowers shall have received such Beneficial Ownership Certification (provided that, upon the execution and delivery by such Lender of its signature page to this Agreement, the condition set forth in this clause (ii) shall be deemed to be satisfied).

(e) The Second Lien Facility Documentation required by the terms of the Second Lien Credit Agreement and the First Lien/Second Lien Intercreditor Agreement shall have been duly executed and delivered by each Loan Party thereto to the Second Lien Administrative Agent and shall be in full force and effect, and substantially contemporaneously with the funding of the Facilities, the Second Lien Facility shall be funded.

(f) (i) the Refinancing shall have been, or shall concurrently with the initial funding of the Facilities be, consummated.

(ii) All fees required to be paid on the Closing Date pursuant to this Agreement, the Fee Letter and any other arrangements with the Administrative Agent or the Arrangers and reasonable out-of-pocket expenses required to be paid on the Closing Date pursuant to any other written agreement with the Arrangers, to the extent invoiced at least three Business Days prior to the Closing Date (or such later date as the Parent Borrower may reasonably agree) shall have been paid (which amounts may be offset against the proceeds of the Initial Term Loans at the Parent Borrower's election).

Without limiting the generality of the provisions of Section 9.03, for purposes of determining compliance with the conditions specified in this Section 4.01, each Lender as of the Closing Date shall be deemed to have consented to, approved or accepted or to be satisfied with, each document or other matter required hereunder to be consented to or approved by or acceptable or satisfactory to a Lender unless the Administrative Agent shall have received written notice from such Lender prior to the Closing Date specifying its objection thereto.

Notwithstanding anything herein to the contrary, it is understood that, other than with respect to (a) the execution and delivery by Holdings and the Borrowers of the Security Agreement and the Intellectual Property Security Agreement and (b) UCC Filing Collateral or Stock Certificates (each as defined below), to the extent any Lien on any Collateral is not or cannot be provided and/or perfected on the Closing Date after Holdings' and the Borrowers' use of commercially reasonable efforts to do so or without undue burden or expense, the provision and/or perfection of a Lien on such Collateral shall not constitute a condition precedent for purposes of this Section 4.01, but instead shall be required to be perfected after the Closing Date in accordance with Section 6.16; provided that Holdings and the Borrowers shall have delivered all Stock Certificates. For purposes of this paragraph, "UCC Filing Collateral" means Collateral, including Collateral constituting investment property, for which a security interest can be perfected by filing a UCC-1 financing statement. "Stock Certificates" means certificates representing Capital Stock of each Borrower and the wholly owned Domestic Subsidiaries of the Loan Parties (other than Immaterial Subsidiaries) (provided that Holdings and the Borrowers shall not be required to deliver Stock Certificates constituting Excluded Property) for which a security interest can be perfected by delivering such certificates, together with undated stock powers or other appropriate instruments of transfer executed in blank for each such certificate.

Section 4.02 Conditions to All Credit Extensions. The obligation of each Lender to honor any Request for Credit Extension (other than a Committed Loan Notice requesting only a conversion of Loans to the other Type, or a continuation of Eurocurrency Rate Loans) is subject to the following conditions precedent:

(a) Subject in the case of any Borrowing in connection with a New Loan Commitment to the provisions in Section 1.02(i), the representations and warranties of the Borrowers and each other Loan Party contained in Article V or any other Loan Document shall be true and correct in all material respects (and in all respects if any such representation or warranty is already qualified by materiality) on and as of the date of such Credit Extension, except to the extent that such representations and warranties specifically refer to an earlier date, in which case they shall be true and correct in all material respects (and in all respects if any such representation or warranty is already qualified by materiality) as of such earlier date, and except that for purposes of this Section 4.02, the representations and warranties contained in Sections 5.05(a) and 5.05(b) shall be deemed to refer to the most recent financial statements furnished pursuant to Section 6.01(a) and (b), respectively, prior to such proposed Credit Extension.

(b) Subject in the case of any Borrowing in connection with a New Loan Commitment to the provisions in Section 1.02(i), no Default or Event of Default shall exist, or would result from such proposed Credit Extension or from the application of the proceeds therefrom.

(c) The Administrative Agent and, if applicable, the applicable L/C Issuer shall have received a Request for Credit Extension in accordance with the requirements hereof.

Each Request for a Credit Extension (other than a Committed Loan Notice requesting only a conversion of Loans to the other Type or a continuation of Eurocurrency Rate Loans) submitted by the Parent Borrower shall be deemed to be a representation and warranty that the conditions specified in Sections 4.02(a) and (b) have been satisfied (unless waived) on and as of the date of the applicable Credit Extension.

ARTICLE V.
Representations and Warranties

Each of Holdings (with respect to Sections 5.01, 5.02, 5.03, 5.04, 5.08, 5.12, 5.13, 5.14, 5.18, 5.19 and 5.20) and the Borrowers represent and warrant to the Administrative Agent, Collateral Agent and the Lenders that:

Section 5.01 Existence, Qualification and Power; Compliance with Laws. Each Loan Party and each of the Subsidiaries (subject, in the case of clause (c), to Section 5.03) (a) is a Person duly organized, formed or incorporated, validly existing and in good standing (to the extent such concept is applicable in the relevant jurisdiction) under the Laws of the jurisdiction of its incorporation or organization, (b) has all requisite power and authority to (i) own or lease its assets and carry on its business and (ii) execute, deliver and perform its obligations under the Loan Documents to which it is a party, (c) is duly qualified and is authorized to do business and in good standing (to the extent such concept is applicable in the relevant jurisdiction) under the Laws of each jurisdiction where its ownership, lease or operation of properties or the conduct of its business requires such qualification and (d) has all requisite governmental licenses, authorizations, consents and approvals to operate its business as currently conducted; except in each case referred to in clause (b)(i), (c) and (d), to the extent that any failure to be so or to have such could not reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect.

Section 5.02 Authorization; No Contravention. The execution, delivery and performance by each Loan Party of each Loan Document to which such Person is or is to be a party, are within such Loan Party's corporate or other powers, have been duly authorized by all necessary corporate or other organizational action and do not (a) contravene the terms of any of such Person's Organization Documents or (b) violate any Law; except to the extent that such violation under clause (b) could not reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect.

Section 5.03 Governmental Authorization; Other Consents. No approval, consent, exemption, authorization or other action by, or notice to, or filing with, any Governmental Authority or any other Person is necessary or required in connection with (a) the execution, delivery, performance by, or enforcement against, any Loan Party of this Agreement or any other Loan Document, or for the consummation of the Transactions, (b) the grant by any Loan Party of the Liens granted by it pursuant to the Collateral Documents or (c) the perfection or maintenance of the Liens created under the Collateral Documents, except for (w) filings and registrations necessary to perfect the Liens on the Collateral granted by the Loan Parties consisting of UCC financing statements, filings in the United States Patent and Trademark Office and the United States Copyright Office and Mortgages, and, (x) the approvals, consents, exemptions, authorizations, actions, notices and filings which have been duly obtained, taken, given or made and are in full force and effect, (y) those approvals, consents, exemptions, authorizations or other actions, notices or filings set out in the Collateral Documents and (z) those approvals, consents, exemptions, authorizations or other actions, notices or filings, the failure of which to obtain or make could not reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect.

Section 5.04 Binding Effect. This Agreement and each other Loan Document has been duly executed and delivered by each Loan Party (subject, in each case, to Section 5.03) that is party thereto. This Agreement and each other Loan Document constitutes a legal, valid and binding obligation of such Loan Party, enforceable against each Loan Party that is party thereto in accordance with its terms, subject to applicable bankruptcy, insolvency, reorganization, moratorium or other laws affecting creditors' rights generally and subject to general principles of equity, regardless of whether considered in a proceeding in equity or at law.

Section 5.05 Financial Statements; No Material Adverse Effect.

(a) The audited consolidated financial statements of the Parent Borrower (or of any Parent Holding Company or Subsidiary of a Parent Holding Company allowed to be delivered pursuant to the terms hereof) and its Subsidiaries most recently delivered pursuant to Section 4.01(b)(i) or 6.01(a), as applicable, fairly present in all material respects the consolidated financial condition of the Parent Borrower (or of any Parent Holding Company or Subsidiary of a Parent Holding Company allowed to be delivered pursuant to the terms hereof) and its Subsidiaries as of the dates thereof and their results of operations for the period covered thereby in accordance with GAAP consistently applied throughout the period covered thereby, except as otherwise expressly noted therein.

(b) The unaudited consolidated financial statements of the Parent Borrower (or of any Parent Holding Company or Subsidiary of a Parent Holding Company allowed to be delivered pursuant to the terms hereof) and its Subsidiaries most recently delivered pursuant to Section 4.01(b)(ii) or 6.01(b), as applicable, (i) were prepared in accordance with GAAP and consistently applied throughout the period covered thereby, except as otherwise expressly noted therein, and (ii) fairly present in all material respects the consolidated financial condition of the Parent Borrower (or of any Parent Holding Company or Subsidiary of a Parent Holding Company allowed to be

delivered pursuant to the terms hereof) and its Subsidiaries as of the date thereof and their results of operations for the period covered thereby, subject to the absence of footnotes and to normal and recurring year-end audit adjustments.

(c) Since December 31, 2017, there has been no event or circumstance, either individually or in the aggregate, that has had or would reasonably be expected to have a Material Adverse Effect.

(d) The consolidated forecasted balance sheets, statements of income and statements of cash flows of the Parent Borrower (or of any Parent Holding Company allowed to be delivered pursuant to the terms hereof) and its Subsidiaries most recently delivered pursuant to Section 6.01(c) were prepared in good faith on the basis of the assumptions stated therein, which assumptions were reasonable in light of the conditions existing at the time of delivery of such forecasts; it being understood that no assurance can be given that any particular projections will be realized, actual results may vary from such forecasts and that such variations may be material.

Section 5.06 Litigation. There are no actions, suits, proceedings, claims or disputes pending or, to the knowledge of the Borrowers, threatened in writing, at law, in equity, in arbitration or before any Governmental Authority, against the Borrowers or any Subsidiary, or against any of their properties or revenues that would reasonably be expected to have a Material Adverse Effect.

Section 5.07 Use of Proceeds. The Borrowers (a) will only use the proceeds of the Initial Term Loans to finance the Transactions and pay Transaction Costs (including paying any fees, commissions and expenses associated therewith); (b) will use the proceeds of the Revolving Credit Loans made after the Closing Date to finance the working capital needs of the Parent Borrower and the Subsidiaries and for general corporate purposes of the Parent Borrower and the Subsidiaries (including acquisitions and other Investments permitted hereunder); and (c) will use the Letters of Credit issued and the proceeds of all other Borrowings made after the Closing Date to finance the working capital needs of the Parent Borrower and the Subsidiaries, for general corporate purposes of the Parent Borrower and the Subsidiaries (including acquisitions and other Investments permitted hereunder).

Section 5.08 Ownership of Property; Liens.

(a) Each Loan Party and each of the Subsidiaries has good and marketable fee simple title to, or valid leasehold interests in, all real property necessary in the ordinary conduct of its business, free and clear of all Liens except for minor defects in title that do not materially interfere with its ability to conduct its business or to utilize such assets for their intended purposes and Liens permitted by Section 7.02, except where the failure to have such title or interests could not reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect on the use or operation of any Material Real Property or any real property necessary for the ordinary conduct of the Borrower's business, taken as a whole.

(b) Set forth on Schedule 5.08(b) hereto is a complete and accurate list, in all material respects, of all Material Real Property owned by any Loan Party as of the Closing Date, showing as of the Closing Date, the street address (to the extent available), county or other relevant jurisdiction, state and record owner; and as of the Closing Date, no Loan Party owns any Material Real Property except as listed on Schedule 5.08(b).

Section 5.09 Environmental Compliance. Except as would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect:

(a) The Borrowers and the Subsidiaries and their respective operations and properties, are in compliance with all Environmental Laws and Environmental Permits and none of the Borrowers or the Subsidiaries are subject to any Environmental Liability.

(b) (i) None of the properties currently or formerly owned or operated by the Borrowers or any Subsidiary is listed or, to the knowledge of the Parent Borrower, proposed for listing on the NPL or on the CERCLIS or any analogous foreign, state or local list, (ii) there is no asbestos or asbestos-containing material on any property currently owned or operated by the Borrowers or any of the Subsidiaries requiring investigation, remediation, mitigation, removal, or assessment, or other response, remedial or corrective

action, pursuant to any Environmental Law and (iii) Hazardous Materials have not been Released and there exists no threat of Release of Hazardous Materials on any property currently or, to the knowledge of the Parent Borrower, formerly owned or operated by the Borrowers or any of the Subsidiaries, except for such Releases or threats of Releases that were in compliance with, or would not reasonably be expected to give rise to liability of the Borrowers or any Subsidiary under Environmental Laws.

(c) None of the Borrowers or any of the Subsidiaries is undertaking, and none has completed, either individually or together with other potentially responsible parties, any investigation, remediation, mitigation, removal, assessment or remedial, response or corrective action relating to any actual or threatened release, discharge or disposal of Hazardous Materials at any site, location or operation, either voluntarily or pursuant to the order of any Governmental Authority or the requirements of any Environmental Law.

(d) All Hazardous Materials generated, used, treated, handled or stored at, or transported to or from, any property currently or, to the knowledge of the Parent Borrower, formerly owned or operated by the Borrowers or any of the Subsidiaries have been disposed of in a manner not reasonably expected to result in liability to the Borrowers or any of the Subsidiaries.

(e) None of the Borrowers or any of the Subsidiaries has received a notice of or is subject to any claim, action, proceeding or suit alleging liability pursuant to any Environmental Law.

Section 5.10 Taxes. Each Borrower and each of the Subsidiaries has filed or have caused to be filed all Tax returns and reports required to be filed, and has paid all Taxes (including in its capacity as a withholding agent) levied or imposed upon it or its properties, income or assets otherwise due and payable, except those (a) that are being contested in good faith by appropriate proceedings diligently conducted and for which adequate reserves have been provided in accordance with GAAP or (b) with respect to which the failure to make such filing or payment would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect.

Section 5.11 Employee Benefits Plans.

(a) Except as would not reasonably be expected, individually or in the aggregate, to result in a Material Adverse Effect, (i) each Plan is in compliance with the applicable provisions of ERISA, the Code and other applicable federal and state laws and (ii) each Plan that is intended to be a qualified plan under Section 401(a) of the Code may rely upon an opinion letter for a prototype plan or has received a favorable determination letter from the IRS to the effect that the form of such Plan is qualified under Section 401(a) of the Code and the trust related thereto has been determined by the IRS to be exempt from federal income tax under Section 501(a) of the Code, or an application for such a letter will be submitted to the IRS within the applicable required time period with respect thereto or is currently being processed by the IRS, and to the knowledge of any Loan Party, nothing has occurred that would prevent, or cause the loss of, such tax-qualified status.

(b) Except as would not reasonably be expected, individually or in the aggregate, to result in a Material Adverse Effect, (i) each Foreign Plan is in compliance with all requirements of Law applicable thereto and the respective requirements of the governing documents for such plan and (ii) with respect to each Foreign Plan, none of the Borrowers or any of its Subsidiaries or any of their respective directors, officers, employees or agents has engaged in a transaction that could subject the Borrowers or any Subsidiary, directly or indirectly, to any tax or civil penalty.

(c) There are no pending or, to the knowledge of any Loan Party, threatened claims, actions or lawsuits, or action by any Governmental Authority, with respect to any Plan that would reasonably be expected to have a Material Adverse Effect. There has been no "prohibited transaction" within the meaning of Section 4975 of the Code or Section 406 or 407 of ERISA (and not otherwise exempt under Section 408 of ERISA) with respect to any Plan that would reasonably be expected to result in a Material Adverse Effect.

(d) (i) No ERISA Event has occurred and neither any Loan Party nor, to the knowledge of any Loan Party, any ERISA Affiliate is aware of any fact, event or circumstance that could reasonably be expected to

constitute or result in an ERISA Event with respect to any Plan, Multiemployer Plan or Foreign Plan, (ii) each Loan Party and each ERISA Affiliate has met all applicable requirements under the Pension Funding Rules in respect of each Plan, and no waiver of the minimum funding standards under such Pension Funding Rules has been applied for or obtained, (iii) there exists no Unfunded Pension Liability, (iv) as of the most recent valuation date for any Plan, the present value of all accrued benefits under such Plan (based on the actuarial assumptions used to fund such Plan) did not exceed the value of the assets of such Plan allocable to such accrued benefits, (v) neither any Loan Party nor, to the knowledge of any Loan Party any ERISA Affiliate knows of any facts or circumstances that could reasonably be expected to cause the funding target attainment percentage (as defined in Section 430(d)(2) of the Code) for any Plan, if applicable, to drop below 80% as of the most recent valuation date, (vi) neither any Loan Party nor any ERISA Affiliate has incurred any liability to the PBGC other than for the payment of premiums, and there are no premium payments which have become due that are unpaid, (vii) neither any Loan Party nor any ERISA Affiliate has engaged in a transaction that could be subject to Sections 4069 or 4212(c) of ERISA and (viii) no Plan has been terminated by the plan administrator thereof or by the PBGC and no event or circumstance has occurred or exists that could reasonably be expected to cause the PBGC to institute proceedings under Title IV of ERISA to terminate any Plan or Multiemployer Plan, except with respect to each of the foregoing clauses (i) through (viii) of this Section 5.11(a), as would not reasonably be expected, individually or in the aggregate, to result in a Material Adverse Effect.

(e) (i) With respect to each Foreign Plan, reserves have been established in the financial statements furnished to Lenders in respect of any unfunded liabilities in accordance with applicable Law and, where required, in accordance with ordinary accounting practices in the jurisdiction in which such Foreign Plan is maintained and (ii) except as disclosed or reflected in such financial statements, there are no aggregate unfunded liabilities with respect to Foreign Plans and the present value of the aggregate accumulated benefit liabilities of all Foreign Plans did not, as of the last annual valuation date applicable thereto, exceed the assets of all such Foreign Plans, except with respect to each of the foregoing clauses (i) and (ii) of this Section 5.11(e), as would not reasonably be expected, individually or in the aggregate, to result in a Material Adverse Effect.

Section 5.12 Subsidiaries; Capital Stock. As of the Closing Date, there are no Subsidiaries other than those specifically disclosed in Schedule 5.12, and all of the outstanding Capital Stock in such Subsidiaries that are owned by a Loan Party have been validly issued, are fully paid and non-assessable (other than for those Subsidiaries that are limited liability companies and limited partnerships and to the extent such concepts are not applicable in the relevant jurisdiction) and are owned free and clear of all Liens except (i) those created under the Collateral Documents, (ii) those created under the Second Lien Facility Documentation and (iii) any nonconsensual Lien that is permitted under Section 7.02.

Section 5.13 Margin Regulations; Investment Company Act.

(a) Each of the Loan Parties is not engaged and will not engage, principally or as one of its important activities, in the business of purchasing or carrying Margin Stock, or extending credit for the purpose of purchasing or carrying Margin Stock and no proceeds of any Borrowings or drawings under any Letter of Credit will be used to purchase or carry any Margin Stock or to extend credit to others for the purpose of purchasing or carrying any Margin Stock. Neither the making of any Credit Extension hereunder nor the use of proceeds thereof will violate any regulations of the FRB, including the provisions of Regulations T, U or X of the FRB.

(b) None of the Loan Parties is or is required to be registered as an "investment company" under the Investment Company Act of 1940, as amended.

Section 5.14 Disclosure.

(a) As of the Closing Date, no report, financial statement, certificate or other written information furnished by or on behalf of any Loan Party (other than projected financial information, pro forma financial information and information of a general economic or industry nature) to any Agent or any Lender in connection with the transactions contemplated hereby and the negotiation of this Agreement or delivered hereunder or any other Loan Document (as modified or supplemented by other information so furnished), when taken as a whole, contains any material misstatement of fact or omits to state any material fact necessary to make the statements therein (when taken as a whole), in the light of the circumstances under which they were made, not materially misleading;

provided that, with respect to projected and pro forma financial information, the Parent Borrower represents only that such information was prepared in good faith based upon assumptions believed to be reasonable at the time of preparation and delivery; it being understood that actual results may vary from such forecasts and that such variances may be material.

(b) As of the Closing Date, the information included in the Beneficial Ownership Certification is true and correct in all respects.

Section 5.15 Compliance with Laws. The Borrowers and each Subsidiary are in compliance in all material respects with the requirements of all Laws and all orders, writs, injunctions and decrees applicable to it or to its properties, except in such instances in which (a) such requirement of Law or order, writ, injunction or decree is being contested in good faith by appropriate proceedings diligently conducted or (b) the failure to comply therewith, either individually or in the aggregate, could not reasonably be expected to have a Material Adverse Effect.

Section 5.16 Intellectual Property; Licenses, Etc. To the knowledge of the Borrowers and each Subsidiary Guarantor own, license or possess the right to use, all of the trademarks, service marks, trade names, copyrights, patents and other intellectual property rights (collectively, "IP Rights") that are necessary for the operation of its respective business, as currently conducted, except to the extent such failure to own, license or possess, either individually or in the aggregate, could not reasonably be expected to have a Material Adverse Effect and provided that the foregoing shall not deem to constitute a representation that the Borrowers and the Subsidiary Guarantors do not infringe or violate the IP Rights held by any other Person. Set forth on Schedule 5.16 is a complete and accurate list of all registrations or applications to register in the United States Patent and Trademark Office or the United States Copyright Office patents, trademarks, and copyrights owned or, in the case of copyrights, exclusively licensed by the Borrowers and Subsidiary Guarantors as of the Closing Date. To the knowledge of the Borrowers, the conduct of the business of the Borrowers or Subsidiary Guarantors as currently conducted does not infringe upon or violate any IP Rights held by any other Person, except for such infringements and violations which, individually or in the aggregate, could not reasonably be expected to have a Material Adverse Effect. No claim or litigation regarding any of the foregoing is pending or, to the knowledge of the Borrowers, threatened in writing, which, either individually or in the aggregate, could reasonably be expected to have a Material Adverse Effect.

Section 5.17 Solvency. On the Closing Date, after giving effect to the Transactions, the Borrowers and their Subsidiaries, on a consolidated basis, are Solvent.

Section 5.18 Perfection, Etc. Subject to Section 5.03, each Collateral Document delivered pursuant to this Agreement will, upon execution and delivery thereof, be effective to create in favor of the Collateral Agent for the benefit of the Secured Parties, legal, valid and enforceable first priority Liens on, and security interests in the Collateral described therein to the extent intended to be created thereby, except as to enforcement, as may be limited by applicable domestic bankruptcy, insolvency, fraudulent conveyance, reorganization (by way of voluntary arrangement, schemes of arrangements or otherwise), moratorium and other similar laws relating to or affecting creditors' rights generally, general equitable principles (whether considered in a proceeding in equity or at law) and (a) when financing statements are filed in the offices of the Secretary of State of each Loan Party's jurisdiction of organization or formation and applicable documents are filed and recorded as applicable in the United States Copyright Office or the United States Patent and Trademark Office and (b) upon the taking of possession or control by the Collateral Agent of such Collateral with respect to which a security interest may be perfected only by possession or control (which possession or control shall be given to the Collateral Agent to the extent possession or control by the Collateral Agent is required by the applicable Collateral Document) the Liens created by the Collateral Documents shall constitute fully perfected first priority Liens so far as possible under relevant law on, and security interests in (to the extent intended to be created thereby and required to be perfected under the Loan Documents), all right, title and interest of the grantors in such Collateral in each case free and clear of any Liens other than Liens permitted hereunder.

Section 5.19 Sanctions; OFAC.

(a) Sanctions Laws and Regulations. Each of Holdings, the Borrowers and each of their respective Subsidiaries is (i) in compliance, in all material respects, with applicable Sanctions Laws and Regulations and (ii) in compliance, in all material respects, with applicable anti-money laundering laws and regulations. No Borrowing or

Letter of Credit, or use of proceeds, will violate or result in the violation of any Sanctions Laws and Regulations applicable to any party hereto.

(b) OFAC. None of (I) Holdings, the Borrowers or any other Loan Party and (II) the Subsidiaries that are not Loan Parties or, to the knowledge of Holdings and the Borrowers, any director, manager, officer, agent or employee of Holdings, the Borrowers or any of their respective Subsidiaries, in each case, (i) is a person whose property or interest in property is blocked or subject to blocking pursuant to Section 1 of the Executive Order, (ii) in any material respect, engages in any dealings or transactions prohibited by Section 2 of the Executive Order, or is otherwise associated with any such person in any manner that violates Section 2 of the Executive Order, (iii) is a person on the list of "Specially Designated Nationals and Blocked Persons" or otherwise targeted by limitations or prohibitions under any other OFAC regulation or executive order or (iv) is otherwise the subject or target of any Sanctions Laws and Regulations. The Borrowers will not directly or indirectly use the proceeds of the Loans or otherwise make available such proceeds to any Person, for the purpose of financing the activities of any Person, or in any country or territory, that is the subject or target of any Sanctions Laws and Regulations in violation of Sanctions Laws and Regulations, or in any other manner that would result in a material violation of any Sanctions Laws and Regulations by any Person, unless specifically or generally licensed by OFAC.

Section 5.20 Anti-Corruption Laws. No part of the proceeds of any Loan will be used for any improper payments, directly or, to the Borrowers' knowledge, indirectly, to any governmental official or employee, political party, official of a political party, candidate for political office, or anyone else acting in an official capacity, or any other party (if applicable) in order to obtain, retain or direct business or obtain any improper advantage, in violation of the United States Foreign Corrupt Practices Act of 1977, as amended, the United Kingdom Bribery Act of 2010, as amended and any similar laws, rules or regulations issued, administered or enforced by any Governmental Authority having jurisdiction over the Borrowers (collectively, the "Anti-Corruption Laws"). The Borrowers have implemented and maintains in effect policies and procedures designed to reasonably ensure compliance by the Borrowers, their Subsidiaries and their respective directors, officer, employees and agents with Anti-Corruption Laws, and the Borrowers, their Subsidiaries and their respective officers and employees and, to the knowledge of the Borrowers, their respective directors and agents, are in compliance in all material respects with Anti-Corruption Laws.

ARTICLE VI.
Affirmative Covenants

So long as any Lender shall have any Commitment hereunder, any Loan or other Obligation (other than contingent indemnification obligations as to which no claim has been asserted and obligations and liabilities under Secured Cash Management Agreements and Secured Hedge Agreements) hereunder shall remain unpaid or unsatisfied, or any Letter of Credit shall remain outstanding (other than Letters of Credit which have been Cash Collateralized) (A) the Parent Borrower shall, and shall (except in the case of the covenants set forth in Sections 6.01, 6.02 and 6.03) cause each Subsidiary to and (B) with respect to Section 6.14, Holdings shall:

Section 6.01 Financial Statements. Deliver to the Administrative Agent for further distribution to each Lender:

(a) within 120 days after the end of each fiscal year of the Parent Borrower, beginning with the fiscal year ended December 31, 2018, a consolidated balance sheet of the Parent Borrower and its Subsidiaries as at the end of such fiscal year, and the related consolidated statements of income or operations, shareholders' equity and cash flows for such fiscal year, setting forth in each case in comparative form the figures for the previous fiscal year, all in reasonable detail and prepared in accordance with GAAP, audited and accompanied by a report and opinion of any independent certified public accountant of nationally recognized standing, which report and opinion shall be prepared in accordance with generally accepted auditing standards and shall not be subject to any "going concern" or like qualification, exception or explanatory paragraph or any qualification, exception or explanatory paragraph as to the scope of such audit, together with a customary management's discussion and analysis of financial information;

(b) within 60 days after the end of each of the first three fiscal quarters of each fiscal year of the Parent Borrower (commencing with the fiscal quarter ended June 30, 2018), a consolidated balance sheet of the Parent Borrower and its Subsidiaries as at the end of such fiscal quarter, and the related consolidated statements of income or operations, shareholders' equity and cash flows for such fiscal quarter and for the portion of the fiscal year then ended, setting forth in each case, in comparative form the figures for the corresponding fiscal quarter of the previous fiscal year and the corresponding portion of the previous fiscal year, all in reasonable detail and certified by a Responsible Officer of the Parent Borrower as fairly presenting in all material respects the financial condition, results of operations, shareholders' equity and cash flows of the Parent Borrower and its Subsidiaries in accordance with GAAP, subject only to normal year-end audit adjustments and the absence of footnotes, together with a customary management's discussion and analysis of financial information; and

(c) within 120 days after the end of each fiscal year, beginning with the fiscal year ended December 31, 2018, to be distributed only to each Lender that has selected the "Private Side Information" or similar designation, reasonably detailed segment-level forecasts along with written assumptions prepared by management of the Parent Borrower (including projected consolidated balance sheets, income statements, and cash flow statements of the Parent Borrower and its Subsidiaries) on a quarterly basis for the fiscal year following such fiscal year then ended, which forecasts shall be prepared in good faith on the basis of assumptions believed to be reasonable at the time of preparation thereof; provided that delivery of such forecasts pursuant to this Section 6.01(c) shall only be required hereunder prior to an initial public offering of the Capital Stock of the Parent Borrower, Holdings or any Parent Holding Company.

Notwithstanding the foregoing, (A) the obligations in clauses (a), (b) and (c) of this Section 6.01 may be satisfied by furnishing, at the option of the Parent Borrower, the applicable financial statements or, as applicable, forecasts of (I) any successor of the Parent Borrower, or (II) Holdings or any Parent Holding Company; provided that to the extent such information relates to Holdings or a Parent Holding Company, such information is accompanied by consolidating information that explains in reasonable detail the differences between the information relating to Holdings or any Parent Holding Company, on the one hand, and the information relating to the Parent Borrower and the Subsidiaries on a standalone basis, on the other hand, and (B) (i) in the event that the Parent Borrower or Holdings (or any Parent Holding Company allowed to be delivered pursuant to the terms hereof) delivers to the Administrative Agent an Annual Report on Form 10-K for any fiscal year (or similar filing in the applicable jurisdiction), as filed with the SEC or in such form as would have been suitable for filing with the SEC, within the time frames set forth in clause (a) above, such Form 10-K shall satisfy all requirements of clause (a) of this Section 6.01 with respect to such fiscal year to the extent that it contains the information and report and opinion required by such clause (a) and such report and opinion does not contain any "going concern" or like qualification, exception or explanatory paragraph or any qualification, exception or explanatory paragraph as to the scope of audit and (ii) in the event that the Parent Borrower (or any Parent Holding Company allowed to be delivered pursuant to the terms hereof) delivers to the Administrative Agent a Quarterly Report on Form 10-Q for any fiscal quarter (or similar filing in the applicable jurisdiction), as filed with the SEC or in such form as would have been suitable for filing with the SEC, within the time frames set forth in clause (b) above, such Form 10-Q shall satisfy all requirements of clause (b) of this Section with respect to such fiscal quarter to the extent that it contains the information required by such clause (b); in each case to the extent that information contained in such Form 10-K or Form 10-Q (or similar filings in the applicable jurisdiction) satisfies the requirements of clauses (a) or (b) of this Section 6.01, as the case may be.

Section 6.02 Certificates; Other Information. Deliver to the Administrative Agent:

(a) no later than five days after the delivery of (i) the financial statements referred to in Section 6.01(a) or (ii) an Annual Report on Form 10-K (delivered pursuant to the last paragraph of Section 6.01), but only to the extent permitted by accounting industry policies generally followed by independent certified public accountants, a certificate of the independent certified public accountants certifying such financial statements and stating that in making the examination necessary therefor no knowledge was obtained of any Event of Default arising from a breach of the Financial Covenant (to the extent then applicable) or, if any such Event of Default shall exist, stating the nature and status of such event;

(b) no later than five days after the delivery of (i) the financial statements referred to in Sections 6.01(a) and (b) or (ii) an Annual Report on Form 10-K or a Quarterly Report on Form 10-Q (in either case, delivered pursuant to the last paragraph of Section 6.01), a duly completed Compliance Certificate signed by a Responsible Officer of the Parent Borrower (which delivery may, unless the Administrative Agent or a Lender requests executed originals, be by electronic communication including fax or email and shall be deemed to be an original authentic counterpart thereof for all purposes);

(c) promptly after the same are available, copies of all annual, regular, periodic and special reports and registration statements which Holdings or the Parent Borrower may file or be required to file, copies of any report, filing or communication with the SEC under Section 13 or 15(d) of the Exchange Act, or with any Governmental Authority that may be substituted therefor, or with any national securities exchange, and in any case not otherwise required to be delivered to the Administrative Agent pursuant hereto;

(d) promptly after the furnishing thereof, copies of any notices received by any Loan Party (other than in the ordinary course of business) and copies of any statement or report furnished to any holder of debt securities or loans of any Loan Party or of any of its Subsidiaries (other than any immaterial correspondence in the ordinary course of business or any regularly required quarterly or annual certificates), in each case pursuant to the terms of the Second Lien Credit Agreement or any other Junior Financing in a principal amount greater than the Threshold Amount and not otherwise required to be furnished to the Lenders pursuant to any other clause of this Section 6.02;

(e) promptly after the receipt thereof by any Loan Party or any of its Subsidiaries, copies of each notice or other correspondence received from the SEC (or comparable agency in any applicable non-U.S. jurisdiction) concerning any material investigation or other material inquiry by such agency regarding financial or other operational results of any Loan Party or any of its Subsidiaries;

(f) promptly after the assertion or occurrence thereof, notice of any action arising under any Environmental Law against or of any noncompliance by any Loan Party or any of its Subsidiaries with any Environmental Law or Environmental Permit, in each case that would reasonably be expected to have a Material Adverse Effect;

(g) together with the delivery of each Compliance Certificate pursuant to Section 6.02(b), a report supplementing Schedule 5.12 hereto to the extent necessary so that the related representation and warranty would be true and correct if made as of the date of such Compliance Certificate; and

(h) promptly, such additional information regarding the business, legal, financial or corporate affairs of any Loan Party or any Subsidiary thereof as the Administrative Agent or any Lender through the Administrative Agent may from time to time reasonably request.

Documents required to be delivered pursuant to Section 6.01(a), (b), (c) or (d) or Section 6.02(c) or (d) (or to the extent any such documents are included in materials otherwise filed with the SEC) may be delivered electronically and if so delivered, shall be deemed to have been delivered on the date on which such documents are posted on the Parent Borrower's (or any Parent Holding Company or Subsidiary of a Parent Holding Company allowed to be delivered pursuant to the terms hereof) behalf on the Approved Electronic Platform or another relevant Internet or intranet website, if any, to which each Lender and the Administrative Agent have access (whether a commercial, third-party website or whether sponsored by the Administrative Agent); provided that: (i) upon written request by the Administrative Agent, the Parent Borrower shall deliver paper copies of such documents to the Administrative Agent for further distribution to each Lender until a written request to cease delivering paper copies is given by the Administrative Agent or such Lender and (ii) the Parent Borrower shall notify (which may be by facsimile or electronic mail) the Administrative Agent of the posting of any such documents described in this paragraph and provide to the Administrative Agent by electronic mail electronic versions (i.e., soft copies) of such documents to the extent requested by the Administrative Agent. The Administrative Agent shall have no obligation to request the delivery of or to maintain or deliver to Lenders paper copies of the documents referred to above, and in any event shall have no responsibility to monitor compliance by the Parent Borrower with any such request for

delivery, and each Lender shall be solely responsible for timely accessing posted documents or requesting delivery of paper copies of such documents from the Administrative Agent and maintaining its copies of such documents.

Each Borrower represents and warrants that each of it and its controlling and controlled entities, in each case, if any (collectively with the Borrowers, the "Relevant Entities"), either (i) has no SEC registered or unregistered, publicly traded securities outstanding, or (ii) files its financial statements with the SEC and/or makes its financial statements available to potential holders of its securities, and, accordingly, each Borrower hereby (i) authorizes the Administrative Agent to make the financial statements to be provided under Sections 6.02(a) and (b) above, along with the Loan Documents, available to Public Siders and (ii) agrees that at the time such financial statements are provided hereunder, they shall already have been made available to holders of any such securities. The Borrowers will not request that any other material be posted to Public Siders without expressly representing and warranting to the Administrative Agent in writing that such materials do not constitute material non-public information within the meaning of the federal securities laws or that the Relevant Entities have no outstanding SEC registered or unregistered, publicly traded securities. Notwithstanding anything herein to the contrary, in no event shall the Borrowers request that the Administrative Agent make available to Public Siders budgets or any certificates, reports or calculations with respect to the Borrowers' compliance with the covenants contained herein.

Section 6.03 Notices. Promptly, after a Responsible Officer of any Borrower or any Guarantor has obtained knowledge thereof, notify the Administrative Agent:

(a) of the occurrence of any Default or Event of Default;

(b) of the institution of any material litigation not previously disclosed by the Parent Borrower to the Administrative Agent, or any material development in any material litigation that is reasonably likely to be adversely determined, and would, in either case, if adversely determined be reasonably expected to have a Material Adverse Effect;

(c) of the occurrence of any ERISA Event, where there is any reasonable likelihood of the imposition of liability on any Loan Party as a result thereof that would be reasonably expected to have a Material Adverse Effect; and

(d) of the occurrence of any Foreign Benefit Event, where there is any reasonable likelihood of the imposition of liability on any Loan Party as a result thereof that would be reasonably expected to have a Material Adverse Effect.

Each notice pursuant to this Section 6.03 shall be accompanied by a statement of a Responsible Officer of the Parent Borrower setting forth details of the occurrence referred to therein and stating what action the Parent Borrower has taken and proposes to take with respect thereto.

Section 6.04 Payment of Taxes. Pay, discharge or otherwise satisfy as the same shall become due and payable, all Taxes (including in its capacity as withholding agent) imposed upon it or its income, profits, properties or other assets, unless the same are being contested in good faith by appropriate proceedings diligently conducted and adequate reserves in accordance with GAAP are being maintained by such Borrower or such Subsidiary; except to the extent the failure to pay, discharge or satisfy the same could not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect.

Section 6.05 Preservation of Existence, Etc. (a) Preserve, renew and maintain in full force and effect its legal existence under the Laws of the jurisdiction of its organization except in a transaction permitted by Section 7.03 or 7.04, (b) take all reasonable action to maintain all rights, privileges (including its good standing, if such concept is applicable in its jurisdiction of organization), permits, licenses and franchises necessary or desirable in the normal conduct of its business, except to the extent that failure to do so could not reasonably be expected to have a Material Adverse Effect or as otherwise permitted hereunder, and (c) use commercially reasonable efforts to preserve or renew all of its registered IP Rights, the non-preservation of which could reasonably be expected to have a Material Adverse Effect or as otherwise permitted hereunder, provided that nothing in this Section 6.05 shall require the preservation, renewal or maintenance of, or prevent the abandonment by, the Borrowers or Subsidiary of

any registered IP Rights that the Borrowers or Subsidiary reasonably determine are not useful to its business or no longer commercially desirable.

Section 6.06 Maintenance of Properties. Except if the failure to do so could not reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect, maintain, preserve and protect all of its tangible properties and equipment that are necessary in the operation of its business in good working order, repair and condition, ordinary wear and tear excepted and casualty or condemnation excepted.

Section 6.07 Maintenance of Insurance.

(a) Maintain in full force and effect, with insurance companies that the Parent Borrower believes (in the good faith judgment of the management of the Parent Borrower) are financially sound and responsible at the time the relevant coverage is placed or renewed, insurance in at least such amounts (after giving effect to any self-insurance which the Parent Borrower believes (in the good faith judgment of management of the Parent Borrower) is reasonable and prudent in light of the size and nature of its business) and against at least such risks (and with such risk retentions) as are usually insured against in the same general area by companies engaged in businesses similar to those engaged by the Borrowers and the Subsidiaries. Subject to Section 6.16, the Parent Borrower shall use commercially reasonable efforts to ensure that at all times the Collateral Agent, for the benefit of the Secured Parties, shall be named as an additional insured with respect to liability policies (other than directors and officers policies and workers compensation) maintained by Holdings, the Borrowers and each Subsidiary Guarantor and the Collateral Agent, for the benefit of the Secured Parties, shall be named as loss payee and mortgagee with respect to the property insurance maintained by Holdings, the Borrowers and each Subsidiary Guarantor; provided that, unless an Event of Default shall have occurred and be continuing, (A) all proceeds from insurance policies shall be paid to the applicable Borrower or applicable Subsidiary Guarantor, (B) to the extent the Collateral Agent receives any proceeds, the Collateral Agent shall turn over to the Parent Borrower any amounts received by it as an additional insured or loss payee under any property insurance maintained by the Borrowers and their Subsidiaries, and (C) the Collateral Agent agrees that the Borrowers and/or their applicable Subsidiaries shall have the sole right to adjust or settle any claims under such insurance.

(b) Without limiting the foregoing, (i) maintain, if available, fully paid flood hazard insurance on all improved real property that is located in a special flood hazard area and that constitutes Mortgaged Property, on such terms and in such amounts as required by the Flood Insurance Laws, (ii) furnish to the Collateral Agent promptly upon written request evidence of the renewal (and payment of renewal premiums therefor) of all such policies prior to the expiration or lapse thereof, and (iii) furnish to the Collateral Agent prompt written notice of any redesignation of any such improved real property into or out of a special flood hazard area.

Section 6.08 Compliance with Laws. Comply with the requirements of all applicable Laws (including, without limitation, ERISA, the PATRIOT Act, Sanctions Laws and Regulations and Environmental Laws) and all orders, writs, injunctions and decrees of any Governmental Authority applicable to it or to its business or property, except if the failure to comply therewith, either individually or in the aggregate, could not reasonably be expected to have a Material Adverse Effect.

Section 6.09 Books and Records. Maintain proper books of record and account, in a manner to allow financial statements to be prepared in all material respects in conformity with GAAP consistently applied in respect of all financial transactions and matters involving the assets and business of the Borrowers or, if applicable, Holdings or such Subsidiary, as the case may be (it being understood and agreed that Foreign Subsidiaries may maintain individual books and records in conformity with generally accepted accounting principles that are applicable in their respective jurisdiction of organization).

Section 6.10 Inspection Rights. Permit representatives of the Administrative Agent and, during the continuance of any Event of Default, of each Lender to visit and inspect any of its properties (subject to the rights of lessees or sublessees thereof and subject to any restrictions or limitations in the applicable lease, sublease or other written occupancy arrangement pursuant to which such Borrower or such Subsidiary is a party), to examine its corporate, financial and operating records, and make copies thereof or abstracts therefrom, and to discuss its affairs, finances and accounts with its directors, managers, officers, and independent public accountants (subject to such accountants' customary policies and procedures), all at the reasonable expense of the Parent Borrower and at such

reasonable times during normal business hours and as often as may be reasonably desired, upon reasonable advance written notice to the Parent Borrower; provided that, excluding any such visits and inspections during the continuation of an Event of Default, (i) only the Administrative Agent on behalf of the Lenders may exercise rights under this Section 6.10, (ii) the Administrative Agent shall not exercise such rights more often than one time during any calendar year and (iii) such exercise shall be at the Parent Borrower's expense; provided further, that when an Event of Default is continuing the Administrative Agent (or any of their respective representatives) may do any of the foregoing at the expense of the Parent Borrower at any time and from time to time during normal business hours and upon reasonable advance written notice. The Administrative Agent and the Lenders shall give the Parent Borrower the opportunity to participate in any discussions with the Parent Borrower's accountants. Notwithstanding anything to the contrary in this Section 6.10, none of the Borrowers nor any Subsidiary will be required to disclose or permit the inspection or discussion of, any document, information or other matter (i) that constitutes non-financial trade secrets or non-financial proprietary information, (ii) in respect of which disclosure to the Administrative Agent or any Lender (or their respective representatives or contractors) is prohibited by Law or any binding agreement or (iii) that is subject to attorney client or similar privilege or constitutes attorney work product; provided that the Borrowers shall notify the Administrative Agent of the fact that information is being withheld pursuant to this sentence.

Section 6.11 Use of Proceeds. The Borrowers will use the Letters of Credit and the proceeds of the Loans only as provided in Sections 5.07, 5.13(a), 5.19 and 5.20.

Section 6.12 Covenant to Guarantee Obligations and Give Security.

(a) Upon the formation or acquisition of any new wholly owned Domestic Subsidiaries by any Loan Party (provided that any Excluded Subsidiary ceasing to be an Excluded Subsidiary but remaining a Subsidiary (including a Controlled Foreign Subsidiary ceasing to be a Controlled Foreign Subsidiary or a FSHCO ceasing to be a FSHCO) shall be deemed to constitute the acquisition of a Subsidiary for all purposes of this Section 6.12), and upon the acquisition of any property (other than Excluded Property and real property that is not Material Real Property and other than foreign intellectual property and U.S. intellectual property that is not registered with, or that is not the subject of an application for registration with, the United States Patent and Trademark Office or United States Copyright Office) by any Loan Party, which property, in the reasonable judgment of the Administrative Agent, is not already subject to a perfected Lien in favor of the Collateral Agent for the benefit of the Secured Parties (and where such a perfected Lien would be required in accordance with the terms of the Collateral Documents or other Loan Documents), the Parent Borrower shall, at the Parent Borrower's expense:

(i) in connection with such formation or acquisition of a Domestic Subsidiary, within 90 days after such formation or acquisition or such longer period as the Collateral Agent may agree in its reasonable discretion, (A) cause each such Subsidiary that is not an Excluded Subsidiary to duly execute and deliver to the Collateral Agent a guaranty or guaranty supplement, in form and substance reasonably satisfactory to the Collateral Agent, guaranteeing the Obligations and a joinder or supplement to the applicable Collateral Documents and (B) (if not already so delivered) deliver certificates (or the foreign equivalent thereof, as applicable) representing the Pledged Interests of each such Subsidiary (if any) held by the applicable Loan Party accompanied by undated stock powers or other appropriate instruments of transfer executed in blank and instruments evidencing the Pledged Debt owing by such Subsidiary to any Loan Party indorsed in blank to the Collateral Agent, together with, if requested by the Collateral Agent, supplements to the Security Agreement; provided that any Excluded Property shall not be required to be pledged as Collateral,

(ii) within 90 days after such formation or acquisition of any such property or any request therefor by the Collateral Agent (or such longer period, as the Collateral Agent may agree in its reasonable discretion) duly execute and deliver, and cause each such Subsidiary that is not an Excluded Subsidiary to duly execute and deliver, to the Collateral Agent one or more Mortgages (and other documentation and instruments referred to in Section 6.14) (with respect to Material Real Properties only), Security Agreement Supplements, Intellectual Property Security Agreement Supplements, as specified by and in form and substance reasonably satisfactory to the Collateral Agent (consistent, to the extent applicable, with the Security Agreement, the Intellectual Property Security Agreement, the Mortgages and the other Collateral Documents (and Section 6.14)), securing payment of all the Obligations (provided that to the extent any

property to be subject to a Mortgage is located in a jurisdiction which imposes mortgage recording taxes, intangibles tax, documentary tax or similar recording fees or taxes, the relevant Mortgage shall not secure an amount in excess of the Fair Market Value of such property subject thereto and shall not secure the Obligations in respect of Letters of Credit or the Revolving Credit Facility in those states that impose a mortgage tax on paydowns or re-advances applicable thereto) of the applicable Loan Party or such Subsidiary, as the case may be, under the Loan Documents and establishing Liens on all such properties or property; provided that such properties or property shall not be required to be pledged as Collateral, and no Security Agreement Supplements, Intellectual Property Security Agreement Supplements shall be required to be delivered in respect thereof, to the extent that any such properties or property constitute Excluded Property,

(iii) within 90 days after such request, formation or acquisition, or such longer period, as the Collateral Agent may agree in its reasonable discretion, take, and cause such Subsidiary that is not an Excluded Subsidiary and each applicable Loan Party to take, whatever action (including the recording of Mortgages (with respect to Material Real Properties only), the filing of UCC financing statements, the giving of notices and delivery of stock and membership interest certificates or foreign equivalents representing the applicable Capital Stock) as may be necessary or advisable in the reasonable opinion of the Collateral Agent to vest in the Collateral Agent (or in any representative of the Collateral Agent designated by it), subject to Section 5.03, valid and subsisting Liens on the properties purported to be subject to the Mortgages, Security Agreement Supplements, Intellectual Property Security Agreement Supplements, supplements to other Collateral Documents and security agreements delivered pursuant to this Section 6.12, in each case to the extent required under the Loan Documents and subject to the Perfection Exceptions, enforceable against all third parties in accordance with their terms,

(iv) within 90 days after the request of the Collateral Agent, or such longer period as the Collateral Agent may agree in its reasonable discretion, deliver to the Collateral Agent, Organization Documents, resolutions and a signed copy of one or more customary opinions, addressed to the Collateral Agent and the other Secured Parties, of counsel for the Loan Parties (or the Collateral Agent, as applicable) reasonably acceptable to the Collateral Agent as to such matters as the Collateral Agent may reasonably request (limited, in the case of any opinions of local counsel to Loan Parties constituting material Subsidiary Guarantors in jurisdictions in which any Mortgaged Property is located, to opinions relating to Material Real Property (and any other Mortgaged Properties located in the same jurisdiction as any such Material Real Property)),

(v) within 90 days after the request of the Collateral Agent, or such longer period as the Collateral Agent may agree in its reasonable discretion, deliver to the Collateral Agent with respect to each Material Real Property that is the subject of such request and subject to a Mortgage, title reports in scope, form and substance reasonably satisfactory to the Collateral Agent (but only to the extent such reports exist and are in the possession of the relevant Loan Party or can reasonably be obtained), fully paid American Land Title Association Lender's title insurance policies or the equivalent or other form available in the applicable jurisdiction in form and substance, with endorsements as provided in Section 6.14 and in amounts, reasonably acceptable to the Collateral Agent (not to exceed the Fair Market Value of the Material Real Properties covered thereby and subject to any tie-in coverage available) but only to the extent such Material Real Property is located in the United States, and

(vi) at any time and from time to time, promptly execute and deliver any and all further instruments and documents and take all such other action as the Collateral Agent in its reasonable judgment may deem necessary or desirable in obtaining the full benefits of, or in perfecting and preserving the Liens of, such guaranties, Mortgages, Security Agreement Supplements, Intellectual Property Security Agreement Supplements, Collateral Documents and security agreements.

Section 6.13 Compliance with Environmental Laws. Except, in each case, to the extent that the failure to do so could not reasonably be expected to have a Material Adverse Effect: (a) comply, and take commercially reasonable efforts to cause all lessees operating or occupying its properties to comply with all Environmental Laws and Environmental Permits; (b) obtain, maintain and renew all applicable Environmental Permits necessary for its operations and properties; and (c) to the extent required under Environmental Laws, conduct any investigation,

mitigation, study, sampling and testing, and undertake any cleanup, removal or remedial, corrective or other action necessary to respond to and remove and clean up all Hazardous Materials from any of its properties, in accordance with the requirements of Environmental Laws.

Section 6.14 Further Assurances.

(a) Promptly upon request by the Administrative Agent, or the Collateral Agent or any Lender through the Administrative Agent, and subject to the limitations described in Section 6.12, (i) correct any material defect or error that may be discovered in any Loan Document or other document or instrument relating to any Collateral or in the execution, acknowledgment, filing or recordation thereof and (ii) do, execute, acknowledge, deliver, record, re-record, file, re-file, register and re-register any and all such further acts, deeds, certificates, assurances and other instruments as the Administrative Agent, or the Collateral Agent or any Lender through the Administrative Agent, may reasonably require from time to time in order to grant, preserve, protect and continue the validity, perfection and priority of the security interests created or intended to be created by the Collateral Documents. Notwithstanding anything to the contrary herein, neither the Borrowers nor any Loan Party (except for any Foreign Subsidiary that is a Loan Party) shall be required to make any filings or take any other actions to perfect the Lien on and security interest in any intellectual property except for filings in the United States Patent and Trademark Office and the United States Copyright Office and filings of UCC-1 financing statements in the applicable jurisdiction.

(b) By the date that is 120 days after the Closing Date, as such time period may be extended in the Collateral Agent's reasonable discretion, the Borrowers shall, and shall cause each Subsidiary to, deliver to the Collateral Agent:

(i) a Mortgage with respect to each Mortgaged Property, together with evidence each such Mortgage has been duly executed, acknowledged and delivered by a duly authorized officer of each party thereto on or before such date in a form suitable for filing and recording in all appropriate local filing or recording offices that the Collateral Agent may deem reasonably necessary or desirable in order to create a valid and subsisting perfected Lien on the property described therein in favor of the Collateral Agent for the benefit of the Secured Parties, subject only to Permitted Liens, and that all filing and recording taxes and fees have been paid or otherwise provided for in a manner reasonably satisfactory to the Collateral Agent; *provided* that to the extent any property to be subject to a Mortgage is located in a jurisdiction that imposes mortgage recording taxes, intangibles tax, documentary tax or similar recording fees or taxes, the relevant Mortgage shall not secure an amount in excess of the Fair Market Value of such property subject thereto and shall not secure the Obligations in respect of Letters of Credit or the Revolving Credit Facility in those states that impose a mortgage tax on paydowns or re-advances applicable thereto;

(ii) fully paid American Land Title Association or equivalent Lender's title insurance policies or marked up unconditional binder for such insurance (the "Mortgage Policies") in form and substance reasonably requested by Collateral Agent, with endorsements reasonably requested by Collateral Agent, in amounts reasonably acceptable to the Collateral Agent (not to exceed the Fair Market Value of the Material Real Properties covered thereby and subject to any tie-in coverage available), issued, coinsured and reinsured by title insurers reasonably acceptable to the Collateral Agent in connection with any Material Real Property located in the United States;

(iii) American Land Title Association/American Congress on Surveying and Mapping form surveys, for which all necessary fees (where applicable) have been paid, certified to the Collateral Agent and the issuer of the Mortgage Policies in a manner reasonably satisfactory to the Collateral Agent by a land surveyor duly registered and licensed in the States in which the property described in such surveys is located and reasonably acceptable to the Collateral Agent and sufficient for the title company to remove the general survey exception and issue survey-related endorsements for the Mortgage Policies; provided that new or updated surveys will not be required if an existing survey, ExpressMap or other similar documentation is available and survey coverage is available for the Mortgage Policies without the need for such new or updated surveys and provided, further, this foregoing requirement shall only be in connection with any Material Real Property located in the United States;

(iv) in each case with respect to any Material Real Property (and any other Mortgaged Properties located in the same state as any such Material Real Property), customary opinions of local counsel to the Loan Parties in jurisdictions in which the Mortgaged Property is located, with respect to the enforceability and perfection of the Mortgages and, if applicable any related fixture filings, in form and substance reasonably satisfactory to the Collateral Agent;

(v) customary opinions of counsel to the Loan Parties in the states in which the Loan Parties party to the Mortgages are organized or formed, with respect to the valid existence, corporate power and authority of such Loan Parties in the granting of the Mortgages, in form and substance reasonably satisfactory to the Administrative Agent;

(vi) with respect to each improved Mortgaged Property, a "Life-of Loan" Federal Emergency Management Agency Standard Flood Hazard Determination and, to the extent such Mortgaged Property is located in a special flood hazard area, a notice about special flood hazard area status and flood disaster assistance, duly executed by the Borrowers and each Loan Party relating thereto and evidence of flood insurance required by Section 6.07 hereof;

(vii) evidence that all other actions reasonably requested by the Administrative Agent, that are necessary in order to create valid and subsisting Liens on the property described in the Mortgage, have been taken; and

(viii) evidence that all documented and invoiced fees, costs and expenses have been paid in connection with the preparation, execution, filing and recordation of the Mortgages, including reasonable attorneys' fees, filing and recording fees, title insurance company coordination fees, documentary stamp, mortgage and intangible taxes and title search charges and other charges incurred in connection with the recordation of the Mortgages and the other matters described in this Section 6.14 and as otherwise required to be paid in connection therewith under Section 10.04.

Section 6.15 Maintenance of Ratings. Use commercially reasonable efforts to obtain and maintain (but not obtain or maintain a specific rating) (i) a public corporate family rating of the Parent Borrower and a rating of the Facilities, in each case from Moody's, and (ii) a public corporate credit rating of the Parent Borrower and a rating of the Facilities, in each case from S&P (it being understood and agreed that "commercially reasonable efforts" shall in any event include the payment by the Parent Borrower of customary rating agency fees and cooperation with information and data requests by Moody's and S&P in connection with their ratings process).

Section 6.16 Post-Closing Undertakings. Within the time periods specified on Schedule 6.16 hereto (as each may be extended by the Administrative Agent in its reasonable discretion), provide such Collateral Documents and complete such undertakings as are set forth on Schedule 6.16 hereto.

Section 6.17 No Change in Line of Business. Continue to engage in substantially similar lines of business as those lines of business conducted by the Borrowers and the Subsidiaries on the date hereof including any business reasonably related, complementary, synergistic or ancillary thereto or reasonable extensions thereof.

Section 6.18 Transactions with Affiliates.

(a) The Parent Borrower will not, and will not permit any of its Subsidiaries to, directly or indirectly, make any payment to, or sell, lease, transfer or otherwise dispose of any of its properties or assets to, or purchase any property or assets from, or enter into or make or amend any transaction or series of transactions, contract, agreement, understanding, loan, advance or guarantee with, or for the benefit of, any Affiliate of the Parent Borrower involving aggregate consideration in excess of $7,000,000 (each of the foregoing, an "Affiliate Transaction"), unless:

(i) such Affiliate Transaction is on terms that are not materially less favorable to the Parent Borrower or the relevant Subsidiary than those that could have been obtained in a comparable transaction by the Parent Borrower or such Subsidiary with an unrelated Person on an arm's length basis; and

(ii) with respect to any Affiliate Transaction or series of related Affiliate Transactions involving aggregate consideration in excess of $10,000,000, the Parent Borrower delivers to the Administrative Agent a resolution adopted in good faith by the majority of the Board of Directors of the Parent Borrower, Holdings or any Parent Holding Company, approving such Affiliate Transaction, together with a certificate signed by a Responsible Officer of the Parent Borrower certifying that the Board of Directors of the Parent Borrower, Holdings or any Parent Holding Company determined or resolved that such Affiliate Transaction complies with Section 6.18(a)(i).

(b) The provisions of Section 6.18(a) shall not apply to the following:

(1) (a) transactions between or among the Loan Parties (other than Holdings) and/or any of its Subsidiaries (or an entity that becomes a Subsidiary as a result of such transaction) and (b) any merger, amalgamation or consolidation of the Parent Borrower and Holdings or any Parent Holding Company; provided that such parent entity shall have no material liabilities and no material assets (other than cash, Cash Equivalents and the Capital Stock of the Parent Borrower) and such merger, amalgamation or consolidation is otherwise in compliance with the terms of this Agreement and effected for a bona fide business purpose;

(2) (a) Restricted Payments permitted by Section 7.05 and (b) Permitted Investments (other than Permitted Investments under clause (13) of the definition thereof);

(3) transactions in which the Parent Borrower or any Subsidiary, as the case may be, delivers to the Administrative Agent a letter from an Independent Financial Advisor stating that such transaction is fair to the Parent Borrower or such Subsidiary from a financial point of view or meets the requirements of Section 6.18(a)(i);

(4) payments, loans, advances or guarantees (or cancellation of loans, advances or guarantees) to employees, officers, directors, managers, consultants or independent contractors for bona fide business purposes or in the ordinary course of business;

(5) any agreement or arrangement as in effect as of the Closing Date (other than the Management Agreement) or as thereafter amended, supplemented or replaced (so long as such amendment, supplement or replacement agreement is not materially disadvantageous (as determined in good faith by the senior management of the Board of Directors of the Parent Borrower or any direct or indirect parent of the Parent Borrower) to the Lenders when taken as a whole as compared to the original agreement or arrangement as in effect on the Closing Date) or any transaction or payments contemplated thereby;

(6) the Management Agreement or any transaction or payments (including reimbursement of out-of-pocket expenses or payments under any indemnity obligations) contemplated thereby;

(7) the existence of, or the performance by the Parent Borrower or any of its Subsidiaries of its obligations under the terms of, any stockholders or similar agreement (including any registration rights agreement or purchase agreement related thereto) to which it is a party as of the Closing Date or similar transactions, arrangements or agreements which it may enter into thereafter; provided, however, that the existence of, or the performance by the Parent Borrower or any of its Subsidiaries of its obligations under, any future amendment to any such existing transaction, arrangement or agreement or under any similar transaction, arrangement or agreement entered into after the Closing Date shall only be permitted by this clause (7) to the extent that the terms of any such existing transaction, arrangement or agreement, together with all amendments thereto, taken as a whole, or new transaction, arrangement or agreement are not otherwise disadvantageous (as determined in good faith by the senior management of the Board of Directors of the Parent Borrower or any direct or indirect parent of the Parent Borrower) to the Lenders, in any material respect when taken as a whole as compared with the original transaction, arrangement or agreement as in effect on the Closing Date;

(8) transactions with customers, clients, suppliers or purchasers or sellers of goods or services, in each case, in the ordinary course of business and otherwise in compliance with the terms of this Agreement, which are fair to the Parent Borrower and its Subsidiaries or are on terms at least as favorable as might reasonably have been obtained at such time from an unaffiliated party (as determined in good faith by the senior management of the Board of Directors of the Parent Borrower or any direct or indirect parent of the Borrower);

(9) any transaction effected as part of a Qualified Receivables Financing;

(10) the sale, issuance or transfer of Equity Interests (other than Disqualified Stock) of the Parent Borrower;

(11) payments by the Parent Borrower or any of its Subsidiaries to the Sponsor made for any financial advisory, financing, underwriting or placement services or in respect of other investment banking activities, including, without limitation, in connection with acquisitions or divestitures, which payments are approved by a majority of the Board of Directors of the Parent Borrower, Holdings or any Parent Holding Company in good faith or a majority of the disinterested members of the Board of Directors of the Parent Borrower, Holdings or any Parent Holding Company in good faith;

(12) any contribution to the capital of the Parent Borrower (other than Disqualified Stock) or any investments by the Sponsor or a direct or indirect parent of the Parent Borrower in Equity Interests (other than Disqualified Stock) of the Parent Borrower (and payment of reasonable out-of-pocket expenses incurred by the Sponsor or a direct or indirect parent of the Parent Borrower in connection therewith);

(13) any transaction with a Person that would constitute an Affiliate Transaction solely because the Parent Borrower or a Subsidiary owns an Equity Interest in or otherwise controls such Person; provided that no Affiliate of the Parent Borrower or any of its Subsidiaries (other than the Parent Borrower or a Subsidiary) shall have a beneficial interest or otherwise participate in such Person;

(14) transactions between the Parent Borrower or any of its Subsidiaries and any Person that would constitute an Affiliate Transaction solely because such Person is a director or such Person has a director which is also a director of the Parent Borrower or any direct or indirect parent of the Parent Borrower; provided, however, that such director abstains from voting as a director of the Parent Borrower or such direct or indirect parent of the Parent Borrower, as the case may be, on any matter involving such other Person;

(15) the entering into of any tax sharing agreement or arrangement and any payments pursuant thereto, in each case to the extent permitted by clause (13), (14)(a) or (14)(e) of the second paragraph under Section 7.05;

(16) transactions to effect the Transactions and payment of all transaction, underwriting, commitment and other fees and expenses related to the Transactions (including the Transaction Costs);

(17) [reserved];

(18) the issuances of securities or other payments, awards or grants in cash, securities or otherwise pursuant to, or the funding of, employment arrangements, equity purchase agreements, stock options and stock ownership plans or similar employee benefit plans approved by the Board of Directors of the Parent Borrower, Holdings or any Parent Holding Company or of a Subsidiary, as appropriate, in good faith;

(19) (i) any employment, consulting, service or termination agreement, or customary indemnification arrangements, entered into by the Parent Borrower or any of its Subsidiaries with current, former or future officers, directors, employees, managers, consultants and independent contractors of the Parent Borrower or any of its Subsidiaries (or of any direct or indirect parent of the Parent Borrower to the

extent such agreements or arrangements are in respect of services performed for the Parent Borrower or any of the Subsidiaries), (ii) any subscription agreement or similar agreement pertaining to the repurchase of Equity Interests pursuant to put/call rights or similar rights with current, former or future officers, directors, employees, managers, consultants and independent contractors of the Parent Borrower or any of its Subsidiaries or of any direct or indirect parent of the Parent Borrower and (iii) any payment of compensation or other employee compensation, benefit plan or arrangement, any health, disability or similar insurance plan which covers officers, directors, employees, managers, consultants and independent contractors of the Parent Borrower or any of its Subsidiaries or any direct or indirect parent of the Parent Borrower (including amounts paid pursuant to any management equity plan or any other management or employee benefit plan or agreement or any stock subscription or shareholder agreement, stock option or similar plans and any successor plan thereto and any supplemental executive retirement benefit plans or arrangements), in each case in the ordinary course of business or as otherwise approved in good faith by the Board of Directors of Parent Borrower, Holdings or any Parent Holding Company or of a Subsidiary or a direct or indirect parent of the Parent Borrower, as appropriate;

(20) investments by Affiliates in Indebtedness or preferred Equity Interests of the Parent Borrower or any of its Subsidiaries, so long as non-Affiliates were also offered the opportunity to invest in such Indebtedness or preferred Equity Interests, and transactions with Affiliates solely in their capacity as holders of Indebtedness or preferred Equity Interests of the Parent Borrower or any of its Subsidiaries, so long as such transaction is with all holders of such class (and there are such non-Affiliate holders) and such Affiliates are treated no more favorably than all other holders of such class generally;

(21) the existence of, or the performance by the Parent Borrower or any of its Subsidiaries of their obligations under the terms of, any registration rights agreement to which they are a party or become a party in the future;

(22) investments by the Sponsor or a direct or indirect parent of the Parent Borrower in securities of the Parent Borrower or any Subsidiary (and payment of reasonable out-of-pocket expenses incurred by the Sponsor or a direct or indirect parent of the Parent Borrower in connection therewith);

(23) transactions with joint ventures for the purchase or sale of goods, equipment and services entered into in the ordinary course of business;

(24) any lease entered into between the Parent Borrower or any Subsidiary, as lessee, and any Affiliate of the Parent Borrower, as lessor, in the ordinary course of business;

(25) (i) intellectual property licenses in the ordinary course of business and (ii) intercompany intellectual property licenses and research and development agreements in the ordinary course of business;

(26) transactions pursuant to, and complying with, Section 7.01 (to the extent such transaction complies with Section 6.18(a)) or Section 7.03; or

(27) intercompany transactions undertaken in good faith for the purpose of improving the tax efficiency of the Parent Borrower and its Subsidiaries and not for the purpose of circumventing any covenant set forth herein.

Section 6.19 Lender Conference Calls. After the date of delivery of the annual and quarterly financial information required pursuant to Section 6.01(a) and (b), the Parent Borrower will hold and participate in quarterly conference calls or teleconferences at a time selected by the Parent Borrower and reasonably acceptable to the Administrative Agent, with all of the Lenders that choose to participate, to review the financial results of the previous fiscal year of the Parent Borrower and its Subsidiaries.

ARTICLE VII.
Negative Covenants

So long as any Lender shall have any Commitment hereunder, any Loan or other Obligation (other than contingent indemnification obligations as to which no claim has been asserted and obligations and liabilities under Secured Cash Management Agreements and Secured Hedge Agreements) hereunder shall remain unpaid or unsatisfied, or any Letter of Credit shall remain outstanding (other than Letters of Credit which have been Cash Collateralized), (A) except with respect to Section 7.09, the Parent Borrower shall not, nor shall they permit any other Subsidiary to, directly or indirectly and (B) with respect to Section 7.09, Holdings shall not:

Section 7.01 Indebtedness. Directly or indirectly, Incur any Indebtedness (including Acquired Indebtedness) or issue any shares of Disqualified Stock, and the Parent Borrower will not permit any of its Subsidiaries to issue any shares of Preferred Stock; provided, however, that the Parent Borrower and any Subsidiary may incur Indebtedness (including Acquired Indebtedness) or issue shares of Disqualified Stock and any Subsidiary may issue shares of Preferred Stock, in each case if (1) in the case of Indebtedness that is secured by the Collateral on a *pari passu* basis with the Lien securing the Obligations, the Consolidated First Lien Net Leverage Ratio for the Parent Borrower and its Subsidiaries calculated on a Pro Forma Basis (including pro forma application of the proceeds therefrom, but excluding the cash proceeds therefrom in calculating such Consolidated First Lien Net Leverage Ratio) as of the date on which such additional Indebtedness is Incurred or such Disqualified Stock or Preferred Stock is issued would be no greater than 5.00 to 1.00, and/or (2) in the case of Indebtedness that is secured by the Collateral on a junior lien basis to the Lien securing the Obligations, the Consolidated Senior Secured Net Leverage Ratio for the Parent Borrower and its Subsidiaries (including pro forma application of the proceeds therefrom, but excluding the cash proceeds therefrom in calculating such Consolidated Senior Secured Net Leverage Ratio) as of the date on which such additional Indebtedness is Incurred would be no greater than 7.25 to 1.00 and/or (3) in the case of unsecured Indebtedness, the Consolidated Total Net Leverage Ratio for the Parent Borrower and its Subsidiaries calculated on a Pro Forma Basis (including pro forma application of the proceeds therefrom, but excluding the cash proceeds therefrom in calculating such Consolidated Total Net Leverage Ratio) as of the date on which such additional Indebtedness is Incurred or such Disqualified Stock or Preferred Stock is issued would be no greater than 7.25 to 1.00 (collectively, "Ratio Debt"); provided, further, that the Ratio Debt satisfies the Permitted Other Debt Conditions; provided, further, that the aggregate amount of Indebtedness (including Acquired Indebtedness) that may be Incurred and Disqualified Stock or Preferred Stock that may be issued pursuant to the foregoing by Subsidiaries that are not Loan Parties (together with the aggregate amount of Indebtedness that may be incurred or assumed and Disqualified Stock or Preferred Stock that may be issued pursuant to clause (o) of the second paragraph of this Section 7.01 by Subsidiaries that are not Loan Parties) shall not exceed $20,000,000, at any one time outstanding, on a Pro Forma Basis (including pro forma application of the proceeds therefrom).

The foregoing limitations will not apply to (collectively, "Permitted Debt"):

(a) (x) Indebtedness arising under the Loan Documents including any refinancing thereof in accordance with Section 2.18, (y) Indebtedness of the Loan Parties evidenced by Refinancing Notes and any Permitted Refinancing thereof (or successive Permitted Refinancings thereof) and (z) Indebtedness of the Loan Parties evidenced by New Incremental Notes and any Permitted Refinancing thereof (or successive Permitted Refinancings thereof);

(b) Indebtedness Incurred under the Second Lien Credit Agreement on the Closing Date by the Borrowers or any Guarantor in an aggregate outstanding principal amount at any time outstanding not to exceed $100,000,000, *plus* the aggregate principal amount of any Second Lien Incremental Loans or Second Lien Incremental Notes incurred after the Closing Date and permitted to be incurred under the Second Lien Credit Agreement, in each case as in effect on the Closing Date, and any Permitted Refinancing thereof (or successive Permitted Refinancings thereof);

(c) Indebtedness of the Borrowers and their Subsidiaries (other than Indebtedness described in clause (a) or (b) above) that is existing on the Closing Date and listed on Schedule 7.01;

(d) Indebtedness (including, without limitation, Capitalized Lease Obligations and mortgage financings as purchase money obligations) Incurred by the Borrowers or any of their Subsidiaries,

Disqualified Stock issued by the Borrowers or any of their Subsidiaries and Preferred Stock issued by any Subsidiaries to finance all or any part of the purchase, lease, construction, installation, repair or improvement of property (real or personal), plant or equipment or other fixed or capital assets (whether through the direct purchase of assets or the Equity Interests of any Person owning such assets) and Indebtedness arising from the conversion of the obligations of the Borrowers or any Subsidiary under or pursuant to any "synthetic lease" transactions to on-balance sheet Indebtedness of such Borrower or such Subsidiary, in an aggregate principal amount or liquidation preference, including all Indebtedness Incurred and Disqualified Stock or Preferred Stock issued to renew, refund, refinance, replace, defease or discharge any Indebtedness Incurred or Disqualified Stock or Preferred Stock issued pursuant to this clause (d), not to exceed $14,000,000, at any one time outstanding, *plus*, in the case of any refinancing of any Indebtedness permitted under this clause (d) or any portion thereof, the aggregate amount of fees, underwriting discounts, accrued and unpaid interest, premiums and other costs and expenses incurred in connection with such refinancing; provided that Capitalized Lease Obligations Incurred by the Borrowers or any Subsidiary pursuant to this clause (d) in connection with a Sale/Leaseback Transaction shall not be subject to the foregoing limitation so long as the proceeds of such Sale/Leaseback Transaction are used by such Borrower or such Subsidiary to permanently repay outstanding Loans under this Agreement or other Pari Passu Indebtedness;

(e) Indebtedness Incurred by the Borrowers or any of their Subsidiaries constituting reimbursement obligations with respect to letters of credit or bank guarantees or similar instruments issued in the ordinary course of business, including, without limitation, (i) letters of credit or performance or surety bonds in respect of workers' compensation claims, health, disability or other employee benefits (whether current or former) or property, casualty or liability insurance or self-insurance, or other Indebtedness with respect to reimbursement-type obligations regarding workers' compensation claims, health, disability or other employee benefits (whether current or former) or property, casualty or liability insurance and (ii) guarantees of Indebtedness Incurred by customers in connection with the purchase or other acquisition of equipment or supplies in the ordinary course of business;

(f) Indebtedness, Disqualified Stock or Preferred Stock arising from agreements of the Borrowers or their Subsidiaries providing for indemnification, earn-outs, adjustment of purchase or acquisition price or similar obligations, in each case, Incurred in connection with the Transactions or with the acquisition or disposition of any business, assets or a Subsidiary of a Borrower in accordance with this Agreement, other than guarantees of Indebtedness Incurred or Disqualified Stock or Preferred Stock issued by any Person acquiring all or any portion of such business, assets or Subsidiary for the purpose of financing such acquisition;

(g) Indebtedness or Disqualified Stock of a Borrower owing to a Subsidiary; provided that (x) such Indebtedness or Disqualified Stock owing to a Non-Loan Party shall be subordinated in right of payment to such Borrower's Obligations with respect to this Agreement pursuant to the Intercompany Subordination Agreement and (y) any subsequent issuance or transfer of any Capital Stock or any other event which results in any such Subsidiary ceasing to be a Subsidiary or any other subsequent transfer of any such Indebtedness or Disqualified Stock (except to a Borrower or another Subsidiary) shall be deemed, in each case, to be an Incurrence of such Indebtedness or issuance of a such Disqualified Stock not permitted by this clause (g);

(h) shares of Preferred Stock of a Subsidiary issued to a Borrower or another Subsidiary; provided that any subsequent issuance or transfer of any Capital Stock or any other event that results in any Subsidiary that holds such shares of Preferred Stock of another Subsidiary ceasing to be a Subsidiary or any other subsequent transfer of any such shares of Preferred Stock (except to a Borrower or another Subsidiary) shall be deemed, in each case, to be an issuance of shares of Preferred Stock not permitted by this clause (h);

(i) Indebtedness, Disqualified Stock or Preferred Stock of a Subsidiary or a Borrower owing to another Borrower or another Subsidiary; provided that (x) if a Borrower or a Loan Party Incurs such Indebtedness, Disqualified Stock or Preferred Stock owing to a Non-Loan Party, such Indebtedness, Disqualified Stock or Preferred Stock is subordinated in right of payment to such Borrower's Obligations

or Guarantee of such Loan Party, as applicable, pursuant to the Intercompany Subordination Agreement and (y) any subsequent issuance or transfer of any Capital Stock or any other event that results in any Subsidiary lending such Indebtedness, Disqualified Stock or Preferred Stock ceasing to be a Subsidiary or any other subsequent transfer of any such Indebtedness, Disqualified Stock or Preferred Stock (except to a Borrower or another Subsidiary) shall be deemed, in each case, to be an Incurrence of such Indebtedness, Disqualified Stock or Preferred Stock not permitted by this clause (i);

(j) Swap Contracts and cash management services Incurred, other than for speculative purposes;

(k) obligations (including reimbursement obligations with respect to letters of credit or bank guarantees or similar instruments) in respect of customs, self-insurance, performance, bid, appeal and surety bonds and completion guarantees and similar obligations provided by any Borrower or any Subsidiary;

(l) Indebtedness or Disqualified Stock of any Borrower or any of their Subsidiaries and Preferred Stock of any of their Subsidiaries in an aggregate principal amount or liquidation preference that, when aggregated with the principal amount or liquidation preference of all other Indebtedness, Disqualified Stock and Preferred Stock then outstanding and Incurred pursuant to this clause (l), does not exceed $20,000,000, at any one time outstanding, *plus*, in the case of any refinancing of any Indebtedness, Disqualified Stock or Preferred Stock permitted under this clause (l) or any portion thereof, the aggregate amount of fees, underwriting discounts, accrued and unpaid interest, original issue discount, premiums (including tender premiums), defeasance costs and other costs and expenses incurred in connection with such refinancing (it being understood that any Indebtedness Incurred or Disqualified Stock or Preferred Stock issued pursuant to this clause (l) shall cease to be deemed Incurred, issued or outstanding pursuant to this clause (l) but shall be deemed Incurred or issued and outstanding as Ratio Debt from and after the first date on which such Borrower or such Subsidiary, as the case may be, could have Incurred such Indebtedness or issued such Disqualified Stock or Preferred Stock as Ratio Debt (to the extent such Borrower or such Subsidiary is able to Incur any Liens related thereto as Permitted Liens after such reclassification);

(m) any guarantee by a Borrower or a Subsidiary of Indebtedness or other obligations of any Borrower or any of their Subsidiaries so long as the incurrence of such Indebtedness or other obligations by such Borrower or such Subsidiary is permitted under the terms of this Agreement;

(n) the Incurrence by any Borrower or any of their Subsidiaries of Indebtedness or the incurrence of Disqualified Stock or Preferred Stock of a Subsidiary that serves to refund, refinance, replace, redeem, repurchase, retire or defease, and is in an aggregate principal amount (or if issued with original issue discount an aggregate issue price) that is equal to or less than, Indebtedness incurred or Disqualified Stock or Preferred Stock issued as Ratio Debt or permitted under clause (c), this clause (n), clause (o) or clause (r) of this Section 7.01 or subclause (y) of clauses (d), (l), (t), (cc) or (dd) of this Section 7.01 (provided that any amounts incurred under this clause (n) as Refinancing Indebtedness of subclause (y) of these clauses shall reduce the amount available under such subclause (y) of such clauses so long as such Refinancing Indebtedness remains outstanding or any Indebtedness Incurred or Disqualified Stock or Preferred Stock issued to so refund, replace, refinance, redeem, repurchase, retire or defease such Indebtedness, Disqualified Stock or Preferred Stock remains outstanding), plus any additional Indebtedness Incurred or Disqualified Stock or Preferred Stock issued to pay unpaid accrued interest and the aggregate amount of original issue discount, premiums (including reasonable tender premiums), and underwriting discounts, defeasance costs and fees and expenses in connection therewith (subject to the following proviso, "Refinancing Indebtedness"); provided, however, that such Refinancing Indebtedness:

(1) has a Weighted Average Life to Maturity at the time such Refinancing Indebtedness is Incurred that is not less than the remaining Weighted Average Life to Maturity of the Indebtedness, Disqualified Stock or Preferred Stock being refunded, refinanced, replaced, redeemed, repurchased or retired (which, in the case of bridge loans, shall be determined by reference to the notes or loans into which such bridge loans are converted or for which such bridge

loans are exchanged at maturity and will be subject to other customary offers to repurchase or mandatory prepayments upon a change of control, asset sale or event of loss and customary acceleration rights after an event of default);

(2) in the case of any revolving Indebtedness, has a Stated Maturity that is no earlier than the Stated Maturity of the Indebtedness being refunded, refinanced, replaced, redeemed, repurchased or retired (which, in the case of bridge loans, shall be determined by reference to the notes or loans into which such bridge loans are converted or for which such bridge loans are exchanged at maturity and will be subject to other customary offers to repurchase or mandatory prepayments upon a change of control, asset sale or event of loss and customary acceleration rights after an event of default);

(3) to the extent that such Refinancing Indebtedness refinances (i) Subordinated Indebtedness, such Refinancing Indebtedness is Subordinated Indebtedness or (ii) Disqualified Stock or Preferred Stock, such Refinancing Indebtedness is Disqualified Stock or Preferred Stock, respectively; and

(4) shall not include Indebtedness, Disqualified Stock or Preferred Stock of a Non-Loan Party that refinances Indebtedness, Disqualified Stock or Preferred Stock of a Borrower or a Guarantor;

provided that subclauses (1) and (2) will not apply to any refunding or refinancing of any secured Indebtedness (other than Indebtedness secured on a *pari passu* basis with, or junior lien basis to, the Obligations);

(o) [reserved];

(p) Indebtedness arising from the honoring by a bank or other financial institution of a check, draft or similar instrument drawn against insufficient funds in the ordinary course of business;

(q) Indebtedness of any Borrower or any Subsidiary supported by a letter of credit or bank guarantee issued pursuant to any credit facility permitted hereunder, so long as such letter of credit has not been terminated and is in a principal amount not in excess of the stated amount of such letter of credit or bank guarantee;

(r) Contribution Indebtedness;

(s) Indebtedness, Disqualified Stock or Preferred Stock of any Borrower or any Subsidiary consisting of (x) the financing of insurance premiums or (y) take-or-pay obligations contained in supply arrangements, in each case, in the ordinary course of business;

(t) Indebtedness, Disqualified Stock or Preferred Stock of Non-Loan Parties in an aggregate principal amount not to exceed $17,500,000, at any one time outstanding, *plus,* in the case of any refinancing of any Indebtedness, Disqualified Stock or Preferred Stock permitted under this clause (t) or any portion thereof, the aggregate amount of accrued and unpaid interest, original issue discount, premiums (including tender premiums), and underwriting discounts, defeasance costs and fees and expenses Incurred in connection with such refinancing, outstanding at any one time (it being understood that any Indebtedness Incurred or Disqualified Stock or Preferred Stock issued pursuant to this clause (t) shall cease to be deemed Incurred, issued or outstanding pursuant to this clause (t) but shall be deemed Incurred or issued and outstanding as Ratio Debt from and after the first date on which such Borrower or such Subsidiary, as the case may be, could have Incurred such Indebtedness or issued such Disqualified Stock or Preferred Stock as Ratio Debt (to the extent such Borrower or such Subsidiary is able to Incur any Liens related thereto as Permitted Liens after such reclassification);

(u) Indebtedness, Disqualified Stock or Preferred Stock of a joint venture to a Borrower or a Subsidiary and to the other holders of Equity Interests or participants of such joint venture, so long as the percentage of the aggregate amount of such Indebtedness, Disqualified Stock or Preferred Stock of such joint venture owed to such holders of its Equity Interests or participants of such joint venture does not exceed the percentage of the aggregate outstanding amount of the Equity Interests of such joint venture held by such holders or such participant's participation in such joint venture;

(v) Indebtedness Incurred or Disqualified Stock or Preferred Stock issued by a Receivables Subsidiary in a Qualified Receivables Factoring or Qualified Receivables Financing that is not recourse to any Borrower or any Subsidiary other than (x) a Receivables Subsidiary (except for Standard Securitization Undertakings) or (y) a Person described in the definition of "Factoring Transaction";

(w) Indebtedness owed on a short-term basis to banks and other financial institutions incurred in the ordinary course of business of the Borrowers and the Subsidiaries with such banks or financial institutions that arises in connection with ordinary banking arrangements, including cash management, cash pooling arrangements and related activities to manage cash balances of the Borrowers and their Subsidiaries and joint ventures including treasury, depository, overdraft, credit, purchasing or debit card, electronic funds transfer and other cash management arrangements and Indebtedness in respect of netting services, overdraft protection, credit card programs, automatic clearinghouse arrangements and similar arrangements;

(x) Indebtedness, Disqualified Stock or Preferred Stock consisting of Indebtedness, Disqualified Stock or Preferred Stock issued by any Borrower or any Subsidiary to future, current or former officers, directors, managers, employees, consultants and independent contractors thereof or any direct or indirect parent thereof, their respective estates, heirs, family members, spouses or former spouses, in each case to finance the purchase or redemption of Equity Interests of the Parent Borrower or any direct or indirect parent of the Borrowers to the extent permitted under Section 7.05;

(y) customer deposits and advance payments received in the ordinary course of business from customers for goods purchased in the ordinary course of business;

(z) Indebtedness Incurred by a Borrower or a Subsidiary in connection with bankers' acceptances, discounted bills of exchange, warehouse receipts or similar facilities or the discounting or factoring of receivables for credit management purposes, in each case incurred or undertaken in the ordinary course of business;

(aa) [reserved];

(bb) (i) guarantees Incurred in the ordinary course of business in respect of obligations to suppliers, customers, franchisees, lessors, licensees, sub-licensees and distribution partners and (ii) Indebtedness Incurred by a Borrower or a Subsidiary as a result of leases entered into by such Borrower or such Subsidiary or any Permitted Parent in the ordinary course of business;

(cc) the Incurrence by any Borrower or any Subsidiary of Indebtedness Incurred or Disqualified Stock or Preferred Stock issued on behalf, or representing guarantees of Indebtedness incurred or Disqualified Stock or Preferred Stock issued by, joint ventures; provided that the aggregate principal amount or liquidation preference, as applicable, of Indebtedness incurred or guaranteed or Disqualified Stock or Preferred Stock issued or guaranteed pursuant to this clause (cc) does not at any one time outstanding exceed $7,000,000 at any one time outstanding, *plus*, in the case of any refinancing of any Indebtedness, Disqualified Stock or Preferred Stock permitted under this clause (cc) or any portion thereof, the aggregate amount of fees, underwriting discounts, accrued and unpaid interest, premiums and other costs and expenses incurred in connection with such refinancing (it being understood that any Indebtedness Incurred or Disqualified Stock or Preferred Stock issued pursuant to this clause (cc) shall cease to be deemed Incurred, issued or outstanding pursuant to this clause (cc) but shall be deemed Incurred or issued and outstanding as Ratio Debt from and after the first date on which such Borrower or such Subsidiary, as the case may be, could have Incurred such Indebtedness or issued such Disqualified Stock or Preferred

Stock as Ratio Debt (to the extent such Borrower or such Subsidiary is able to Incur any Liens related thereto as Permitted Liens after such reclassification);

(dd) Indebtedness, Disqualified Stock or Preferred Stock of a Borrower or a Subsidiary assumed in connection with an acquisition of any assets (including Capital Stock), business or Person in an aggregate principal amount or liquidation preference that does not exceed $16,000,000, at any one time outstanding, *plus*, in the case of any refinancing of any Indebtedness, Disqualified Stock or Preferred Stock permitted under this clause (dd) or any portion thereof, the aggregate amount of fees, underwriting discounts, accrued and unpaid interest, premiums and other costs and expenses incurred in connection with such refinancing (it being understood that any Indebtedness Incurred or Disqualified Stock or Preferred Stock issued pursuant to this clause (dd) shall cease to be deemed Incurred, issued or outstanding pursuant to this clause (dd) but shall be deemed Incurred or issued and outstanding as Ratio Debt from and after the first date on which such Borrower or such Subsidiary, as the case may be, could have Incurred such Indebtedness or issued such Disqualified Stock or Preferred Stock as Ratio Debt (to the extent such Borrower or such Subsidiary is able to Incur any Liens related thereto as Permitted Liens after such reclassification);

(ee) Indebtedness, Disqualified Stock or Preferred Stock consisting of obligations of any Borrower or any Subsidiary under deferred compensation or other similar arrangements incurred by such Person in connection with the Transactions or any Permitted Investment;

(ff) unfunded pension fund and other employee benefit plan obligations and liabilities to the extent that they are permitted to remain unfunded under applicable law; and

(gg) Indebtedness Incurred in connection with a Qualified Receivables Factoring or Qualified Receivables Financing, in each case, which constitutes Standard Securitization Undertakings.

For purposes of determining compliance with this Section 7.01, in the event that an item of Indebtedness, Disqualified Stock or Preferred Stock (or any portion thereof) meets the criteria of more than one of the categories of Permitted Debt or is entitled to be incurred or issued as Ratio Debt, the Parent Borrower shall, in its sole discretion, at the time of incurrence or issuance, divide, classify or reclassify, or at any later time divide, classify or reclassify, such item of Indebtedness, Disqualified Stock or Preferred Stock (or any portion thereof) in any manner that complies with this Section 7.01; provided that all Indebtedness under this Agreement incurred on the Closing Date shall be deemed to have been Incurred pursuant to Section 7.01(a) and all Indebtedness under the Second Lien Credit Agreement on the Closing Date shall be deemed to have been Incurred pursuant to Section 7.01(b) and the Parent Borrower shall not be permitted to reclassify all or any portion of Indebtedness Incurred on the Closing Date pursuant to Section 7.01(a) or 7.01(b). Accrual of interest or dividends, the accretion of accreted value, the accretion or amortization of original issue discount, the payment of interest or dividends in the form of additional Indebtedness with the same terms, the payment of dividends on Disqualified Stock or Preferred Stock in the form of additional shares of Disqualified Stock or Preferred Stock of the same class, the accretion of liquidation preference and increases in the amount of Indebtedness, Disqualified Stock or Preferred Stock outstanding solely as a result of fluctuations in the exchange rate of currencies will not be deemed to be an Incurrence of Indebtedness or issuance of Disqualified Stock or Preferred Stock for purposes of this Section 7.01. Guarantees of, or obligations in respect of letters of credit relating to, Indebtedness that are otherwise included in the determination of a particular amount of Indebtedness shall not be included in the determination of such amount of Indebtedness; provided that the Incurrence of the Indebtedness represented by such guarantee or letter of credit, as the case may be, was in compliance with this Section 7.01.

For purposes of determining compliance with any U.S. dollar-denominated restriction on the Incurrence of Indebtedness or the issuance of Disqualified Stock or Preferred Stock, the U.S. dollar-equivalent principal amount or liquidation preference, as applicable, of Indebtedness, Disqualified Stock or Preferred Stock denominated in a foreign currency shall be calculated based on the relevant currency exchange rate in effect on the date such Indebtedness was Incurred, in the case of term debt, or first committed or first Incurred (whichever yields the lower U.S. dollar-equivalent), in the case of revolving credit debt or such Disqualified Stock or Preferred Stock was issued; provided that if such Indebtedness, Disqualified Stock or Preferred Stock is Incurred to refinance other Indebtedness, Disqualified Stock or Preferred Stock denominated in a foreign currency, and such refinancing would

cause the applicable U.S. dollar-denominated restriction to be exceeded if calculated at the relevant currency exchange rate in effect on the date of such refinancing, such U.S. dollar-denominated restriction shall be deemed not to have been exceeded so long as the principal amount or liquidation preference, as applicable, of such Refinancing Indebtedness does not exceed the principal amount or liquidation preference, as applicable, of such Indebtedness, Disqualified Stock or Preferred Stock, as the case may be, being refinanced (plus unpaid accrued interest and the aggregate amount of premiums (including reasonable tender premiums) and underwriting discounts, defeasance costs and fees, discounts and expenses in connection therewith).

The principal amount or liquidation preference, as applicable, of any Indebtedness, Disqualified Stock or Preferred Stock, as the case may be, Incurred to refinance other Indebtedness, Disqualified Stock or Preferred Stock, if Incurred in a different currency from the Indebtedness, Disqualified Stock or Preferred Stock, as the case may be, being refinanced, shall be calculated based on the currency exchange rate applicable to the currencies in which such respective Indebtedness, Disqualified Stock or Preferred Stock is denominated that is in effect on the date of such refinancing.

Section 7.02 Limitations on Liens.

Permit the Borrowers or any Subsidiary to, create, incur, assume or suffer to exist any Lien upon any property or assets of any kind (real or personal, tangible or intangible) of the Borrowers or any Subsidiary, whether now owned or hereafter acquired (each, a "Subject Lien") that secures obligations under any Indebtedness on any asset or property of the Borrowers or any Subsidiary, except:

(a) in the case of Subject Liens on any Collateral, such Subject Lien is a Permitted Lien; and

(b) in the case of any other asset or property, any Subject Lien if (i) the Obligations are equally and ratably secured with (or on a senior basis to, in the case such Subject Lien secures any Junior Financing) the obligations secured by such Subject Lien or (ii) such Subject Lien is a Permitted Lien.

Any Lien created for the benefit of the Secured Parties pursuant to the preceding clause (b) shall provide by its terms that such Lien shall be automatically and unconditionally be released and discharged upon the release and discharge of the Subject Lien that gave rise to the obligation to so secure the Obligations.

Section 7.03 Fundamental Changes. Merge, dissolve, liquidate, amalgamate, consolidate with or into another Person, or Dispose of (whether in one transaction or in a series of transactions) all or substantially all of its assets (whether now owned or hereafter acquired) to or in favor of any Person, except that, (other than in the case of clause (e) below) so long as no Event of Default would result therefrom:

(a) any Subsidiary may merge, amalgamate or consolidate with (i) a Borrower (including a merger, the purpose of which is to reorganize such Borrower into a new jurisdiction in any State of the United States); provided that such Borrower shall be the continuing or surviving Person or the surviving Person shall expressly assume the obligations of such Borrower pursuant to documents reasonably acceptable to the Administrative Agent and such Borrower (or, if not such Borrower, the surviving Person) shall be a corporation or a limited liability company organized under the laws of the United States, any state thereof or the District of Columbia or (ii) any one or more other Subsidiaries; provided that (x) any Subsidiary that is not a Controlled Foreign Subsidiary or a FSHCO may not merge with any Subsidiary that is a Controlled Foreign Subsidiary or a FSHCO if such Controlled Foreign Subsidiary or such FSHCO shall be the continuing or surviving Person and (y) when any Guarantor is merging with another Subsidiary that is not a Loan Party (A) the Guarantor shall be the continuing or surviving Person, (B) to the extent constituting an Investment, such Investment must be a Permitted Investment or Indebtedness of a Subsidiary which is not a Loan Party in accordance with Section 7.01, respectively and (C) to the extent constituting a Disposition, such Disposition must be permitted hereunder;

(b) (i) any Subsidiary that is not a Loan Party may merge, amalgamate or consolidate with or into any other Subsidiary that is not a Loan Party and (ii) any Subsidiary (other than a Borrower) may liquidate or dissolve, or any Borrower or any Subsidiary may (if the validity, perfection and priority of the

Liens securing the Obligations is not adversely affected thereby) change its legal form if the Parent Borrower determines in good faith that such action is in the best interest of Holdings and its Subsidiaries and is not disadvantageous to the Lenders in any material respect (it being understood that in the case of any dissolution of a Subsidiary that is a Guarantor, such Subsidiary shall at or before the time of such dissolution transfer its assets to another Subsidiary that is a Guarantor in the same jurisdiction or a different jurisdiction reasonably satisfactory to the Administrative Agent unless such Disposition of assets is permitted hereunder; and in the case of any change in legal form, a Subsidiary that is a Guarantor will remain a Guarantor unless such Guarantor is otherwise permitted to cease being a Guarantor hereunder);

(c) any Subsidiary may Dispose of all or substantially all of its assets (upon voluntary liquidation or otherwise) to any Borrower or to any Subsidiary; provided that if the transferor in such a transaction is a Borrower or a Guarantor, then (i) the transferee must either be a Borrower or a Guarantor in the same jurisdiction or a different jurisdiction reasonably satisfactory to the Administrative Agent and (ii) to the extent constituting an Investment, such Investment must be a Permitted Investment or Indebtedness of a Subsidiary which is not a Loan Party in accordance with Section 7.01, respectively; provided, further, that the Borrowers may Dispose of all or substantially all of their assets (upon voluntary liquidation or otherwise) to any other Loan Party;

(d) any Subsidiary (other than a Borrower) may merge, amalgamate or consolidate with, or dissolve into, any other Person in order to effect Permitted Investment; provided that (i) the continuing or surviving Person shall, to the extent subject to the terms hereof, have complied with the requirements of Section 6.12 and (ii) to the extent constituting an Investment, such Investment must be a Permitted Investment and (iii) to the extent constituting a Disposition, such Disposition must be permitted hereunder;

(e) [reserved];

(f) any Subsidiary (other than a Borrower) may merge, dissolve, liquidate, amalgamate, consolidate with or into another Person in order to effect a Disposition permitted pursuant to Section 7.04 (other than Dispositions permitted by Section 7.03); and

(g) any Permitted Investment may be structured as a merger, consolidation or amalgamation of a Subsidiary that is not a Borrower.

Section 7.04 Asset Sales. Cause or make an Asset Sale, unless:

(1) the Borrowers or any of their Subsidiaries, as the case may be, receive consideration (including by way of relief from, or by any other person assuming responsibility for, any liabilities, contingent or otherwise) at the time of such Asset Sale at least equal to the Fair Market Value (as determined at the time of contractually agreeing to such Asset Sale) of the assets sold or otherwise disposed of; and

(2) except in the case of a Permitted Asset Swap, at least 75% of the consideration therefor received by such Borrower or such Subsidiary, as the case may be, is in the form of cash or Cash Equivalents or Replacement Assets; provided, that the amount of:

(a) any liabilities (as shown on such Borrower's or such Subsidiary's most recent balance sheet or in the notes thereto for which internal financial statements are available immediately preceding such date or, if incurred or accrued subsequent to the date of such balance sheet, such liabilities that would have been reflected on such Borrower's or such Subsidiary's balance sheet or in the footnotes thereto if such incurrence or accrual had taken place on or prior to the date of such balance sheet in the good faith determination of the Borrower) of such Borrower or such Subsidiary other than liabilities that are by their terms subordinated to the Obligations or are otherwise extinguished in connection with the transactions relating to such Asset Sale, or that are assumed by the transferee of any such assets or Equity Interests pursuant to an agreement that

releases or indemnifies such Borrower or such Subsidiary, as the case may be, from further liability;

(b) any notes or other obligations or other securities or assets received by such Borrower or such Subsidiary from such transferee that are converted by such Borrower or such Subsidiary into cash or Cash Equivalents, or by their terms are required to be satisfied for cash or Cash Equivalents (to the extent of the cash or Cash Equivalents received) within 180 days of the receipt thereof; and

(c) any Designated Non-Cash Consideration received by the Borrowers or any of their Subsidiaries in such Asset Sale having an aggregate Fair Market Value, taken together with all other Designated Non-Cash Consideration received pursuant to this clause (c) that is at that time outstanding, not to exceed $15,500,000, calculated at the time of the receipt of such Designated Non-Cash Consideration (with the Fair Market Value of each item of Designated Non-Cash Consideration being measured at the time received and without giving effect to subsequent changes in value);

shall each be deemed to be Cash Equivalents for the purposes of this clause (2).

Within 18 months after any Borrower's or any Subsidiary's receipt of the Net Cash Proceeds of any Asset Sale or Casualty Event, such Borrower or such Subsidiary shall apply an amount equal to the Net Cash Proceeds from such Asset Sale or such Casualty Event, at its option:

(3) to prepay Loans and other Permitted Debt in accordance with Section 2.05(b)(ii).

(4) to acquire or make a similar investment in any one or more businesses, assets (other than working capital assets), or property or capital expenditures, in each case used or useful in a Similar Business and that will be owned by a Borrower or a Subsidiary;

(5) to acquire or make a similar investment in any one or more businesses, properties (other than working capital assets) or assets (other than working capital assets) that replace the businesses, properties and/or assets that are the subject of such Asset Sale or Casualty Event and that will be owned by a Borrower or a Subsidiary; or

(6) any combination of the foregoing;

provided that the Borrowers and their Subsidiaries will be deemed to have complied with the provisions described in clause (4) or (5) of this paragraph if and to the extent that, within 18 months (or within 6 months in the case of any Asset Sale resulting in Net Cash Proceeds in excess of 10% of Consolidated EBITDA, calculated at the time of the receipt of such Net Cash Proceeds) after the Asset Sale that generated the Net Cash Proceeds, such Borrower or such Subsidiary, as applicable, has entered into and not abandoned or rejected a binding agreement to make an investment in compliance with the provision described in clauses (4) and (5) of this paragraph, and that investment is thereafter completed within 180 days after the end of such 18 month period.

Pending the final application of any such amount of Net Cash Proceeds pursuant to Section 2.05(b)(ii) and this Section 7.04, such Borrower or such Subsidiary may temporarily reduce Indebtedness under the Revolving Credit Facility, or otherwise invest or utilize such Net Cash Proceeds in any manner not prohibited by this Agreement.

Section 7.05 Restricted Payments. Directly or indirectly:

(1) declare or pay any dividend or make any payment or distribution on account of the Borrowers' or any of their Subsidiaries' Equity Interests, including any payment made in connection with any merger or consolidation involving a Borrower (other than (A) dividends or distributions by such Borrower payable solely in Equity Interests (other than Disqualified Stock) of such Borrower; or

(B) dividends or distributions by a Subsidiary so long as, in the case of any dividend or distribution payable on or in respect of any class or series of securities issued by a Subsidiary other than a Wholly Owned Subsidiary, a Borrower or a Subsidiary receives at least its pro rata share of such dividend or distribution in accordance with its Equity Interests in such class or series of securities);

(2) purchase, redeem, defease or otherwise acquire or retire for value any Equity Interests of the Parent Borrower or any direct or indirect parent of Parent Borrower, including in connection with any merger or consolidation; or

(3) make any principal payment on, or redeem, repurchase, defease or otherwise acquire or retire for value, in each case, prior to any scheduled repayment, sinking fund payment or maturity, any (i) Subordinated Indebtedness of any Borrower or any Guarantor (other than the payment, redemption, repurchase, defeasance, acquisition or retirement of (A) Subordinated Indebtedness of any Borrower or any Guarantor in anticipation of satisfying a sinking fund obligation, principal installment or final maturity, in each case due within one year of the date of such payment, redemption, repurchase, defeasance, acquisition or retirement and (B) Indebtedness permitted under Section 7.01(g) or (i)) or (ii) any Indebtedness that is secured by a security interest in the Collateral that is expressly junior to the Liens securing the Obligations (clauses (i) and (ii) above, "Junior Financing");

(all such payments and other actions set forth in clauses (1) through (3) above being collectively referred to as "Restricted Payments"), unless, at the time of such Restricted Payment:

(a) no Event of Default shall have occurred and be continuing or would occur as a consequence thereof;

(b) immediately after giving effect to the making of such Restricted Payment on a Pro Forma Basis, the Parent Borrower's Consolidated First Lien Net Leverage Ratio does not exceed 3.00:1.00; and

(c) such Restricted Payment, together with the aggregate amount of all other Restricted Payments made by the Borrowers and their Subsidiaries after the Closing Date (including Restricted Payments permitted by clause (1) of the next succeeding paragraph, but excluding all other Restricted Payments permitted by the next succeeding paragraph), is less than the sum of, without duplication,

(i) the Retained Excess Cash Flow Amount, *plus*

(ii) 100% of the aggregate net proceeds, including cash and the Fair Market Value of assets (other than cash), received by the Parent Borrower after the Closing Date from the issue or sale of Equity Interests of the Parent Borrower (other than Excluded Equity), including such Equity Interests issued upon exercise of warrants or options, *plus*

(iii) 100% of the aggregate amount of contributions to the capital of the Parent Borrower received in cash and the Fair Market Value of assets (other than cash) after the Closing Date (other than Excluded Equity), *plus*

(iv) the principal amount of any Indebtedness, or the liquidation preference or maximum fixed repurchase price, as the case may be, of any Disqualified Stock, in each case, of any Borrower or any
Subsidiary thereof issued after the Closing Date (other than Indebtedness or Disqualified Stock issued to a Subsidiary or an employee stock ownership plan or trust established by any Borrower or any Subsidiary (other than to the extent such employee stock ownership plan or trust has been funded by any Borrower or any Subsidiary)) that, in each case, has been converted into or exchanged for Equity Interests in the Parent Borrower or any direct or indirect parent of the Parent Borrower (other than Excluded Equity), *plus*

(v) 100% of the aggregate amount received by any Borrower or any Subsidiary in cash and the Fair Market Value of assets (other than cash) received by any Borrower or any

Subsidiary from the sale or other disposition (other than to a Borrower or a Subsidiary of the Borrower) of Restricted Investments made by the Borrowers and their Subsidiaries and from repurchases and redemptions of such Restricted Investments from the Borrowers and their Subsidiaries by any Person (other than the Borrowers or any of their Subsidiaries) and from repayments of loans or advances that constituted Restricted Investments, *plus*

(vi) the aggregate amount of Declined Amounts since the Closing Date, *plus*

(d) the aggregate amount of Retained Asset Sale Proceeds.

This Section 7.05 will not prohibit:

(1) the payment of any dividend or distribution or consummation of any redemption within 60 days after the date of declaration thereof or the giving of a redemption notice related thereto, if at the date of declaration or notice such payment would have complied with the provisions of this Agreement;

(2) (a) the redemption, repurchase, retirement or other acquisition of any Equity Interests ("Retired Capital Stock") of the Parent Borrower or any direct or indirect parent of the Parent Borrower, or Junior Financing of any Borrower or any Subsidiary Guarantor, in exchange for, or out of the proceeds of the issuance or sale of, Equity Interests of the Parent Borrower or any direct or indirect parent of the Parent Borrower or contributions to the equity capital of the Parent Borrower (other than Excluded Equity) (collectively, including any such contributions, "Refunding Capital Stock");

(b) the declaration and payment of accrued dividends on the Retired Capital Stock out of the proceeds of the issuance or sale (other than to a Subsidiary of a Borrower or to an employee stock ownership plan or any trust established by any Borrower or any of its Subsidiaries) of Refunding Capital Stock; and

(c) if immediately prior to the retirement of the Retired Capital Stock, the declaration and payment of dividends thereon was permitted under clause (6) of this paragraph of Section 7.05 and has not been made as of such time (the "Unpaid Amount"), the declaration and payment of dividends on the Refunding Capital Stock (other than Refunding Capital Stock the proceeds of which were used to redeem, repurchase, retire or otherwise acquire any Equity Interests of the Parent Borrower or any direct or indirect parent of the Parent Borrower) in an aggregate amount no greater than the Unpaid Amount (with the payment of such Unpaid Amount being treated as a payment under the applicable provision);

(3) the prepayment, redemption, defeasance, repurchase or other acquisition or retirement of Junior Financing of any Borrower or any Subsidiary Guarantor made by exchange for, or out of the proceeds of the Incurrence of, Refinancing Indebtedness thereof;

(4) [reserved];

(5) the purchase, retirement, redemption or other acquisition (or Restricted Payments to the Parent Borrower or any direct or indirect parent of the Parent Borrower to finance any such purchase, retirement, redemption or other acquisition) for value of Equity Interests (including related stock appreciation rights or similar securities) of the Parent Borrower or any direct or indirect parent of the Parent Borrower held directly or indirectly by any future, present or former employee, officer, director, manager, consultant or independent contractor of the Parent Borrower or any direct or indirect parent of the Parent Borrower or any Subsidiary of the Parent Borrower or their estates, heirs, family members, spouses or former spouses or permitted transferees (including for all purposes of this clause (5), Equity Interests held by any entity whose Equity Interests are held by any such future, present or former employee, officer, director, manager, consultant or independent contractor or their estates, heirs, family members, spouses or former spouses or permitted transferees) pursuant to any management equity plan or stock option plan or any other management or employee benefit plan or other agreement or arrangement or any stock

subscription or shareholder or similar agreement; provided, however, that the aggregate amounts paid under this clause (5) shall not exceed (x) $3,500,000 in any calendar year or (y) subsequent to the consummation of an underwritten public equity offering of common stock of the Parent Borrower or any direct or indirect parent of the Parent Borrower, $7,000,000 in any calendar year (with unused amounts in any calendar year being permitted to be carried over for the next two succeeding calendar years); provided, further, however, that such amount in any calendar year may be increased by an amount not to exceed:

(a) the cash proceeds received by a Borrower from the issuance or sale of Equity Interests (other than Disqualified Stock) of such Borrower or any direct or indirect parent of the such Borrower (to the extent contributed to such Borrower), in each case, to any future, present or former employees, officers, directors, managers, consultants or independent contractors of the Borrowers or their Subsidiaries or any direct or indirect parent of the Borrowers that occurs after the Closing Date; provided that the amount of such cash proceeds utilized for any such repurchase, retirement, other acquisition or dividend will not increase the amount available for Restricted Payments under clause (c) of the immediately preceding paragraph; *plus*

(b) the cash proceeds of key man life insurance policies received by the Borrowers or their Subsidiaries or any direct or indirect parent of the Borrowers (to the extent contributed to such Borrower) after the Closing Date; *plus*

(c) the amount of any cash bonuses otherwise payable to employees, officers, directors, managers, consultants or independent contractors of the Borrowers or their Subsidiaries or any direct or indirect parent of the Borrowers that are foregone in return for the receipt of Equity Interests; *less*

(d) the amount of cash proceeds described in clause (a), (b) or (c) of this clause (5) previously used to make Restricted Payments pursuant to this clause (5); (provided that the Parent Borrower may elect to apply all or any portion of the aggregate increase contemplated by clauses (a), (b) and (c) above in any calendar year);

provided, further, cancellation of Indebtedness owing to any Borrower or any Subsidiary from any future, current or former officer, director, employee, manager, consultant or independent contractor (or any permitted transferees thereof) of the Borrowers or any of their Subsidiaries or any direct or indirect parent of the Borrowers, in connection with a repurchase of Equity Interests of the Borrowers or any direct or indirect parent of the Borrowers from such Persons will not be deemed to constitute a Restricted Payment for purposes of this Section 7.05 or any other provisions of this Agreement;

(6) the declaration and payment of dividends or distributions to holders (other than Holdings) of any class or series of Disqualified Stock of the Borrowers or any of their Subsidiaries and any class or series of Preferred Stock of any Subsidiaries issued or Incurred in accordance with the covenant described in Section 7.01;

(7) [reserved];

(8) any Restricted Payments made in connection with the consummation of the Transactions, including any dividends, payments or loans made to the Parent Borrower or any direct or indirect parent of the Parent Borrower to enable it to make any such payments or any future payments to employees of the Parent Borrower, any Subsidiary of the Parent Borrower or any direct or indirect parent of the Parent Borrower under agreements entered into in connection with the Transactions;

(9) the declaration and payment of dividends on the Parent Borrower's common stock (or the payment of dividends to any direct or indirect parent of the Parent Borrower to fund the payment by any direct or indirect parent of the Parent Borrower of dividends on such entity's Equity Interests) of an aggregate amount per annum of (x) up to 6.0% of the cash proceeds net of underwriting fees received by the Parent Borrower from any public offering of common stock or contributed to the Parent Borrower by

any direct or indirect parent of the Parent Borrower from any public offering of common stock (the applicable issuing entity, the "IPO Entity"), other than public offerings with respect to the Parent Borrower's Capital Stock registered on Form S-4 or S-8 or successor form thereto and other than any public sale constituting Excluded Contributions *plus* (y) 4.0% of the market capitalization of the Parent Borrower or a direct or indirect parent of the Parent Borrower, as applicable, in each case that is the IPO Entity;

(10) Restricted Payments that are made with Excluded Contributions;

(11) other Restricted Payments in an aggregate amount taken together with all other Restricted Payments made pursuant to this clause (11) not to exceed $25,000,000;

(12) [reserved];

(13) for so long as, for U.S. federal or state income tax purposes, Holdings is treated as a partnership or a disregarded entity treated as wholly owned, directly or indirectly, by an entity treated as a partnership and the Parent Borrower is treated either as a partnership or an entity disregarded from Holdings (or the partnership from which Holdings is disregarded), the Parent Borrower and any Subsidiary of Holdings may pay or make quarterly distributions to Holdings, and Holdings may distribute to each of its direct or indirect members, an aggregate amount equal to the estimated Deemed Tax Due for the relevant taxable period (such distributions by the Parent Borrower and Holdings to their direct or indirect members, collectively, the "Tax Distributions"). For the purpose of this paragraph (13), "Deemed Tax Due" means the product of (x) the aggregate net taxable income of the Parent Borrower for such taxable period (taking into account if applicable, for purposes of determining such net taxable income and net taxable loss any adjustment to the basis of the Parent Borrower's and Holdings' property pursuant to Section 734, 743, or 754 of the Code and any comparable provision of state and local income tax law), reduced by net taxable losses of the Parent Borrower from prior taxable periods to the extent that the losses are of a character (ordinary or capital) that would permit the losses to be deducted by the direct or indirect owners of the Parent Borrower against the current taxable income of the Parent Borrower allocable to such owners and have not previously been taken into account in determining Tax Distributions, and (y) the maximum combined U.S. federal (including pursuant to section 1411 of the Code), state, and local tax rates applicable to any individual or corporation (whichever is highest) resident in any jurisdiction within the United States taking into account any allowed deduction of state and local income taxes for U.S. federal income tax purposes and the character of the income in question; provided that (A) in addition to the foregoing Tax Distributions, following the end of each taxable year of the Parent Borrower and Holdings, the Parent Borrower shall be permitted to distribute to Holdings (and Holdings may distribute to its direct or indirect members) an amount equal to the excess (if any) of (I) the product of the rate described in clause (y) and the final net taxable income of the Parent Borrower (determined as described in clause (x) for such taxable year (such product, the "Actual Tax Liability") over (II) the sum of the quarterly amounts distributed pursuant to this paragraph (13) with respect to such taxable year (and any amounts distributed or permitted to be distributed pursuant to this proviso shall also be Tax Distributions); (B) if the Tax Distributions for a taxable year exceed the Actual Tax Liability for such year, subsequent Tax Distributions shall be reduced dollar-for-dollar by the amount of such excess, and (C) the Tax Distributions made pursuant to this paragraph (13) in respect of any Deemed Tax Due attributable to the income of any Subsidiary of the Parent Borrower may be made only to the extent that such Subsidiary has made cash payments for such purpose to the Parent Borrower or any of its other Subsidiaries;

(14) the declaration and payment of dividends, other distributions or other amounts to, or the making of loans to Holdings or any other direct or indirect parent of the Parent Borrower, in the amount required for such entity to, if applicable:

(a) pay amounts equal to the amounts required for Holdings or any other direct or indirect parent of the Parent Borrower to pay fees and expenses (including Taxes), customary salary, bonus and other benefits payable to, and indemnities provided on behalf of, officers, employees, directors, managers, consultants or independent contractors of Holdings or any other direct or indirect parent of the Parent Borrower, if applicable, and general corporate operating

(including, without limitation, expenses related to auditing and other accounting matters) and overhead costs and expenses of the Parent Borrower or any direct or indirect parent of the Parent Borrower, if applicable, in each case to the extent such fees, expenses, salaries, bonuses, benefits and indemnities are attributable to the ownership or operation of the Parent Borrower and its Subsidiaries;

(b) pay, if applicable, amounts equal to amounts required for Holdings or any direct or indirect parent of the Parent Borrower to pay interest and/or principal on Indebtedness the proceeds of which have been contributed to the Parent Borrower (other than as Excluded Equity) and that has been guaranteed by, and is otherwise considered Indebtedness of, the Parent Borrower or any Subsidiary Incurred in accordance with Section 7.01 (except to the extent any such payments have otherwise been made by any such guarantor);

(c) pay fees and expenses incurred by Holdings or any other direct or indirect parent of the Parent Borrower related to (i) the maintenance of such parent entity of its corporate or other entity existence and performance of its obligations under this Agreement and similar obligations under the definitive documentation governing the Second Lien Facility, (ii) any unsuccessful equity or debt offering of such parent entity (or any debt or equity offering from which such parent does not receive any proceeds) and (iii) any equity or debt issuance, incurrence or offering, any disposition or acquisition or any investment transaction by the Parent Borrower or any of its Subsidiaries (or any acquisition of or investment in any business, assets or property that will be contributed to the Borrowers or any of its Subsidiaries as part of the same or a related transaction) permitted by this Agreement;

(d) make payments (i) to the Sponsor pursuant to or contemplated by the respective Management Agreements or (ii) to or on behalf of the Sponsor for any other monitoring, consulting, management, transaction, advisory, financing, underwriting or placement services or in respect of other investment banking activities, termination or similar fees, indemnities, reimbursements and reasonable and documented out-of-pocket fees and expenses of the Sponsor including, without limitation, in connection with acquisitions or divestitures, including in connection with the consummation of the Transactions, which payments are approved in respect of such activities by a majority of the Board of Directors of the Parent Borrower or any direct or indirect parent of the Parent Borrower in good faith;

(e) pay franchise and excise taxes, and other fees, taxes and expenses in connection with any ownership of the Parent Borrower or any of its Subsidiaries or required to maintain their organizational existences;

(f) make payments for the benefit of the Parent Borrower or any of its Subsidiaries to the extent such payments could have been made by the Parent Borrower or any of its Subsidiaries because such payments (x) would not otherwise be Restricted Payments and (y) would be permitted by Section 6.18; and

(g) make Restricted Payments to any direct or indirect parent of the Parent Borrower to finance, or to any direct or indirect parent of the Parent Borrower for the purpose of paying to any other direct or indirect parent of the Parent Borrower to finance, any Investment that, if consummated by the Parent Borrower or any of its Subsidiaries, would be a Permitted Investment; provided that (a) such Restricted Payment is made substantially concurrently with the closing of such Investment and (b) promptly following the closing thereof, such direct or indirect parent of the Borrowers causes (i) all property acquired (whether assets or Equity Interests) to be contributed to the Parent Borrower or any Subsidiary or (ii) the merger, consolidation or amalgamation (to the extent permitted by Section 7.03) of the Person formed or acquired into the Parent Borrower or any Subsidiary in order to consummate such acquisition or Investment, in each case, in accordance with the requirements of Section 6.12;

(15) (i) repurchases of Equity Interests deemed to occur upon exercise of stock options or warrants if such Equity Interests represent a portion of the exercise price of such options or warrants, (ii) payments made or expected to be made by the Parent Borrower or any Subsidiary in respect of withholding or similar taxes payable or expected to be payable by any future, present or former director, officer, employee, manager, consultant or independent contractor of the Parent Borrower or any direct or indirect parent of the Parent Borrower or any Subsidiary of the Parent Borrower (or their respective Affiliates, estates or immediate family members) in connection with the exercise of stock options or the grant, vesting or delivery of Equity Interests and (iii) loans or advances to officers, directors, employees, managers, consultants and independent contractors of the Parent Borrower or any direct or indirect parent of the Parent Borrower or any Subsidiary of the Parent Borrower in connection with such Person's purchase of Equity Interests of the Parent Borrower or any direct or indirect parent of the Parent Borrower; provided that no cash is actually advanced pursuant to this clause (iii) other than to pay taxes due in connection with such purchase, unless immediately repaid;

(16) purchases of receivables pursuant to a Receivables Repurchase Obligation in connection with a Qualified Receivables Factoring or Qualified Receivables Financing and the payment or distribution of Receivables Fees;

(17) payments or distributions to satisfy dissenters' rights, pursuant to or in connection with a consolidation, merger, amalgamation or transfer of assets that complies with the provisions of this Agreement;

(18) [reserved];

(19) the payment of cash in lieu of the issuance of fractional shares of Equity Interests in connection with any merger, consolidation, amalgamation or other business combination, or in connection with any dividend, distribution or split of or upon exercise, conversion or exchange of Equity Interests, warrants, options or other securities exercisable or convertible into, Equity Interests of the Parent Borrower or any direct or indirect parent of the Parent Borrower;

(20) [reserved];

(21) the making of payments (i) to the Sponsor pursuant to or contemplated by the Management Agreement or (ii) to or on behalf of the Sponsor for any other financial advisory, financing, underwriting or placement services or in respect of other investment banking activities, including, without limitation, in connection with acquisitions or divestitures, including in connection with the consummation of the Transactions, which payments are approved in respect of such activities by a majority of the Board of Directors of the Parent Borrower or any direct or indirect parent of the Parent Borrower in good faith;

(22) [reserved]; and

(23) any payment that is intended to prevent any Junior Financing from being treated as an "applicable high yield discount obligation" within the meaning of Section 163(i)(1) of the Code;

provided, however, that at the time of, and after giving effect to, any Restricted Payment permitted under clause (11), no Event of Default shall have occurred and be continuing or would occur as a consequence thereof. For purposes of clauses (13) and (14) above, taxes shall include all interest and penalties with respect thereto and all additions thereto.

The Parent Borrower will not, and will not permit any of its Subsidiaries to, directly or indirectly, amend, modify or change any term or condition of any Junior Financing Document equal to or greater than the Threshold Amount or the Second Lien Facility Documentation in any manner that is, taken as a whole, materially adverse to the interests of the Administrative Agent or the Lenders.

For purposes of this Section 7.05, if any Restricted Payment (or a portion thereof) would be permitted pursuant to one or more provisions described above, the Parent Borrower may divide and classify such Restricted Payment (or a portion thereof) in any manner that complies with this Section 7.05 and may later divide and reclassify any such Restricted Payment so long as the Restricted Payment (as so divided and/or reclassified) would be permitted to be made in reliance on the applicable exception as of the date of such reclassification.

Section 7.06 Burdensome Agreements.

Permit any of its Subsidiaries to, directly or indirectly, create or otherwise cause or suffer to exist or become effective any consensual encumbrance or consensual restriction on the ability of any Subsidiary to:

(a) (i) pay dividends or make any other distributions to the Borrowers or any of their Subsidiaries on its Capital Stock; or (ii) pay any Indebtedness owed to the Borrowers or any of their Subsidiaries;

(b) make loans or advances to the Borrowers or any of their Subsidiaries;

(c) create, incur, assume or suffer to exist Liens on the Collateral of such Person for the benefit of the Lenders with respect to the Facilities and the Obligations or under the Loan Documents; or

(d) sell, lease or transfer any of its properties or assets to the Borrowers or any of their Subsidiaries.

However, the preceding restrictions will not apply to encumbrances or restrictions existing under or by reason of:

(1) contractual encumbrances or restrictions of the Borrowers or any of their Subsidiaries in effect on the Closing Date, including pursuant to this Agreement and the other Loan Documents, related Swap Contracts and Indebtedness permitted pursuant to Section 7.01(c);

(2) the definitive documentation governing the Second Lien Facility or the Second Lien Term Facility Indebtedness and related Guarantees;

(3) applicable law or any applicable rule, regulation or order;

(4) any agreement or other instrument of a Person acquired by or merged, amalgamated or consolidated with or into any Borrower or any Subsidiary that was in existence at the time of such acquisition (or at the time it merges with or into any Borrower or any Subsidiary or assumed in connection with the acquisition of assets from such Person (but, in each case, not created in contemplation thereof)), which encumbrance or restriction is not applicable to any Person, or the properties or assets of any Person, other than the Person, or the property or assets of the Person, so acquired or designated; provided that in connection with a merger, amalgamation or consolidation under this clause (4), if a Person other than such Borrower or such Subsidiary is the successor company with respect to such merger, amalgamation or consolidation, any agreement or instrument of such Person or any Subsidiary of such Person, shall be deemed acquired or assumed, as the case may be, by such Borrower or such Subsidiary, as the case may be, at the time of such merger, amalgamation or consolidation;

(5) customary encumbrances or restrictions contained in contracts or agreements for the sale of assets applicable to such assets pending consummation of such sale, including customary restrictions with respect to a Subsidiary imposed pursuant to an agreement entered into for the sale or disposition of Capital Stock or assets of such Subsidiary;

(6) restrictions on cash or other deposits or net worth imposed by customers under contracts entered into in the ordinary course of business;

(7) customary provisions in operating or other similar agreements, asset sale agreements and stock sale agreements entered into in connection with the entering into of such transaction, which limitation is applicable only to the assets that are the subject of those agreements;

(8) purchase money obligations for property acquired and Capitalized Lease Obligations, to the extent such obligations impose restrictions of the nature discussed in clauses (c) or (d) in the first paragraph of this Section 7.06 on the property so acquired;

(9) customary provisions contained in leases, sub-leases, licenses, sublicenses, contracts and other similar agreements entered into in the ordinary course of business to the extent such obligations impose restrictions of the type described in clauses (c) or (d) in the first paragraph of this Section 7.06 on the property subject to such lease;

(10) any encumbrance or restriction effected in connection with a Qualified Receivables Factoring or Qualified Receivables Financing that, in the good faith determination of the Borrower, are necessary or advisable to effect such Qualified Receivables Factoring or Qualified Receivables Financing, as applicable;

(11) any encumbrance or restriction contained in other Indebtedness, Disqualified Stock or Preferred Stock of any Borrower or any Subsidiary that is incurred subsequent to the Closing Date pursuant to Section 7.01, provided that (i) such encumbrances and restrictions contained in any agreement or instrument will not materially affect the Borrowers' ability to make anticipated principal or interest payments under this Agreement (as determined by the Parent Borrower in good faith) or (ii) such encumbrances and restrictions contained in any agreement or instrument taken as a whole are not materially less favorable to the Lenders than the encumbrances and restrictions contained in this Agreement (as determined by the Parent Borrower in good faith);

(12) any encumbrance or restriction contained in secured Indebtedness otherwise permitted to be incurred pursuant to Sections 7.01 and 7.02 to the extent limiting the right of the debtor to dispose of the assets securing such Indebtedness;

(13) any encumbrance or restriction arising or agreed to in the ordinary course of business, not relating to any Indebtedness, and that do not, individually or in the aggregate, (x) detract from the value of the property or assets of the Borrowers or any Subsidiary in any manner material to the Borrowers or any Subsidiary or (y) materially affect the Borrowers' ability to make future principal or interest payments under this Agreement, in each case, as determined by the Parent Borrower in good faith;

(14) customary provisions in joint venture agreements or arrangements and other similar agreements or arrangements relating solely to the applicable joint venture; and

(15) any encumbrances or restrictions of the type referred to in Section 7.06(a), (b), (c) and (d) imposed by any amendments, modifications, restatements, renewals, increases, supplements, refundings, replacements or refinancings of the contracts, instruments or obligations referred to in clauses (1) through (14) above; provided that such encumbrances and restrictions contained in any such amendment, modification, restatement, renewal, increase, supplement, refunding, replacement or refinancing are, in the good faith judgment of the Parent Borrower, not materially more restrictive, taken as a whole, than the encumbrances and restrictions prior to such amendment, modification, restatement, renewal, increase, supplement, refunding, replacement or refinancing.

For purposes of determining compliance with this Section 7.06, (i) the priority of any Preferred Stock in receiving dividends or liquidating distributions prior to dividends or liquidating distributions being paid on common stock shall not be deemed a restriction on the ability to make distributions on Capital Stock and (ii) the subordination of loans or advances made to a Borrower or a Subsidiary to other Indebtedness Incurred by such Borrower or any such Subsidiary shall not be deemed a restriction on the ability to make loans or advances.

Section 7.07 Accounting Changes. Make any change in fiscal year; provided, however, that the Parent Borrower or Holdings may, upon written notice to the Administrative Agent, change its fiscal year to any other fiscal year reasonably acceptable to the Administrative Agent, in which case, the Parent Borrower and the Administrative Agent will, and are hereby authorized by the Lenders to, make any amendments to this Agreement that are necessary, in the judgment of the Administrative Agent and the Parent Borrower or Holdings, as applicable, to reflect such change in fiscal year.

Section 7.08 Financial Covenant. As of the end of each fiscal quarter of the Parent Borrower (commencing with the first full fiscal quarter ending after the Closing Date) and so long as the aggregate amount of L/C Obligations and Revolving Credit Loans outstanding as of the end of such fiscal quarter (excluding (i) Cash Collateralized Letters of Credit and (ii) L/C Obligations in an aggregate amount not in excess of $3,750,000 at any time outstanding) exceeds 35.0% of the aggregate amount of all Revolving Credit Commitments in effect as of such date, permit the Consolidated First Lien Net Leverage Ratio as of the end of such fiscal quarter of the Parent Borrower to be greater than 7.50 to 1.00 (the "Financial Covenant").

Section 7.09 Holding Company. Holdings shall not conduct, transact or otherwise engage in any material business or operations; provided, that the following shall be permitted in any event: (i) its ownership of the Capital Stock of the Parent Borrower and the Subsidiaries and any Subsidiary of Holdings (that is not the Parent Borrower or a Subsidiary of the Parent Borrower) which is formed solely for purposes of acting as a co-obligor with respect to any Qualified Holding Company Indebtedness and which does not conduct, transact or otherwise engage in any material business or operation, and, in each case, activities incidental thereto; (ii) the entry into, and the performance of its obligations with respect to the Loan Documents (including any Specified Refinancing Debt or any New Term Facility), the Second Lien Facility Documentation, any Refinancing Notes, any New Incremental Notes, any Junior Financing Document, any Ratio Debt documentation, any documentation relating to any Permitted Refinancing of the foregoing or documentation relating to the Indebtedness otherwise permitted by the last sentence in this Section 7.09 and the Guarantees permitted by clause (v) below; (iii) the consummation of the Transactions; (iv) the performing of activities (including, without limitation, cash management activities) and the entry into documentation with respect thereto, in each case, permitted by this Agreement for Holdings to enter into and perform; (v) the payment of dividends and distributions (and other activities in lieu thereof permitted by this Agreement), the making of contributions to the capital of its Subsidiaries and Guarantees of Indebtedness permitted to be incurred hereunder by the Borrowers or any of the Subsidiaries and the Guarantees of other obligations not constituting Indebtedness; (vi) the maintenance of its legal existence (including the ability to incur fees, costs and expenses relating to such maintenance and performance of activities relating to its officers, directors, managers and employees and those of its Subsidiaries); (vii) the performing of activities in preparation for and consummating any public offering of its common stock or any other issuance or sale of its Capital Stock (other than Disqualified Stock) including converting into another type of legal entity; (viii) the participation in tax, accounting and other administrative matters as a member of the consolidated group of Holdings and the Parent Borrower, including compliance with applicable Laws and legal, tax and accounting matters related thereto and activities relating to its officers, directors, managers and employees; (ix) the holding of any cash and Cash Equivalents (but not operating any property); (x) the entry into and performance of its obligations with respect to contracts and other arrangements, including the providing of indemnification to officers, managers, directors and employees and (xi) any activities incidental to the foregoing. Holdings shall not create, incur, assume or suffer to exist any Lien on any Capital Stock of the Parent Borrower or any Subsidiary (other than Liens pursuant to any Loan Document, the Second Lien Facility Documentation, non-consensual Liens arising solely by operation of Law and Liens pursuant to documentation relating to other secured Indebtedness permitted to be incurred and secured hereunder and any Permitted Liens) and shall not incur any Indebtedness (other than in respect of Disqualified Stock, Qualified Holding Company Indebtedness or Guarantees permitted above and liabilities imposed by Law, including Tax liabilities).

Section 7.10 Restricted Investments. Directly or indirectly make any Restricted Investment.

For purposes of this Section 7.10, if any Investment (or a portion thereof) would be permitted pursuant to one or more of the exceptions contained in the definition of "Permitted Investments," the Parent Borrower may divide and classify such Investment (or a portion thereof) in any manner that complies with such definition and may later divide and reclassify any such Investment so long as the Investment (as so divided and/or reclassified) would be permitted to be made in reliance on the applicable exception as of the date of such reclassification.

ARTICLE VIII.
Events of Default and Remedies

Section 8.01 Events of Default. Any of the following shall constitute an "Event of Default":

(a) Non-Payment. The Parent Borrower or any other Loan Party fails to pay (i) when due and as required to be paid herein, any amount of principal of any Loan or L/C Disbursement, or (ii) within five Business Days after the same becomes due and payable, any interest on any Loan or on any L/C Obligation, or (iii) within ten Business Days after the same becomes due and payable, any fee due hereunder, or any other amount payable hereunder or with respect to any other Loan Document; or

(b) Specific Covenants. The Parent Borrower or any other Loan Party fails to perform or observe any term, covenant or agreement contained in any of Sections 6.03(a), 6.05(a) (solely with respect to any Borrower), 6.11 or in any Section of Article VII (subject to, in the case of the Financial Covenant, the cure rights contained in Section 8.03 and the proviso at the end of this clause (b)), or Holdings fails to perform or observe any term, covenant or agreement contained in Section 7.09; provided, that a Default by the Parent Borrower under Section 7.08 (a "Financial Covenant Event of Default") shall not constitute an Event of Default with respect to the Term Facilities, any New Term Facility or any Specified Refinancing Debt (unless refinancing the Revolving Credit Facility) unless and until the Required Revolving Lenders shall have terminated their Revolving Credit Commitments and declared all amounts outstanding under the Revolving Credit Facility to be due and payable; or

(c) Other Defaults. Any Loan Party fails to perform or observe any covenant or agreement (other than those specified in Section 8.01(a) or (b) above) contained in any Loan Document on its part to be performed or observed and such failure continues for 30 days after notice thereof by the Administrative Agent to the Parent Borrower; or

(d) Representations and Warranties. Any representation, warranty, certification or statement of fact made or deemed made by or on behalf of the Parent Borrower or any other Loan Party herein, in any other Loan Document, or in any document required to be delivered in connection herewith or therewith shall be incorrect or misleading in any material respect (or in any respect if any such representation or warranty is already qualified by materiality) when made or deemed made and, to the extent capable of being cured, such incorrect representation, warranty, certification or statement of fact shall remain incorrect for a period of thirty (30) days; or

(e) Cross-Default. Any Loan Party or any Subsidiary (A) fails to make any payment beyond the applicable grace period with respect thereto, if any (whether by scheduled maturity, required prepayment, acceleration, demand, or otherwise) in respect of any Indebtedness (other than Indebtedness hereunder and intercompany Indebtedness) having an aggregate outstanding principal amount equal to or greater than the Threshold Amount or (B) fails to observe or perform any other agreement or condition relating to any such Indebtedness, or any other event occurs, the effect of which default or other event is to cause, or to permit the holder or holders of such Indebtedness (or a trustee or agent on behalf of such holder or holders or beneficiary or beneficiaries) after the expiration of any applicable grace or cure period therefor to cause, with the giving of notice if required, such Indebtedness to become due or to be repurchased, prepaid, defeased or redeemed (automatically or otherwise), or an offer to repurchase, prepay, defease or redeem such Indebtedness to be made, in each case, prior to its stated maturity; provided that this clause (e)(B) shall not apply to (x) secured Indebtedness that becomes due as a result of the sale or transfer or other Disposition (including a Casualty Event) of the property or assets securing such Indebtedness permitted hereunder and under the documents providing for such Indebtedness and such Indebtedness is repaid when required under the documents providing for such Indebtedness, (y) events of default, termination events or any other similar event under the documents governing Swap Contracts for so long as such event of default, termination event or other similar event does not result in the occurrence of an early termination date or any acceleration or prepayment of any amounts or other Indebtedness payable thereunder or (z) Indebtedness that upon the happening of any such default or event automatically converts into Equity Interests (other than Disqualified Stock or, in the case of a Subsidiary, Disqualified Stock or Preferred Stock) in accordance with its terms; or

(f) Insolvency Proceedings, Etc. Any Loan Party or any Subsidiary (other than an Immaterial Subsidiary) institutes or consents to the institution of any proceeding under any Debtor Relief Law, a winding-up, an administration, a dissolution, or a composition or makes an assignment for the benefit of creditors or any other action is commenced (by way of voluntary arrangement, scheme of arrangement or otherwise); or appoints, applies for or consents to the appointment of any receiver, administrator, administrative receiver, trustee, custodian, conservator, liquidator, rehabilitator, judicial manager, provisional liquidator, administrator, receiver and manager, controller, monitor or similar officer for it or for all or any material part of its property; or any receiver, trustee, custodian, conservator, liquidator, rehabilitator, judicial manager, provisional liquidator, administrator, administrative receiver, receiver and manager, controller, monitor or similar officer is appointed without the application or consent of such Person and the appointment continues undischarged or unstayed for 60 days; or any proceeding under any Debtor Relief Law relating to any such Person or to all or substantially all of its property is instituted without the consent of such Person and continues undismissed or unstayed for 60 days, or an order for relief is entered in any such proceeding; or

(g) Inability to Pay Debts; Attachment. (i) Any Loan Party or any Subsidiary (other than any Immaterial Subsidiary) becomes unable or admits in writing its inability or fails generally to pay its debts as they become due or suspends making payments or enters into a moratorium or standstill arrangement in relation to its Indebtedness or is taken to have failed to comply with a statutory demand (or otherwise be presumed to be insolvent by applicable Law) or (ii) any writ or warrant of attachment or execution or similar process is issued, commenced or levied against all or substantially all of the property of any such Person and is not released, vacated or fully bonded within 60 days after its issue, commencement or levy, or any analogous procedure or step is taken in any jurisdiction; or

(h) Judgments. There is entered against any Loan Party or any Subsidiary a final judgment or order for the payment of money in an aggregate amount (as to all such judgments and orders) equal to or greater than the Threshold Amount (to the extent not paid and not covered by (i) independent third-party insurance as to which the insurer has been notified of such judgment or order and does not deny coverage or (ii) an enforceable indemnity to the extent that such Loan Party or Subsidiary shall have made a claim for indemnification and the applicable indemnifying party shall not have disputed such claim) and there is a period of 60 consecutive days during which a stay of enforcement of such judgment, by reason of a pending appeal or otherwise, is not in effect; or

(i) ERISA. (i) One or more ERISA Events occur or there is or arises an Unfunded Pension Liability (taking into account only Plans with positive Unfunded Pension Liability) which ERISA Event or Events or Unfunded Pension Liability or Unfunded Pension Liabilities results or could reasonably be expected to result in liability of any Loan Party in an aggregate amount which would reasonably be expected to result in a Material Adverse Effect, (ii) any Loan Party or any ERISA Affiliate fails to pay when due, after the expiration of any applicable grace period, any installment payment with respect to its withdrawal liability under Section 4201 of ERISA which has resulted or could reasonably be expected to result in liability of any Loan Party in an aggregate amount which would reasonably be expected to result in a Material Adverse Effect or (iii) with respect to a Foreign Plan, a termination, withdrawal, imposition of a Lien or noncompliance with applicable Law or plan terms that would reasonably be expected to result in a Material Adverse Effect; or

(j) Invalidity of Certain Loan Documents. Any material provision of any Collateral Document, any Guaranty, the Intercompany Subordination Agreement and/or any intercreditor agreement (including, for the avoidance of doubt, the First Lien/Second Lien Intercreditor Agreement) required to be entered into pursuant to the terms of this Agreement (in each case, subject to the Perfection Exceptions), at any time after its execution and delivery and for any reason other than as expressly permitted hereunder or thereunder (including as a result of a transaction permitted under Section 7.03 or Section 7.04) or terminating the Aggregate Commitments and satisfaction in full of all the Obligations (other than contingent indemnification obligations as to which no claim has been asserted and obligations and liabilities under Secured Cash Management Agreements and Secured Hedge Agreements) ceases to be in full force and effect (except that any such failure to be in full force and effect with respect to the documents referred to in clause (vii) of the definition of "Loan Documents" shall constitute an Event of Default only if

the Parent Borrower receives notice thereof and the Parent Borrower fails to remedy the relevant failure in all material respects within 15 days of receiving said notice); or any Loan Party contests in writing the validity or enforceability of any provision of this Agreement, any Collateral Document, any Guaranty, the Intercompany Subordination Agreement and/or any intercreditor agreement (including, for the avoidance of doubt, the First Lien/Second Lien Intercreditor Agreement) required to be entered into pursuant to the terms of this Agreement; or any Loan Party denies in writing that it has any or further liability or obligation under any Loan Document (other than as a result of repayment in full of the Obligations (other than contingent indemnification obligations as to which no claim has been asserted and obligations and liabilities under Secured Cash Management Agreements and Secured Hedge Agreements) and termination of the Aggregate Commitments), or purports in writing to revoke or rescind any Loan Document or the perfected first priority Liens created thereby (except as otherwise expressly provided in this Agreement or the Collateral Documents); or

(k) Change of Control. There occurs any Change of Control.

Section 8.02 Remedies Upon Event of Default. If any Event of Default occurs and is continuing (including any Event of Default arising by virtue of the termination and declaration contemplated by the proviso to Section 8.01(b)), the Administrative Agent shall, at the request of, or may, with the consent of, the Required Lenders (and, if a Financial Covenant Event of Default occurs and is continuing, the Administrative Agent shall, at the request of, or may, with the consent of, the Required Revolving Lenders only, and in such case, without limiting the proviso to Section 8.01(b), only with respect to the Revolving Credit Facility and any Letters of Credit, L/C Credit Extensions and L/C Obligations), take any or all of the following actions:

(a) declare the commitment of each Lender to make Loans and any obligation of the L/C Issuers to make L/C Credit Extensions to be terminated, whereupon such commitments and obligation shall be terminated;

(b) declare the unpaid principal amount of all outstanding Loans, all interest accrued and unpaid thereon, and all other amounts owing or payable hereunder or under any other Loan Document to be immediately due and payable, without presentment, demand, protest or other notice of any kind, all of which are hereby expressly waived by the Borrowers;

(c) require that the Borrowers Cash Collateralize the L/C Obligations (in an amount equal to the then Outstanding Amount thereof); and

(d) exercise on behalf of itself, the L/C Issuers and the Lenders all rights and remedies available to it, the L/C Issuers and the Lenders under the Loan Documents, under any document evidencing Indebtedness in respect of which the Facilities have been designated as "Designated Senior Debt" (or any comparable term) and/or under applicable Law;

provided, however, that upon the occurrence of an actual or deemed entry of an order for relief with respect to the Borrowers under any Debtor Relief Law, the obligation of each Lender to make Loans and any obligation of the L/C Issuers to make L/C Credit Extensions shall automatically terminate, the unpaid principal amount of all outstanding Loans and all interest and other amounts as aforesaid shall automatically become due and payable, and the obligation of the Borrowers to Cash Collateralize the L/C Obligations as aforesaid shall automatically become effective, in each case without further act of the Administrative Agent or any Lender.

Section 8.03 Right to Cure.

(a) Notwithstanding anything to the contrary contained in Section 8.01 or 8.02, in the event that the Parent Borrower fails to comply with the requirements of the Financial Covenant at any time when the Parent Borrower is required to comply with such Financial Covenant pursuant to the terms thereof, then (A) from the end of the most recently ended fiscal quarter of the Parent Borrower until the expiration of the fifteenth Business Day subsequent to the date the relevant Compliance Certificate is required to be delivered pursuant to Section 6.02(b) (the last day of such period being the "Anticipated Cure Deadline"), Holdings shall have the right (the "Cure Right")

to issue common Capital Stock (or preferred equity reasonably acceptable to the Administrative Agent) for cash and contribute the proceeds therefrom in the form of common Capital Stock or in another form reasonably acceptable to the Administrative Agent to the Parent Borrower or obtain a contribution to its equity (which shall be in the form of common equity or otherwise in a form reasonably acceptable to the Administrative Agent) ("Cure Equity"), and upon the receipt by the Parent Borrower of such cash (the "Cure Amount"), pursuant to the exercise by the Parent Borrower of such Cure Right, the calculation of Consolidated EBITDA as used in the Financial Covenant shall be recalculated giving effect to the following pro forma adjustments:

(i) Consolidated EBITDA for such fiscal quarter (and for any subsequent period that includes such fiscal quarter) shall be increased, solely for the purpose of measuring the Financial Covenant and not for any other purpose under this Agreement (including but not limited to determining the availability or amount of any covenant baskets or carve-outs (including the determination of amounts available under Section 7.05) or determining the Applicable Commitment Fee or Applicable Rate, provided that, in determining the Applicable Commitment Fee or the Applicable Rate, effect shall be given to the relevant Cure Amount for purposes of clause (y) in the respective definitions thereof, such that no Event of Default shall be deemed to have occurred and be continuing), by an amount equal to the Cure Amount; provided that (1) the receipt by the Parent Borrower of the Cure Amount pursuant to the Cure Right shall be deemed to have no other effect whatsoever under this Agreement (including but not limited to determining the availability or amount of any covenant baskets or carve-outs or determining the Applicable Commitment Fee or Applicable Rate, provided that, in determining the Applicable Commitment Fee or the Applicable Rate, effect shall be given to the relevant Cure Amount for purposes of clause (y) in the respective definitions thereof, such that no Event of Default shall be deemed to have occurred and be continuing) and (2) no Cure Amount shall reduce Indebtedness on a Pro Forma Basis for the applicable period for purposes of calculating the Financial Covenant or calculating the Consolidated First Lien Net Leverage Ratio, the Consolidated Senior Secured Net Leverage Ratio or the Consolidated Total Net Leverage Ratio, nor shall any Cure Amount held by any Borrower Party qualify as "unrestricted cash or Cash Equivalents of the Borrower Parties" for the purposes of calculating any net obligations or liabilities under the terms of this Agreement; and

(ii) if, after giving effect to the foregoing recalculations, the Parent Borrower shall then be in compliance with the requirements of the Financial Covenant, the Parent Borrower shall be deemed to have satisfied the requirements of the Financial Covenant as of the relevant date of determination with the same effect as though there had been no failure to comply therewith at such date, and the applicable breach or default of the Financial Covenant that had occurred (and any other Default as a result thereof, including the failure to meet any condition requiring no Default or Event of Default based solely on the basis of any actual or purported Event of Default under the Financial Covenant) shall be deemed cured for the purposes of this Agreement; and

(iii) upon receipt by the Administrative Agent of written notice, on or prior to the Anticipated Cure Deadline, that the Parent Borrower intends to exercise the Cure Right in respect of a fiscal quarter, the Lenders (i) shall not be permitted to accelerate Loans held by them, to terminate the Revolving Credit Commitments held by them or to exercise remedies against the Collateral on the basis of a failure to comply with the requirements of the Financial Covenant, unless such failure is not cured pursuant to the exercise of the Cure Right on or prior to the Anticipated Cure Deadline and (ii) shall not be obligated to make any Credit Extension under the Revolving Credit Facility until such Cure Amount has been received by the Parent Borrower.

(b) Notwithstanding anything herein to the contrary, (i) in each four consecutive fiscal-quarter period there shall be at least two fiscal quarters in respect of which the Cure Right is not exercised, (ii) there can be no more than five fiscal quarters in respect of which the Cure Right is exercised during the term of the Facilities and (iii) for purposes of this Section 8.03, the Cure Amount utilized shall be no greater than the minimum amount required to remedy the applicable failure to comply with the Financial Covenant.

Section 8.04 Application of Funds. After the exercise of remedies provided for in Section 8.02 (or after an actual or deemed entry of an order for relief with respect to the Borrowers under any Debtor Relief Law),

any amounts received on account of the Obligations shall, subject to the provisions of Sections 2.16 and 2.17, be applied by the Administrative Agent in the following order:

(a) first, to payment of that portion of the Obligations constituting fees, indemnities, expenses and other amounts (including fees, disbursements and other charges of counsel payable under Section 10.04 and amounts payable under Article III and amounts owing in respect of (x) the preservation of Collateral or the Collateral Agent's security interest in the Collateral or (y) with respect to enforcing the rights of the Secured Parties under the Loan Documents) payable to the Administrative Agent and the Collateral Agent in their respective capacity as such;

(b) second, to payment in full of Unfunded Advances/Participations (the amounts so applied to be distributed between or among, as applicable, the Administrative Agent and the L/C Issuers pro rata in accordance with the amounts of Unfunded Advances/Participations owed to them on the date of any such distribution);

(c) third, to payment of that portion of the Obligations constituting fees, indemnities, expenses and other amounts (other than principal, interest and commitment fees and Letter of Credit fees) payable to the Lenders and the L/C Issuers (including fees, disbursements and other charges of counsel payable under Sections 10.04 and 10.05) arising under the Loan Documents and amounts payable under Article III, ratably among them in proportion to the respective amounts described in this clause (c) held by them;

(d) fourth, to payment of that portion of the Obligations constituting accrued and unpaid commitment fees, Letter of Credit fees and interest on the Loans, L/C Borrowings, Secured Cash Management Agreement or Secured Hedge Agreement ratably among the Lenders, the L/C Issuers, the Cash Management Banks and the Hedge Banks in proportion to the respective amounts described in this clause (d) held by them;

(e) fifth, (i) to payment of that portion of the Obligations constituting unpaid principal of the Loans, the L/C Borrowings and obligations of the Loan Parties then owing under Secured Hedge Agreements and the Secured Cash Management Agreements and (ii) to Cash Collateralize that portion of L/C Obligations comprising the aggregate undrawn amount of Letters of Credit to the extent not otherwise Cash Collateralized by the Borrowers pursuant to Sections 2.03 and 2.16, ratably among the Lenders, the L/C Issuers, the Hedge Banks party to such Secured Hedge Agreements and the Cash Management Banks party to such Secured Cash Management Agreements in proportion to the respective amounts described in this clause (e) held by them; provided that (x) any such amounts applied pursuant to the foregoing clause (ii) shall be paid to the Administrative Agent for the ratable account of the applicable L/C Issuers to Cash Collateralize such L/C Obligations, (y) subject to Sections 2.03(d) and 2.16, amounts used to Cash Collateralize the aggregate undrawn amount of Letters of Credit pursuant to this clause (e) shall be applied to satisfy drawings under such Letters of Credit as they occur and (z) upon the expiration of any Letter of Credit without any pending drawing, the *pro rata* share of Cash Collateral attributable to such expired Letter of Credit shall be applied by the Administrative Agent in accordance with the priority of payments set forth in this Section 8.04;

(f) sixth, to the payment of all other Obligations of the Loan Parties owing under or in respect of the Loan Documents that are then due and payable to the Administrative Agent and the other Secured Parties, ratably based upon the respective aggregate amounts of all such Obligations then owing to the Administrative Agent and the other Secured Parties; and

(g) last, after all of the Obligations have been paid in full (other than contingent indemnification obligations not yet due and owing), to the Borrowers or as otherwise required by Law or the First Lien/Second Lien Intercreditor Agreement;

provided that no amounts received from any Guarantor shall be applied to Excluded Swap Obligations of such Guarantor.

If any amount remains on deposit as Cash Collateral after all Letters of Credit have either been fully drawn or expired without any pending drawing, such remaining amount shall be applied to the other Obligations, if any, in accordance with the priority of payments set forth above. Notwithstanding the foregoing, Obligations arising under Secured Cash Management Agreements and Secured Hedge Agreements shall be excluded from the application of payments described above if the Administrative Agent has not received written notice thereof, together with such supporting documentation as the Administrative Agent may reasonably request, from the applicable Cash Management Bank or Hedge Bank, as the case may be. Each Cash Management Bank or Hedge Bank not a party to this Agreement that has given the notice contemplated by the preceding sentence shall, by such notice, be deemed to have acknowledged and accepted the appointment of the Administrative Agent pursuant to the terms of Article IX for itself and its Affiliates as if a "Lender" party hereto.

It is understood and agreed by each Loan Party and each Secured Party that the Administrative Agent and Collateral Agent shall have no liability for any determinations made by it in this Section 8.04, in each case except to the extent resulting from the gross negligence, bad faith or willful misconduct of the Administrative Agent or the Collateral Agent, as applicable (as determined by a court of competent jurisdiction in a final and non-appealable decision). Each Loan Party and each Secured Party also agrees that the Administrative Agent and the Collateral Agent may (but shall not be required to), at any time and in its sole discretion, and with no liability resulting therefrom, petition a court of competent jurisdiction regarding any application of Collateral in accordance with the requirements hereof, and the Administrative Agent and the Collateral Agent shall be entitled to wait for, and may conclusively rely on, any such determination.

ARTICLE IX.
Administrative Agent and Other Agents

Section 9.01 Appointment and Authorization of Agents.

(a) Each Lender and L/C Issuer hereby irrevocably appoints JPMCB to act on its behalf as Administrative Agent hereunder and under the other Loan Documents (subject to the provisions in Section 9.09), and designates and authorizes the Administrative Agent to take such actions on its behalf under the provisions of this Agreement and each other Loan Document and to exercise such powers and perform such duties as are expressly delegated to the Administrative Agent by the terms of this Agreement or any other Loan Document, together with such actions and powers as are reasonably incidental thereto. The Administrative Agent may perform any of its duties through its officers, directors, agents, employees, or affiliates. The provisions of this Article are solely for the benefit of the Administrative Agent and the Lenders, and no Loan Party shall have rights as a third party beneficiary of any of such provisions. Notwithstanding any provision to the contrary contained elsewhere herein or in any other Loan Document no Agent shall have any duties or responsibilities, except those expressly set forth herein, nor shall any Agent have or be deemed to have any fiduciary relationship with any Lender or participant, and no implied covenants, functions, responsibilities, duties, obligations or liabilities shall be read into this Agreement or any other Loan Document or otherwise exist against any Agent. Regardless of whether a Default has occurred and is continuing and without limiting the generality of the foregoing sentence, the use of the term "agent" herein and in the other Loan Documents with reference to any Agent is not intended to connote any fiduciary or other implied (or express) obligations arising under agency doctrine of any applicable Law. Instead, such term is used merely as a matter of market custom, and is intended to create or reflect only an administrative relationship between independent contracting parties. Without limiting the foregoing, each Lender and each L/C Issuer hereby authorizes the Administrative Agent to execute and deliver, and to perform its obligations under, each of the Loan Documents to which the Administrative Agent is a party, and to exercise all rights, powers and remedies that the Administrative Agent may have under such Loan Documents.

(b) Each L/C Issuer shall act on behalf of the Lenders with respect to any Letters of Credit issued by it and the documents associated therewith, and such L/C Issuer shall have all of the benefits and immunities (i) provided to the Agents in this Article IX with respect to any acts taken or omissions suffered by such L/C Issuer in connection with Letters of Credit issued by it or proposed to be issued by it and the applications and agreements for letters of credit pertaining to such Letters of Credit as fully as if the term "Agent" as used in this Article IX and in the definition of "Agent-Related Person" included such L/C Issuer with respect to such acts or omissions, and (ii) as additionally provided herein with respect to such L/C Issuer.

(c) The Administrative Agent shall also act as the Collateral Agent under the Loan Documents, and each of the Lenders (including in its capacities as a Lender, L/C Issuer (if applicable) and a potential Cash Management Bank party to a Secured Cash Management Agreement and/or a potential Hedge Bank party to a Secured Hedge Agreement) hereby irrevocably appoints and authorizes the Administrative Agent to act as the agent of (and to hold any security interest, charge or other Lien created by the Collateral Documents for and on behalf of or in trust for) such Lender for purposes of acquiring, holding and enforcing any and all Liens on Collateral granted by any of the Loan Parties to secure any of the Secured Obligations, together with such powers and discretion as are reasonably incidental thereto. In this connection, the Administrative Agent as Collateral Agent (and any co-agents, sub-agents and attorneys-in-fact appointed by the Administrative Agent pursuant to Section 9.02 for purposes of holding or enforcing any Lien on the Collateral (or any portion thereof) granted under the Collateral Documents, or for exercising any rights and remedies thereunder at the direction of the Administrative Agent), shall be entitled to the benefits of all provisions of this Article IX (including Section 9.07, as though such co-agents, sub-agents and attorneys-in-fact were the Collateral Agent under the Loan Documents) and Section 10.04 as if set forth in full herein with respect thereto and all references to Administrative Agent in this Article IX shall, where applicable, be read as including a reference to the Collateral Agent. Without limiting the generality of the foregoing, the Lenders hereby expressly authorize the Administrative Agent as Collateral Agent to execute any and all documents (including releases, payoff letters and similar documents) with respect to the Collateral and the rights of the Secured Parties with respect thereto (including any intercreditor agreement), as contemplated by and in accordance with the provisions of this Agreement and the Collateral Documents and acknowledge and agree that any such action by any Agent shall bind the Lenders (including in its capacities as a Lender, L/C Issuer (if applicable) and a potential Cash Management Bank party to a Secured Cash Management Agreement and/or a potential Hedge Bank party to a Secured Hedge Agreement).

Section 9.02 Delegation of Duties. The Administrative Agent may execute any of its duties and exercise its rights and powers under this Agreement or any other Loan Document (including for purposes of holding or enforcing any Lien on the Collateral (or any portion thereof) granted under the Collateral Documents or of exercising any rights and remedies thereunder) by or through agents, employees or attorneys-in-fact and shall be entitled to advice of counsel and other consultants or experts concerning all matters pertaining to such duties. The Administrative Agent and any such sub agent may perform any and all of its duties and exercise its rights and powers by or through their respective Agent-Related Persons. The Administrative Agent shall not be responsible for the negligence or misconduct of any agent or attorney-in-fact that it selects in the absence of gross negligence or willful misconduct by the Administrative Agent, as determined by a final non-appealable judgment by a court of competent jurisdiction. The exculpatory provisions of this Article IX shall apply to any such sub agent and to the Agent-Related Persons of the Administrative Agent and any such sub agent, and shall apply to their respective activities in connection with the syndication of the credit facilities provided for herein as well as activities as Administrative Agent.

Section 9.03 Liability of Agents.

(a) No Agent-Related Person shall be (i) liable for any action taken or omitted to be taken by any of them under or in connection with this Agreement or any other Loan Document or the transactions contemplated hereby (except for its own gross negligence, bad faith or willful misconduct in connection with its duties expressly set forth herein, to the extent determined in a final, non-appealable judgment by a court of competent jurisdiction), (ii) liable for any action taken or not taken by it (A) with the consent or at the request of the Required Lenders (or such other number or percentage of the Lenders as shall be necessary, or as the Administrative Agent shall believe in good faith shall be necessary, under the circumstances as provided in Sections 10.01 and 8.02) or (B) in the absence of its own gross negligence or willful misconduct as determined by the final, non-appealable judgment of a court of competent jurisdiction, in connection with its duties expressly set forth herein, (iii) responsible in any manner to any Lender or participant for any recital, statement, representation or warranty made by any Loan Party or any officer thereof, contained herein or in any other Loan Document, or in any certificate, report, statement or other document referred to or provided for in, or received by the Administrative Agent under or in connection with, this Agreement or any other Loan Document, (iv) responsible for or have any duty to ascertain or inquire into the validity, effectiveness, genuineness, enforceability or sufficiency of this Agreement or any other Loan Document or any other agreement, instrument or document, or the creation, perfection or priority of any Lien, or security interest created or purported to be created under the Collateral Documents, or for any failure of any Loan Party or any other party to any Loan Document to perform its obligations hereunder, (v) responsible for or have any duty to ascertain

or inquire into the value or the sufficiency of any Collateral or (vi) responsible for or have any duty to ascertain or inquire into the satisfaction of any condition set forth in Article IV or elsewhere herein, other than to confirm receipt of items expressly required to be delivered to the Administrative Agent. No Agent-Related Person shall be under any obligation to any Lender or participant to ascertain or to inquire as to the observance or performance of any of the agreements contained in, or conditions of, this Agreement or any other Loan Document, or to inspect the properties, books or records of any Loan Party or any Affiliate thereof. The Administrative Agent shall not be responsible or have any liability for, or have any duty to ascertain, inquire into monitor or enforce, compliance with the provisions relating to Disqualified Institutions. Without limiting the generality of the foregoing, the Administrative Agent shall not (x) be obligated to ascertain, monitor or inquire as to whether any Lender or participant or prospective Lender or participant is a Disqualified Institution or (y) have any liability with respect to or arising out of any assignment or participant of loans, or disclosure of confidential information, to, or the restriction on any exercise of rights or remedies of, any Disqualified Institution.

(b) The Administrative Agent shall not have any duty to (i) take any discretionary action or exercise any discretionary powers, except discretionary rights and powers expressly contemplated hereby or by the other Loan Documents that such Agent is required to exercise as directed in writing by the Required Lenders (or such other number or percentage of the Lenders as shall be expressly provided for herein or in the other Loan Documents); provided that no Agent shall be required to take any action that, in its opinion or the opinion of its counsel, may expose such Agent to liability or that is contrary to any Loan Document or applicable Law; and (ii) to disclose, except as expressly set forth herein and in the other Loan Documents, and shall not be liable for the failure to disclose, any information relating to the Borrowers or any of their Affiliates that is communicated to or obtained by any Person serving as an Agent or any of its Affiliates in any capacity; provided, further, that that the Administrative Agent may seek clarification or direction from the Required Lenders prior to the exercise of any such instructed action and may refrain from acting until such clarification or direction has been provided. Except as expressly set forth in the Loan Documents, the Administrative Agent shall not have any duty to disclose, and shall not be liable for the failure to disclose, any information relating to Holdings, the Borrowers, any Subsidiary or any Affiliate of any of the foregoing that is communicated to or obtained by the Person serving as Administrative Agent or any of its Affiliates in any capacity. Nothing in this Agreement shall require the Administrative Agent to expend or risk its own funds or otherwise incur any financial liability in the performance of any of its duties hereunder or in the exercise of any of its rights or powers if it shall have reasonable grounds for believing that repayment of such funds or adequate indemnity against such risk or liability is not reasonably assured to it.

(c) Any assignor of a Loan or seller of a participation hereunder shall be entitled to rely conclusively on a representation of the assignee Lender or Participant in the relevant Assignment and Assumption or participation agreement, as applicable, that such assignee or purchaser is not a Disqualified Institution. No Agent shall have any responsibility or liability for monitoring the list or identities of, or enforcing provisions relating to, Disqualified Institutions.

Section 9.04 Reliance by Agents.

(a) Each Agent shall be entitled to rely, and shall be fully protected in relying, upon any writing, communication, signature, resolution, representation, notice, request, consent, certificate, instrument, affidavit, letter, telegram, facsimile, telex or telephone message, electronic mail message, Internet or intranet website posting or other distribution statement or other document or conversation reasonably believed by it to be genuine and correct and to have been signed, sent or made by the proper Person or Persons. Each Agent also may rely upon any statement made to it orally or by telephone and reasonably believed by it to have been made by the proper Person, and shall not incur any liability for relying thereon. In determining compliance with any condition hereunder to the making of a Loan that by its terms must be fulfilled to the satisfaction of a Lender, the Administrative Agent may presume that such condition is satisfactory to such Lender unless the Administrative Agent shall have received notice to the contrary from such Lender prior to the making of such Loan. Each Agent may consult with, and rely upon (and be fully protected in relying upon), advice and statements of legal counsel (including counsel to any Loan Party), independent accountants and other experts selected by such Agent. Each Agent shall be fully justified in failing or refusing to take any action under any Loan Document unless it shall first receive such advice or concurrence of the Required Lenders (or such greater number of Lenders as may be expressly required hereby in any instance) as it deems appropriate and, if it so requests, it shall first be indemnified to its satisfaction by the Lenders against any and all liability and expense which may be incurred by it by reason of taking or continuing to take any

such action. Each Agent shall in all cases be fully protected in acting, or in refraining from acting, under this Agreement or any other Loan Document in accordance with a request or consent of the Required Lenders (or such greater number of Lenders as may be expressly required hereby in any instance) and such request and any action taken or failure to act pursuant thereto shall be binding upon all the Lenders.

(b) For purposes of determining compliance with the conditions specified in Sections 4.01 and 4.02, each Lender that has signed this Agreement shall be deemed to have consented to, approved or accepted or to be satisfied with, each document or other matter required thereunder to be consented to or approved by or acceptable or satisfactory to a Lender unless the Administrative Agent shall have received notice from such Lender prior to the proposed Closing Date, specifying its objection thereto.

Section 9.05 Notice of Default. The Administrative Agent shall not be deemed to have knowledge or notice of the occurrence of any Default, except with respect to defaults in the payment of principal, interest and fees required to be paid to the Administrative Agent for the account of the Lenders, unless the Administrative Agent shall have received written notice from a Lender or the Parent Borrower referring to this Agreement, describing such Default and stating that such notice is a "notice of default." The Administrative Agent will notify the Lenders of its receipt of any such notice. The Administrative Agent shall not be responsible for or have any duty to ascertain or inquire into (i) any statement, warranty or representation made in or in connection with any Loan Document, (ii) the contents of any certificate, report or other document delivered thereunder or in connection therewith, (iii) the performance or observance of any of the covenants, agreements or other terms or conditions set forth in any Loan Document or the occurrence of any Default, (iv) the sufficiency, validity, enforceability, effectiveness or genuineness of any Loan Document or any other agreement, instrument or document, (v) the satisfaction of any condition set forth in Article IV or elsewhere in any Loan Document, other than to confirm receipt of items expressly required to be delivered to the Administrative Agent or satisfaction of any condition that expressly refers to the matters described therein being acceptable or satisfactory to the Administrative Agent, (vi) the creation, perfection or priority of Liens on the Collateral or (vii) compliance by Affiliated Lenders with the terms hereof relating to Affiliated Lenders. The Administrative Agent shall take such action with respect to any Event of Default as may be directed by the Required Lenders or the Required Revolving Lenders, as applicable, in accordance with Article VIII; provided, however, that unless and until the Administrative Agent has received any such direction, the Administrative Agent may (but shall not be obligated to) take such action, or refrain from taking such action, with respect to such Event of Default as it shall deem advisable or in the best interest of the Lenders.

Section 9.06 Credit Decision; Disclosure of Information by Agents. Each Lender acknowledges that no Agent-Related Person has made any representation or warranty to it, and that no act by any Agent hereafter taken, including any consent to and acceptance of any assignment or review of the affairs of any Loan Party or any Affiliate thereof, shall be deemed to constitute any representation or warranty by any Agent-Related Person to any Lender as to any matter, including whether Agent-Related Persons have disclosed material information in their possession. Each Lender represents to each Agent that it has, independently and without reliance upon any Agent-Related Person and based on such documents and information as it has deemed appropriate, made its own appraisal of, and investigation into, the business, prospects, operations, property, financial and other condition and creditworthiness of the Loan Parties and their respective Subsidiaries, and all applicable bank or other regulatory Laws relating to the transactions contemplated hereby, and made its own decision to enter into this Agreement and to extend credit to the Borrowers and the other Loan Parties hereunder. Each Lender also represents that it will, independently and without reliance upon any Agent-Related Person and based on such documents and information as it shall deem appropriate at the time, continue to make its own credit analysis, appraisals and decisions in taking or not taking action under this Agreement and the other Loan Documents, and to make such investigations as it deems necessary to inform itself as to the business, prospects, operations, property, financial and other condition and creditworthiness of the Borrowers and the other Loan Parties. Except for notices, reports and other documents expressly required to be furnished to the Lenders by any Agent herein, such Agent shall not have any duty or responsibility to provide any Lender with any credit or other information concerning the business, prospects, operations, property, financial and other condition or creditworthiness of any of the Loan Parties or any of their respective Affiliates which may come into the possession of any Agent-Related Person.

Section 9.07 Indemnification of Agents. Whether or not the transactions contemplated hereby are consummated, each Lender shall, on a ratable basis based on such Lender's Pro Rata Share of all the Facilities, indemnify upon demand each Agent-Related Person (to the extent not reimbursed by or on behalf of any Loan Party

and without limiting the obligation of any Loan Party to do so), and hold harmless each Agent-Related Person in each case from and against any and all Indemnified Liabilities incurred by such Agent-Related Person (including, for the avoidance of doubt, any such Agent-Related Person in its capacity as L/C Issuer); provided, however, that no Lender shall be liable for any Indemnified Liabilities incurred by an Agent-Related Person to the extent such Indemnified Liabilities are determined in a final, non-appealable judgment by a court of competent jurisdiction to have resulted from such Agent-Related Person's own gross negligence, bad faith or willful misconduct; provided, however, that no action taken in accordance with the directions of the Required Lenders (or such other number or percentage of the Lenders as shall be required by the Loan Documents) shall be deemed to constitute gross negligence, bad faith or willful misconduct for purposes of this Section 9.07; provided, further, that to the extent any L/C Issuer is entitled to indemnification under this Section 9.07 solely in its capacity and role as an L/C Issuer, only the Revolving Credit Lenders shall be required to indemnify such L/C Issuer under this Section 9.07 (which indemnity shall be provided by such Lenders based upon their respective Pro Rata Share of the Revolving Credit Facility). In the case of any investigation, litigation or proceeding giving rise to any Indemnified Liabilities, this Section 9.07 shall apply whether or not any such investigation, litigation or proceeding is brought by any Lender or any other Person. Without limiting the foregoing, each Lender shall reimburse the Administrative Agent upon demand for its Pro Rata Share of any costs or out-of-pocket expenses (including the fees, disbursements and other charges of counsel) incurred by the Administrative Agent in connection with the preparation, execution, delivery, administration, modification, amendment or enforcement (whether through negotiations, legal proceedings or otherwise) of, or legal advice in respect of rights or responsibilities under, this Agreement, any other Loan Document, or any document contemplated by or referred to herein, to the extent that the Administrative Agent is not reimbursed for such expenses by or on behalf of the Borrower; provided that such reimbursement by the Lenders shall not affect the Borrower's continuing reimbursement obligations with respect thereto; provided further, that failure of any Lender to indemnify or reimburse the Administrative Agent shall not relieve any other Lender of its obligation in respect thereof. The undertaking in this Section 9.07 shall survive termination of the Aggregate Commitments, the payment of all other Obligations and the resignation or removal of the Administrative Agent.

Section 9.08 Agents in their Individual Capacities. Any Agent and its Affiliates may make loans to, issue letters of credit for the account of, accept deposits from, acquire Capital Stock in and generally engage in any kind of banking, trust, financial advisory, underwriting or other business with each of the Loan Parties and their respective Affiliates as though it were not an Agent or an L/C Issuer hereunder and without notice to or consent of the Lenders. The Lenders acknowledge that, pursuant to such activities, an Agent or its Affiliates may receive information regarding any Loan Party or its Affiliates (including information that may be subject to confidentiality obligations in favor of such Loan Party or such Affiliate) and acknowledge that such Agent shall be under no obligation to provide such information to them. With respect to its Loans, such Agent shall have the same rights and powers under this Agreement as any other Lender and may exercise such rights and powers as though it were not an Agent or an L/C Issuer, and the terms "Lender" and "Lenders" include such Agent in its individual capacity (unless otherwise expressly indicated or unless the context otherwise requires).

Section 9.09 Successor Agents.

(a) The Administrative Agent or Collateral Agent may resign as the Administrative Agent or Collateral Agent, as applicable, upon 30 days' written notice to the Parent Borrower and the Lenders. Upon receipt of any such notice of resignation, the Required Lenders shall appoint from among the Lenders a successor agent for the Lenders, which successor agent shall be consented to by the Parent Borrower at all times other than during the existence of an Event of Default under Section 8.01(a), (f), or (g) (which consent of the Parent Borrower shall not be unreasonably withheld or delayed). If no successor agent is appointed prior to the effective date of the resignation of the Administrative Agent or Collateral Agent, as applicable, the Administrative Agent or Collateral Agent may appoint, after consulting with the Lenders and the Parent Borrower, a successor agent. Upon the acceptance of its appointment as successor agent hereunder, the Person acting as such successor agent shall succeed to all the rights, powers and duties of the retiring Administrative Agent or Collateral Agent, as applicable, and the term "Administrative Agent" or "Collateral Agent," as applicable, shall mean such successor administrative agent or such successor collateral agent, as applicable, and the retiring Administrative Agent's or Collateral Agent's appointment, powers and duties as the Administrative Agent or Collateral Agent, as applicable, shall be terminated. After the retiring Administrative Agent's or Collateral Agent's resignation hereunder as the Administrative Agent or Collateral Agent, the provisions of this Article IX and Sections 10.04 and 10.05 shall continue in effect for its benefit as to any actions taken or omitted to be taken by it while it was the Administrative Agent or Collateral Agent

under this Agreement. If no successor agent has accepted appointment as the Administrative Agent or Collateral Agent by the date which is 30 days following the retiring Administrative Agent's or Collateral Agent's notice of resignation, the retiring Administrative Agent's or Collateral Agent's resignation shall nevertheless thereupon become effective and (i) the retiring Administrative Agent or Collateral Agent, as applicable, shall be discharged from its duties and obligations hereunder and under the other Loan Documents (except that in the case of any collateral security held by the Administrative Agent or Collateral Agent on behalf of the Lenders under any of the Loan Documents, the retiring Agent shall continue to hold such collateral security as bailee, trustee or other applicable capacity until such time as a successor of such Agent is appointed), (ii) all payments, communications and determinations provided to be made by, to or through the Administrative Agent shall instead be made by or to each Lender directly, until such time as the Required Lenders appoint a successor Administrative Agent as provided for above in this Section 9.09 and (iii) the Lenders shall perform all of the duties of the Administrative Agent or Collateral Agent, as applicable, hereunder until such time, if any, as the Required Lenders appoint a successor agent as provided for above. Upon the acceptance of any appointment as the Administrative Agent or Collateral Agent hereunder by a successor and upon the execution and filing or recording of such financing statements, or amendments thereto, and such amendments or supplements to the Mortgages, and such other instruments or notices, as may be necessary or desirable, or as the Required Lenders may request, in order to continue the perfection of the Liens granted or purported to be granted by the Collateral Documents, the Administrative Agent or Collateral Agent, as applicable, shall thereupon succeed to and become vested with all the rights, powers, discretion, privileges, and duties of the retiring Administrative Agent or Collateral Agent. Upon the acceptance of any appointment as the Administrative Agent or Collateral Agent hereunder by a successor or upon the expiration of the 30-day period following the retiring Administrative Agent's or Collateral Agent's notice of resignation without a successor agent having been appointed, the retiring Administrative Agent or Collateral Agent, as applicable, shall be discharged from its duties and obligations hereunder and under the other Loan Documents other than as specifically set forth in clause (i) above of this Section 9.09(a) but the provisions of this Article IX and Sections 10.04 and 10.05 shall continue in effect for the benefit of such retiring Agent, its sub-agents and their respective Agent-Related Persons in respect of any actions taken or omitted to be taken by any of them solely in respect of the Loan Documents or Obligations, as applicable, while the retiring Agent was acting as Administrative Agent or Collateral Agent, as applicable.

(b) Any resignation by JPMCB as Administrative Agent or Collateral Agent pursuant to this Section 9.09 shall also constitute its resignation or removal as an L/C Issuer, in which case the resigning or removed L/C Issuer (x) shall not be required to issue any further Letters of Credit hereunder and (y) shall maintain all of its rights as L/C Issuer with respect to any Letters of Credit issued by it prior to the date of such resignation. Upon the acceptance of a successor's appointment as Administrative Agent or Collateral Agent hereunder or upon the expiration of the 30-day period following the retiring Administrative Agent or Collateral Agent's notice of resignation without a successor agent having been appointed, (i) such successor (if any) shall succeed to and become vested with all of the rights, powers, privileges and duties of the retiring L/C Issuer, (ii) the retiring L/C Issuer shall be discharged from all of their respective duties and obligations hereunder or under the other Loan Documents and (iii) the successor L/C Issuer (if any) shall issue letters of credit in substitution for the Letters of Credit, if any, outstanding at the time of such succession or make (or the Borrower shall enter into) other arrangements satisfactory to the retiring L/C Issuer to effectively assume the obligations of the retiring L/C Issuer with respect to such Letters of Credit.

Section 9.10 Administrative Agent May File Proofs of Claim. In case of the pendency of any receivership, administrative receivership, judicial management, insolvency, liquidation, bankruptcy, reorganization (by way of voluntary arrangement, schemes of arrangement or otherwise), arrangement, adjustment, composition or other judicial proceeding relative to any Loan Party, the Administrative Agent (irrespective of whether the principal of any Loan or L/C Obligation shall then be due and payable as herein expressed or by declaration or otherwise and irrespective of whether the Administrative Agent shall have made any demand on the Borrowers) shall be entitled and empowered, by intervention in such proceeding or otherwise:

(a) to file and prove a claim for the whole amount of the principal and interest owing and unpaid in respect of the Loans, L/C Obligations and all other Obligations that are owing and unpaid and to file such other documents as may be necessary or advisable in order to have the claims of the Lenders and the Administrative Agent (including any claim for the reasonable compensation, expenses, disbursements and advances of the Lenders and the Administrative Agent and their respective agents and counsel to the

extent provided for herein and all other amounts due the Lenders and the Administrative Agent under Sections 2.03(h) and (i), 2.09 and 10.04) allowed in such judicial proceeding; and

(b) to collect and receive any monies or other property payable or deliverable on any such claims and to distribute the same;

and any administrator, administrative receiver, custodian, receiver, assignee, trustee, judicial manager, liquidator, sequestrator or other similar official in any such judicial proceeding is hereby authorized by each Lender to make such payments to the Administrative Agent and, in the event that the Administrative Agent shall consent to the making of such payments directly to the Lenders, to pay to the Administrative Agent any amount due for the reasonable compensation, expenses, disbursements and advances of the Agents and their respective agents and counsel, and any other amounts, in each case, due the Administrative Agent under Sections 2.09 and 10.04.

Nothing contained herein shall be deemed to authorize the Administrative Agent to authorize or consent to or accept or adopt on behalf of any Lender any plan of reorganization (by way of voluntary arrangement, schemes of arrangement or otherwise), arrangement, adjustment or composition affecting the Obligations or the rights of any Lender or to authorize the Administrative Agent to vote in respect of the claim of any Lender in any such proceeding.

The provisions of this Article IX are solely for the benefit of the Administrative Agent, the Lenders and the L/C Issuers, and, except for Sections 9.01, 9.09, 9.10, 9.11, 9.13, and 9.15, none of Holdings, the Borrowers or any Subsidiary, or any of their respective Affiliates, shall have any rights as a third party beneficiary under any such provisions.

Section 9.11 Collateral and Guaranty Matters. Each of the Lenders (including in their capacities as potential Hedge Banks party to a Secured Hedge Agreement and potential or actual Cash Management Banks party to a Secured Cash Management Agreement) and each L/C Issuer irrevocably authorize the Administrative Agent and the Collateral Agent, and each of the Administrative Agent and the Collateral Agent shall to the extent requested by the Parent Borrower or, solely in the case of clause (d) below, to the extent provided for under this Agreement,

(a) release any Lien on any property granted to or held by the Administrative Agent or Collateral Agent under any Loan Document (i) upon termination of the Aggregate Commitments and payment in full of all Obligations (other than (A) contingent indemnification obligations as to which no claim has been asserted and (B) obligations and liabilities under Secured Cash Management Agreements and Secured Hedge Agreements) and the expiration without any pending drawing or termination of all Letters of Credit (other than Letters of Credit which have been Cash Collateralized), (ii) that is sold, disposed of or distributed or to be sold, disposed of or distributed as part of or in connection with any transaction permitted hereunder or under any other Loan Document, in each case to a Person that is not a Loan Party, (iii) subject to Section 10.01, if approved, authorized or ratified in writing by the Required Lenders, (iv) that constitutes Excluded Property as a result of an occurrence not prohibited hereunder or (v) owned by a Subsidiary Guarantor upon release of such Subsidiary Guarantor from its obligations under its Guaranty pursuant to clause (c) below;

(b) release or subordinate any Lien on any property granted to or held by the Administrative Agent or Collateral Agent under any Loan Document to the holder of any Permitted Lien on such property that is permitted by clauses (1), (4), (5), (6) (only with regard to Section 7.01(d)), (9), (11) (solely with respect to cash deposits), (16), (17) (other than with respect to self-insurance arrangements), (18) (solely to the extent constituting Excluded Property), (21), (23) (solely to the extent relating to a lien of the type allowed pursuant to clause (9) of the definition thereof), (25) (solely to the extent relating to a lien of the type allowed pursuant to clause (6) of the definition of "Permitted Liens" and securing obligations under Indebtedness of the type allowed pursuant to Section 7.01(d)), (26) (solely to the extent the Lien of the Collateral Agent on such property is not, pursuant to such agreements, required or permitted to be senior to or *pari passu* with such Liens), (29) (solely with respect to cash deposits), (34), (39) (only for so long as required to be secured for such letter of intent or investment), (45), (46) and (48) of the definition thereof;

(c) release any Guarantor from its obligations under the applicable Guaranty if in the case of any Subsidiary, such Person ceases to be a Subsidiary or otherwise becomes an Excluded Subsidiary as a result of a transaction or designation permitted hereunder; provided that no such release shall occur if such Guarantor continues to be a guarantor in respect of any Specified Refinancing Debt, any Refinancing Notes, the Second Lien Facility, any New Incremental Notes or, to the extent incurred by a Loan Party (other than Holdings), any other Indebtedness; and

(d) establish intercreditor arrangements as contemplated by this Agreement.

Upon request by the Administrative Agent at any time, the Required Lenders will confirm in writing the Collateral Agent's authority to release or subordinate its interest in particular types or items of property, or to release any Guarantor from its obligations under the Guaranty pursuant to this Section 9.11. In each case as specified in this Section 9.11, the applicable Agent will (and each Lender irrevocably authorizes the applicable Agent to), at the Borrowers' expense, execute and deliver to the applicable Loan Party such documents as such Loan Party may reasonably request to evidence the release or subordination of such item of Collateral from the assignment and security interest granted under the Collateral Documents, or to evidence the release of such Guarantor from its obligations under the Guaranty, in each case in accordance with the terms of the Loan Documents and this Section 9.11. Additionally, upon reasonable request of the Parent Borrower, the Collateral Agent will return possessory Collateral held by it that is released from the security interests created by the Collateral Documents pursuant to this Section 9.11; provided that in each case of this Section 9.11, the Parent Borrower shall have delivered to the Administrative Agent and Collateral Agent a certificate of a Responsible Officer of the Parent Borrower certifying that any such transaction has been consummated in compliance with the Credit Agreement and the other Loan Documents and that such release is permitted hereby; provided, that in the event that the Collateral Agent loses or misplaces any possessory collateral delivered to the Collateral Agent by the Parent Borrower, upon reasonable request of the Parent Borrower, the Collateral Agent shall provide a loss affidavit to the Parent Borrower, in the form customarily provided by the Collateral Agent in such circumstances.

Section 9.12 Other Agents; Arranger and Managers. None of the Lenders or other Persons identified on the facing page or signature pages of this Agreement as a "syndication agent," "joint lead arranger," or "joint bookrunner" shall have any right, power, obligation, liability, responsibility or duty under this Agreement other than those applicable to all Lenders as such; provided that each Arranger shall be entitled to any express rights given to that Arranger under any Loan Document. Without limiting the foregoing, none of the Lenders or other Persons so identified shall have or be deemed to have any fiduciary relationship with any Lender. Each Lender acknowledges that it has not relied, and will not rely, on any of the Lenders or other Persons so identified in deciding to enter into this Agreement or in taking or not taking action hereunder.

Section 9.13 Secured Cash Management Agreements and Secured Hedge Agreements. No Cash Management Bank or Hedge Bank that obtains the benefits of Section 8.04, any Guaranty or any Collateral by virtue of the provisions hereof or of any Guaranty or any Collateral Document shall have any right to notice of any action or to consent to, direct or object to any action hereunder or under any other Loan Document or otherwise in respect of the Collateral (including the release or impairment of any Collateral) other than in its capacity as a Lender and, in such case, only to the extent expressly provided in the Loan Documents. Notwithstanding any other provision of this Article IX to the contrary, the Administrative Agent shall not be required to verify the payment of, or that other satisfactory arrangements have been made with respect to, Obligations arising under Secured Cash Management Agreements and Secured Hedge Agreements unless the Administrative Agent has received written notice of such Obligations, together with such supporting documentation as the Administrative Agent may request, from the applicable Cash Management Bank or Hedge Bank, as the case may be.

Section 9.14 Appointment of Supplemental Agents, Incremental Arrangers, Incremental Notes Arrangers and Specified Refinancing Agents

(a) It is the purpose of this Agreement and the other Loan Documents that there shall be no violation of any Law of any jurisdiction denying or restricting the right of banking corporations or associations to transact business as agent or trustee in such jurisdiction. It is recognized that in case of litigation under this Agreement or any of the other Loan Documents, and in particular in case of the enforcement of any of the Loan Documents, or in case the Administrative Agent or the Collateral Agent deems that by reason of any present or future Law of any

jurisdiction it may not exercise any of the rights, powers or remedies granted herein or in any of the other Loan Documents or take any other action which may be desirable or necessary in connection therewith, the Administrative Agent and the Collateral Agent are hereby authorized to appoint an additional individual or institution selected by them in their sole discretion as a separate trustee, co-trustee, administrative agent, collateral agent, administrative sub-agent or administrative co-agent, as applicable (any such additional individual or institution being referred to herein individually as a 'Supplemental Agent" and collectively as "Supplemental Agents").

(b) In the event that the Administrative Agent or the Collateral Agent appoints a Supplemental Agent with respect to any Collateral, (i) each and every right, power, privilege or duty expressed or intended by this Agreement or any of the other Loan Documents to be exercised by or vested in or conveyed to the Administrative Agent or the Collateral Agent with respect to such Collateral shall be exercisable by and vest in such Supplemental Agent to the extent, and only to the extent, necessary to enable such Supplemental Agent to exercise such rights, powers and privileges with respect to such Collateral and to perform such duties with respect to such Collateral, and every covenant and obligation contained in the Loan Documents and necessary to the exercise or performance thereof by such Supplemental Agent shall run to and be enforceable by either the Administrative Agent and the Collateral Agent or such Supplemental Agent, and (ii) the provisions of this Article IX and of Sections 10.04 and 10.05 (obligating the Borrowers to pay the Administrative Agent's and the Collateral Agent's expenses and to indemnify the Administrative Agent and the Collateral Agent) that refer to the Administrative Agent and/or the Collateral Agent shall inure to the benefit of such Supplemental Agent and all references therein to the Administrative Agent and/or Collateral Agent shall be deemed to be references to the Administrative Agent and/or Collateral Agent and/or such Supplemental Agent, as the context may require.

(c) Should any instrument in writing from the Borrowers, Holdings or any other Loan Party be required by any Supplemental Agent so appointed by the Administrative Agent or the Collateral Agent for more fully and certainly vesting in and confirming to him or it such rights, powers, privileges and duties, the Borrowers or Holdings, as applicable, shall, or shall cause such Loan Party to, execute, acknowledge and deliver any and all such instruments promptly upon request by the Administrative Agent or the Collateral Agent. In case any Supplemental Agent, or a successor thereto, shall die, become incapable of acting, resign or be removed, all the rights, powers, privileges and duties of such Supplemental Agent, to the extent permitted by Law, shall vest in and be exercised by the Administrative Agent or the Collateral Agent, as applicable, until the appointment of a new Supplemental Agent.

(d) In the event that the Parent Borrower appoints or designates any Incremental Arranger, Incremental Notes Arranger or Specified Refinancing Agent pursuant to Sections 2.14, 2.15 and 2.18, as applicable, (i) each and every right, power, privilege or duty expressed or intended by this Agreement or any of the other Loan Documents to be exercised by or vested in or conveyed to an agent or arranger with respect to New Loan Commitments, New Incremental Notes or Specified Refinancing Debt, as applicable, shall be exercisable by and vest in such Incremental Arranger, Incremental Notes Arranger or Specified Refinancing Agent to the extent, and only to the extent, necessary to enable such Incremental Arranger, Incremental Notes Arranger or Specified Refinancing Agent to exercise such rights, powers and privileges with respect to the New Loan Commitments, New Incremental Notes or Specified Refinancing Debt, as applicable, and to perform such duties with respect to such New Loan Commitments, New Incremental Notes or Specified Refinancing Debt, and every covenant and obligation contained in the Loan Documents and necessary to the exercise or performance thereof by such Incremental Arranger, Incremental Notes Arranger or Specified Refinancing Agent shall run to and be enforceable by either the Administrative Agent or such Incremental Arranger, Incremental Notes Arranger or Specified Refinancing Agent, and (ii) the provisions of this Article IX and of Sections 10.04 and 10.05 (obligating the Borrowers to pay the Administrative Agent's and the Collateral Agent's expenses and to indemnify the Administrative Agent and the Collateral Agent) that refer to the Administrative Agent and/or the Collateral Agent shall inure to the benefit of such Incremental Arranger, Incremental Notes Arranger or Specified Refinancing Agent and all references therein to the Administrative Agent and/or Collateral Agent shall be deemed to be references to the Administrative Agent and/or Collateral Agent and/or such Incremental Arranger, Incremental Notes Arranger or Specified Refinancing Agent, as the context may require. Each Lender and L/C Issuer hereby irrevocably appoints any Incremental Arranger, Incremental Notes Arranger or Specified Refinancing Agent to act on its behalf hereunder and under the other Loan Documents pursuant to Sections 2.14, 2.15 and 2.18, as applicable, and designates and authorizes such Incremental Arranger, Incremental Notes Arranger or Specified Refinancing Agent to take such actions on its behalf under the provisions of this Agreement and each other Loan Document and to

exercise such powers and perform such duties as are expressly delegated to such Incremental Arranger, Incremental Notes Arranger or Specified Refinancing Agent by the terms of this Agreement or any other Loan Document, together with such actions and powers as are reasonably incidental thereto.

Section 9.15 Intercreditor Agreement. The Administrative Agent and the Collateral Agent are authorized by the Lenders and other Secured Parties to, to the extent required by the terms of the Loan Documents, (i) enter into the First Lien/Second Lien Intercreditor Agreement and any other intercreditor agreement contemplated by this Agreement, (ii) enter into any Collateral Document, or (iii) make or consent to any filings or take any other actions in connection therewith (and any amendments, amendments and restatements, restatements or waivers of or supplements to or other modifications to, such agreements in connection with the incurrence by any Loan Party of any Indebtedness of such Loan Party that is permitted to be secured pursuant to Sections 7.01 and 7.02 of this Agreement, in order to permit such Indebtedness to be secured by a valid, perfected lien on the Collateral (with such priority as may be designated by such Loan Party, to the extent such priority is permitted by the Loan Documents)), and the parties hereto acknowledge that any intercreditor agreement, Collateral Document, consent, filing or other action will be binding upon them. Each Lender and other Secured Party (a) understands, acknowledges and agrees that Liens will be created on Collateral pursuant to the Second Lien Facility Documentation, which Liens shall be subject to the terms and conditions of the First Lien/Second Lien Intercreditor Agreement, (b) hereby agrees that it will be bound by and will take no actions contrary to the provisions of the First Lien/Second Lien Intercreditor Agreement or any other intercreditor agreement (if entered into) and (c) hereby authorizes and instructs the Administrative Agent and the Collateral Agent to enter into the First Lien/Second Lien Intercreditor Agreement and any other intercreditor agreement contemplated by this Agreement or Collateral Document (and any amendments, amendments and restatements, restatements or waivers of or supplements to or other modifications to, such agreements in connection with the incurrence by any Loan Party of any Indebtedness of such Loan Party that is permitted to be secured pursuant to Sections 7.01 and 7.02 of this Agreement, in order to permit such Indebtedness to be secured by a valid, perfected lien on the Collateral (with such priority as may be designated by such Loan Party, to the extent such priority is permitted by the Loan Documents)), and to subject the Liens on the Collateral securing the Obligations to the provisions thereof.

Section 9.16 Withholding Tax. To the extent required by any applicable law, the Administrative Agent may withhold from any payment to any Lender an amount equivalent to any applicable withholding Tax. Without limiting or expanding the provisions of Section 3.01, each Lender shall indemnify the Administrative Agent against, and shall make payable in respect thereof within 30 days after demand therefor, any and all Taxes and any and all related losses, claims, liabilities and expenses (including fees, charges and disbursements of any counsel for the Administrative Agent) incurred by or asserted against the Administrative Agent by the U.S. Internal Revenue Service or any other Governmental Authority as a result of the failure of the Administrative Agent to properly withhold tax from amounts paid to or for the account of any Lender for any reason (including, without limitation, because the appropriate form was not delivered or not property executed, or because such Lender failed to notify the Administrative Agent of a change in circumstance that rendered the exemption from, or reduction of withholding tax ineffective). A certificate as to the amount of such payment or liability delivered to any Lender by the Administrative Agent shall be conclusive absent manifest error. Each Lender hereby authorizes the Administrative Agent to set off and apply any and all amounts at any time owing to such Lender under this Agreement or any other Loan Document against any amount due the Administrative Agent under this paragraph. The agreements in this paragraph shall survive the resignation and/or replacement of the Administrative Agent, any assignment of rights by, or the replacement of, a Lender and the repayment, satisfaction or discharge of all other obligations under any Loan Document.

Section 9.17 Certain ERISA Matters.

(a) Each Lender (x) represents and warrants, as of the date such Person became a Lender party hereto, to, and (y) covenants, from the date such Person became a Lender party hereto to the date such Person ceases being a Lender party hereto, for the benefit of, the Administrative Agent and its respective Affiliates, and not, for the avoidance of doubt, to or for the benefit of the Borrower or any other Loan Party, that at least one of the following is and will be true:

(i) such Lender is not using "plan assets" (within the meaning of the Plan Asset Regulations) of one or more Benefit Plans in connection with the Loans, the Letters of Credit or the Commitments,

(ii) the transaction exemption set forth in one or more PTEs, such as PTE84-14 (a class exemption for certain transactions determined by independent qualified professional asset managers), PTE 95-60 (a class exemption for certain transactions involving insurance company general accounts), PTE 90-1 (a class exemption for certain transactions involving insurance company pooled separate accounts), PTE91-38 (a class exemption for certain transactions involving bank collective investment funds) or PTE 96-23 (a class exemption for certain transactions determined byin-house asset managers), is applicable with respect to such Lender's entrance into, participation in, administration of and performance of the Loans, the Letters of Credit, the Commitments and this Agreement, and the conditions for exemptive relief thereunder are and will continue to be satisfied in connection therewith,

(iii) (A) such Lender is an investment fund managed by a "Qualified Professional Asset Manager" (within the meaning of Part VI of PTE 84-14), (B) such Qualified Professional Asset Manager made the investment decision on behalf of such Lender to enter into, participate in, administer and perform the Loans, the Letters of Credit, the Commitments and this Agreement, (C) the entrance into, participation in, administration of and performance of the Loans, the Letters of Credit, the Commitments and this Agreement satisfies the requirements of sub-sections (b) through (g) of Part I of PTE 84-14 and (D) to the best knowledge of such Lender, the requirements of subsection (a) of Part I of PTE84-14 are satisfied with respect to such Lender's entrance into, participation in, administration of and performance of the Loans, the Letters of Credit, the Commitments and this Agreement, or

(iv) such other representation, warranty and covenant as may be agreed in writing between the Administrative Agent, in its sole discretion, and such Lender.

(b) In addition, unless sub-clause (i) in the immediately preceding clause (a) is true with respect to a Lender or such Lender has not provided another representation, warranty and covenant as provided in sub-clause (iv) in the immediately preceding clause (a), such Lender further (x) represents and warrants, as of the date such Person became a Lender party hereto, to, and (y) covenants, from the date such Person became a Lender party hereto to the date such Person ceases being a Lender party hereto, for the benefit of, the Administrative Agent and its respective Affiliates, and not, for the avoidance of doubt, to or for the benefit of the Borrower or any other Loan Party, that:

(i) none of the Administrative Agent or any of its Affiliates is a fiduciary with respect to the assets of such Lender (including in connection with the reservation or exercise of any rights by the Administrative Agent under this Agreement, any Loan Document or any documents related hereto or thereto),

(ii) the Person making the investment decision on behalf of such Lender with respect to the entrance into, participation in, administration of and performance of the Loans, the Letters of Credit, the Commitments and this Agreement is independent (within the meaning of 29 CFR § 2510.3-21, as amended from time to time) and is a bank, an insurance carrier, an investment adviser, a broker-dealer or other person that holds, or has under management or control, total assets of at least $50 million, in each case as described in 29 CFR § 2510.3-21(c)(1)(i)(A)-(E),

(iii) the Person making the investment decision on behalf of such Lender with respect to the entrance into, participation in, administration of and performance of the Loans, the Letters of Credit, the Commitments and this Agreement is capable of evaluating investment risks independently, both in general and with regard to particular transactions and investment strategies (including in respect of the obligations),

(iv) the Person making the investment decision on behalf of such Lender with respect to the entrance into, participation in, administration of and performance of the Loans, the Letters of Credit, the Commitments and this Agreement is a fiduciary under ERISA or the Code, or both, with respect to the Loans, the Letters of Credit, the Commitments and this Agreement and is responsible for exercising independent judgment in evaluating the transactions hereunder, and

(v) no fee or other compensation is being paid directly to the Administrative Agent or any of its Affiliates for investment advice (as opposed to other services) in connection with the Loans, the Letters of Credit, the Commitments or this Agreement.

(c) The Administrative Agent hereby informs the Lenders that each such Person is not undertaking to provide impartial investment advice, or to give advice in a fiduciary capacity, in connection with the transactions contemplated hereby, and that such Person has a financial interest in the transactions contemplated hereby in that such Person or an Affiliate thereof (i) may receive interest or other payments with respect to the Loans, the Letters of Credit, the Commitments and this Agreement, (ii) may recognize a gain if it extended the Loans, the Letters of Credit or the Commitments for an amount less than the amount being paid for an interest in the Loans, the Letters of Credit or the Commitments by such Lender or (iii) may receive fees or other payments in connection with the transactions contemplated hereby, the Loan Documents or otherwise, including structuring fees, commitment fees, arrangement fees, facility fees, upfront fees, underwriting fees, ticking fees, agency fees, administrative agent or collateral agent fees, utilization fees, minimum usage fees, letter of credit fees, fronting fees, deal-away or alternate transaction fees, amendment fees, processing fees, term out premiums, banker's acceptance fees, breakage or other early termination fees or fees similar to the foregoing.

Section 9.18 Credit Bidding. The Secured Parties hereby irrevocably authorize the Administrative Agent, at the direction of the Required Lenders, to credit bid all or any portion of the Obligations (including by accepting some or all of the Collateral in satisfaction of some or all of the Obligations pursuant to a deed in lieu of foreclosure or otherwise) and in such manner purchase (either directly or through one or more acquisition vehicles) all or any portion of the Collateral (a) at any sale thereof conducted under the provisions of the Bankruptcy Code, including under Sections 363, 1123 or 1129 of the Bankruptcy Code, or any similar laws in any other jurisdictions to which a Loan Party is subject, or (b) at any other sale, foreclosure or acceptance of collateral in lieu of debt conducted by (or with the consent or at the direction of) the Administrative Agent (whether by judicial action or otherwise) in accordance with any applicable law. In connection with any such credit bid and purchase, the Obligations owed to the Secured Parties shall be entitled to be, and shall be, credit bid by the Administrative Agent at the direction of the Required Lenders on a ratable basis (with Obligations with respect to contingent or unliquidated claims receiving contingent interests in the acquired assets on a ratable basis that shall vest upon the liquidation of such claims in an amount proportional to the liquidated portion of the contingent claim amount used in allocating the contingent interests) for the asset or assets so purchased (or for the equity interests or debt instruments of the acquisition vehicle or vehicles that are issued in connection with such purchase). In connection with any such bid, (i) the Administrative Agent shall be authorized to form one or more acquisition vehicles and to assign any successful credit bid to such acquisition vehicle or vehicles, (ii) each of the Secured Parties' ratable interests in the Obligations which were credit bid shall be deemed without any further action under this Agreement to be assigned to such vehicle or vehicles for the purpose of closing such sale, (iii) the Administrative Agent shall be authorized to adopt documents providing for the governance of the acquisition vehicle or vehicles (provided that any actions by the Administrative Agent with respect to such acquisition vehicle or vehicles, including any disposition of the assets or equity interests thereof, shall be governed, directly or indirectly, by, and the governing documents shall provide for, control by the vote of the Required Lenders or their permitted assignees under the terms of this Agreement or the governing documents of the applicable acquisition vehicle or vehicles, as the case may be, irrespective of the termination of this Agreement and without giving effect to the limitations on actions by the Required Lenders contained in Section 10.01 of this Agreement), (iv) the Administrative Agent on behalf of such acquisition vehicle or vehicles shall be authorized to issue to each of the Secured Parties, ratably on account of the relevant Obligations which were credit bid, interests, whether as equity, partnership, limited partnership interests or membership interests, in any such acquisition vehicle and/or debt instruments issued by such acquisition vehicle, all without the need for any Secured Party or acquisition vehicle to take any further action, and (v) to the extent that Obligations that are assigned to an acquisition vehicle are not used to acquire Collateral for any reason (as a result of another bid being higher or better, because the amount of Obligations assigned to the acquisition vehicle exceeds the amount of Obligations credit bid by the acquisition vehicle or otherwise), such Obligations shall automatically be reassigned to the Secured Parties pro rata with their original interest in such Obligations and the equity interests and/or debt instruments issued by any acquisition vehicle on account of such Obligations shall automatically be cancelled, without the need for any Secured Party or any acquisition vehicle to take any further action. Notwithstanding that the ratable portion of the Obligations of each Secured Party are deemed assigned to the acquisition vehicle or vehicles as set forth in clause (ii) above, each Secured Party shall execute such documents and provide such information regarding the Secured Party (and/or any designee of the Secured Party which will receive interests in or

debt instruments issued by such acquisition vehicle) as the Administrative Agent may reasonably request in connection with the formation of any acquisition vehicle, the formulation or submission of any credit bid or the consummation of the transactions contemplated by such credit bid.

ARTICLE X.
Miscellaneous

Section 10.01 Amendments, Etc. Except as otherwise expressly set forth in this Agreement or the applicable Loan Document, no amendment or waiver of any provision of this Agreement or any other Loan Document, and no consent to any departure by any Borrower or any other Loan Party therefrom, shall be effective unless in writing signed by the Required Lenders (or by the Administrative Agent at the instruction of the Required Lenders) and the applicable Borrower or Loan Party, as the case may be, and acknowledged by the Administrative Agent to the extent the Administrative Agent is not a Defaulting Lender (other than with respect to any amendment or waiver contemplated in clause (h) below, which shall only require the consent of the Required Revolving Lenders), and each such amendment, waiver or consent shall be effective only in the specific instance and for the specific purpose for which given; provided, however, that no such amendment, waiver or consent shall:

(a) extend or increase the Commitment of any Lender, or reinstate the Commitment of any Lender after the termination of such Commitment pursuant to Section 8.02, in each case without the written consent of such Lender (it being understood that a waiver of any condition precedent set forth in Section 4.02 or the waiver of (or amendment to the terms of) any Default or Event of Default, mandatory prepayment or mandatory reduction of the Commitments shall not constitute an extension or increase of any Commitment of any Lender);

(b) postpone any date scheduled for, or reduce the amount of, any payment of principal of, or interest on, any Loan or L/C Borrowing or any fees or other amounts payable hereunder, without the written consent of each Lender directly and adversely affected thereby (and subject to such further requirements as may be applicable thereto under the last two paragraphs of this Section 10.01), it being understood that the waiver of any obligation to pay interest at the Default Rate, or the amendment or waiver of any mandatory prepayment of Loans under the Term Facilities shall not constitute a postponement of any date scheduled for the payment of principal, interest or fees;

(c) reduce the principal of, or the rate of interest specified herein on, or change the currency of, any Loan or L/C Borrowing (it being understood that a waiver of any Default or Event of Default or mandatory prepayment shall not constitute a reduction or forgiveness of principal), or (subject to clause (iii) of the proviso following clause (h) below) any fees or other amounts payable hereunder or under any other Loan Document without the written consent of each Lender directly and adversely affected thereby, it being understood that any change to the definitions of Consolidated First Lien Net Leverage Ratio or in the component definitions thereof shall not constitute a reduction in any rate of interest or any fees based thereon; provided, however, that only the consent of the Required Lenders shall be necessary to amend the definition of "Default Rate" or to waive any obligation of the Borrowers to pay interest at the Default Rate;

(d) change any provision of Section 8.04 or 10.09 without the written consent of each Lender directly and adversely affected thereby with respect to such change;

(e) change (i) any provision of this Section 10.01 (other than any change to the last two paragraphs of this Section that would otherwise be permitted by this Section 10.01), or the definition of Required Lenders, or any other provision hereof specifying the number or percentage of Lenders or portion of the Loans or Commitments required to amend, waive or otherwise modify any rights hereunder or make any determination or grant any consent hereunder (other than the definition specified in clause (ii) of this Section 10.01(e) or modifications in connection with repurchases of Term Loans, amendments with respect to the New Term Facilities or New Revolving Facility and amendments with respect to extensions of maturity, which shall only require the written consent of each Lender directly and adversely affected thereby), without the written consent of each Lender, or (ii) the definition of "Required Revolving Lenders," without the written consent of each Revolving Credit Lender;

(f) other than in a transaction permitted under Section 7.03 or Section 7.04, release all or substantially all of the Liens on the Collateral in any transaction or series of related transactions, without the written consent of each Lender;

(g) other than in a transaction permitted under Section 7.03 or Section 7.04, release all or substantially all of the aggregate value of the Guaranty, or all or substantially all of the Guarantors, without the written consent of each Lender; or

(h) (i) amend or otherwise modify Section 7.08 (or for the purposes of determining compliance with the Financial Covenant, any defined terms used therein), or (ii) waive or consent to any Default or Event of Default resulting from a breach of the Financial Covenant, (iii) alter the rights or remedies of the Required Revolving Lenders arising pursuant to Article VIII as a result of a breach of Section 7.08 or (iv) waive any condition precedent set forth in Section 4.02 with respect to Credit Extensions involving the Revolving Credit Facility, in each case, without the written consent of the Required Revolving Lenders; provided, however, that the amendments, modifications, waivers and consents described in this clause (h) shall not require the consent of any Lenders other than the Required Revolving Lenders;

and provided further that (i) no amendment, waiver or consent shall, unless in writing and signed by an L/C Issuer in addition to the Borrowers and the Lenders required above, affect the rights or duties of such L/C Issuer, in its capacity as such, under this Agreement or any Letter of Credit Application or other Issuer Document relating to any Letter of Credit issued or to be issued by it; (ii) no amendment, waiver or consent shall, unless in writing and signed by the Administrative Agent, the Collateral Agent in their respective capacities as such, in addition to the Parent Borrower and the Lenders required above, affect the rights or duties of, or any fees or other amounts payable to, the Administrative Agent under this Agreement or any other Loan Document; and (iii) Section 10.07(g) may not be amended, waived or otherwise modified without the consent of each Granting Lender all or any part of whose Loans are being funded by an SPC at the time of such amendment, waiver or other modification. Notwithstanding anything to the contrary herein, any amendment, modification, waiver or other action which by its terms requires the consent of all Lenders or each affected Lender may be effected with the consent of the applicable Lenders other than Defaulting Lenders or Affiliate Lenders (other than Debt Fund Affiliates), except that (x) no amendment, waiver or consent relating to Section 10.01(a), (b) or (c) may be effected, in each case without the consent of such Defaulting Lender or Affiliate Lender and (y) any amendment, modification, waiver or other action that by its terms adversely affects any Defaulting Lender or Affiliate Lender in its capacity as a Lender in a manner that differs in any material respect from, and is more adverse to such Defaulting Lender or Affiliate Lender than it is to, other affected Lenders shall require the consent of such Defaulting Lender or Affiliate Lender. Notwithstanding anything to the contrary herein, any waiver, amendment, modification or consent in respect of this Agreement or any other Loan Document that by its terms affects the rights or duties under this Agreement or any other Loan Document of Lenders holding Loans or Commitments of a particular Tranche (but not the Lenders holding Loans or Commitments of any other Tranche) may be effected by an agreement or agreements in writing entered into by the Parent Borrower and the requisite percentage in interest of the Lenders with respect to such Tranche that would be required to consent thereto under this Section 10.01 if such Lenders were the only Lenders hereunder at the time.

This Section 10.01 shall be subject to any contrary provision of Section 2.14 or Section 2.18. In addition, notwithstanding anything else to the contrary contained in this Section 10.01, (a) amendments and modifications in connection with the transactions provided for by Section 2.14 or Section 2.18 that benefit existing Lenders may be effected without such Lenders' consent, (b) if the Administrative Agent and the Parent Borrower shall have jointly identified an obvious error or any error, ambiguity or omission, defect or inconsistency of a technical nature, in each case, in any provision of the Loan Documents, then the Administrative Agent and the Parent Borrower shall be permitted to amend such provision, (c) the Administrative Agent and the Parent Borrower shall be permitted to amend any provision of any Collateral Document, the Guaranty, or enter into any new agreement or instrument, to be consistent with this Agreement and the other Loan Documents or as required by local law to give effect to any guaranty, or to give effect to or to protect any security interest for the benefit of the Secured Parties, in any property so that the security interests comply with applicable Law, and in each case, such amendments, documents and agreements shall become effective without any further action or consent of any other party to any Loan Document if in the case of amendments contemplated by clause (b) the same is not objected to in writing by the Required Lenders within five Business Days following receipt of notice thereof and (d) if one or more currencies is added as

an Alternative Currency, the Borrower, the Administrative Agent the Revolving Credit Lenders and any applicable L/C Issuer shall be entitled to amend the provisions of this Agreement and the other Loan Documents to add interest rate provisions and other operational or mechanical provisions relating to Revolving Credit Loans and Letters of Credit denominated in any such currencies.

Notwithstanding anything to the contrary herein, in connection with any amendment, modification, waiver or other action requiring the consent or approval of Required Lenders, Lenders that are Debt Fund Affiliates shall not be permitted, in the aggregate, to account for more than 49.9% of the amounts actually included in determining whether the threshold in the definition of "Required Lenders" has been satisfied. The voting power of each Lender that is a Debt Fund Affiliate shall be reduced, pro rata, to the extent necessary in order to comply with the immediately preceding sentence.

Notwithstanding anything to the contrary herein, at any time and from time to time, upon notice to the Administrative Agent (who shall promptly notify the applicable Lenders) specifying in reasonable detail the proposed terms thereof, the Parent Borrower may make one or more loan modification offers to (i) all the Lenders of any Facility that would, if and to the extent accepted by any such Lender, (a) extend the scheduled Maturity Date and any amortization of the Loans and Commitments under such Facility and/or change the Applicable Rate and/or fees payable with respect to the Loans and Commitments under such Facility (in each case solely with respect to the Loans and Commitments of accepting Lenders in respect of which an acceptance is delivered) and (b) treat the Loans and Commitments so modified as a new "Facility" for all purposes under this Agreement; provided that (x) such loan modification offer is made to each Lender under the applicable Facility on the same terms and subject to the same procedures as are applicable to all other Lenders under such Facility (which procedures in any case shall be reasonably satisfactory to the Administrative Agent) and (y) no loan modification shall affect the rights or duties of, or any fees or other amounts payable to, the Administrative Agent or any L/C Issuer, without its prior written consent or (ii) the specified Lenders of any Facility that would, if and to the extent accepted by any such Lender (the "Accepting Lender"), (a) extend the scheduled Maturity Date and any amortization of the Loans and Commitments under such Facility and, if applicable, change the Applicable Rate and/or fees payable with respect to the Loans and Commitments under such Facility (in each case solely with respect to the Loans and Commitments of accepting Lenders in respect of which an acceptance is delivered) and (b) treat the Loans and Commitments so modified as a new "Facility" for all purposes under this Agreement; provided that (w) in no event shall such extended Loans and Commitments (1) have covenants that are more restrictive to the Borrowers than the terms applicable to the non-extended Loans and Commitments of the original Facility from which such Loans and Commitments are extended (the "Non-Extended Loans and Commitments"), (2) have a higher Applicable Rate and/or fees than the Non-Extended Loans and Commitments or (3) receive a greater than ratable share of any optional or mandatory prepayments than such Non-Extended Loans and Commitments, in each case, prior to the final maturity date of such Non-Extended Loans and Commitments applicable at the time of such loan modification, (x) such loan modification offer is made to the Accepting Lenders under the applicable Facility on the same terms and subject to the same procedures as are applicable to all other Accepting Lenders under such Facility (which procedures in any case shall be reasonably satisfactory to the Administrative Agent), (y) if the aggregate principal amount of Revolving Credit Commitments or Term Loans in respect of which Lenders shall have accepted the relevant loan modification offer shall exceed the maximum aggregate principal amount of Revolving Credit Commitments or Term Loans of such Accepting Lenders, as applicable, subject to the loan modification offer, then the Revolving Credit Commitments or Term Loans, as applicable, of the lenders of the applicable Facility who were not provided with the opportunity to extend their Revolving Credit Commitments or Term Loans may have their Revolving Credit Commitments terminated or Term Loans repaid on a non-ratable basis up to such maximum amount based on the respective principal amounts with respect to which the Accepting Lenders have accepted such loan modification offer and (z) no loan modification shall affect the rights or duties of, or any fees or other amounts payable to, the Administrative Agent or any L/C Issuer, without its prior written consent.

In connection with any such loan modification offer, the Parent Borrower and each accepting Lender shall execute and deliver to the Administrative Agent such agreements and other documentation as the Administrative Agent shall reasonably specify to evidence the acceptance of the applicable loan modification offer and the terms and conditions thereof, and this Agreement and the other Loan Documents shall be amended in a writing (which may be executed and delivered by the Parent Borrower and the Administrative Agent and shall be effective only with respect to the applicable Loans and Commitments of Lenders that shall have accepted the relevant loan modification offer (and only with respect to Loans and Commitments as to which any such Lender has accepted the

loan modification offer)) to the extent necessary or appropriate, in the judgment of the Administrative Agent, to reflect the existence of, and to give effect to the terms and conditions of, the applicable loan modification (including the addition of such modified Loans and/or Commitments as a "Facility" hereunder). No Lender shall have any obligation whatsoever to accept any loan modification offer, and may reject any such offer in its sole discretion. On the effective date of any loan modification applicable to the Revolving Credit Facility, the Borrowers shall prepay any Revolving Credit Loans or L/C Advances (to the extent participated to Revolving Credit Lenders) outstanding on such effective date (and pay any additional amounts required pursuant to Section 3.06) to the extent necessary to keep the outstanding Revolving Credit Loans or L/C Advances (to the extent participated to Revolving Credit Lenders), as the case may be, ratable with any revised Pro Rata Share of a Revolving Credit Lender in respect of the Revolving Credit Facility arising from any non-ratable loan modification to the Revolving Credit Commitments under this Section 10.01. Notwithstanding the foregoing, no modification referred to above shall become effective unless the Administrative Agent, to the extent reasonably requested by the Administrative Agent, shall have received legal opinions, board resolutions, officers' certificates and/or reaffirmation agreements consistent with those delivered on the Closing Date under Section 4.01 or delivered from time to time pursuant to Section 6.12, Section 6.14 and/or Section 6.16 with respect to Holdings and the Parent Borrower, all material Subsidiary Guarantors and each other Subsidiary Guarantor that is organized in a jurisdiction for which local counsel to the Administrative Agent in such jurisdiction advises that such deliveries are reasonably necessary to preserve the Collateral in such jurisdiction.

Section 10.02 Notices; Electronic Communications.

(a) Except in the case of notices and other communications expressly permitted to be given by telephone (and subject to paragraph (b) below), all notices and other communications provided for herein shall be in writing and shall be delivered by hand or overnight courier service, mailed by certified or registered mail or sent by telecopy, as follows:

(i) if to the Parent Borrower, to it at 8855 Mesa Rim Road, San Diego, CA 92121, Attention of Kevin Herde (Telecopy No. (619) 954-4668);

(ii) if to the Administrative Agent, to JPMorgan Chase Bank, N.A., JPM Loan & Agency Services, 500 Stanton Christiana Rd, NCC 5, 1st Floor, Newark, DE 19713-2107, Attention: Mary Crews; Telephone: 1 (302) 634-5758; Facsimile: (302) 634-3301; E-mail: mary.crews@jpmorgan.com;

(iii) if to an L/C Issuer, to it at, in the case of JPMorgan Chase Bank, N.A., 10420 Highland Manor Dr. 4th Floor, Tampa, FL 33610, Attention: Standby LC Unit; Telephone: (800) 634-1969; Facsimile: (856) 294-5267; E-mail: gts.ib.standby@jpmchase.com;

with a copy to:

JPMorgan Chase Bank, N.A., JPM Loan & Agency Services, 500 Stanton Christiana Rd, NCC 5, 1st Floor, Newark, DE 19713-2107, Attention: Mary Crews; Telephone: 1 (302) 634-5758; Facsimile: (302) 634-3301; E-mail: mary.crews@jpmorgan.com; and

(iv) if to any other Lender, to it at its address (or telecopy number) set forth in its Administrative Questionnaire.

Notices sent by hand or overnight courier service, or mailed by certified or registered mail, shall be deemed to have been given when received; notices sent by facsimile shall be deemed to have been given when sent (except that, if not given during normal business hours for the recipient, shall be deemed to have been given at the opening of business on the next business day for the recipient). Notices delivered through Approved Electronic Platforms, to the extent provided in paragraph (b) below, shall be effective as provided in said paragraph (b).

(b) Notices and other communications to the Lenders and the L/C Issuers hereunder may be delivered or furnished by using Approved Electronic Platforms pursuant to procedures approved by the Administrative Agent; provided that the foregoing shall not apply to notices pursuant to Article II unless otherwise agreed by the

Administrative Agent and the applicable Lender. The Administrative Agent or the Parent Borrower may, in its discretion, agree to accept notices and other communications to it hereunder by electronic communications pursuant to procedures approved by it; provided that approval of such procedures may be limited to particular notices or communications.

(c) Unless the Administrative Agent otherwise prescribes, (i) notices and other communications sent to an e-mail address shall be deemed received upon the sender's receipt of an acknowledgement from the intended recipient (such as by the "return receipt requested" function, as available, return e-mail or other written acknowledgement), and (ii) notices or communications posted to an Internet or intranet website shall be deemed received upon the deemed receipt by the intended recipient, at its e-mail address as described in the foregoing clause (i), of notification that such notice or communication is available and identifying the website address therefor; provided that, for both clauses (i) and (ii) above, if such notice, email or other communication is not sent during the normal business hours of the recipient, such notice or communication shall be deemed to have been sent at the opening of business on the next business day for the recipient.

(d) Any party hereto may change its address or telecopy number for notices and other communications hereunder by notice to the other parties hereto.

(e) The Administrative Agent, the Collateral Agent, the L/C Issuers and the Lenders shall be entitled to rely and act upon any notices (including telephonic Committed Loan Notices) purportedly given by or on behalf of the Parent Borrower even if (i) such notices were not made in a manner specified herein, were incomplete or were not preceded or followed by any other form of notice specified herein, or (ii) the terms thereof, as understood by the recipient, varied from any confirmation thereof except to the extent such reliance is deemed to be gross negligence, bad faith or willful misconduct of the Administrative Agent, Collateral Agent, L/C Issuer or Lender in a final non-appealable judgment of a court of competent jurisdiction. The Borrowers shall indemnify the Administrative Agent, the Collateral Agent, each L/C Issuer, each Lender and the Related Parties of each of them from all losses, costs, expenses and liabilities resulting from the reliance by such Person on each notice purportedly given by or on behalf of the Parent Borrower to the extent required by Section 10.05. All telephonic notices to and other telephonic communications with the Administrative Agent may be recorded by the Administrative Agent, and each of the parties hereto hereby consents to such recording.

Section 10.03 No Waiver; Cumulative Remedies; Enforcement.

(a) No failure by any Lender, any L/C Issuer, the Administrative Agent or the Collateral Agent to exercise, and no delay by any such Person in exercising, any right, remedy, power or privilege hereunder or under any other Loan Document shall operate as a waiver thereof; nor shall any single or partial exercise of any right, remedy, power or privilege hereunder preclude any other or further exercise thereof or the exercise of any other right, remedy, power or privilege. The rights, remedies, powers and privileges provided hereunder and under each other Loan Document, are cumulative and not exclusive of any rights, remedies, powers and privileges provided by Law.

(b) Notwithstanding anything to the contrary contained herein or in any other Loan Document, the authority to enforce rights and remedies hereunder and under the other Loan Documents against the Loan Parties or any of them shall be vested exclusively in, and all actions and proceedings at law in connection with such enforcement shall be instituted and maintained exclusively by, the Administrative Agent or the Collateral Agent in accordance with Section 8.02 for the benefit of all the Lenders and the L/C Issuers; provided, however, that the foregoing shall not prohibit (a) the Administrative Agent or the Collateral Agent from exercising on its own behalf the rights and remedies that inure to its benefit (solely in its capacity as the Administrative Agent or the Collateral Agent) hereunder and under the other Loan Documents, (b) each L/C Issuer from exercising the rights and remedies that inure to its benefit (solely in its capacity as an L/C Issuer) hereunder and under the other Loan Documents, or (c) any Lender from exercising setoff rights in accordance with Section 10.09 (subject to the terms of Section 2.13); and provided further, that if at any time there is no Person acting as Administrative Agent hereunder and under the other Loan Documents, then (i) the Required Lenders shall have the rights otherwise ascribed to the Administrative Agent pursuant to Section 8.02 and (ii) in addition to the matters set forth in clauses (b) and (c) of the preceding proviso and subject to Section 2.13, any Lender may, with the consent of the Required Lenders, enforce any rights and remedies available to it and as authorized by the Required Lenders. In the event of a foreclosure by the

Collateral Agent on any of the Collateral pursuant to a public or private sale, the Administrative Agent, the Collateral Agent or any Lender (or any person nominated by them) may be the purchaser of any or all of such Collateral at any such sale and the Administrative Agent, as agent for and representative of the Lenders (but not any Lender or Lenders in its or their respective individual capacities unless the Required Lenders shall otherwise agree in writing), shall be entitled, for the purpose of bidding and making settlement or payment of the purchase price for all or any portion of the Collateral sold in any such public sale, to use and apply any of the Obligations as a credit on account of the purchase price for any Collateral payable by the Administrative Agent at such sale.

(c) If the Administrative Agent and the Borrowers acting together identify any ambiguity, omission, mistake, typographical error or other defect in any provision of this Agreement or any other Loan Document, then the Administrative Agent and the Borrowers shall be permitted to amend, modify or supplement such provision to cure such ambiguity, omission, mistake, typographical error or other defect, and such amendment shall become effective without any further action or consent of any other party to this Agreement.

Section 10.04 Expenses. The Borrowers agree (a) to pay or reimburse the Administrative Agent and the other Agents for all reasonable and documented out-of-pocket costs and expenses incurred in connection with the preparation, negotiation, syndication and execution of this Agreement and the other Loan Documents (including reasonable expenses incurred in connection with due diligence and travel, courier, reproduction, printing and delivery expenses), and any amendment, waiver, consent or other modification of the provisions hereof and thereof, and the consummation and administration of the transactions contemplated hereby and thereby, including the reasonable fees, disbursements and other charges of counsel (limited to the reasonable and documented fees, disbursements and other charges of one primary counsel to the Agents and, if necessary, one local counsel in each relevant jurisdiction (which may include a single special counsel acting in multiple jurisdictions, in each case, in jurisdictions material to the interests of the Lenders) and special counsel for each relevant specialty), and (b) to pay or reimburse the Administrative Agent, the other Agents and each Lender (including, for the avoidance of doubt, each L/C Issuer) for all reasonable documented out-of-pocket costs and expenses incurred in connection with the enforcement of any rights or remedies under this Agreement or the other Loan Documents (including all such costs and expenses incurred during any legal proceeding, including any proceeding under any Debtor Relief Law or in connection with any workout or restructuring), including the fees, disbursements and other charges of counsel (limited to the reasonable fees, disbursements and other charges of one counsel to the Administrative Agent, the other Agents and the Lenders taken as a whole, and, if necessary, of one local counsel in each relevant jurisdiction (which may include a single special counsel acting in multiple jurisdictions, in each case, in jurisdictions material to the interests of the Lenders) and of special counsel for each relevant specialty and, in the event of any actual or perceived conflict of interest, one additional counsel in each relevant jurisdiction for each Lender or group of similarly affected Lenders or Agents subject to such conflict after notification to the Parent Borrower). The foregoing costs and expenses shall include all reasonable search, filing, recording, title insurance and appraisal charges and fees, and other out-of-pocket expenses incurred by any Agent. All amounts due under this Section 10.04 shall be paid within 30 days after invoiced or demand therefor (with a reasonably detailed invoice with respect thereto) (except for any such costs and expenses incurred prior to the Closing Date, which shall be paid on the Closing Date to the extent invoiced at least three Business Days prior to the Closing Date). The agreements in this Section 10.04 shall survive the termination of the Aggregate Commitments and repayment of all other Obligations. If any Loan Party fails to pay when due any costs, expenses or other amounts payable by it hereunder or under any Loan Document, such amount may be paid on behalf of such Loan Party by the Administrative Agent after any applicable grace periods have expired, in its sole discretion and the Borrowers shall immediately reimburse the Administrative Agent, as applicable. This Section 10.04 shall not apply with respect to Taxes other than any Taxes arising from any non-Tax cost or expense.

Section 10.05 Indemnification by the Borrower. The Borrowers shall indemnify and hold harmless each Arranger, each Agent-Related Person, each Lender, each L/C Issuer, each of their respective Affiliates and each partner, director, officer, employee, counsel, agent and representative of the foregoing and, in the case of any funds, trustees and advisors and attorneys-in-fact (collectively, the "Indemnitees") from and against (and will reimburse each Indemnitee, as and when incurred, for) any and all liabilities, obligations, losses, damages, penalties, claims, demands, actions, judgments, suits, costs (including settlement costs), disbursements, and reasonable and documented or invoiced out-of-pocket fees and expenses (including the reasonable and documented fees, disbursements and other charges of (i) one counsel to the Indemnitees taken as a whole, (ii) in the case of an actual or perceived conflict of interest, where the Indemnitee affected by such conflict informs the Parent Borrower and

thereafter retains its own counsel, of another firm of counsel for each such affected Indemnitee in each relevant jurisdiction material to the interests of the Lenders, and (iii) if necessary, one local counsel in each jurisdiction material to the interests of the Indemnitees (which may include a single special counsel acting in multiple jurisdictions) and special counsel for each relevant specialty) of any kind or nature whatsoever which may at any time be imposed on, incurred by or asserted or awarded against any such Indemnitee in any way relating to or arising out of or in connection with or by reason of (x) any actual or prospective claim, litigation, investigation or proceeding in any way relating to, arising out of, in connection with or by reason of any of the following, whether based on contract, tort or any other theory (including any investigation of, preparation for, or defense of any pending or threatened claim, investigation, litigation or proceeding): (a) the execution, delivery, enforcement, performance or administration of any Loan Document or any other agreement, letter or instrument delivered in connection with the transactions contemplated thereby or the consummation of the transactions contemplated thereby or (b) any Commitment, Loan or Letter of Credit or the use or proposed use of the proceeds therefrom (including any refusal by any L/C Issuer to honor a demand for payment under a Letter of Credit if the documents presented in connection with such demand do not strictly comply with the terms of such Letter of Credit); provided that such indemnity shall not, as to any Indemnitee, be available to the extent that such liabilities, obligations, losses, damages, penalties, claims, demands, actions, judgments, suits, costs, disbursements, fees or expenses are determined by a court of competent jurisdiction in a final and non-appealable judgment to have resulted from (A) the bad faith, gross negligence or willful misconduct of such Indemnitee or any of its Affiliates or controlling persons or any of the officers, directors, employees, agents, advisors, or members of any of the foregoing or (B) any dispute that is among Indemnitees (other than any dispute involving claims against the Administrative Agent, any Arranger or any other Agent or any L/C Issuer, in each case in their respective capacities as such) that a court of competent jurisdiction has determined in a final and non-appealable judgment did not involve actions or omissions of the Parent Borrower or its Subsidiaries or any of their respective Affiliates; or (y) any Environmental Liability related in any way to Holdings or any of its Subsidiaries, ((x) and (y), collectively, the "Indemnified Liabilities") in all cases, provided that such indemnity shall not, as to any Indemnitee, be available to the extent that such losses, claims, damages, liabilities or related expenses are determined by a court of competent jurisdiction by final and nonappealable judgment to have resulted from the gross negligence or willful misconduct of such Indemnitee. No Indemnitee shall be liable for any damages arising from the use by others of any information or other materials obtained through the Approved Electronic Platform or other information transmission systems (including electronic telecommunications) in connection with this Agreement unless determined by a court of competent jurisdiction in a final and non-appealable judgment to have resulted from the gross negligence, bad faith or willful misconduct of such Indemnitee, nor shall any Indemnitee or any Loan Party have any liability for any special, punitive, indirect or consequential damages relating to this Agreement or any other Loan Document or arising out of its activities in connection herewith or therewith (whether before or after the Closing Date); provided that such waiver of special, punitive, indirect or consequential damages shall not limit the indemnification obligations of the Loan Parties under this Section 10.05. In the case of an investigation, litigation or other proceeding to which the indemnity in this Section 10.05 applies, such indemnity shall be effective whether or not such investigation, litigation or proceeding is brought by any Loan Party, its directors, shareholders or creditors or an Indemnitee or any other Person, and whether or not any Indemnitee is otherwise a party thereto. Should any investigation, litigation or proceeding be settled, or if there is a judgment in any such investigation, litigation or proceeding, the Borrowers shall indemnify and hold harmless each Indemnitee in the manner set forth above; provided that the Borrowers shall not be liable for any settlement effected without the Parent Borrower's prior written consent (such consent not to be unreasonably withheld, delayed or conditioned). All amounts due under this Section 10.05 shall be payable within 30 days after demand therefor. The agreements in this Section 10.05 shall survive the resignation of the Administrative Agent, the replacement of any Lender, the termination of the Aggregate Commitments and the repayment, satisfaction or discharge of all the other Obligations. This Section 10.05 shall not apply with respect to Taxes other than any Taxes that represent losses, claims, damages, etc. arising from any non-Tax claim.

Section 10.06 Payments Set Aside. To the extent that any payment by or on behalf of the Borrowers is made to any Agent, to any L/C Issuer or any Lender, or any Agent, any L/C Issuer or any Lender exercises its right of setoff, and such payment or the proceeds of such setoff or any part thereof is subsequently invalidated, declared to be fraudulent or preferential, set aside or required (including pursuant to any settlement entered into by such Agent, such L/C Issuer or such Lender in its discretion) to be repaid to a trustee, receiver or any other party, in connection with any proceeding under any Debtor Relief Law or otherwise, then (a) to the extent of such recovery, the obligation or part thereof originally intended to be satisfied shall be revived and continued in full force and effect as if such payment had not been made or such setoff had not occurred, and (b) each Lender and each L/C Issuer

severally agrees to pay to the Administrative Agent upon demand its applicable share (without duplication) of any amount so recovered from or repaid by any Agent, plus interest thereon from the date of such demand to the date such payment is made at a rate per annum equal to the NYFRB Rate from time to time in effect. The obligations of the Lenders and the L/C Issuers under clause (b) of the preceding sentence shall survive the payment in full of the Obligations and the termination of this Agreement.

Section 10.07 Successors and Assigns.

(a) The provisions of this Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns permitted hereby, except that the Borrowers may not assign or otherwise transfer any of its rights or obligations hereunder without the prior written consent of the Administrative Agent and each Lender, and no Lender may assign or otherwise transfer any of its rights or obligations hereunder except (i) to an Eligible Assignee (other than to any Disqualified Institution to the extent the list of Disqualified Institutions has been made available to the Lenders) in accordance with the provisions of Section 10.07(b), (ii) by way of participation in accordance with the provisions of Section 10.07(d), (iii) by way of pledge or assignment of a security interest subject to the restrictions of Section 10.07(f) or (iv) to an SPC in accordance with the provisions of Section 10.07(g). Any other attempted assignment or transfer by any party hereto (other than to any Disqualified Institution) shall be null and void. Nothing in this Agreement, expressed or implied, shall be construed to confer upon any Person (other than the parties hereto, their respective successors and assigns permitted hereby, Participants to the extent provided in Section 10.07(d) and, to the extent expressly contemplated hereby, the Indemnitees) any legal or equitable right, remedy or claim under or by reason of this Agreement.

(b) Any Lender may at any time assign to one or more Eligible Assignees all or a portion of its rights and obligations under this Agreement (including all or a portion of its Commitment(s) and the Loans (including for purposes of this Section 10.07(b), participations in L/C Obligations) at the time owing to it); provided that:

(i) (A) in the case of an assignment of the entire remaining amount of the assigning Lender's Commitment under any Facility and the Loans at the time owing to it under such Facility, no minimum amount shall need be assigned, and (B) in any case not described in clause (b)(i)(A) of this Section 10.07, the aggregate amount of the Commitment (which for this purpose includes Loans outstanding thereunder) or, if the applicable Commitment is not then in effect, the outstanding principal balance of the Loans of the assigning Lender subject to each such assignment, determined as of the date the Assignment and Assumption with respect to such assignment is delivered to the Administrative Agent or, if "Trade Date" is specified in the Assignment and Assumption, as of the Trade Date, shall not be less than $5,000,000, in the case of any assignment in respect of the Revolving Credit Facility, or $500,000, in the case of any assignment in respect of a Term Facility, in each case unless each of the Administrative Agent and, so long as no Event of Default under Section 8.01(a), (f) or (g) has occurred and is continuing, the Parent Borrower otherwise consents (such consent not to be unreasonably withheld, conditioned or delayed); provided, however, that concurrent assignments to members of an Assignee Group and concurrent assignments from members of an Assignee Group to a single Eligible Assignee (or to an Eligible Assignee and members of its Assignee Group) will be treated as a single assignment for purposes of determining whether such minimum amount has been met;

(ii) each partial assignment shall be made as an assignment of a proportionate part of all the assigning Lender's rights and obligations under this Agreement with respect to the Loans or the Commitment assigned, except that this clause (ii) shall not prohibit any Lender from assigning all or a portion of its rights and obligations among separate Facilities on a non-pro rata basis;

(iii) no consent shall be required for any assignment except to the extent required by clause (b)(i)(B) of this Section 10.07 and, in addition (A) the consent of the Parent Borrower (such consent not to be unreasonably withheld, conditioned or delayed) shall be required for any assignment unless (1) an Event of Default under Section 8.01(a), (f) or (g) has occurred and is continuing at the time of such assignment, (2) such assignment is in respect of a Term Facility and is to a Lender, an Affiliate of a Lender or an Approved Fund (other than any Disqualified Institution, to the extent the list of Disqualified Institutions has been made available to the Lenders) or (3) such assignment is in respect of the Revolving Credit Facility and is to a Revolving Credit Lender, an Affiliate of a Revolving Credit Lender or an Approved Fund

related thereto (other than any Disqualified Institution, to the extent the list of Disqualified Institutions has been made available to the Lenders); provided that (1) the Parent Borrower shall be deemed to have consented to any assignment unless the Parent Borrower objects thereto by written notice to the Administrative Agent within ten Business Days after having received notice thereof and (2) during the 60 day period following the Closing Date, the Parent Borrower shall be deemed to have consented to an assignment to any Lender if such Lender was previously identified and approved in the initial allocations of the Loans and Commitments provided by the Arrangers to the Parent Borrower, (B) the consent of the Administrative Agent (such consent not to be unreasonably withheld or delayed) shall be required for any assignment unless (1) such assignment is in respect of a Term Facility and is to a Lender, an Affiliate of a Lender or an Approved Fund or (2) such assignment is in respect of the Revolving Credit Facility and is to a Revolving Credit Lender, an Affiliate of a Revolving Credit Lender or an Approved Fund related thereto (provided that in each case the Administrative Agent shall acknowledge any such assignment) and (C) the consent of each L/C Issuer (such consent not to be unreasonably withheld, conditioned or delayed) shall be required for any assignment in respect of the Revolving Credit Facility; provided, however, that the consent of each L/C Issuer shall not be required for any assignment in respect of a Term Loan;

(iv) the parties to each assignment shall execute and deliver to the Administrative Agent an Assignment and Assumption via an electronic settlement system acceptable to the Administrative Agent (or, if previously agreed with the Administrative Agent, manually), together with a processing and recordation fee of $3,500 (except the Administrative Agent, in its sole discretion, may elect to waive such processing and recording fee in the case of any assignment). Each Eligible Assignee that is not an existing Lender shall deliver to the Administrative Agent an Administrative Questionnaire;

(v) no such assignment shall be made (A) to any Defaulting Lender or any of its Subsidiaries, or any Person who, upon becoming a Lender hereunder, would constitute a Defaulting Lender or a Subsidiary of a Defaulting Lender, (B) to any natural person, (C) to any Disqualified Institution, to the extent the list of Disqualified Institutions has been made available to the Lenders, (D) to Holdings, the Parent Borrower or any its Subsidiaries except as permitted under clause (j) below or (E) to any Affiliate Lender except as permitted under Section 10.07(i);

(vi) no Revolving Credit Commitments or Revolving Credit Loans may be assigned to any Affiliate Lender;

(vii) the assigning Lender shall deliver any Notes or, in lieu thereof, a lost note affidavit and indemnity reasonably acceptable to the Parent Borrower evidencing such Loans to the Parent Borrower or the Administrative Agent; and

(viii) in connection with any assignment of rights and obligations of any Defaulting Lender hereunder, no such assignment shall be effective unless and until, in addition to the other conditions thereto set forth herein, the parties to the assignment shall make such additional payments to the Administrative Agent in an aggregate amount sufficient, upon distribution thereof as appropriate (which may be outright payment, purchases by the assignee of participations or subparticipations, or other compensating actions, including funding, with the consent of the Parent Borrower and the Administrative Agent, the applicable Pro Rata Share of Loans previously requested but not funded by the Defaulting Lender, to each of which the applicable assignee and assignor hereby irrevocably consent), to (x) pay and satisfy in full all payment liabilities then owed by such Defaulting Lender to the Administrative Agent or any L/C Issuer or Lender hereunder (and interest accrued thereon) and (y) acquire (and fund as appropriate) its full Pro Rata Share of all Loans and participations in Letters of Credit in accordance with its Pro Rata Share; provided that notwithstanding the foregoing, in the event that any assignment of rights and obligations of any Defaulting Lender hereunder shall become effective under applicable Law without compliance with the provisions of this clause, then the assignee of such interest shall be deemed to be a Defaulting Lender for all purposes of this Agreement until such compliance occurs.

Subject to acceptance and recording thereof by the Administrative Agent pursuant to Section 10.07(c), from and after the effective date specified in each Assignment and Assumption, the Eligible Assignee thereunder shall be a party to this Agreement and, to the extent of the interest assigned by such Assignment and Assumption,

have the rights and obligations of a Lender under this Agreement, and the assigning Lender thereunder shall, to the extent of the interest assigned by such Assignment and Assumption, be released from its obligations under this Agreement (and, in the case of an Assignment and Assumption covering all of the assigning Lender's rights and obligations under this Agreement, such Lender shall cease to be a party hereto but shall continue to be entitled to the benefits of Sections 3.01, 3.04, 3.05, 10.04 and 10.05 with respect to facts and circumstances occurring prior to the effective date of such assignment, and subject to the obligations set forth in Section 10.08). Upon request, and the surrender by the assigning Lender of its Note (or, in lieu thereof, a lost note affidavit and indemnity reasonably acceptable to the Parent Borrower), the Parent Borrower (at its expense) shall execute and deliver a Note to the assignee Lender. Any assignment or transfer by a Lender of rights or obligations under this Agreement (other than any purported assignment or transfer to a Disqualified Institution, to the extent the list of Disqualified Institutions has been made available to the Lenders) that does not comply with this clause (b) shall be treated for purposes of this Agreement as a sale by such Lender of a participation in such rights and obligations in accordance with Section 10.07(d).

(c) The Administrative Agent, acting solely for this purpose as a non-fiduciary agent of the Borrowers (and such agency being solely for tax purposes), shall maintain at the Administrative Agent's Office a copy of each Assignment and Assumption delivered to it and a register in which it shall record the names and addresses of the Lenders, and the Commitments of, and principal amounts (and related interest amounts) of the Loans, L/C Obligations (specifying the Unreimbursed Amounts), L/C Borrowings and amounts due under Section 2.03, owing to, each Lender pursuant to the terms hereof from time to time (the "Register"). The entries in the Register shall be conclusive, absent manifest error, and the Borrowers, the Agents and the Lenders shall treat each Person whose name is recorded in the Register pursuant to the terms hereof as a Lender hereunder for all purposes of this Agreement, notwithstanding notice to the contrary. In addition, the Administrative Agent shall maintain on the Register information regarding the designation, and revocation of designation, of any Lender as Defaulting Lender. The Register shall be available for inspection by any Borrower, any Agent and any Lender (but only to entries with respect to itself), at any reasonable time and from time to time upon reasonable prior notice. This Section 10.07(c) and Section 2.11 shall be construed so that all Loans are at all times maintained in "registered form" within the meaning of Sections 163(f), 871(h)(2) and 881(c)(2) of the Code and any related Treasury regulations (or any other relevant or successor provisions of the Code or of such Treasury regulations).

(d) Any Lender may at any time, without the consent of, or notice to, the Parent Borrower, the Administrative Agent or the L/C Issuers, sell participations to any Person (other than a natural person, an Affiliate Lender (other than a Debt Fund Affiliate), a Person that the Administrative Agent has identified in a notice to the Lenders as a Defaulting Lender or a Disqualified Institution, to the extent the list of Disqualified Institutions has been made available to the Lenders) (each, a "Participant") in all or a portion of such Lender's rights and/or obligations under this Agreement (including all or a portion of its Commitment and/or the Loans (including such Lender's participations in L/C Obligations) owing to it); provided that (i) such Lender's obligations under this Agreement shall remain unchanged, (ii) such Lender shall remain solely responsible to the other parties hereto for the performance of such obligations and (iii) the Borrowers, the Agents and the other Lenders shall continue to deal solely and directly with such Lender in connection with such Lender's rights and obligations under this Agreement. Any agreement or instrument pursuant to which a Lender sells such a participation shall provide that such Lender shall retain the sole right to enforce this Agreement and the other Loan Documents and to approve any amendment, modification or waiver of any provision of this Agreement or any other Loan Document; provided that such agreement or instrument may provide that such Lender will not, without the consent of the Participant, agree to any amendment, waiver or other modification described in the first proviso to Section 10.01 (in the case of any amendment, waiver or other modification described in clause (a), (b), (c) or (f) of such proviso, that directly and adversely affects such Participant). Subject to Section 10.07(e), the Borrowers agree that each Participant shall be entitled to the benefits of Sections 3.01, 3.04 and 3.05 (subject to the requirements and the limitations of such Sections (it being understood that the documentation required under Section 3.01(g) shall be delivered solely to the participating Lender) and Section 3.08) to the same extent as if it were a Lender and had acquired its interest by assignment pursuant to Section 10.07(b). To the extent permitted by law, each Participant also shall be entitled to the benefits of Section 10.09 as though it were a Lender; provided such Participant agrees to be subject to Section
2.13 as though it were a Lender.

(e) A Participant (i) agrees to be subject to the provisions of Sections 3.08 as if it were an assignee pursuant to Section 10.07(b) and (ii) shall not be entitled to receive any greater payment under Section 3.01, 3.04 or

3.05 than the applicable Lender would have been entitled to receive with respect to the participation sold to such Participant, except to the extent that a Participant's right to a greater payment results from a change in any Law after the Participant becomes a Participant.

(f) Any Lender may at any time pledge or assign a security interest in all or any portion of its rights under this Agreement (including under its Note, if any) (other than to a Disqualified Institution, to the extent the list of Disqualified Institutions has been made available to the Lenders, or a natural person) to secure obligations of such Lender, including any pledge or assignment to secure obligations to a Federal Reserve Bank or any central bank having jurisdiction over such Lender; provided that no such pledge or assignment shall release such Lender from any of its obligations hereunder or substitute any such pledgee or assignee for such Lender as a party hereto.

(g) Notwithstanding anything to the contrary herein, any Lender (a "Granting Lender") may grant to a special purpose funding vehicle identified as such in writing from time to time by the Granting Lender to the Administrative Agent and the Parent Borrower (an "SPC") the option to provide all or any part of any Loan that such Granting Lender would otherwise be obligated to make pursuant to this Agreement; provided that (i) nothing herein shall constitute a commitment by any SPC to fund any Loan, and (ii) if an SPC elects not to exercise such option or otherwise fails to make all or any part of such Loan, the Granting Lender shall be obligated to make such Loan pursuant to the terms hereof or, if it fails to do so, to make such payment to the Administrative Agent as is required under Section 2.12(b). Each party hereto hereby agrees that an SPC shall be entitled to the benefits of Sections 3.01, 3.04 and 3.05 (subject to the requirements and the limitations of such Sections and Section 3.08); provided that neither the grant to any SPC nor the exercise by any SPC of such option shall increase the costs or expenses or otherwise increase or change the obligations of the Borrowers under this Agreement (including under Section 3.01, 3.04 or 3.05), except to the extent that the SPC's right to a greater payment results from a change in any Law after the grant to the SPC takes place. Each party hereto further agrees that (i) no SPC shall be liable for any indemnity or similar payment obligation under this Agreement for which a Lender would be liable, and (ii) the Granting Lender shall for all purposes, including the approval of any amendment, waiver or other modification of any provision of any Loan Document, remain the Lender of record hereunder. Other than as expressly provided in this Section 10.07(g), (A) such Granting Lender's obligations under this Agreement shall remain unchanged, (B) such Granting Lender shall remain solely responsible to the other parties hereto for the performance of such obligations and (C) the Borrowers, the Agents and the other Lenders shall continue to deal solely and directly with such Granting Lender in connection with such Granting Lender's rights and obligations under this Agreement. The making of a Loan by an SPC hereunder shall utilize the Commitment of the Granting Lender to the same extent, and as if, such Loan were made by such Granting Lender. In furtherance of the foregoing, each party hereto hereby agrees (which agreement shall survive the termination of this Agreement) that, prior to the date that is one year and one day after the payment in full of all outstanding commercial paper or other senior debt of any SPC, it will not, other than in respect of matters unrelated to this Agreement or the transactions contemplated hereby, institute against, or join any other Person in instituting against, such SPC any bankruptcy, reorganization, arrangement, insolvency, or liquidation proceeding under the laws of the United States or any State thereof. Notwithstanding anything to the contrary contained herein, any SPC may (i) with notice to, but without prior consent of the Parent Borrower and the Administrative Agent and with the payment of a processing fee of $3,500, assign all or any portion of its rights hereunder with respect to any Loan to the Granting Lender and (ii) subject to Section 10.08, disclose on a confidential basis any non-public information relating to its funding of Loans to any rating agency, commercial paper dealer or provider of any surety or Guarantee or credit or liquidity enhancement to such SPC.

(h) Notwithstanding anything to the contrary herein, any Lender that is a Fund may create a security interest in all or any portion of the Loans owing to it and the Note, if any, held by it to the trustee for holders of obligations owed, or securities issued, by such Fund as security for such obligations or securities; provided that unless and until such trustee actually becomes a Lender in compliance with the other provisions of this Section 10.07, (i) no such pledge shall release the pledging Lender from any of its obligations under the Loan Documents, and (ii) such trustee shall not be entitled to exercise any of the rights of a Lender under the Loan Documents even though such trustee may have acquired ownership rights with respect to the pledged interest through foreclosure or otherwise.

(i) Notwithstanding anything to the contrary herein, any Lender may assign all or any portion of its Term Loans, Specified Refinancing Term Loans and New Term Loans hereunder to any Other Affiliate (including any Debt Fund Affiliate), but only if:

(i) the assigning Lender and Other Affiliate purchasing such Lender's Term Loans, Specified Refinancing Term Loans or New Term Loans, as applicable, shall execute and deliver to the Administrative Agent an assignment agreement substantially in the form of Exhibit E-2 hereto (an "Affiliate Lender Assignment and Assumption") in lieu of an Assignment and Assumption;

(ii) after giving effect to such assignment, Other Affiliates (other than Debt Fund Affiliates) shall not, in the aggregate, own or hold Term Loans, Specified Refinancing Term Loans and New Term Loans with an aggregate principal amount in excess of 25% of the principal amount of all Term Loans then outstanding (calculated as of the date of such purchase); and

(iii) such Other Affiliate (other than Debt Fund Affiliates) shall at all times thereafter be subject to the voting restrictions specified in Section 10.01.

(j) Notwithstanding anything to the contrary herein, so long as no Default or Event of Default pursuant to Sections 8.01(a), (f) or (g) exists, any Lender may assign all or any portion of its Term Loans, Specified Refinancing Term Loans and New Term Loans hereunder to Holdings or any of its Subsidiaries, but only if:

(i) (A) such assignment is made pursuant to a Dutch Auction open to all Term Lenders, Specified Refinancing Term Loan lenders or New Term Loan lenders on a pro rata basis or (B) such assignment is made as an open market purchase;

(ii) [reserved];

(iii) any such Term Loans shall be automatically and permanently cancelled immediately upon acquisition thereof by Holdings or any of its Subsidiaries; and

(iv) Holdings and its Subsidiaries do not use the proceeds of the Revolving Credit Facility (whether or not the Revolving Credit Facility has been increased pursuant to Section 2.14 or refinanced pursuant to Section 2.18) to acquire such Term Loan.

In connection with any assignment pursuant to Section 10.07(i) or (j), each Lender acknowledges and agrees that, in connection therewith, (1) the Other Affiliates, Holdings and/or any of its Subsidiaries may have, and later may come into possession of, information regarding the Sponsor, Holdings, any of its Subsidiaries and/or any of their respective Affiliates not known to such Lender and that may be material to a decision by such Lender to participate in such assignment (including material non-public information) ("Excluded Information"), (2) such Lender, independently and, without reliance on the Other Affiliates, Holdings, any of its Subsidiaries, any Agent or any of their respective Affiliates, has made its own analysis and determination to participate in such assignment notwithstanding such Lender's lack of knowledge of the Excluded Information and (3) none of the Other Affiliates, Holdings, any of its Subsidiaries, any Agent or any of their respective Affiliates shall have any liability to such Lender, and such Lender hereby waives and releases, to the extent permitted by law, any claims such Lender may have against Other Affiliates, Holdings, any of its Subsidiaries, any Agent or any of their respective Affiliates, under applicable laws or otherwise, with respect to the nondisclosure of the Excluded Information.

(k) Notwithstanding anything to the contrary herein, (i) Affiliate Lenders (other than Debt Fund Affiliates) shall not have any right to attend (including by telephone) any meeting or discussions (or portion thereof) among the Administrative Agent or any other Lender to which representatives of the Parent Borrower are not then present, (ii) Affiliate Lenders (other than Debt Fund Affiliates) shall not have any right to receive any information or material prepared by the Administrative Agent or any other Lender or any communication by or among the Administrative Agent and one or more other Lenders, except to the extent such information or materials have been made available to the Parent Borrower or its representatives, (iii) no assignments in respect of the Revolving Credit Facility may be made to the Sponsor or any of its Affiliates and (iv) the Sponsor and its Affiliates (other than Debt Fund Affiliates) shall not be entitled to receive advice of counsel to the Agents or other Lenders and shall not challenge any assertion of attorney-client privilege by any Agent or other Lender. Each Borrower and each Affiliate Lender (other than any Debt Fund Affiliates) hereby agrees that if a case under Title 11 of the Bankruptcy Code is commenced against the Borrowers, such Affiliate Lenders, with respect to any plan of reorganization that does not

adversely affect any Affiliate Lender in any material respect as compared to other Lenders, shall be deemed to have voted in the same proportion as the Lenders that are not Affiliate Lenders voting on such matter; and each Affiliate Lender (other than any Debt Fund Affiliates) hereby acknowledges, agrees and consents that if, for any reason, its vote to accept or reject any plan pursuant to the Bankruptcy Code is not deemed to have been so voted, then such vote will be "designated" pursuant to Section 1126(e) of the Bankruptcy Code such that the vote is not counted in determining whether the applicable class has accepted or rejected such plan in accordance with Section 1126(c) of the Bankruptcy Code.

(l) Notwithstanding anything to the contrary herein, any L/C Issuer may, upon 30 days' notice to the Parent Borrower and the Lenders, resign as L/C Issuer; provided that on or prior to the expiration of such 30-day period with respect to such resignation, the relevant L/C Issuer shall have identified a successor L/C Issuer willing to accept its appointment as successor L/C Issuer, and the effectiveness of such resignation shall be conditioned upon such successor assuming the rights and duties of the L/C Issuer. If an L/C Issuer resigns as L/C Issuer, it shall retain all the rights and obligations of an L/C Issuer hereunder with respect to all Letters of Credit outstanding as of the effective date of its resignation as L/C Issuer and all L/C Obligations with respect thereto (including the right to require the Lenders to make Base Rate Loans or fund risk participations in Unreimbursed Amounts pursuant to Section 2.03(d)). Upon the appointment of a successor L/C Issuer, (A) such successor shall succeed to and become vested with all of the rights, powers, privileges and duties of the retiring L/C Issuer, and (B) the successor L/C Issuer shall issue letters of credit in substitution for the Letters of Credit, if any, outstanding at the time of such succession or make other arrangements satisfactory to the retiring L/C Issuer to effectively assume the obligations of the retiring L/C Issuer with respect to such Letters of Credit.

(m) The applicable Lender, acting solely for this purpose as a non-fiduciary agent of the Borrowers (solely for tax purposes), shall maintain a register on which it enters the name and address of (i) each SPC (other than any SPC that is treated as a disregarded entity of the Granting Lender for U.S. federal income tax purposes) that has exercised its option pursuant to Section 10.07(g) and (ii) each Participant, and the amount of each such SPC's and Participant's interest in such Lender's rights and/or obligations under this Agreement complying with the requirements of Sections 163(f), 871(h) and 881(c)(2) of the Code and the United States Treasury Regulations (the "Participant Register"); provided that no Lender shall have any obligation to disclose all or any portion of the Participant Register (including the identity of any Participant or any information relating to a Participant's interest in any commitments, loans, letters of credit or its other obligations under any Loan Document) to any Person except to the extent that such disclosure is necessary in connection with a Tax audit or other proceeding to establish that such commitment, loan, letter of credit or other obligation is in registered form under Treasury Regulations Section 5f.103-1(c) and Proposed Treasury Regulations Section 1.163-5(b) (or any amended or successor version). The entries in the Participant Register shall be conclusive absent manifest error, and the Borrowers and such Lender shall treat each Person whose name is recorded in the Participant Register as the owner of the applicable rights and/or obligations of such Lender under this Agreement, notwithstanding notice to the contrary.

(n) In the event that a transfer by any of the Secured Parties of its rights and/or obligations under this Agreement (and/or any relevant Loan Document) occurred or was deemed to occur by way of novation, the Borrowers and any other Loan Parties explicitly agree that all securities and guarantees created under any Loan Documents shall be preserved for the benefit of the new Lender and the other Secured Parties.

(o) If any assignment or participation is made to any Disqualified Institution without the Parent Borrower's prior written consent pursuant to this Section 10.07, the Parent Borrower may, at its sole expense and effort, upon notice to the applicable Disqualified Institution and the Administrative Agent, (A) terminate any Revolving Credit Commitment of such Disqualified Institution and repay all obligations of the Borrowers owing to such Disqualified Institution in connection with such Revolving Credit Commitment, (B) in the case of outstanding Term Loans held by Disqualified Institutions, purchase or prepay such Term Loan by paying the lowest of (x) the principal amount thereof, (y) the amount that such Disqualified Institution paid to acquire such Term Loans and (z) the market price of such Term Loans, in each case plus accrued interest, accrued fees and all other amounts (other than principal amounts) payable to it hereunder and/or (C) require such Disqualified Institution to assign, without recourse (in accordance with and subject to the restrictions contained in this Section 10.07), all of its interest, rights and obligations under this Agreement to one or more Eligible Assignees at the lowest of (x) the principal amount thereof, (y) the amount that such Disqualified Institution paid to acquire such interests, rights and obligations and (z)

the market price of such Term Loans, in each case *plus* accrued interest, accrued fees and all other amounts (other than principal amounts) payable to it hereunder.

Section 10.08 Confidentiality. Each of the Agents and the Lenders agrees to maintain the confidentiality of the Information, except that Information may be disclosed (a) to its Affiliates and to its and its Affiliates' respective partners, directors, officers, employees, trustees, representatives and agents, including accountants, legal counsel and other advisors and service providers on a need-to-know basis (it being understood that the Persons to whom such disclosure is made will be informed of the confidential nature of such Information and instructed to keep such Information confidential in accordance with customary practices); (b) to the extent requested by any regulatory authority having jurisdiction over such Agent, Lender or its respective Affiliates or in connection with any pledge or assignment permitted under clause (f) below; (c) in any legal, judicial, administrative proceeding or other compulsory process or otherwise as required by applicable Laws or regulations or by any subpoena or similar legal process, in each case based upon the reasonable advice of the disclosing Agent's or Lender's legal counsel (in which case the disclosing Agent or Lender, as applicable, agrees (except with respect to any audit or examination conducted by bank accountants or any governmental bank regulatory authority exercising examination or regulatory authority), to the extent not prohibited by applicable Law, to promptly notify the Parent Borrower prior to such disclosure); (d) to any other party to this Agreement; (e) in connection with the exercise of any remedies hereunder or under any other Loan Document or any suit, action or proceeding relating to this Agreement or any other Loan Document or the enforcement of rights hereunder or thereunder; (f) subject to an agreement containing provisions substantially the same (or more restrictive) as those of this Section 10.08, to any Eligible Assignee of or Participant in, or any prospective Eligible Assignee of or Participant in, any of its rights or obligations under this Agreement; provided that no such disclosure shall be made by such Lender or such Agent or any of their respective Affiliates to any such Person that is a Disqualified Institution (but with respect to any Lender and its Affiliates, only to the extent the list of Disqualified Institutions has been made available to such Lender); (g) with the written consent of Holdings; (h) to the extent such Information becomes publicly available other than as a result of a breach of this Section 10.08; (i) to any state, federal or foreign authority or examiner (including the National Association of Insurance Commissioners or any other similar organization) regulating any Agent or Lender or any Affiliate of any Agent or Lender; (j) to any rating agency or the CUSIP Service Bureau or any similar agency when required by it (it being understood that, prior to any such disclosure, such rating agency shall undertake to preserve the confidentiality of any Information relating to the Loan Parties received by it from such Agent or Lender); (k) to any contractual counterparty (or prospective contractual counterparty) in any swap, hedge, or similar agreement or to any such contractual counterparty's (or prospective contractual counterparty's) professional advisor (other than a Disqualified Institution (but with respect to any Lender, only to the extent the list of Disqualified Institutions has been made available to such Lender)); (l) to such party's financing sources on a confidential basis; and (m) in connection with any pledge or assignment pursuant to Sections 10.07(f) or (j), provided that such pledgee or assignee agrees to abide by the confidentiality provisions of this Section 10.08. In addition, the Agents and the Lenders may disclose the existence of this Agreement and information about this Agreement to market data collectors, similar service providers to the lending industry, and service providers to the Agents and the Lenders in connection with the administration and management of this Agreement, the other Loan Documents, the Commitments, and the Credit Extensions; provided that such Person is advised and agrees to be bound by the provisions of this Section 10.08.

For the purposes of this Section 10.08, "Information" means all information received from any Loan Party or any Subsidiary thereof relating to any Loan Party or any Subsidiary thereof or their respective businesses, other than any such information that is publicly available to any Agent or any Lender prior to disclosure by any Loan Party other than as a result of a breach of this Section 10.08 by such Lender or Agent. Any Person required to maintain the confidentiality of Information as provided in this Section 10.08 shall be considered to have complied with its obligation to do so if such Person has exercised the same degree of care to maintain the confidentiality of such Information as such Person would accord to its own confidential information.

Each Agent, each Lender and each L/C Issuer acknowledges that (i) the Information may include materialnon-public information concerning Holdings or any of its Subsidiaries, (ii) it has developed compliance procedures regarding the use of material non-public information and (iii) it will handle such material non-public information in accordance with applicable Law, including United States federal and state securities Laws.

EACH LENDER ACKNOWLEDGES THAT INFORMATION AS DEFINED IN THIS SECTION 10.08 FURNISHED TO IT PURSUANT TO THIS AGREEMENT MAY INCLUDE MATERIAL NON-PUBLIC INFORMATION CONCERNING HOLDINGS, THE BORROWERS AND THEIR RELATED PARTIES OR THEIR RESPECTIVE SECURITIES, AND CONFIRMS THAT IT HAS DEVELOPED COMPLIANCE PROCEDURES REGARDING THE USE OF MATERIAL NON-PUBLIC INFORMATION AND THAT IT WILL HANDLE SUCH MATERIAL NON-PUBLIC INFORMATION IN ACCORDANCE WITH THOSE PROCEDURES AND APPLICABLE LAW, INCLUDING FEDERAL AND STATE SECURITIES LAWS.

ALL INFORMATION, INCLUDING REQUESTS FOR WAIVERS AND AMENDMENTS, FURNISHED BY THE BORROWERS OR THE ADMINISTRATIVE AGENT PURSUANT TO, OR IN THE COURSE OF ADMINISTERING, THIS AGREEMENT WILL BE SYNDICATE-LEVEL INFORMATION, WHICH MAY CONTAIN MATERIAL NON-PUBLIC INFORMATION ABOUT HOLDINGS OR ANY OF ITS SUBSIDIARIES OR THEIR RESPECTIVE SECURITIES. ACCORDINGLY, EACH LENDER REPRESENTS TO THE BORROWERS AND THE ADMINISTRATIVE AGENT THAT IT HAS IDENTIFIED IN ITS ADMINISTRATIVE QUESTIONNAIRE A CREDIT CONTACT WHO MAY RECEIVE INFORMATION THAT MAY CONTAIN MATERIAL NON-PUBLIC INFORMATION IN ACCORDANCE WITH ITS COMPLIANCE PROCEDURES AND APPLICABLE LAW.

Section 10.09 Setoff. In addition to any rights and remedies of the Lenders provided by Law, upon the occurrence and during the continuance of any Event of Default, each Secured Party is authorized at any time and from time to time, without prior notice to the Parent Borrower or any other Loan Party, any such notice being waived by Holdings (on its own behalf and on behalf of each Loan Party) to the fullest extent permitted by Law, to set off and apply any and all deposits (general or special, time or demand, provisional or final, in any currency), other than deposits in fiduciary accounts as to which a Loan Party is acting as fiduciary for another Person who is not a Loan Party and other than payroll or trust fund accounts, at any time held by, and other Indebtedness (in any currency) at any time owing by, such Lender to or for the credit or the account of the respective Loan Parties against any and all Obligations owing to such Secured Party hereunder or under any other Loan Document (or other Secured Document (as defined in the Security Agreement)), now or hereafter existing, irrespective of whether or not such Agent or such Lender shall have made demand under this Agreement or any other Loan Document (or other Secured Document (as defined in the Security Agreement)) and although such Obligations may be contingent or unmatured or denominated in a currency different from that of the applicable deposit or Indebtedness or are owed to a branch or office of such Lender different from the branch or office holding such deposit or obligated on such Indebtedness; provided that in the event that any Defaulting Lender shall exercise any such right of setoff, (x) all amounts so set off shall be paid over immediately to the Administrative Agent for further application in accordance with the provisions of Section 2.17 and, pending such payment, shall be segregated by such Defaulting Lender from its other funds and deemed held in trust for the benefit of the Administrative Agent and the Lenders, and (y) the Defaulting Lender shall provide promptly to the Administrative Agent a statement describing in reasonable detail the Obligations owing to such Defaulting Lender as to which it exercised such right of setoff. Each Secured Party agrees promptly to notify the Parent Borrower and the Administrative Agent after any such set-off and application made by such Secured Party; provided, however, that the failure to give such notice shall not affect the validity of such setoff and application. The rights of the Administrative Agent and each Secured Party under this Section 10.09 are in addition to other rights and remedies (including other rights of setoff) that the Administrative Agent and such Secured Party may have. Notwithstanding anything herein or in any other Loan Document to the contrary, in no event shall the assets of any Controlled Foreign Subsidiary or FSHCO (or other Excluded Property) constitute security for payment of the Obligations of the Borrower, it being understood that (a)(i) the Capital Stock of any Controlled Foreign Subsidiary or FSHCO that is directly owned by a Borrower or a Subsidiary Guarantor does not constitute such an asset, and may be pledged, to the extent set forth in Section 6.12 and (ii) proceeds of Excluded Property shall constitute security for payment of the Obligations of the Borrowers (unless such proceeds would constitute Excluded Property) and (b) the provisions hereof shall not limit, reduce or otherwise diminish in any respect the Borrowers' obligations to make any mandatory prepayment pursuant to Section 2.05(b)(ii).

Section 10.10 Interest Rate Limitation. Notwithstanding anything to the contrary in any Loan Document, the interest paid or agreed to be paid under the Loan Documents shall not exceed the maximum rate of non-usurious interest permitted by applicable Law (the "Maximum Rate"). If any Agent or any Lender shall receive interest in an amount that exceeds the Maximum Rate, the excess interest shall be applied to the principal of the Loans or, if it exceeds such unpaid principal, refunded to the Borrower. In determining whether the interest

contracted for, charged, or received by an Agent or a Lender exceeds the Maximum Rate, such Person may, to the extent permitted by applicable Law, (a) characterize any payment that is not principal as an expense, fee, or premium rather than interest, (b) exclude voluntary prepayments and the effects thereof and (c) amortize, prorate, allocate, and spread in equal or unequal parts the total amount of interest throughout the contemplated term of the Obligations hereunder.

Section 10.11 Counterparts. This Agreement and each other Loan Document may be executed in one or more counterparts (and by different parties hereto in different counterparts), each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Delivery by telecopier or other electronic transmission of an executed counterpart of a signature page to this Agreement and each other Loan Document shall be effective as delivery of an original executed counterpart of this Agreement and such other Loan Document. The Agents may also require that any such documents and signatures delivered by telecopier or other electronic transmission be confirmed by a manually-signed original thereof; provided that the failure to request or deliver the same shall not limit the effectiveness of any document or signature delivered by telecopier or other electronic transmission.

Section 10.12 Integration; Effectiveness. This Agreement and the other Loan Documents, and those provisions of the Engagement Letter and the Fee Letter that, by their terms, survive the termination or expiration of the Closing Date, constitute the entire contract among the parties relating to the subject matter hereof and supersede any and all previous agreements and understandings, oral or written, relating to the subject matter hereof. It is expressly agreed and confirmed by the parties hereto that the provisions of the Engagement Letter and the Fee Letter shall survive the execution and delivery of this Agreement, the occurrence of the Closing Date, and shall continue in effect thereafter in accordance with their terms. In the event of any conflict between the provisions of this Agreement and those of any other Loan Document, the provisions of this Agreement shall control; provided that the inclusion of supplemental rights or remedies in favor of the Agents or the Lenders in any other Loan Document shall not be deemed a conflict with this Agreement. Each Loan Document was drafted with the joint participation of the respective parties thereto and shall be construed neither against nor in favor of any party, but rather in accordance with the fair meaning thereof. Except as provided in Section 4.01 or Section 4.02, this Agreement shall become effective when it shall have been executed by the Administrative Agent and when the Administrative Agent shall have received counterparts hereof that, when taken together, bear the signatures of each of the other parties hereto as of the date hereof.

Section 10.13 Survival of Representations and Warranties. All representations and warranties made hereunder and in any other Loan Document or other document delivered pursuant hereto or thereto or in connection herewith or therewith shall survive the execution and delivery hereof and thereof. Such representations and warranties have been or will be relied upon by each Agent and each Lender, regardless of any investigation made by any Agent or any Lender or on their behalf and notwithstanding that any Agent or any Lender may have had notice or knowledge of any Default at the time of any Credit Extension, and shall continue in full force and effect as long as any Loan or any other Obligation (other than contingent indemnification or other obligations and obligations and liabilities under Secured Cash Management Agreements and Secured Hedge Agreements) hereunder shall remain unpaid or unsatisfied or any Letter of Credit shall remain outstanding (other than Letters of Credit which have been Cash Collateralized).

Section 10.14 Severability. If any provision of this Agreement or the other Loan Documents is held to be illegal, invalid or unenforceable, (a) the legality, validity and enforceability of the remaining provisions of this Agreement and the other Loan Documents shall not be affected or impaired thereby and (b) the parties shall endeavor in good faith negotiations to replace the illegal, invalid or unenforceable provisions with valid provisions the economic effect of which comes as close as possible to that of the illegal, invalid or unenforceable provisions. The invalidity of a provision in a particular jurisdiction shall not invalidate or render unenforceable such provision in any other jurisdiction. Without limiting the foregoing provisions of this Section 10.14, if and to the extent that the enforceability of any provisions in this Agreement relating to Defaulting Lenders shall be limited by Debtor Relief Laws then such provisions shall be deemed to be in effect only to the extent not so limited.

Section 10.15 Governing Law; Jurisdiction; Etc.

(a) Governing Law. THIS AGREEMENT AND EACH OTHER LOAN DOCUMENT (OTHER THAN WITH RESPECT TO ANY COLLATERAL DOCUMENTS TO THE EXTENT EXPRESSLY PROVIDED OTHERWISE THEREIN) SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAW OF THE STATE OF NEW YORK WITHOUT GIVING EFFECT TO THE CONFLICTS OF LAWS PRINCIPLES THEREOF, BUT INCLUDING SECTION 5-1401 OF THE NEW YORK GENERAL OBLIGATIONS LAW.

(b) Submission to Jurisdiction. EACH PARTY HERETO IRREVOCABLY AND UNCONDITIONALLY SUBMITS, FOR ITSELF AND ITS PROPERTY, TO THE EXCLUSIVE JURISDICTION OF THE COURTS OF THE STATE OF NEW YORK SITTING IN NEW YORK CITY IN THE BOROUGH OF MANHATTAN AND OF THE UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF NEW YORK SITTING IN THE BOROUGH OF MANHATTAN, AND ANY APPELLATE COURT FROM ANY THEREOF, IN ANY ACTION OR PROCEEDING ARISING OUT OF OR RELATING TO THIS AGREEMENT OR ANY OTHER LOAN DOCUMENT (OTHER THAN WITH RESPECT TO ANY COLLATERAL DOCUMENT TO THE EXTENT EXPRESSLY PROVIDED OTHERWISE THEREIN), OR FOR RECOGNITION OR ENFORCEMENT OF ANY JUDGMENT, AND EACH OF THE PARTIES HERETO IRREVOCABLY AND UNCONDITIONALLY AGREES THAT ALL CLAIMS IN RESPECT OF ANY SUCH ACTION OR PROCEEDING MAY BE HEARD AND DETERMINED IN SUCH NEW YORK STATE COURT OR, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, IN SUCH FEDERAL COURT. EACH OF THE PARTIES HERETO AGREES THAT A FINAL JUDGMENT IN ANY SUCH ACTION OR PROCEEDING SHALL BE CONCLUSIVE AND MAY BE ENFORCED IN OTHER JURISDICTIONS BY SUIT ON THE JUDGMENT OR IN ANY OTHER MANNER PROVIDED BY LAW. NOTHING IN THIS AGREEMENT OR IN ANY OTHER LOAN DOCUMENT SHALL AFFECT ANY RIGHT THAT THE ADMINISTRATIVE AGENT, THE COLLATERAL AGENT, ANY LENDER OR ANY L/C ISSUER MAY OTHERWISE HAVE TO BRING ANY ACTION OR PROCEEDING RELATING TO THIS AGREEMENT OR ANY OTHER LOAN DOCUMENT OR THE RECOGNITION OR ENFORCEMENT OF ANY JUDGMENT AGAINST ANY LOAN PARTY OR ITS PROPERTIES IN THE COURTS OF ANY JURISDICTION.

(c) Waiver of Venue . EACH PARTY HERETO IRREVOCABLY AND UNCONDITIONALLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY OBJECTION THAT IT MAY NOW OR HEREAFTER HAVE TO THE LAYING OF VENUE OF ANY ACTION OR PROCEEDING ARISING OUT OF OR RELATING TO THIS AGREEMENT OR ANY OTHER LOAN DOCUMENT IN ANY COURT REFERRED TO IN SECTION 10.15(b). EACH OF THE PARTIES HERETO HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, THE DEFENSE OF AN INCONVENIENT FORUM TO THE MAINTENANCE OF SUCH ACTION OR PROCEEDING IN ANY SUCH COURT.

Section 10.16 Service of Process. EACH PARTY HERETO IRREVOCABLY CONSENTS TO SERVICE OF PROCESS IN THE MANNER PROVIDED FOR NOTICES IN SECTION 10.02. NOTHING IN THIS AGREEMENT WILL AFFECT THE RIGHT OF ANY PARTY HERETO TO SERVE PROCESS IN ANY OTHER MANNER PERMITTED BY APPLICABLE LAW.

Section 10.17 Waiver of Right to Trial by Jury. EACH PARTY TO THIS AGREEMENT HEREBY EXPRESSLY WAIVES ANY RIGHT TO TRIAL BY JURY OF ANY CLAIM, DEMAND, ACTION OR CAUSE OF ACTION ARISING UNDER ANY LOAN DOCUMENT OR IN ANY WAY CONNECTED WITH OR RELATED OR INCIDENTAL TO THE DEALINGS OF THE PARTIES HERETO OR ANY OF THEM WITH RESPECT TO ANY LOAN DOCUMENT, OR THE TRANSACTIONS RELATED THERETO, IN EACH CASE WHETHER NOW EXISTING OR HEREAFTER ARISING, AND WHETHER FOUNDED IN CONTRACT OR TORT OR OTHERWISE; AND EACH PARTY HEREBY AGREES AND CONSENTS THAT ANY SUCH CLAIM, DEMAND, ACTION OR CAUSE OF ACTION SHALL BE DECIDED BY COURT TRIAL WITHOUT A JURY, AND THAT ANY PARTY TO THIS AGREEMENT MAY FILE AN ORIGINAL COUNTERPART OR A COPY OF THIS SECTION 10.17 WITH ANY COURT AS WRITTEN EVIDENCE OF THE CONSENT OF THE SIGNATORIES HERETO TO THE WAIVER OF THEIR RIGHT TO TRIAL BY JURY.

Section 10.18 Binding Effect. When this Agreement shall have become effective in accordance with Section 10.12, it shall thereafter shall be binding upon and inure to the benefit of Holdings, the Borrowers, each

Agent and each Lender and their respective successors and permitted assigns, except that the Borrowers shall not have the right to assign their rights hereunder or any interest herein without the prior written consent of the Lenders, except as permitted by Section 7.03.

Section 10.19 No Advisory or Fiduciary Responsibility. In connection with all aspects of each transaction contemplated hereby (including in connection with any amendment, waiver or other modification hereof or of any other Loan Document), the Borrowers and Holdings acknowledge and agree, and each of them acknowledge its Subsidiaries' understanding and acknowledge and agree that it has informed their other Affiliates, that: (i) (A) no Secured Party will have any obligations except those obligations expressly set forth herein and no fiduciary, advisory or agency relationship between any of Holdings and its Subsidiaries and any Agent or any Arranger (or their respective Affiliates) is intended to be or has been created in respect of any of the transactions contemplated hereby and by the other Loan Documents, irrespective of whether any Agent or any Arranger (or their respective Affiliates) has advised or is advising Holdings and its Subsidiaries on other matters, (B) the arranging and other services regarding this Agreement provided by the Agents and the Arrangers (or their respective Affiliates) are arm's-length commercial transactions between Holdings and its Subsidiaries, on the one hand, and the Agents and the Arrangers (or their respective Affiliates), on the other hand and no Secured Party is acting as a financial advisor or a fiduciary to, or an agent of the Borrowers or any other person, (C) no Secured Party is advising the Borrowers as to any legal, tax, investment, accounting, regulatory or any other matters in any jurisdiction and the Borrowers shall consult with its own advisors concerning such matters and shall be responsible for making their own independent investigation and appraisal of the transactions contemplated hereby, and the Secured Parties shall have no responsibility or liability to the Borrowers with respect thereto, and (D) the Borrowers and Holdings are capable of evaluating, and understand and accept, the terms, risks and conditions of the transactions contemplated hereby and by the other Loan Documents; (ii) (A) each Agent and Arranger (or their respective Affiliates) is and has been acting solely as a principal and, except as may otherwise be expressly agreed in writing by the relevant parties, has not been, is not, and will not be acting as an advisor, agent or fiduciary for Holdings or the Borrowers or any of their respective Affiliates, or any other Person and (B) neither any Agent nor any Arranger has any obligation to Holdings or any of its Affiliates with respect to the transactions contemplated hereby except those obligations expressly set forth herein and in the other Loan Documents; and (iii) each Secured Party and its Affiliates may be providing debt financing, equity capital or other services (including financial advisory services) to other companies in respect of which the Borrowers may have conflicting interests regarding the transactions described herein and otherwise; that no Secured Party will use confidential information obtained from the Borrowers by virtue of the transactions contemplated by the Loan Documents or its other relationships with the Borrowers in connection with the performance by such Secured Party of services for other companies, and no Secured Party will furnish any such information to other companies and that no Secured Party has any obligation to use in connection with the transactions contemplated by the Loan Documents, or to furnish to the Borrower, confidential information obtained from other companies. The Borrowers agree that they will not assert any claim against any Secured Party based on an alleged breach of fiduciary duty by such Secured Party in connection with this Agreement or the other Loan Documents and the transactions contemplated hereby.

Section 10.20 Affiliate Activities. The Borrowers and Holdings acknowledge that each Agent and each Arranger (and their respective Affiliates) is a full service securities firm engaged, either directly or through affiliates, in various activities, including securities trading, investment banking and financial advisory, investment management, principal investment, hedging, financing and brokerage activities and financial planning and benefits counseling for both companies and individuals. In the ordinary course of these activities, any of them may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and/or financial instruments (including bank loans) for their own account and for the accounts of customers and may at any time hold long and short positions in such securities and/or instruments. Such investment and other activities may involve securities and instruments of Holdings and its Affiliates, as well as of other entities and persons and their Affiliates which may (i) be involved in transactions arising from or relating to the engagement contemplated hereby and by the other Loan Documents, (ii) be customers or competitors of Holdings and its Affiliates or (iii) have other relationships with Holdings and its Affiliates. In addition, it may provide investment banking, underwriting and financial advisory services to such other entities and persons. It may also co-invest with, make direct investments in, and invest orco-invest client monies in or with funds or other investment vehicles managed by other parties, and such funds or other investment vehicles may trade or make investments in securities of Holdings and its Affiliates or such other entities. The transactions contemplated hereby and by the other Loan Documents may have a direct or indirect impact on the investments, securities or instruments referred to in this clause.

Section 10.21 Electronic Execution of Assignments and Certain Other Documents. The words "execution," "signed," "signature," and words of like import in any Loan Document, any Assignment and Assumption, any Committed Loan Notice or any amendment or other modification hereof or thereof (including waivers and consents) shall be deemed to include Electronic Signatures or the keeping of records in electronic form, each of which shall be of the same legal effect, validity or enforceability as a manually executed signature or the use of a paper-based recordkeeping system, as the case may be, to the extent and as provided for in any applicable Law, including the Federal Electronic Signatures in Global and National Commerce Act, the New York State Electronic Signatures and Records Act, or any other similar state laws based on the Uniform Electronic Transactions Act.

Section 10.22 USA PATRIOT Act. Each Lender that is subject to the PATRIOT Act and the Administrative Agent (for itself and not on behalf of any Lender) hereby notifies the Loan Parties that pursuant to the requirements of the USA PATRIOT Act (Title III of Pub. L. 107-56 (signed into law October 26, 2001, as amended from time to time)) (the "PATRIOT Act"), it is required to obtain, verify and record information that identifies each Loan Party, which information includes the name and address of each Loan Party and other information that will allow such Lender or the Administrative Agent, as applicable, to identify each Loan Party in accordance with the PATRIOT Act . Each Loan Party shall, promptly following a request by the Administrative Agent or any Lender, provide all documentation and other information that the Administrative Agent or such Lender requests in order to comply with its ongoing obligations under applicable "know your customer" and anti-money laundering rules and regulations, including the PATRIOT Act.

Section 10.23 Judgment Currency. If, for the purposes of obtaining judgment in any court, it is necessary to convert a sum due hereunder or any other Loan Document in one currency into another currency, the rate of exchange used shall be that at which in accordance with normal banking procedures the Administrative Agent could purchase the first currency with such other currency on the Business Day preceding that on which final judgment is given. The obligation of the Borrowers in respect of any such sum due from them to the Administrative Agent or the Lenders hereunder or under the other Loan Documents shall, notwithstanding any judgment in a currency (the "Judgment Currency") other than that in which such sum is denominated in accordance with the applicable provisions of this Agreement (the "Agreement Currency"), be discharged only to the extent that on the Business Day following receipt by the Administrative Agent of any sum adjudged to be so due in the Judgment Currency, the Administrative Agent may in accordance with normal banking procedures purchase the Agreement Currency with the Judgment Currency. If the amount of the Agreement Currency so purchased is less than the sum originally due to the Administrative Agent from the Borrowers in the Agreement Currency, the Borrowers agree, as a separate obligation and notwithstanding any such judgment, to indemnify the Administrative Agent or the Person to whom such obligation was owing against such loss. If the amount of the Agreement Currency so purchased is greater than the sum originally due to the Administrative Agent in such currency, the Administrative Agent agrees to return the amount of any excess to the Parent Borrower (or to any other Person who may be entitled thereto under applicable Law).

Section 10.24 Acknowledgement and Consent to Bail-In of EEA Financial Institutions. Notwithstanding anything to the contrary in any Loan Document or in any other agreement, arrangement or understanding among any such parties, each party hereto acknowledges that any liability of any Lender that is an EEA Financial Institution arising under any Loan Document, to the extent such liability is unsecured, may be subject to the write-down and conversion powers of an EEA Resolution Authority and agrees and consents to, and acknowledges and agrees to be bound by:

(a) the application of any Write-Down and Conversion Powers by an EEA Resolution Authority to any such liabilities arising hereunder which may be payable to it by any Lender that is an EEA Financial Institution; and

(b) the effects of any Bail-In Action on any such liability, including, if applicable:

(i) a reduction in full or in part or cancellation of any such liability;

(ii) a conversion of all, or a portion of, such liability into shares or other instruments of ownership in such EEA Financial Institution, its parent undertaking, or a bridge institution that may be issued to it or otherwise conferred on it, and that such shares or other instruments of

ownership will be accepted by it in lieu of any rights with respect to any such liability under this Agreement or any other Loan Document; or

(iii) the variation of the terms of such liability in connection with the exercise of the write-down and conversion powers of any EEA Resolution Authority.

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IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed as of the date first written above.

MARAVAI INTERMEDIATE HOLDINGS, LLC,
as Parent Borrower

By: /s/ Kevin Herde
Name: Kevin Herde
Title: Chief Financial Officer

VECTOR LABORATORIES, INC.;
TRILINK BIOTECHNOLOGIES, LLC; and
CYGNUS TECHNOLOGIES, LLC,
each as a Borrower

By: /s/ Kevin Herde
Name: Kevin Herde
Title: Chief Financial Officer

MARAVAI TOPCO HOLDINGS, LLC,
as Holdings

By: /s/ Kevin Herde
Name: Kevin Herde
Title: Chief Financial Officer

JPMORGAN CHASE BANK, N.A., as Administrative Agent, Collateral Agent, an L/C Issuer and a Lender

By: /s/ Vanessa Chiu
Name: Vanessa Chiu
Title: Executive Director

ANTARES HOLDINGS LP, as a Lender
By: Antares Holdings GP Inc., its general partner

By: /s/ Mark Jarosz
Name: Mark Jarosz
Title: Duly Authorized Signatory

Exhibit 10.14

EXECUTION VERSION

SECOND LIEN CREDIT AGREEMENT

DATED AS OF AUGUST 2, 2018

AMONG

MARAVAI INTERMEDIATE HOLDINGS, LLC,
AS PARENT BORROWER,

CYGNUS TECHNOLOGIES, LLC, TRILINK BIOTECHNOLOGIES, LLC AND VECTOR LABORATORIES, INC.,
AS BORROWERS,

MARAVAI TOPCO HOLDINGS, LLC,
AS HOLDINGS,

ANTARES CAPITAL LP,
AS ADMINISTRATIVE AGENT AND COLLATERAL AGENT,

AND

THE OTHER LENDERS PARTY HERETO

JPMORGAN CHASE BANK, N.A., ANTARES CAPITAL LP AND CARLYLE GLOBAL INVESTMENT MANAGEMENT L.L.C.
AS JOINT LEAD ARRANGERS AND JOINT BOOKRUNNERS

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This SECOND LIEN CREDIT AGREEMENT is entered into as of August 2, 2018, among MARAVAI INTERMEDIATE HOLDINGS, LLC, a Delaware limited liability company ("Parent Borrower"), CYGNUS TECHNOLOGIES, LLC, a Delaware limited liability company ("Cygnus"), TRILINK BIOTECHNOLOGIES, LLC, a Delaware limited liability company ("TriLink"), Vector Laboratories, Inc., a California corporation ("Vector"; and together with the Parent Borrower, Cygnus and TriLink, the "Borrowers" and each, a "Borrower"), MARAVAI TOPCO HOLDINGS, LLC, a Delaware limited liability company ("Holdings"), each lender from time to time party hereto (collectively, the "Lenders" and individually, a "Lender"), and ANTARES CAPITAL LP ("Antares"), as Administrative Agent and Collateral Agent.

PRELIMINARY STATEMENTS

The Borrowers have requested that, upon the satisfaction in full of the conditions precedent set forth in Article IV below, the applicable Lenders make term loans to the Borrowers in an aggregate principal amount of $100,000,000 on the terms and subject to the conditions set forth in this Agreement.

In consideration of the mutual covenants and agreements herein contained, the parties hereto covenant and agree as follows:

ARTICLE I.
Definitions and Accounting Terms

Section 1.01 Defined Terms. As used in this Agreement, the following terms shall have the meanings set forth below:

"Accepting Lender" has the meaning specified in Section 10.01.

"Acquired Indebtedness" means, with respect to any specified Person, (a) Indebtedness of any other Person existing at the time such other Person is merged, amalgamated or consolidated with or into or becomes a Subsidiary of such specified Person, whether or not such Indebtedness is Incurred in connection with, or in contemplation of, such other Person merging, amalgamating or consolidating with or into, or becoming a Subsidiary of, such specified Person and (b) Indebtedness secured by a Lien encumbering any asset acquired by such specified Person.

"Actual Tax Liability" shall have the meaning assigned to such term in Section 7.05(13).

"Adjusted Eurocurrency Rate" means, with respect to any Eurocurrency Rate Borrowing for any Interest Period, an interest rate per annum (rounded upwards, if necessary, to the next 1/16 of 1%) equal to with respect to the Initial Loans, the greater of (i) the Eurocurrency Rate for such Interest Period multiplied by the Statutory Reserve Rate and (ii) 1.00%.

"Administrative Agent" means Antares acting through such of its Affiliates or branches as it may designate, in its capacity as administrative agent under any of the Loan Documents, or any successor administrative agent permitted by the terms hereof.

"Administrative Agent's Office" means the Administrative Agent's address and, as appropriate, account as set forth on Schedule 10.02 or such other address or account as the Administrative Agent may from time to time notify the Parent Borrower and the Lenders.

"Administrative Questionnaire" means an Administrative Questionnaire in the form approved by the Administrative Agent.

"Affiliate" of any specified Person means any other Person directly or indirectly controlling or controlled by or under direct or indirect common control with such specified Person. For purposes of this definition, "control" (including, with correlative meanings, the terms "controlling," "controlled by" and "under common control with"), as used with respect to any Person, means the possession, directly or indirectly, of the power to direct or cause the

direction of the management or policies of such Person, whether through the ownership of voting securities, by agreement or otherwise.

"Affiliate Lender Assignment and Assumption" has the meaning specified in Section 10.07(i)(i).

"Affiliate Lenders" means, collectively, the Sponsor and its Affiliates (other than any Natural Person, Holdings, the Borrowers and any of Holdings' or the Borrowers' respective Subsidiaries).

"Affiliate Transaction" has the meaning specified in Section 6.18(a).

"Agent-Related Persons" means each Agent, together with its Related Parties.

"Agents" means, collectively, the Administrative Agent, the Collateral Agent, the Arrangers and the Supplemental Agents (if any).

"Aggregate Commitments" means the Commitments of all the Lenders.

"Agreement" means this credit agreement.

"All-in Yield" means, with respect to any Indebtedness, the yield of such Indebtedness, whether in the form of interest rate, margin, OID, upfront fees, index floors or otherwise, in each case payable by the Borrowers generally to lenders, provided that OID and upfront fees shall be equated to interest rate assuming a four-year life to maturity, and shall not include arrangement fees, structuring fees, ticking fees, commitment fees, unused line fees, underwriting fees and any amendment and similar fees (regardless of whether paid in whole or in part to the relevant lenders).

"Antares" has the meaning specified in the introductory paragraph to this Agreement.

"Anti-Corruption Laws" has the meaning specified in Section 5.20.

"Applicable Discount" has the meaning specified in the definition of "Dutch Auction."

"Applicable Intercreditor Arrangements" means customary intercreditor arrangements that are reasonably satisfactory to the Administrative Agent (provided that, (i) in the case of Indebtedness secured by Liens ranking pari passu with the First Lien Obligations, the First Lien/Second Lien Intercreditor Agreement shall be deemed satisfactory and (ii) in the case of Indebtedness secured by Liens ranking pari passu with the Obligations, such arrangements shall include a customary pari passu intercreditor agreement reasonably satisfactory to the Administrative Agent and, if required by the First Lien Facilities Documentation, the First Lien/Second Lien Intercreditor Agreement).

"Applicable Rate" means a percentage per annum equal to, with respect to the Initial Loans, 8.00% per annum for Eurocurrency Rate Loans and 7.00% per annum for Base Rate Loans.

"Appropriate Lender" means, at any time, (a) with respect to the Initial Loans, a Lender that has a Commitment with respect to the Initial Loans or holds an Initial Loan, at such time, (b) with respect to any New Facility, a Lender that holds a New Loan at such time, and (c) with respect to any Specified Refinancing Debt, a Lender that holds Specified Refinancing Loans.

"Approved Electronic Platform" means IntraLinks™, DebtDomain, SyndTrak, ClearPar or any other electronic platform chosen by the Administrative Agent to be its electronic transmission system.

"Approved Fund" means any Fund that is administered, advised or managed by (a) a Lender, (b) an Affiliate of a Lender or (c) an entity or an Affiliate of an entity that administers, advises or manages a Lender.

"Arrangers" means each of JPMCB, Antares and Carlyle, in their respective capacities as exclusive joint lead arrangers and joint bookrunners.

"Asset Sale" means:

(a) the sale, conveyance, transfer or other Disposition (whether in a single transaction or a series of related transactions) of property or assets (including by way of a Sale/Leaseback Transaction) of the Parent Borrower or any Subsidiary, or

(b) the issuance or sale of Equity Interests (other than preferred stock of Subsidiaries issued in compliance with Section 7.01 and directors' qualifying shares or shares or interests required to be held by foreign nationals or other third parties to the extent required by applicable law) of any Subsidiary (other than to a Borrower or another Subsidiary) (whether in a single transaction or a series of related transactions),

(each of the foregoing referred to in this definition as a "Disposition"). Notwithstanding the preceding, none of the following items will be deemed to be an Asset Sale:

(a) a sale, exchange or other disposition of cash, Cash Equivalents or Investment Grade Securities, or of obsolete, damaged, unnecessary, unsuitable or worn out equipment or other assets in the ordinary course of business, or dispositions of property no longer used, useful or economically practicable to maintain in the conduct of the business of the Borrowers and the Subsidiaries (including allowing any registrations or any applications for registration of any intellectual property to lapse or become abandoned);

(b) the sale, conveyance, lease or other disposition of all or substantially all of the assets of the Borrowers and their Subsidiaries, taken as a whole, in compliance with the provisions of Section 7.03;

(c) any Restricted Payment that is permitted to be made, and is made, pursuant to Section 7.05 or any Permitted Investment;

(d) any Disposition of assets or issuance or sale of Equity Interests of any Subsidiary, in a single transaction or series of related transactions, with an aggregate Fair Market Value that is less than or equal to $8,625,000;

(e) any transfer or Disposition of property or assets or issuance or sale of Equity Interests by a Subsidiary to a Borrower or by a Borrower or a Subsidiary to another Subsidiary;

(f) the creation of any Lien permitted under this Agreement;

(g) [reserved];

(h) the sale, lease, assignment, license or sublease of inventory, equipment, accounts receivable, notes receivable or other current assets held for sale in the ordinary course of business or the conversion of accounts receivable to notes receivable or dispositions of accounts receivable in connection with the collection or compromise thereof;

(i) the lease, assignment, license, sublicense or sublease of any real or personal property in the ordinary course of business;

(j) a sale, assignment or other transfer of Receivables Assets, or participations therein, and related assets (i) to a Receivables Subsidiary in a Qualified Receivables Financing or (ii) to any other Person in a Qualified Receivables Factoring;

(k) a sale, assignment or other transfer of Receivables Assets, or participations therein, and related assets by a Receivables Subsidiary in a Qualified Receivables Financing;

(l) any exchange of assets for Related Business Assets (including a combination of Related Business Assets and a *de minimis* amount of cash or Cash Equivalents) of comparable or greater market value than the assets exchanged, as determined in good faith by the Parent Borrower;

(m) (i) non-exclusive licenses, sublicenses or cross-licenses of intellectual property or other general intangibles and (ii) exclusive licenses, sublicenses or cross-licenses of intellectual property or other general intangibles in the ordinary course of business of the Borrowers and the Subsidiaries of the Borrowers;

(n) any transfer in a Sale/Leaseback Transaction of any property acquired or built after the Closing Date within 270 days after the date of acquisition or completion of construction; provided that such sale is for at least Fair Market Value;

(o) the surrender or waiver of obligations of trade creditors or customers or other contract rights that were incurred in the ordinary course of business of the Borrowers or any Subsidiary of the Borrowers, including pursuant to any plan of reorganization or similar arrangement upon the bankruptcy or insolvency of any trade creditor or customer or compromise, settlement, release or surrender of a contract, tort or other litigation claim, arbitration or other disputes;

(p) Dispositions arising from foreclosures, condemnations, eminent domain, seizure, nationalization or any similar action with respect to assets, dispositions of property subject to casualty events (except for purposes of calculating Net Cash Proceeds of any Asset Sale under the second and third paragraphs of Section 7.04);

(q) Dispositions of Investments (including Equity Interests) in joint ventures to the extent required by, or made pursuant to customary buy/sell arrangements or rights of first refusal between, the joint venture parties set forth in joint venture arrangements and similar binding arrangements;

(r) to the extent allowable under Section 1031 of the Code, any exchange of like property (excluding any boot thereon) for use in a Similar Business;

(s) the issuance of directors' qualifying shares and shares issued to foreign nationals to the extent required by applicable law;

(t) Dispositions of property to the extent that (i) such property is exchanged for credit against the purchase price of similar replacement property that is promptly purchased or (ii) the proceeds of such Asset Sale are promptly applied to the purchase price of such replacement property (which replacement property is actually promptly purchased);

(u) a sale or transfer of equipment receivables, or participations therein, and related assets; and

(v) solely for purposes of the first paragraph of Section 7.04, the Disposition of assets that are necessary or advisable (as determined by the Parent Borrower in good faith) in order to obtain or increase the likelihood of obtaining the approval of any Governmental Authority to consummate or avoid the prohibition or other restriction on the consummation of any permitted acquisition of any Person, business or assets.

For the avoidance of doubt, the unwinding of Swap Contracts shall not be deemed to constitute an Asset Sale.

"Assignee Group" means two or more Eligible Assignees that are Affiliates of one another or two or more Approved Funds managed by the same investment advisor.

"Assignment and Assumption" means an assignment and assumption entered into by a Lender and an assignee (with the consent of any party whose consent is required by Section 10.07), and accepted by the Administrative Agent, in the form of Exhibit E-1 or any other form (including electronic records generated by the use of an electronic platform) approved by the Administrative Agent.

"Auction Amount" has the meaning specified in the definition of "Dutch Auction."

"Auction Notice" has the meaning specified in the definition of "Dutch Auction."

"Bail-In Action" means the exercise of any Write-Down and Conversion Powers by the applicable EEA Resolution Authority in respect of any liability of an EEA Financial Institution.

"Bail-In Legislation" means, with respect to any EEA Member Country implementing Article 55 of Directive 2014/59/EU of the European Parliament and of the Council of the European Union, the implementing law for such EEA Member Country from time to time which is described in the EU Bail-In Legislation Schedule.

"Bankruptcy Event" means, with respect to any Person, such Person becomes the subject of a voluntary or involuntary bankruptcy or insolvency proceeding, or has had a receiver, conservator, trustee, administrator, custodian, assignee for the benefit of creditors or similar Person charged with the reorganization or liquidation of its business appointed for it, or, in the good faith determination of the Administrative Agent, has taken any action in furtherance of, or indicating its consent to, approval of, or acquiescence in, any such proceeding or appointment or has had any order for relief in such proceeding entered in respect thereof, provided that a Bankruptcy Event shall not result solely by virtue of any ownership interest, or the acquisition of any ownership interest, in such Person by a Governmental Authority or instrumentality thereof, unless such ownership interest results in or provides such Person with immunity from the jurisdiction of courts within the United States or from the enforcement of judgments or writs of attachment on its assets or permits such Person (or such Governmental Authority or instrumentality) to reject, repudiate, disavow or disaffirm any contracts or agreements made by such Person.

"Base Rate" means, for any day, a rate per annum equal to the greatest of (a) the Prime Rate in effect on such day, (b) the NYFRB Rate in effect on such day *plus* ½ of 1% per annum, (c) the Adjusted Eurocurrency Rate for a one month Interest Period on such day (or if such day is not a Business Day, the immediately preceding Business Day) *plus* 1% per annum; provided that for the purpose of this clause (c), the Adjusted Eurocurrency Rate for any day shall be based on the Screen Rate (or if the Screen Rate is not available for such one month Interest Period, the Interpolated Rate) at approximately 11:00 a.m. London time on such day, (d) solely with respect to Initial Loans, 2.00% per annum and (e) for any Loans that are not Initial Loans, 1.00% per annum. Any change in the Base Rate due to a change in the Prime Rate, the NYFRB Rate or the Adjusted Eurocurrency Rate shall be effective from and including the effective date of such change in the Prime Rate, the NYFRB Rate or the Adjusted Eurocurrency Rate, respectively. If the Base Rate is being used as an alternate rate of interest pursuant to Section 3.04 hereof, then the Base Rate shall be the greater of clauses (a) and (b) above and shall be determined without reference to clause (c) above.

"Base Rate Borrowing" means a Borrowing comprising Base Rate Loans.

"Base Rate Loan" means a Loan that bears interest based on the Base Rate.

"Beneficial Ownership Certification" means a certification regarding beneficial ownership as required by the Beneficial Ownership Regulation.

"Beneficial Ownership Regulation" means 31 C.F.R. § 1010.230.

"Benefit Plan" means any of (a) an "employee benefit plan" (as defined in Section 3(3) of ERISA) that is subject to Title I of ERISA, (b) a "plan" as defined in Section 4975 of the Code to which Section 4975 of the Code applies, and (c) any Person whose assets include (for purposes of the Plan Asset Regulations or otherwise for purposes of Title I of ERISA or Section 4975 of the Code) the assets of any such "employee benefit plan" or "plan".

"Board of Directors" means as to any Person, the board of directors, board of managers, sole member or managing member or other governing body of such Person, or if such Person is owned or managed by a single entity or has a general partner, the board of directors, board of managers, sole member or managing member or other governing body of such entity or general partner, or in each case, any duly authorized committee thereof, and the term "directors" means members of the Board of Directors.

"Borrower Joinder Agreement" means a joinder agreement substantially in the form of Exhibit N or such other form as may be agreed between the Parent Borrower and the Administrative Agent.

"Borrower Parties" means the collective reference to the Borrowers and the Subsidiaries, and "Borrower Party" means any one of them.

"Borrowers" has the meaning specified in the introductory paragraph to this Agreement and shall include any Subsidiary that is a Domestic Subsidiary that, after the Closing Date becomes a Borrower by executing a Borrower Joinder Agreement; provided that any Subsidiary that has become a Borrower after the Closing Date (a "Subsidiary Borrower") may have its status as a Borrower terminated by delivering a notice to the Administrative Agent from the Parent Borrower and such Subsidiary Borrower electing to terminate such Subsidiary's status as a Borrower, provided, further, that no such termination shall affect any obligation of such Subsidiary as a Guarantor or as a "Grantor" under any Loan Document.

"Borrowing" means a borrowing of the same Type of Loan of a single Tranche from all the Lenders having Commitments or Loans of the respective Tranche on a given date (or resulting from a conversion or conversions on such date) having, in the case of Eurocurrency Rate Loans, the same Interest Period.

"Business Day" means:

(1) any day other than a Saturday, Sunday or other day on which commercial banks are authorized to close under the Laws of, or are in fact closed in, New York City; and

(2) if such day relates to any interest rate settings as to a Eurocurrency Rate Loan, means any such day described in clause (1) above that is also a London Banking Day.

"Canadian Dollars" means freely transferable lawful money of Canada (expressed in Canadian dollars).

"Capital Stock" means:

(1) in the case of a corporation or company, corporate stock or share capital;

(2) in the case of an association or business entity, any and all shares, interests, participations, rights or other equivalents (however designated) of corporate stock;

(3) in the case of a partnership or limited liability company, partnership or membership interests (whether general or limited); and

(4) any other interest or participation that confers on a Person the right to receive a share of the profits and losses of, or distributions of assets of, the issuing Person (it being understood and agreed, for the avoidance of doubt, that "cash-settled phantom appreciation programs" in connection with employee benefits that do not require a dividend or distribution shall not constitute Capital Stock).

"Capitalized Lease Obligation" means at the time any determination thereof is to be made, the amount of the liability in respect of a capital lease that would at such time be required to be capitalized and reflected as a liability on a balance sheet (excluding the footnotes thereto) in accordance with GAAP.

"Carlyle" means Carlyle Global Credit Investment Management L.L.C.

"Cash-Capped Incremental Facility" has the meaning specified in Section 2.14(a).

"Cash Contribution Amount" means the aggregate amount of cash contributions made to the capital of the Borrowers or any Subsidiary Guarantor (other than from Holdings or a Subsidiary) and designated as a "Cash Contribution Amount" as described in the definition of "Contribution Indebtedness."

"Cash Equivalents" means:

(1) Dollars, Canadian Dollars, Pounds Sterling, euros, the national currency of any participating member state of the European Union and, with respect to any Foreign Subsidiaries, other currencies held by such Foreign Subsidiary in the ordinary course of business;

(2) securities issued or directly guaranteed or insured by the government of the United States, United Kingdom or any country that is a member of the European Union (as it is constituted on the Closing Date) or any agency or instrumentality thereof in each case with maturities not exceeding two years from the date of acquisition;

(3) money market deposits, certificates of deposit, time deposits and eurodollar time deposits with maturities of two years or less from the date of acquisition, bankers' acceptances, in each case with maturities not exceeding two years, and overnight bank deposits, in each case with any commercial bank having capital and surplus in excess of $250,000,000 in the case of domestic banks or $100,000,000 (or the dollar equivalent thereof) in the case of foreign banks;

(4) repurchase obligations for underlying securities of the types described in clauses (2) and (3) above and clause (6) below entered into with any financial institution or securities dealers of recognized national standing meeting the qualifications specified in clause (3) above;

(5) commercial paper or variable or fixed rate notes issued by a corporation or other Person (other than an Affiliate of the Borrower) rated at least "A-2" or the equivalent thereof by Moody's or S&P (or reasonably equivalent ratings of another internationally recognized ratings agency) and in each case maturing within two years after the date of acquisition;

(6) readily marketable direct obligations issued by any state, commonwealth or territory of the United States of America or any political subdivision or taxing authority thereof having an Investment Grade Rating from either Moody's or S&P (or reasonably equivalent ratings of another internationally recognized ratings agency) in each case with maturities not exceeding two years from the date of acquisition;

(7) Indebtedness issued by Persons (other than the Sponsor) with a rating of "A" or higher from S&P or "A-2" or higher from Moody's (or reasonably equivalent ratings of another internationally recognized ratings agency) in each case with maturities not exceeding two years from the date of acquisition, and marketable short-term money market and similar securities having a rating of at least "A- 2" or "P-2" from either S&P or Moody's (or reasonably equivalent ratings of another internationally recognized ratings agency);

(8) investment funds investing at least 95% of their assets in investments of the types described in clauses (1) through (7) above and (9) and (10) below;

(9) Investments with average maturities of 12 months or less from the date of acquisition in money market funds rated AAA (or the equivalent thereof) or better by S&P or Aaa3 (or the equivalent thereof) or better by Moody's (or reasonably equivalent ratings of another internationally recognized ratings agency); and

(10) in the case of investments by any Foreign Subsidiary or investments made in a country outside the United States of America, other investments of comparable tenor and credit quality to those

described in the foregoing clauses (1) through (9) customarily utilized in the countries where such Foreign Subsidiary is located or in which such investment is made.

Notwithstanding the foregoing, Cash Equivalents shall include amounts denominated in currencies other than those set forth in clause (1) above; provided that such amounts are converted into any currency listed in clause (1) as promptly as practicable and in any event within ten Business Days following the receipt of such amounts.

"Cash Management Agreement" means any agreement or arrangement to provide Cash Management Services to Holdings or any Subsidiary.

"Cash Management Services" means any of the following to the extent not constituting a line of credit (other than an overnight draft facility that is not in default); automated clearing house transactions, treasury and/or cash management services, including, without limitation, treasury, depository, overdraft, credit, purchasing or debit card, non-card e-payable services, electronic funds transfer, treasury management services (including controlled disbursement services, overdraft automatic clearing house fund transfer services, return items and interstate depository network services), other demand deposit or operating account relationships, foreign exchange facilities, and merchant services.

"Casualty Event" means any event that gives rise to the receipt by the Parent Borrower or any Subsidiary of any casualty insurance proceeds or condemnation awards or that gives rise to a taking by a Governmental Authority in respect of any equipment, fixed assets or real property (including any improvements thereon) to replace, restore or repair, or compensate for the loss of, such equipment, fixed assets or real property.

"CERCLA" means the Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

"CERCLIS" means the Comprehensive Environmental Response, Compensation, and Liability Information System maintained by the U.S. Environmental Protection Agency.

"Change in Law" means the occurrence after the date of this Agreement or, with respect to any Lender, such later date on which such Lender becomes a party to this Agreement) of (a) the adoption of or taking effect of any law, rule, regulation or treaty, (b) any change in any law, rule, regulation or treaty or in the administration, interpretation, implementation or application thereof by any Governmental Authority or (c) compliance by any Lender (or, for purposes of Section 2.15(b), by any lending office of such Lender or by such Lender's holding company, if any) with any request, guideline or directive (whether or not having the force of law) of any Governmental Authority made or issued after the date of this Agreement; provided that, notwithstanding anything herein to the contrary, (x) the Dodd-Frank Wall Street Reform and Consumer Protection Act and all requests, rules, guidelines or directives thereunder or issued in connection therewith or in the implementation thereof and (y) all requests, rules, guidelines or directives promulgated by the Bank for International Settlements, the Basel Committee on Banking Supervision (or any successor or similar authority) or the United States or foreign regulatory authorities, in each case pursuant to Basel III, shall, in each case, be deemed to be a "Change in Law," regardless of the date enacted, adopted, issued or implemented.

A "Change of Control" will be deemed to occur if:

(a) at any time, Holdings ceases to own, directly or indirectly, beneficially or of record, 100% of the issued and outstanding Equity Interests of the Parent Borrower; or

(b) at any time prior to the consummation of a Qualified IPO, the Permitted Holders, taken together, shall cease to beneficially own (within the meaning of Rule 13d-5 under the Exchange Act), directly or indirectly, at least a majority of the Voting Stock of Holdings (determined on a fully diluted basis); or

(c) at any time after the consummation of a Qualified IPO, any person or "group" (within the meaning of Rule 13d-5 under the Exchange Act, but excluding any employee benefit plan of such person

and its subsidiaries and any person or entity acting in its capacity as trustee, agent or other fiduciary or administrator of any such plan), other than the Permitted Holders, acquires beneficial ownership (within the meaning of Rule 13d-5 under the Exchange Act) of Voting Stock of Holdings representing both (i) more than 35% of the aggregate ordinary voting power for the election of directors of Holdings and (ii) more than the percentage of the aggregate ordinary voting power for the election of directors of Holdings that is at the time beneficially owned (within the meaning of Rule 13d-5 under the Exchange Act), directly or indirectly, by the Permitted Holders, taken together; or

(d) the sale, lease or transfer, in one or a series of related transactions, of all or substantially all of the assets of the Borrowers and their Subsidiaries, taken as a whole, to any Person other than a Borrower or a Subsidiary Guarantor; or

(e) at any time, a Change of Control (as defined in the First Lien Credit Agreement) shall have occurred.

"Closing Date" means August 2, 2018.

"Code" means the U.S. Internal Revenue Code of 1986, as amended.

"Collateral" means all of the "Collateral" (or similar term) referred to in the Collateral Documents and all of the other property and assets that are or are required under the terms of the Collateral Documents to be subject to Liens in favor of the Collateral Agent for the benefit of the Secured Parties.

"Collateral Agent" means Antares, acting through such of its Affiliates or branches as it may designate, in its capacity as collateral agent under any of the Loan Documents, or any successor collateral agent permitted by the terms hereof.

"Collateral Documents" means, collectively, the Security Agreement, the Intellectual Property Security Agreement, the Mortgages (if any), each of the mortgages, collateral assignments, Security Agreement Supplements, Intellectual Property Security Agreement Supplements, security agreements, pledge agreements or other similar agreements delivered to the Collateral Agent pursuant to Section 6.12, Section 6.14 or Section 6.16, and each of the other agreements, instruments or documents that creates or purports to create a Lien in favor of the Collateral Agent for the benefit of the Secured Parties.

"Commitment" means, with respect to each Lender, such Lender's Initial Commitment, Commitment Increase, New Commitment or Specified Refinancing Commitment. The amount of each Lender's Initial Commitment is as set forth in the definition thereof and the amount of each Lender's other Commitments shall be as set forth in the Assignment and Assumption, or in the amendment or agreement relating to the respective Commitment Increase, New Commitment or Specified Refinancing Commitment pursuant to which such Lender shall have assumed its Commitment, as the case may be, as such amounts may be adjusted from time to time in accordance with this Agreement.

"Commitment Increase" has the meaning specified in Section 2.14(a).

"Committed Loan Notice" means a notice of (a) a Borrowing, (b) a conversion of Loans from one Type to the other or (c) a continuation of Eurocurrency Rate Loans, pursuant to Section 2.02(a), which shall be substantially in the form of Exhibit A-1.

"Company Competitor" means any Person that competes with the business of Holdings, the Borrowers and their direct and indirect Subsidiaries from time to time.

"Compliance Certificate" means a certificate substantially in the form of Exhibit D or such other form as may be agreed between the Parent Borrower and the Administrative Agent.

"Consolidated Current Assets" means, with respect to any Person and its Subsidiaries on a consolidated basis, all assets of such Person and its Subsidiaries on a consolidated basis that, in accordance with GAAP, would be classified as current assets on the balance sheet of a company conducting a business the same as or similar to that of such Person and its Subsidiaries on a consolidated basis, after deducting appropriate and adequate reserves therefrom in each case in which a reserve is proper in accordance with GAAP, but excluding (i) cash, (ii) Cash Equivalents, (iii) Swap Contracts to the extent that the mark-to-market Swap Termination Value would be reflected as an asset on the consolidated balance sheet of such Person, (iv) deferred financing fees, (v) amounts related to current or deferred taxes (but excluding assets held for sale, loans (permitted) to third parties, pension assets, deferred bank fees and derivative financial instruments) (so long as the items described in clauses (iv) and (v) are non-cash items) and (vi) in the event that a Qualified Receivables Factoring or Qualified Receivables Financing is accounted for off balance sheet, (x) gross accounts receivable comprising part of the receivables and other related assets subject to such Qualified Receivables Factoring or Qualified Receivables Financing, as applicable, *minus* (y) collection by such Person against the amounts sold pursuant to clause (x) above.

"Consolidated Current Liabilities" means, with respect to any Person and its Subsidiaries on a consolidated basis, all liabilities in accordance with GAAP that would be classified as current liabilities on the consolidated balance sheet of such Person, but excluding (a) the current portion of Indebtedness (including the Swap Termination Value of any Swap Contracts) to the extent reflected as a liability on the consolidated balance sheet of such Person, (b) the current portion of interest, (c) accruals for current or deferred taxes based on income or profits, (d) accruals of any costs or expenses related to restructuring reserves or severance, (e) deferred revenue, (f) escrow account balances, (g) the current portion of pension liabilities, (h) liabilities in respect of unpaid earn-outs, (i) amounts related to derivative financial instruments and assets held for sale and (j) any letter of credit obligations or revolving credit loans and any letter of credit obligations, swing line loans or revolving loans under any other revolving credit facility.

"Consolidated EBITDA" means, with respect to any Person and its Subsidiaries on a consolidated basis for any period, the Consolidated Net Income of such Person and its Subsidiaries for such period:

(1) *increased*, in each case (other than with respect to clauses (k) and (m) below) to the extent deducted and not added back or excluded in calculating such Consolidated Net Income (and without duplication), by:

(a) provision for taxes based on income, profits or capital, including federal, state, franchise, excise, property and similar taxes and foreign withholding taxes paid or accrued, including giving effect to any penalties and interest with respect thereto, and state taxes in lieu of business fees (including business license fees) and payroll tax credits, income tax credits and similar credits and including an amount equal to the amount of tax distributions actually made to the holders of Equity Interests of such Person or its Subsidiaries or any direct or indirect parent of such Person or its Subsidiaries in respect of such period (in each case, to the extent attributable to the operations of such Person and its Subsidiaries), which shall be included as though such amounts had been paid as income taxes directly by such Person or its Subsidiaries; *plus*

(b) Consolidated Interest Expense; *plus*

(c) all depreciation and amortization charges and expenses, including amortization or expense recorded for upfront payments related to any contract signing and signing bonus and incentive payments; *plus*

(d) minority interest expense and the amount of any non-controlling interest expense consisting of income attributable to non-controlling interests of third parties in any Subsidiary of such Person that is not a Wholly Owned Subsidiary of such Person; *plus*

(e) the amount of management, monitoring, consulting, transaction and advisory fees (including termination fees) and related indemnities, charges and expenses paid or accrued to or on behalf of any direct or indirect parent of the Borrowers or any of the Permitted Holders, in each case, to the extent permitted by Section 6.18; *plus*

(f) earn-out obligations incurred in connection with any acquisition or other Investment and paid or accrued during the applicable period, including any mark to market adjustments; *plus*

(g) all charges, costs, expenses, accruals or reserves in connection with the rollover, acceleration or payout of equity interests held by management and all losses, charges and expenses related to payments made to holders of options or other derivative equity interests in the common equity of such Person or any direct or indirect parent of the Parent Borrower in connection with, or as a result of, any distribution being made to equityholders of such Person or any of its direct or indirect parents, which payments are being made to compensate such optionholders as though they were equityholders at the time of, and entitled to share in, such distribution; *plus*

(h) all non-cash losses, charges and expenses, including any write-offs or write-downs; provided that if any such non-cash loss, charge or expense represents an accrual or reserve for potential cash items in any future four-fiscal quarter period, (i) such Person may determine not to add back such non-cash loss, charge or expense in the period for which Consolidated EBITDA is being calculated and (ii) to the extent such Person does decide to add back such non-cash loss, charge or expense, the cash payment in respect thereof in such future four-fiscal quarter period will be subtracted from Consolidated EBITDA for such future four-fiscal quarter period; *plus*

(i) all costs and expenses in connection with pre-opening and opening and closure and/or consolidation of facilities;*plus*

(j) restructuring charges, accruals or reserves and business optimization expense, including any restructuring costs and integration costs incurred in connection with the Transactions and any other acquisitions, start-up costs (including entry into new market/channels and new service offerings), costs related to the closure, relocation, reconfiguration and/or consolidation of facilities and costs to relocate employees, integration and transaction costs, retention charges, severance, contract termination costs, recruiting and signing bonuses and expenses, future lease commitments, systems establishment costs, conversion costs and excess pension charges and consulting fees, expenses attributable to the implementation of costs savings initiatives, costs associated with tax projects/audits, expenses relating to any decommissioning or reconfiguration of fixed assets for alternative uses and costs consisting of professional consulting or other fees relating to any of the foregoing; *plus*

(k) Pro Forma Cost Savings; provided that any amounts added back pursuant to this clause (k) shall be set forth in reasonable detail in a certificate of a Responsible Officer of the Parent Borrower and delivered to the Administrative Agent; provided, further, that the aggregate amount added back pursuant to clause (k) for any period shall not exceed 30% of total Consolidated EBITDA for such period (calculated after giving effect to any increase pursuant to this clause (k)); *plus*

(l) [reserved]; *plus*

(m) the amount of loss or discount on sale of receivables and related assets to the Receivables Subsidiary in connection with a Receivables Financing;

(2) *decreased* (without duplication and to the extent increasing such Consolidated Net Income for such period) by (i) non-cash gains or income, excluding any non-cash gains that represent the reversal of any accrual of, or cash reserve for, anticipated cash charges that were deducted (and not added back) in the calculation of Consolidated EBITDA for any prior period ending after the Closing Date and (ii) the amount of any minority interest income consisting of a Subsidiary loss attributable to minority equity interest of third parties in any non-Wholly Owned Subsidiary (to the extent not deducted from Consolidated Net Income for such period);

(3) *increased* (with respect to losses) or *decreased* (with respect to gains) by, without duplication, any net realized gains and losses relating to (i) amounts denominated in foreign currencies resulting from the application of FASB ASC 830 (including net realized gains and losses from exchange rate fluctuations on intercompany balances and balance sheet items, net of realized gains or losses from related Swap Contracts (entered into in the ordinary course of business or consistent with past practice)) or (ii) any other amounts denominated in or otherwise trued-up to provide similar accounting as if it were denominated in foreign currencies; and

(4) *increased* (with respect to losses) or *decreased* (with respect to gains) by, without duplication, any gain or loss relating to Swap Contracts (excluding Swap Contracts entered into in the ordinary course of business or consistent with past practice).

In addition, to the extent not already included in the Consolidated EBITDA in any period, notwithstanding anything to the contrary in the foregoing, Consolidated EBITDA shall include additional adjustments of the type (1) evidenced by or contained in the Sponsor Model delivered to Administrative Agent on June 20, 2018, and/or (2) evidenced by or contained in a due diligence quality of earnings report made available to the Administrative Agent (who may share with the Lenders) (subject, in each case, to customary access letters) prepared with respect to the target of a permitted acquisition or other investment permitted hereunder by a "big-four" nationally recognized accounting firm.

Notwithstanding the foregoing and subject to adjustment on a Pro Forma Basis for events occurring after the Closing Date, Consolidated EBITDA (a) for the fiscal quarter ended September 30, 2017, shall be deemed to be $11,444,465.65, (b) for the fiscal quarter ended December 31, 2017, shall be deemed to be $9,320,522.51, (c) for the fiscal quarter ended March 31, 2018, shall be deemed to be $14,931,051.01 and (d) for the fiscal quarter ended June 30, 2018, shall be deemed to be $12,368,538.40.

"Consolidated First Lien Net Leverage Ratio" means, on any date of determination, with respect to the Borrower Parties on a consolidated basis, the ratio of (a) Consolidated Funded First Lien Indebtedness (less the amount of unrestricted cash and Cash Equivalents of the Borrower Parties as of such date in an aggregate amount not to exceed $15,000,000) of the Borrower Parties on such date to (b) Consolidated EBITDA of the Borrower Parties for the four fiscal quarter period most recently then ended for which financial statements have been delivered pursuant to Section 6.01(a) or (b), as applicable.

"Consolidated Funded First Lien Indebtedness" means Consolidated Funded Indebtedness that is secured by a Lien on the Collateral that does not rank junior in priority (but without regard to the control of remedies) to the Liens on the Collateral securing the First Lien Obligations. For the avoidance of doubt, Consolidated Funded First Lien Indebtedness shall not include Capitalized Lease Obligations other than those that are secured on an equal priority basis with the Liens on the Collateral securing the First Lien Obligations.

"Consolidated Funded Indebtedness" means all Indebtedness of the type described in clauses (a)(i), (a)(ii) (but excluding surety bonds, performance bonds or other similar instruments), (a)(iv) (but solely in respect of the amount of outstanding Indebtedness of the type described in (a)(iv) that is in excess of $5,000,000 in the aggregate) and (b) (in respect of Indebtedness of the type described in (a)(i), (a)(ii) (but excluding Indebtedness constituting surety bonds, performance bonds or other similar instruments) and (a)(iv) (but solely in respect of the amount of Indebtedness of the type described in (a)(iv) that is in excess of $5,000,000 in the aggregate)) of the definition of "Indebtedness," of a Person and its Subsidiaries on a consolidated basis, in an amount that would be reflected on a balance sheet prepared as of such date on a consolidated basis in accordance with GAAP (but (x) excluding the effects of any discounting of Indebtedness resulting from the application of purchase accounting in connection with the Transactions or any acquisition and (y) any Indebtedness that is issued at a discount to its initial principal amount shall be calculated based on the entire stated principal amount thereof, without giving effect to any discounts or upfront payments), excluding obligations in respect of letters of credit, bank guarantees and guarantees on first demand, in each case, except to the extent of unreimbursed amounts thereunder. For the avoidance of doubt, it is understood that obligations under Swap Contracts, Cash Management Agreements, and any Receivables Financing, do not constitute Consolidated Funded Indebtedness.

"Consolidated Funded Senior Secured Indebtedness" means Consolidated Funded Indebtedness that is secured by a Lien on the Collateral.

"Consolidated Interest Expense" means, with respect to any Person for any period, the sum, without duplication, of:

(a) the aggregate interest expense of such Person and its Subsidiaries for such period, calculated on a consolidated basis in accordance with GAAP, to the extent such expense was deducted (and not added back) in computing Consolidated Net Income (including pay in kind interest payments, amortization of original issue discount, the interest component of Capitalized Lease Obligations and net payments and receipts (if any) pursuant to interest rate Swap Contracts (other than in connection with the early termination thereof) but excluding any non-cash interest expense attributable to the movement in the mark-to-market valuation of Indebtedness, Swap Contracts or other derivative instruments, all amortization and write-offs of deferred financing fees, debt issuance costs, commissions, discounts, fees and expenses and expensing of any bridge, commitment or other financing fees, costs of surety bonds, charges owed with respect to letters of credit, bankers' acceptances or similar facilities, and all discounts, commissions, fees and other charges associated with any Receivables Financing); *plus*

(b) consolidated capitalized interest of the referent Person and its Subsidiaries for such period, whether paid or accrued; *less*

(c) interest income of the referent Person and its Subsidiaries for such period;

provided that (a) when determining Consolidated Interest Expense in respect of any four-quarter period ending prior to the first anniversary of the Closing Date, Consolidated Interest Expense will be calculated by multiplying the aggregate Consolidated Interest Expense accrued since the Closing Date by 365 and then dividing such product by the number of days from and including the Closing Date to and including the last day of such period and (b) in the case of any Person that became a Subsidiary of such Person after the commencement of such four-quarter period, the interest expense of such Person paid in cash prior to the date on which it became a Subsidiary of such Person will be disregarded. For purposes of this definition, interest on Capitalized Lease Obligations will be deemed to accrue at the interest rate reasonably determined by such Person to be the rate of interest implicit in such Capitalized Lease Obligations in accordance with GAAP.

"Consolidated Net Income" means, with respect to any Person for any period, the aggregate of the net income (or loss) of such Person and its Subsidiaries for such period, calculated on a consolidated basis in accordance with GAAP and before any reduction in respect of Preferred Stock dividends; provided that (without duplication):

(a) all net after-tax extraordinary, nonrecurring, infrequent, exceptional or unusual gains, losses, income, expenses and charges, and in any event including, without limitation, all restructuring, severance, relocation, retention and completion bonuses or payments, consolidation, integration or other similar charges and expenses, contract termination costs, system establishment charges, conversion costs, start-up or closure or transition costs, expenses related to any reconstruction, decommissioning, recommissioning or reconfiguration of fixed assets for alternative uses, fees, expenses or charges relating to curtailments, settlements or modifications to pension and post-retirement employee benefit plans in connection with any acquisition or Permitted Investment, expenses associated with strategic initiatives, facilities shutdown and opening costs, and any fees, expenses, charges or change in control payments related to any acquisition or Permitted Investment (including any transition-related expenses (including retention or transaction-related bonuses or payments) incurred before, on or after the Closing Date), will be excluded;

(b) all (i) losses, charges and expenses related to the Transactions, (ii) transaction fees, costs and expenses incurred in connection with the consummation of any equity issuances, investments, acquisitions, dispositions, recapitalizations, mergers, amalgamations, option buyouts and the Incurrence, modification or repayment of Indebtedness permitted to be Incurred under this Agreement (including any Refinancing Indebtedness in respect thereof) or any amendments, waivers or other modifications under the agreements relating to such Indebtedness or similar transactions, and (iii) without duplication of any of the

foregoing, non-operating or non-recurring professional fees, costs and expenses for such period will be excluded;

(c) all net after-tax income, loss, expense or charge from abandoned, closed or discontinued operations and any net after-tax gain or loss on the disposal of abandoned, closed or discontinued operations (and all related expenses) other than in the ordinary course of business (as determined in good faith by such Person) will be excluded;

(d) all net after-tax gain, loss, expense or charge attributable to business dispositions and asset dispositions, including the sale or other disposition of any Equity Interests of any Person, other than in the ordinary course of business (as determined in good faith by such Person), will be excluded;

(e) all net after-tax income, loss, expense or charge attributable to the early extinguishment or cancellation of Indebtedness, Swap Contracts or other derivative instruments (including deferred financing costs written off and premiums paid) will be excluded;

(f) all non-cash gains, losses, expenses or charges attributable to the movement in the mark-to-market valuation of Indebtedness, Swap Contracts or other derivative instruments will be excluded;

(g) any non-cash or unrealized currency translation gains and losses related to changes in currency exchange rates (including, without limitation, remeasurements of Indebtedness and any net loss or gain resulting from (i) Swap Contracts for currency exchange risk and (ii) intercompany Indebtedness), will be excluded;

(h) (i) the net income for such period of any Person that is not a Subsidiary of the referent Person or that is accounted for by the equity method of accounting, will be included only to the extent of the amount of dividends or distributions to the referent Person or a Subsidiary thereof in respect of such period; and (ii) the net income for such period will include any ordinary course dividends or distributions received from any such Person during such period in excess of the amounts included in subclause (i) above;

(i) the cumulative effect of a change in accounting principles and changes as a result of the adoption or modification of accounting policies will be excluded;

(j) the effects of purchase accounting, fair value accounting or recapitalization accounting adjustments (including the effects of such adjustments pushed down to the referent Person and its Subsidiaries) resulting from the application of purchase accounting, fair value accounting or recapitalization accounting in relation to any acquisition consummated before or after the Closing Date, and the amortization, write-down or write-off of any amounts thereof, net of taxes, will be excluded;

(k) all non-cash impairment charges and asset write-ups, write-downs and write-offs, in each case pursuant to GAAP, and the amortization of intangibles arising from the application of GAAP will be excluded;

(l) all non-cash expenses realized in connection with or resulting from equity or equity-linked compensation plans, employee benefit plans or agreements or post-employment benefit plans or agreements, or grants or sales of stock, stock appreciation or similar rights, stock options, restricted stock, preferred stock or other similar rights will be excluded;

(m) any costs or expenses incurred in connection with the payment of dividend equivalent rights to option holders pursuant to any management equity plan, stock option plan or any other management or employee benefit plan or agreement or post-employment benefit plan or agreement will be excluded;

(n) accruals and reserves for liabilities or expenses that are established or adjusted as a result of the Transactions within 24 months after the Closing Date will be excluded;

(o) all amortization and write-offs of deferred financing fees, debt issuance costs, commissions, fees and expenses, costs of surety bonds, charges owed with respect to letters of credit, bankers' acceptances or similar facilities, and expensing of any bridge, commitment or other financing fees (including in connection with a transaction undertaken but not completed), will be excluded;

(p) all discounts, commissions, fees and other charges (including interest expense) associated with any Receivables Financing will be excluded;

(q) (i) the non-cash portion of "straight-line" rent expense will be excluded and (ii) the cash portion of "straight-line" rent expense that exceeds the amount expensed in respect of such rent expense will be included;

(r) expenses and lost profits with respect to liability or casualty events or business interruption will be disregarded to the extent covered by insurance and actually reimbursed, or, so long as such Person has made a determination that there exists reasonable evidence that such amount will in fact be reimbursed by the insurer, but only to the extent that such amount (i) has not been denied by the applicable carrier in writing and (ii) is in fact reimbursed within 365 days of the date on which such liability was discovered or such casualty event or business interruption occurred (with a deduction for any amounts so added back that are not reimbursed within such 365-day period); provided that any proceeds of such reimbursement when received will be excluded from the calculation of Consolidated Net Income to the extent the expense or lost profit reimbursed was previously disregarded pursuant to this clause (r);

(s) losses, charges and expenses that are covered by indemnification or other reimbursement provisions in connection with any asset disposition will be excluded to the extent actually reimbursed, or, so long as such Person has made a determination that a reasonable basis exists for indemnification or reimbursement, but only to the extent that such amount is in fact indemnified or reimbursed within 365 days of such determination (with a deduction in the applicable future period for any amount so added back to the extent not so indemnified or reimbursed within such 365 days);

(t) non-cash charges relating to increases or decreases of deferred tax asset valuation allowances will be excluded;

(u) [reserved];

(v) solely for the purpose of determining the amount available for Restricted Payments under clause (c) of the first paragraph of Section 7.05, and without duplication of provisions under clause (c) of the first paragraph of Section 7.05 with respect to returns on Investments, the net income (or loss) for such period of any Subsidiary (other than a Guarantor) will be excluded to the extent that the declaration or payment of dividends or similar distributions by that Subsidiary is not at the date of determination permitted without any prior governmental approval (which has not been obtained) or, directly or indirectly, by the operation of its charter or any agreement, instrument, judgment, decree, order, statute, rule or governmental regulation applicable to that Subsidiary or its stockholders, unless such restriction with respect to the payment of dividends or similar distributions has been legally waived; provided that Consolidated Net Income of such Person will be increased by the amount of dividends or other distributions or other payments actually paid in cash (or to the extent converted into cash) to such Person or any of its Subsidiaries in respect of such period, to the extent not already included therein (subject, in the case of a dividend to another Subsidiary (other than a Guarantor), to the limitation contained in this clause);

(w) any Initial Public Company Costs will be excluded;

(x) any (a) severance or relocation costs or expenses, (b) one-time non-cash compensation charges, (c) the costs and expenses related to employment of terminated employees, or (d) costs or expenses realized in connection with or resulting from stock appreciation or similar rights, stock options or other rights of officers, directors and employees, in each case of such Person or any of its Subsidiaries, shall be excluded; and

(y) any non-cash interest expense and non-cash interest income, in each case to the extent there is no associated cash disbursement or receipt, as the case may be, before the then applicable Latest Maturity Date, shall be excluded.

For the purpose of Section 7.05 only, there shall be excluded from Consolidated Net Income any income arising from the sale or other disposition of Restricted Investments, from repurchases or redemptions of Restricted Investments, from repayments of loans or advances which constituted Restricted Investments or from any dividends, repayments of loans or advances or other transfers of assets, in each case to the extent such amounts increase the amount of Restricted Payments permitted under clause (c)(v) of the first paragraph of Section 7.05.

"Consolidated Net Tangible Assets" means the aggregate amount of assets (including deferred tax assets (without reducing such deferred tax assets by deferred tax liabilities), and less applicable reserves and other properly deductible items) after deducting therefrom all goodwill, trade names, trademarks, patents, unamortized debt discount and expense, investments and other like intangibles, all as set forth in the most recent consolidated balance sheet of the Parent Borrower and its Subsidiaries, determined on a Pro Forma Basis.

"Consolidated Senior Secured Net Leverage Ratio" means, on any date of determination, with respect to the Borrower Parties on a consolidated basis, the ratio of (a) Consolidated Funded Senior Secured Indebtedness (less the amount of cash and unrestricted Cash Equivalents of the Borrower Parties as of such date in an aggregate amount not to exceed $15,000,000) of the Borrower Parties on such date, calculated on a Pro Forma Basis to (b) Consolidated EBITDA of the Borrower Parties for the four fiscal quarter period most recently then ended for which financial statements have been delivered pursuant to Section 6.01(a) or 6.01(b), as applicable, calculated on a Pro Forma Basis.

"Consolidated Total Net Leverage Ratio" means, on any date of determination, with respect to the Borrower Parties on a consolidated basis, the ratio of (a) Consolidated Funded Indebtedness (less the amount of unrestricted cash and Cash Equivalents of the Borrower Parties as of such date in an aggregate amount not to exceed $15,000,000) of the Borrower Parties on such date, calculated on a Pro Forma Basis to (b) Consolidated EBITDA of the Borrower Parties for the four fiscal quarter period most recently then ended for which financial statements have been delivered pursuant to Section 6.01(a) or (b), as applicable, calculated on a Pro Forma Basis.

"Contingent Obligations" means, with respect to any Person, any obligation of such Person guaranteeing any leases, dividends or other obligations that do not constitute Indebtedness ("primary obligations") of any other Person (the "primary obligor") in any manner, whether directly or indirectly, including, without limitation, any obligation of such Person, whether or not contingent:

(1) to purchase any such primary obligation or any property constituting direct or indirect security therefor,

(2) to advance or supply funds:

(a) for the purchase or payment of any such primary obligation; or

(b) to maintain working capital or equity capital of the primary obligor or otherwise to maintain the net worth or solvency of the primary obligor; or

(3) to purchase property, securities or services primarily for the purpose of assuring the owner of any such primary obligation of the ability of the primary obligor to make payment of such primary obligation against loss in respect thereof.

"Contractual Obligation" means, as to any Person, any provision of any security issued by such Person or of any agreement, loan agreement, indenture, mortgage, deed of trust, lease, instrument or other undertaking to which such Person is a party or by which it or any of its property is bound.

"Contribution Indebtedness" means Indebtedness of the Borrowers or any Subsidiary in an aggregate principal amount not greater than the aggregate amount of cash contributions (other than Excluded Contributions) made to the capital of the Parent Borrower (other than any such cash contributions applied to cure any default under any "equity cure" provisions with respect to any financial covenant under the First Lien Credit Agreement) or any Subsidiary (other than, in the case of such Subsidiary, contributions by the Parent Borrower or any other Subsidiary to its capital) after the Closing Date and designated as a Cash Contribution Amount; provided that such Contribution Indebtedness (a) is incurred within 210 days after the date of such cash contribution and (b) is designated as Contribution Indebtedness pursuant to a certificate signed by a Responsible Officer of the Parent Borrower on the incurrence date thereof.

"Control Investment Affiliate" means, as to any Person, any other Person that (a) directly or indirectly, is in control of, is controlled by, or is under common control with, such Person and (b) is organized by such Person primarily for the purpose of making equity investments in one or more companies.

"Controlled Foreign Subsidiary" means any Subsidiary of the Parent Borrower (or of any Subsidiary Guarantor) that is a "controlled foreign corporation" within the meaning of Section 957 of the Code.

"Credit Agreement" means (i) this Agreement and (ii) whether or not this Agreement remains outstanding, if designated by the Parent Borrower to be included in the definition of "Credit Agreement," one or more (A) debt facilities, indentures or commercial paper facilities providing for revolving credit loans, term loans, notes, debentures, receivables financing (including through the sale of receivables to lenders or to special purpose entities formed to borrow from lenders against such receivables) or letters of credit, (B) debt securities, notes, mortgages, guarantees, collateral documents, indentures or other forms of debt financing (including convertible or exchangeable debt instruments or bank guarantees or bankers' acceptances), or (C) instruments or agreements evidencing any other Indebtedness, in each case, with the same or different borrower(s) or issuer(s) and, in each case, as amended, supplemented, modified, extended, restructured, renewed, refinanced, restated, increased (provided that such increase in borrowings is permitted under this Agreement), replaced or refunded in whole or in part from time to time and whether by the same or any other agent, lender or investor or group of lenders or investors.

"Credit Extension" means a Borrowing.

"Debt Fund Affiliate" means any Affiliate of the Sponsor (other than Holdings and its Subsidiaries) that is primarily engaged in, or advises funds or other investment vehicles that are engaged in, making, purchasing, holding or otherwise investing in commercial loans, bonds and similar extensions of credit or securities in the ordinary course and with respect to which the Sponsor does not, directly or indirectly, possess the power to direct or cause the direction of the investment policies of any such Affiliate. Notwithstanding the foregoing, in no event shall a Natural Person be a Debt Fund Affiliate.

"Debtor Relief Laws" means the Bankruptcy Code of the United States, and all other liquidation, conservatorship, bankruptcy, assignment for the benefit of creditors, moratorium, rearrangement, receivership, insolvency, reorganization, or similar debtor relief Laws of the United States or other applicable jurisdictions from time to time in effect and affecting the rights of creditors generally.

"Declined Amounts" has the meaning specified in Section 2.05(c).

"Declining Lender" has the meaning specified in Section 2.05(c).

"Default" means any event or condition that constitutes an Event of Default or that, with the giving of any notice, the passage of time, or both, would be an Event of Default.

"Default Rate" means an interest rate equal to (after as well as before judgment), (a) with respect to any overdue principal for any Loan, the applicable interest rate for such Loan plus 2.00% per annum (provided that with respect to Eurocurrency Rate Loans, the determination of the applicable interest rate is subject to Section 2.02(c) to the extent that Eurocurrency Rate Loans may not be converted to, or continued as, Eurocurrency Rate Loans, pursuant thereto) and (b) with respect to any other overdue amount, including overdue interest, the interest rate

applicable to Base Rate Loans plus 2.00% per annum, in each case, to the fullest extent permitted by applicable Laws.

"Defaulting Lender" means, subject to Section 2.17(b), any Lender that (a) has failed to perform any of its funding obligations hereunder, including in respect of its Loans within two Business Days of the date required to be funded by it hereunder, (b) has notified the Parent Borrower or the Administrative Agent in writing that it does not intend or expect to comply with any of its funding obligations or has made a public statement to that effect with respect to its funding obligations hereunder, (c) has failed, within two Business Days after reasonable request by the Administrative Agent, to confirm in a manner satisfactory to the Administrative Agent that it will comply with its funding obligations (provided that such Lender shall cease to be a Defaulting Lender pursuant to this clause (c) upon receipt of such confirmation by the Administrative Agent) or (d) has, or has a direct or indirect parent company that has, other than via an Undisclosed Administration, (i) become the subject of a Bankruptcy Event, (ii) had a receiver, conservator, trustee, administrator, assignee for the benefit of creditors or similar Person charged with reorganization or liquidation of its business or a custodian appointed for it, (iii) taken any action in furtherance of, or indicated its consent to, approval of or acquiescence in any such proceeding or appointment or (iv) become the subject of a Bail-in Action; provided that no Lender shall be a Defaulting Lender solely by virtue of (x) the ownership or acquisition by a Governmental Authority of any Equity Interest in that Lender or any direct or indirect parent company thereof so long as such ownership interest does not result in or provide such Lender with immunity from the jurisdiction of courts within the United States or from the enforcement of judgments or writs of attachment on its assets or permit such Lender (or such Governmental Authority) to reject, repudiate, disavow or disaffirm any contracts or agreements made with such Lender, or (y) the occurrence of any of the events described in clause (d)(i), (d)(ii) or (d)(iii) of this definition which in each case has been dismissed or terminated prior to the date of this Agreement. Any determination by the Administrative Agent that a Lender is a Defaulting Lender under any one or more of clauses (a) through (d) above shall be conclusive and binding absent manifest error, and such Lender shall be deemed to be a Defaulting Lender (subject to Section 2.17(b)) upon delivery of written notice of such determination to the Parent Borrower and each Lender.

"Designated Non-Cash Consideration" means the Fair Market Value of non-cash consideration received by the Parent Borrower or any of the Subsidiaries in connection with a Disposition made pursuant to Section 7.04(2)(c) that is designated as "Designated Non-Cash Consideration" on the date received pursuant to a certificate of a Responsible Officer of the Parent Borrower, less the amount of cash or Cash Equivalents received in connection with a subsequent sale of or collection on such Designated Non-Cash Consideration.

"Designated Preferred Stock" means Preferred Stock of Holdings or any direct or indirect parent of Holdings, as applicable (other than Excluded Equity), that is issued after the Closing Date for cash and is so designated as Designated Preferred Stock, pursuant to an officer's certificate of the Parent Borrower, on the issuance date thereof, the cash proceeds of which are contributed to the capital of the Parent Borrower (if issued by Holdings or any other direct or indirect parent of Holdings) and excluded from the calculation set forth in clause (c) of the first paragraph of Section 7.05.

"Discharge of First Lien Credit Agreement Obligations" has the meaning given to such term in the First Lien/Second Lien Intercreditor Agreement.

"Discount Range" has the meaning specified in the definition of "Dutch Auction."

"Disposition" or "Dispose" means the sale, transfer, license, lease or other disposition of any property by any Person (including any sale and leaseback transaction and any issuance of Capital Stock by a Subsidiary of such Person), including any sale, assignment, transfer or other disposal, with or without recourse, of any notes or accounts receivable or any rights and claims associated therewith; provided, however, that "Disposition" and "Dispose" shall not be deemed to include any issuance by Holdings of any of its Capital Stock to another Person.

"Disqualified Institution" means (a) each person identified as a "Disqualified Institution" on a list delivered to the Administrative Agent by the Parent Borrower on or prior to the Closing Date, (b) any Company Competitor identified on a list delivered to the Administrative Agent by the Parent Borrower from time to time and (c) as to any entity referenced in each of clauses (a) and (b) above (the "Primary Disqualified Institution"), any of such Primary Disqualified Institution's Affiliates clearly identifiable as an Affiliate solely on the basis of the similarity of its

name, but excluding any Affiliate that is primarily engaged in, or that advises funds or other investment vehicles that are engaged in, making, purchasing, holding or otherwise investing in commercial loans, bonds and similar extensions of credit or securities in the ordinary course and with respect to which the Primary Disqualified Institution does not, directly or indirectly, possess the power to direct or cause the direction of the investment policies of such entity; provided that any additional designation, modification or deletion permitted by the foregoing shall not apply (i) retroactively to any prior assignment to any Lender or Participant and (ii) until at least three Business Days following receipt of such list by the Administrative Agent sent to loanadmin@antaresholdingsgp.com from the Parent Borrower. Notwithstanding the foregoing, any list of Disqualified Institutions shall only be required to be available to any Lender on the Approved Electronic Platform or another similar electronic system (i) to the extent the Parent Borrower desires to prevent any such Disqualified Institution from being a Lender or a Participant or (ii) upon written request by such Lender. For the purposes of clause (b), such list shall be made available to the Administrative Agent pursuant to Section 10.02.

"Disqualified Stock" means, with respect to any Person, any Equity Interests of such Person that, by its terms (or by the terms of any security into which it is convertible or for which it is puttable, redeemable or exchangeable), in each case, at the option of the holder thereof or upon the happening of any event:

(1) matures or is mandatorily redeemable, pursuant to a sinking fund obligation or otherwise (other than as a result of a change of control or asset sale; provided that any purchase requirement triggered thereby may not become operative until compliance with, in the case of an asset sale, the provisions of Section 7.04 or, in the case of a change of control, the repayment in full of the Obligations),

(2) is convertible or exchangeable for Indebtedness or Disqualified Stock, or

(3) is redeemable at the option of the holder thereof, in whole or in part,

in each case prior to the date that is 91 days after the Latest Maturity Date at the time of issuance of the respective Disqualified Stockprovided that only the portion of Equity Interests that so matures or is mandatorily redeemable, is so convertible or exchangeable or is so redeemable at the option of the holder thereof prior to such date shall be deemed to be Disqualified Stock; provided, further, that if such Equity Interests are issued to any employee or to any plan for the benefit of employees of the Parent Borrower or its Subsidiaries or a direct or indirect parent of the Parent Borrower or by any such plan to such employees, such Equity Interests shall not constitute Disqualified Stock solely because it may be required to be repurchased by the Parent Borrower or its Subsidiaries or a direct or indirect parent of the Parent Borrower in order to satisfy applicable statutory or regulatory obligations or as a result of such employee's termination, death or disability; provided, further, that any class of Equity Interests of such Person that by its terms authorizes such Person to satisfy its obligations thereunder by delivery of Equity Interests that are not Disqualified Stock shall not be deemed to be Disqualified Stock.

"Dollar" and "$" mean lawful money of the United States.

"Dollar Equivalent" means, for any amount, at the time of determination thereof, (a) if such amount is expressed in Dollars, such amount, and (b) if such amount is denominated in any other currency, the equivalent of such amount in Dollars as determined by the Administrative Agent using any method of determination it deems appropriate in its sole discretion.

"Domestic Subsidiary" means any Subsidiary of the Parent Borrower that is organized under the laws of the United States, any state thereof or the District of Columbia.

"Dutch Auction" means an auction (an "Auction") conducted by Holdings or one of its Subsidiaries in order to purchase any Loans under a Tranche (the "Purchase") in accordance with the following procedures or such other procedures as may be agreed to between the Administrative Agent and the Parent Borrower:

(a) Notice Procedures. In connection with any Auction, the Parent Borrower shall provide notification to the Administrative Agent (for distribution to the Appropriate Lenders) of the Loans under such Tranche that will be the subject of the Auction (an "Auction Notice"). Each Auction Notice shall be

in a form reasonably acceptable to the Administrative Agent and shall specify (i) the total cash value of the bid, in a minimum amount of $5,000,000 with minimum increments of $1,000,000 in excess thereof (the "Auction Amount") and (ii) the discounts to par, which shall be expressed as a range of percentages of the par principal amount of the Loans under such Tranche at issue (the "Discount Range"), representing the range of purchase prices that could be paid in the Auction.

(b) Reply Procedures. In connection with any Auction, each applicable Lender may, in its sole discretion, participate in such Auction by providing the Administrative Agent with a notice of participation (the "Return Bid") which shall be in a form reasonably acceptable to the Administrative Agent and shall specify (i) a discount to par that must be expressed as a price (the "Reply Discount"), which must be within the Discount Range, and (ii) a principal amount of the applicable Loans such Lender is willing to sell, which must be in increments of $1,000,000 or in an amount equal to such Lender's entire remaining amount of the applicable Loans (the "Reply Amount"). Lenders may only submit one Return Bid per Auction. In addition to the Return Bid, each Lender wishing to participate in such Auction must execute and deliver, to be held in escrow by the Administrative Agent, an assignment and acceptance agreement in a form reasonably acceptable to the Administrative Agent.

(c) Acceptance Procedures. Based on the Reply Discounts and Reply Amounts received by the Administrative Agent, the Administrative Agent, in consultation with the Parent Borrower, will determine the applicable discount (the "Applicable Discount") for the Auction, which shall be the lowest Reply Discount for which Holdings or its Subsidiary, as applicable, can complete the Auction at the Auction Amount; provided that, in the event that the Reply Amounts are insufficient to allow Holdings or its Subsidiary, as applicable, to complete a purchase of the entire Auction Amount (any such Auction, a "Failed Auction"), Holdings or such Subsidiary shall either, at its election, (i) withdraw the Auction or (ii) complete the Auction at an Applicable Discount equal to the highest Reply Discount. Holdings or its Subsidiary, as applicable, shall purchase the applicable Loans (or the respective portions thereof) from each applicable Lender with a Reply Discount that is equal to or greater than the Applicable Discount ("Qualifying Bids") at the Applicable Discount; provided that if the aggregate proceeds required to purchase all applicable Loans subject to Qualifying Bids would exceed the Auction Amount for such Auction, Holdings or its Subsidiary, as applicable, shall purchase such Loans at the Applicable Discount ratably based on the principal amounts of such Qualifying Bids (subject to adjustment for rounding as specified by the Administrative Agent). Each participating Lender will receive notice of a Qualifying Bid as soon as reasonably practicable but in no case later than five Business Days from the date the Return Bid was due.

(d) Additional Procedures. Once initiated by an Auction Notice, Holdings or any of its Subsidiaries, as applicable, may not withdraw an Auction other than a Failed Auction. Furthermore, in connection with any Auction, upon submission by a Lender of a Qualifying Bid, such Lender will be obligated to sell the entirety or its allocable portion of the Reply Amount, as the case may be, at the Applicable Discount. The Purchase shall be consummated pursuant to and in accordance with Section 10.07 and, to the extent not otherwise provided herein, shall otherwise be consummated pursuant to procedures (including as to timing, rounding and minimum amounts, Interest Periods, and other notices by Holdings or such Subsidiary, as applicable) reasonably acceptable to the Administrative Agent and the Parent Borrower.

"EEA Financial Institution" means (a) any credit institution or investment firm established in any EEA Member Country which is subject to the supervision of an EEA Resolution Authority, (b) any entity established in an EEA Member Country which is a parent of an institution described in clause (a) of this definition, or (c) any financial institution established in an EEA Member Country which is a subsidiary of an institution described in clause (a) or (b) of this definition and is subject to consolidated supervision with its parent.

"EEA Member Country" means any of the member states of the European Union, Iceland, Liechtenstein, and Norway.

"EEA Resolution Authority" means any public administrative authority or any person entrusted with public administrative authority of any EEA Member Country (including any delegee) having responsibility for the resolution of any EEA Financial Institution.

"Electronic Signature" means an electronic sound, symbol, or process attached to, or associated with, a contract or other record and adopted by a person with the intent to sign, authenticate or accept such contract or record.

"Eligible Assignee" means any Person that meets the requirements to be an assignee under Section 10.07(b) (subject to receipt of such consents, if any, as may be required for the assignment of the applicable Loan and/or Commitments to such Person under Section 10.07(b)(iii)).

"EMU" means the economic and monetary union as contemplated in the EU Treaty.

"EMU Legislation" means the legislative measures of the EMU for the introduction of, changeover to, or operation of the Euro in one or more member states.

"Environment" shall mean ambient air, indoor air, surface water, groundwater, drinking water, land surface, sediments, and subsurface strata and natural resources such as wetlands, flora and fauna.

"Environmental Laws" means any and all applicable federal, state, local and foreign statutes, laws, including common law, regulations, ordinances, rules, judgments, orders, decrees, permits, concessions, grants, franchises, licenses or governmental restrictions relating to pollution, the protection of the Environment, human health and safety (to the extent relating to exposure to Hazardous Materials), including those related to Hazardous Materials, air emissions and discharges to public pollution control systems.

"Environmental Liability" means any liability, contingent or otherwise (including any liability for damages, costs of environmental remediation, monitoring or oversight by a Governmental Authority, fines, penalties or indemnities), of the Parent Borrower, any other Loan Party or any of their respective Subsidiaries directly or indirectly resulting from or based upon (a) any actual or alleged violation of any Environmental Law, (b) the generation, use, handling, transportation, storage or treatment of any Hazardous Materials, (c) human exposure to any Hazardous Materials, (d) the Release or threatened Release of any Hazardous Materials into the Environment or (e) any contract, agreement or other binding consensual arrangement pursuant to which liability is assumed or imposed with respect to any of the foregoing.

"Environmental Permit" means any permit, approval, identification number, license or other authorization required under any Environmental Law.

"Equity Interests" means Capital Stock and all warrants, options or other rights to acquire Capital Stock (but excluding any Capital Stock that arises only by reason of the happening of a contingency or any debt security that is convertible into, or exchangeable for, Capital Stock).

"Equity Issuance" means any issuance by any Person to any other Person of (a) its Equity Interests for cash, (b) any of its Equity Interests pursuant to the exercise of options or warrants, (c) any of its Equity Interests pursuant to the conversion of any debt securities to equity or (d) any options or warrants relating to its Equity Interests.

"ERISA" means the Employee Retirement Income Security Act of 1974, and the rules and regulations thereunder, each as amended or modified from time to time.

"ERISA Affiliate" means any Person who together with any Loan Party is treated as a single employer within the meaning of Section 414(b) or (c) of the Code (and Sections 414(m) and (o) of the Code for purposes of provisions relating to Section 412 of the Code) or Section 4001 of ERISA.

"ERISA Event" means (a) a Reportable Event with respect to a Plan; (b) the withdrawal of any Loan Party or any ERISA Affiliate from a Plan subject to Section 4063 of ERISA during a plan year in which such entity was a

"substantial employer" (as defined in Section 4001(a)(2) of ERISA) or a cessation of operations that is treated as such a withdrawal under Section 4062(e) of ERISA; (c) a complete or partial withdrawal by any Loan Party or any ERISA Affiliate from a Multiemployer Plan or written notification that a Multiemployer Plan is insolvent (within the meaning of Section 4245 of ERISA); (d) the filing of a written notice of intent to terminate or the treatment of a plan amendment as a termination under Section 4041 or 4041A of ERISA, respectively, (e) the institution by the PBGC of proceedings to terminate a Plan or Multiemployer Plan; (f) an event or condition which constitutes grounds under Section 4042 of ERISA for the termination of, or the appointment of a trustee to administer, any Plan or Multiemployer Plan; (g) the determination that any Plan is considered an at-risk plan within the meaning of Section 430 of the Code or Section 303 of ERISA; (h) the determination that any Multiemployer Plan is considered a plan in "endangered," "critical," or "critical and declining" status within the meaning of Section 432 of the Code or Section 305 of ERISA; (i) the imposition of any liability under Title IV of ERISA, other than for PBGC premiums due but not delinquent under Section 4007 of ERISA, upon any Loan Party or any ERISA Affiliate; (j) the conditions for the imposition of a Lien under Section 430(k) of the Code or Section 303(k) of ERISA shall have been met with respect to any Plan; or (k) any Foreign Benefit Event.

"EU Bail-In Legislation Schedule" means the EU Bail-In Legislation Schedule published by the Loan Market Association (or any successor person), as in effect from time to time.

"EU Treaty" means the Treaty on European Union.

"Euro" and "€" shall mean the single currency of the Participating Member States introduced in accordance with the provisions of Article 109(i)4 of the EU Treaty.

"Eurocurrency Rate" means, with respect to any Eurocurrency Rate Borrowing and for any Interest Period, the Screen Rate at approximately 10:00 a.m., London time, two Business Days prior to the commencement of such Interest Period; provided that if the Screen Rate shall not be available at such time for such Interest Period (an "Impacted Interest Period") then the Eurocurrency Rate shall be the Interpolated Rate.

"Eurocurrency Rate Borrowing" means a Borrowing comprising Eurocurrency Rate Loans.

"Eurocurrency Rate Loan" means a Loan that bears interest at a rate based on the applicable Adjusted Eurocurrency Rate.

"Event of Default" has the meaning specified in Section 8.01.

"Excess Cash Flow" means, with respect to any Excess Cash Flow Period, an amount, not less than zero, equal to:

(a) Consolidated Net Income of the Borrower Parties for such Excess Cash Flow Period,*minus*

(b) the sum, without duplication (in each case, for the Parent Borrower and the Subsidiaries on a consolidated basis), of:

(i) repayments, prepayments, repurchases, redemptions and other cash payments made with respect to the principal of any Indebtedness (including principal representing capitalized interest) or the principal component of any Capitalized Lease Obligations of such Person or any of its Subsidiaries during such period (excluding voluntary and mandatory prepayments of First Lien Loans and any such payment from the proceeds of long-term Indebtedness, but including all premium, make-whole or penalty payments paid in cash (to the extent such payments are not expensed during such period or are not deducted in calculating Consolidated Net Income and such payments are not otherwise prohibited under this Agreement) and all repayments with respect to revolving Indebtedness to the extent accompanied by a corresponding reduction in commitments); provided that, with respect to any mandatory prepayment of Indebtedness (other than, for the avoidance of doubt, Loans), such prepayments

shall only be deducted pursuant to this clause (i) to the extent not deducted in the computation of net proceeds in respect of the asset disposition or condemnation giving rise thereto; *minus*

(ii) (A) cash payments made by such Person or any of its Subsidiaries during such period in respect of capital expenditures, acquisitions of intellectual property, acquisitions, Investments and Restricted Payments (excluding (x) Restricted Payments made pursuant to clause (c) of the first paragraph of Section 7.05 and pursuant to clauses (2), (3), (7), (8), (9), (17), (18), and (22) of the second paragraph of Section 7.05 (other than such Restricted Payments made to pay interest expense for Qualified Holding Company Indebtedness or any other Indebtedness of Holdings), and (y) any Permitted Investments pursuant to clauses (1), (2), (3), (5), (9), (14), (15), (17), (18), (20), (23) and (24) of the definition thereof), and (B) cash payments that such Person or any of its Subsidiaries has committed to make or is required to make in respect of capital expenditures, acquisitions of intellectual property, acquisitions and Investments within 365 days after the end of such period pursuant to binding obligations entered into prior to or during such period; provided that amounts described in this clause (B) will not reduce Excess Cash Flow in subsequent periods, and, to the extent not paid, will increase Excess Cash Flow in the subsequent period; *minus*

(iii) (A) cash payments made by such Person or any of its Subsidiaries during such period in respect of Taxes (including distributions to any Parent Holding Company in respect of Taxes), to the extent such payments exceed the amount of tax expense deducted in calculating such Consolidated Net Income, and (B) cash payments that such Person or any of its Subsidiaries will be required to make in respect of Taxes (including distributions to any Parent Holding Company in respect of Taxes) within 180 days after the end of such period; provided that amounts described in this clause (B) will not reduce Excess Cash Flow in subsequent periods, and, to the extent not paid, will increase Excess Cash Flow in the subsequent period; *minus*

(iv) all cash payments and other cash expenditures made by such Person or any of its Subsidiaries during such period (A) with respect to items that were excluded in the calculation of such Consolidated Net Income pursuant to clauses (a) through (y) of the definition of "Consolidated Net Income" or (B) that were not expensed during such period in accordance with GAAP; *minus*

(v) all non-cash credits or gains included in calculating such Consolidated Net Income (including insured or indemnified losses referred to in clauses (r) and (s) of the definition of "Consolidated Net Income" to the extent not reimbursed in cash during such period); *minus*

(vi) an amount equal to the sum of (A) the increase in the Working Capital of such Person during such period (measured as the excess, if any, of Working Capital at the end of such Excess Cash Flow Period minus Working Capital at the beginning of such Excess Cash Flow Period), if any, *plus* (B) the increase in long-term accounts receivable of such Person and its Subsidiaries, if any; *minus*

(vii) cash payments made in satisfaction of noncurrent liabilities (excluding payments of Indebtedness for borrowed money) not made directly or indirectly using proceeds, payments or any other amounts available from events or circumstances that were not included in determining Consolidated Net Income during such period; *minus*

(viii) to the extent not deducted in arriving at Consolidated Net Income, cash fees, expenses and purchase price adjustments incurred in connection with the Transactions, any acquisition consummated before or after the Closing Date or any Permitted Investment, Equity Issuance or debt issuance (whether or not consummated) and any Restricted Payment made to pay any of the foregoing incurred by Holdings; *minus*

(ix) the amount of cash payments made in respect of pensions and other postemployment benefits in such period to the extent not deducted in arriving at such Consolidated Net Income; *minus*

(x) cash payments made by such Person or any of its Subsidiaries during such period in respect of items for which an accrual or reserve was established in a prior period, in each case to the extent such payments are not expensed during such period or are not deducted in calculating Consolidated Net Income; *plus*

(xi) all non-cash charges, losses and expenses (including, without limitation, taxes) of such Person or any of its Subsidiaries that were deducted in calculating such Consolidated Net Income (provided, in each case, that if any non-cash charge represents an accrual or reserve for cash items in any future period, the cash payment in respect thereof in such future period shall be subtracted from Excess Cash Flow in such future period); *plus*

(xii) an amount equal to the sum of (A) the decrease in Working Capital of such Person during such period (measured as the excess, if any, of Working Capital at the beginning of such Excess Cash Flow Period minus Working Capital at the end of such Excess Cash Flow Period), if any, plus (B) the decrease in long-term accounts receivable of such Person and its Subsidiaries, if any (other than any such decreases contemplated by clauses (A) and (B) of this clause (xii) that are directly attributable to dispositions of a Person or business unit by the Parent Borrower and its Subsidiaries during such period); *plus*

(xiii) all amounts referred to in clauses (b)(i) and (b)(ii) above to the extent funded with the proceeds of the issuance or the incurrence of Indebtedness (other than proceeds of revolving loans) and the sale or issuance of Equity Interests.

"Excess Cash Flow Period" means any fiscal year of the Parent Borrower, commencing with the fiscal year ending on December 31, 2019.

"Exchange Act" means the U.S. Securities Exchange Act of 1934, as amended, and the rules and regulations of the SEC promulgated thereunder.

"Exchange Agent" means (a) the Administrative Agent or (b) any other financial institution or advisor employed by the Parent Borrower (whether or not an Affiliate of the Administrative Agent), after consultation with the Administrative Agent, to act as an arranger in connection with any Permitted Debt Exchange pursuant to Section 2.19; provided that the Parent Borrower shall not designate the Administrative Agent as the Exchange Agent without the written consent of the Administrative Agent (it being understood that the Administrative Agent shall be under no obligation to agree to act as the Exchange Agent); provided, further, that neither the Parent Borrower nor any of their Affiliates may act as the Exchange Agent.

"Excluded Contributions" means the net cash proceeds and Cash Equivalents, or the Fair Market Value of other assets, received by the Parent Borrower after the Closing Date from:

(1) contributions to its common equity capital, and

(2) the sale of Capital Stock (other than Excluded Equity) of the Parent Borrower,

in each case designated as Excluded Contributions pursuant to an officer's certificate of a Responsible Officer on or promptly after such contribution or sale, or that has been utilized to make a Restricted Payment pursuant to clause (2) of the second paragraph of Section 7.05. Excluded Contributions will be excluded from the calculation set forth in clause (c) of the first paragraph of Section 7.05.

"Excluded Equity" means (i) Disqualified Stock, (ii) any Equity Interests issued or sold to a Subsidiary or any employee stock ownership plan or trust established by Holdings or any of its Subsidiaries or a direct or indirect

parent of Holdings (to the extent such employee stock ownership plan or trust has been funded by Holdings or any Subsidiary or a direct or indirect parent of Holdings) and (iii) any Equity Interest that has already been used or designated (x) as (or the proceeds of which have been used or designated as) a Cash Contribution Amount, Designated Preferred Stock, an Excluded Contribution or Refunding Capital Stock, or (y) to increase the amount available under clause (5)(a) of the second paragraph under Section 7.05 or clause (14) of the definition of "Permitted Investments" or is proceeds of Indebtedness referred to in clause (14)(b) of the second paragraph in Section 7.05.

"Excluded Property" means, with respect to any Loan Party, (a) (i) any fee-owned real property not constituting Material Real Property, (ii) any real property leasehold or subleasehold interests and (iii) [reserved], (b) motor vehicles and other assets subject to certificates of title to the extent a Lien thereon cannot be perfected by filing a UCC financing statement, letter of credit rights (other than letter of credit rights that can be perfected by the filing of a UCC financing statement) with a value not in excess of $2,000,000 in the aggregate and commercial tort claims with a value not in excess of $2,000,000 in the aggregate, (c) assets to the extent a security interest in such assets would result in material adverse tax consequences (including, without limitation, as a result of the operation of Section 956 of the Code or any similar law or regulation in any applicable jurisdiction), or material adverse regulatory consequences, in each case, as reasonably determined by the Parent Borrower and notified to the Administrative Agent in writing, (d) pledges of, and security interests in, assets, in favor of the Collateral Agent which are prohibited by applicable Law; provided, that (i) any such limitation described in this clause (d) on the security interests granted shall only apply to the extent that any such prohibition could not be rendered ineffective pursuant to the Uniform Commercial Code of any applicable jurisdiction or any other applicable Law or principles of equity and shall not apply to any proceeds or receivables thereof, the assignment of which is expressly deemed effective under the UCC of any applicable jurisdiction notwithstanding such prohibition and (ii) in the event of the termination or elimination of any such prohibition contained in any applicable Law, a security interest in such assets shall be automatically and simultaneously granted under the applicable Collateral Documents and such asset shall be included as Collateral, (e) any governmental licenses (but not the proceeds thereof) or state or local franchises, charters and authorizations, to the extent security interests in favor of the Collateral Agent in such licenses, franchises, charters or authorizations are prohibited or restricted thereby, in each case, except to the extent such prohibition is unenforceable after giving effect to the applicable anti-assignment provisions of the Uniform Commercial Code of any applicable jurisdiction and other than proceeds and receivables thereof, the assignment of which is expressly deemed effective under the Uniform Commercial Code of any applicable jurisdiction notwithstanding such prohibition; provided that (i) any such limitation described in this clause (e) on the security interests granted shall only apply to the extent that any such prohibition or restriction could not be rendered ineffective pursuant to the Uniform Commercial Code of any applicable jurisdiction or any other applicable Law or principles of equity and (ii) in the event of the termination or elimination of any such prohibition or restriction contained in any applicable license, franchise, charter or authorization, a security interest in such licenses, franchises, charters or authorizations shall be automatically and simultaneously granted under the applicable Collateral Documents and such licenses, franchises, charters or authorizations shall be included as Collateral, (f) Equity Interests in (A) any Person (other than the Parent Borrower and Wholly Owned Subsidiaries of the Parent Borrower) to the extent and for so long as the pledge thereof in favor of the Collateral Agent is not permitted by the terms of such Person's joint venture agreement or other applicable Organization Documents; provided, that such prohibition exists on the Closing Date or at the time such Equity Interests are acquired (so long as such prohibition did not arise in contemplation of the Closing Date or such acquisition), (B) any not-for-profit Subsidiary, (C) any captive insurance Subsidiary, (D) any special purpose securitization vehicle (or similar entity), including any Receivables Subsidiary, (E) [reserved] and (F) any Person which is acquired after the date hereof to the extent and for so long as such Equity Interests are pledged in respect of Acquired Indebtedness (not created in contemplation of such acquisition) and such pledge constitutes a Permitted Lien to the extent and for so long as that a grant of security interest therein would violate the documentation governing such Acquired Indebtedness, (g) any lease, license or other agreement or any property subject to a purchase money security interest, Capitalized Lease Obligation or similar arrangement in each case permitted to be incurred under this Agreement, to the extent that a grant of a security interest therein would violate or invalidate such lease, license or agreement or purchase money arrangement or create a right of termination in favor of any other party thereto (other than a Loan Party or their Wholly Owned Subsidiaries), in each case, except to the extent such prohibition is unenforceable after giving effect to the applicable anti-assignment provisions of the Uniform Commercial Code of any applicable jurisdiction, other than proceeds and receivables thereof, the assignment of which is expressly deemed effective under the Uniform Commercial Code of any applicable jurisdiction notwithstanding such prohibition, (h) "intent-to-use" trademark applications prior to the

filing of a "Statement of Use" or "Amendment to Allege Use" filing, (i) any Receivables Assets sold pursuant to a Qualified Receivables Factoring or Qualified Receivables Financing, (j) voting Equity Interests in excess of 65% of the voting Equity Interests of (A) any Controlled Foreign Subsidiary or (B) any FSHCO, (k) Margin Stock, (l) trust accounts (held for third parties), payroll accounts and escrow accounts (held for third parties) in each case, as long as used solely for such purposes and (m) segregated cash to secure letter of credit reimbursement obligations) to the extent such letters of credit (and related Liens) are permitted by this Agreement. Other assets shall be deemed to be "Excluded Property" if the Administrative Agent and the Parent Borrower agree in writing that the cost of obtaining or perfecting a security interest in such assets (including, without limitation, any flood insurance compliance matters) is excessive in relation to the benefit of the Lenders of the security afforded thereby. Notwithstanding anything herein or the Collateral Documents to the contrary, Excluded Property shall not include any Proceeds (as defined in the UCC), substitutions or replacements of any Excluded Property (unless such Proceeds, substitutions or replacements would otherwise constitute Excluded Property referred to above).

"Excluded Subsidiary" means any direct or indirect Subsidiary of a Borrower that is (a) [reserved], (b) not wholly owned by a Borrower or one or more Wholly Owned Subsidiaries of a Borrower, (c) an Immaterial Subsidiary that is designated in writing to the Administrative Agent as such by the Parent Borrower, (d) a Domestic Subsidiary that is a FSHCO (or a Domestic Subsidiary that is a Subsidiary of a FSHCO or Controlled Foreign Subsidiary), (e) a Foreign Subsidiary; (f) a Subsidiary that is prohibited by applicable Law from guaranteeing the Facility, or which would require governmental (including regulatory) consent, approval, license or authorization to provide a guarantee unless, such consent, approval, license or authorization has been received, in each case so long as the Administrative Agent shall have received a certification from a Responsible Officer of Holdings as to the existence of such prohibition or consent, approval, license or authorization requirement, (g) a Subsidiary that is prohibited from guaranteeing the Facility by any Contractual Obligation in existence on the Closing Date (but not entered into in contemplation thereof) and is listed on Schedule 1.01(e) hereto and for so long as any such Contractual Obligation exists (or, in the case of any newly-acquired Subsidiary, in existence at the time of acquisition thereof but not entered into in contemplation thereof and for so long as any such Contractual Obligation exists), (h) a Subsidiary with respect to which a guarantee by it of the Facility would result in material adverse tax consequences to Holdings, the Parent Borrower (or any member of a consolidated or affiliated tax group with the Parent Borrower) or one or more of its Subsidiaries, as reasonably determined by the Parent Borrower and notified in writing to the Administrative Agent, (i) any Receivables Subsidiary, (j) not-for-profit subsidiaries, (k) Subsidiaries that are special purpose entities, and (l) any other Subsidiary with respect to which, in the reasonable judgment of the Administrative Agent and the Parent Borrower, the cost or other consequences of guaranteeing the Facility would be excessive in view of the benefits to be obtained by the Lenders therefrom; provided that, subject to the consent of the Administrative Agent in the case of any Excluded Subsidiary pursuant to clause (e) (such consent not to be unreasonably withheld, delayed or conditioned), if a Subsidiary executes the Subsidiary Guaranty as a "Subsidiary Guarantor," then it shall not constitute an "Excluded Subsidiary" (unless released from its obligations under the Subsidiary Guaranty as a "Subsidiary Guarantor" in accordance with the terms hereof and thereof); provided, further, that no Subsidiary of a Borrower shall be an Excluded Subsidiary if such Subsidiary is a guarantor with respect to any Refinancing Notes or any New Incremental Notes, in each case, with an aggregate outstanding principal amount in excess of $15,000,000.

"Excluded Taxes" means any of the following Taxes imposed on or with respect to a Recipient or required to be withheld or deducted from a payment to a Recipient: (a) Taxes imposed on or measured by such Recipient's net income (however denominated), franchise Taxes, and branch profits Taxes, in each case, (i) imposed as a result of such Recipient being organized under the laws of, or having its principal office or, in the case of any Lender, its applicable lending office located in, the jurisdiction imposing such Tax or (ii) that are Other Connection Taxes, (b) in the case of a Lender, any U.S. federal withholding Taxes imposed pursuant to a Law in effect on the date on which such Lender becomes a party hereto (other than any Lender becoming a party hereto pursuant to a request by any Loan Party under Section 3.08) or changes its lending office, except in each case to the extent that, pursuant to Section 3.01, additional amounts with respect to such Taxes were payable either to such Lender's assignor immediately before such Lender became a party hereto or to such Lender immediately before it changes its lending office, (c) Taxes attributable to such Recipient's failure to comply with Section 3.01(g) and (d) any Taxes imposed under FATCA.

"Executive Order" means Executive Order No. 13224 of September 23, 2001, entitled Blocking Property and Prohibiting Transactions With Persons Who Commit, Threaten to Commit, or Support Terrorism (66 Fed. Reg. 49079 (2001)).

"Existing Credit Agreements" means each of that certain (i) Amended and Restated Credit Agreement, dated as of September 15, 2016, among Vector, TriLink, the lenders party thereto from time to time, NXT Capital, LLC, as administrative agent, and the other parties thereto (as such agreement may be amended, restated, supplemented, waived or otherwise modified from time to time prior to the date hereof), (ii) Amended and Restated Note Purchase Agreement, dated September 15, 2016, among Vector, TriLink, the purchasers party thereto from time to time, Newstone Capital Partners, LLC, as purchaser representative, and the other parties thereto (as such agreement may be amended, restated, supplemented, waived or otherwise modified from time to time prior to the date hereof), (iii) Credit Agreement, dated as of October 26, 2016, by and among Cygnus, the lenders party thereto from time to time, Antares Capital LP, as administrative agent, and the other parties thereto (as such agreement may be amended, restated, supplemented, waived or otherwise modified from time to time prior to the date hereof) and (iv) Note Purchase Agreement, dated October 26, 2016, among Cygnus, the purchasers party thereto from time to time, Newstone Capital Partners, LLC, as purchaser representative, and the other parties thereto (as such agreement may be amended, restated, supplemented, waived or otherwise modified from time to time prior to the date hereof).

"Extendable Bridge Loans" means customary "bridge" loans which by their terms will be converted into loans that have, or extended such that they have, a maturity date later than the Latest Maturity Date then in effect.

"Facility" means a facility in respect of any Tranche, as the context may require.

"Factoring Transaction" means any transaction or series of transactions that may be entered into by the Parent Borrower or any Subsidiary pursuant to which the Parent Borrower or such Subsidiary may sell, convey, assign or otherwise transfer Receivables Assets (which may include a backup or precautionary grant of security interest in such Receivables Assets so sold, conveyed, assigned or otherwise transferred or purported to be so sold, conveyed, assigned or otherwise transferred) to any Person other than a Receivables Subsidiary.

"Failed Auction" has the meaning specified in the definition of "Dutch Auction."

"Fair Market Value" means, with respect to any asset or property, the price that could be negotiated in anarm's-length, free market transaction, for cash, between a willing seller and a willing and able buyer, neither of whom is under undue pressure or compulsion to complete the transaction (as determined in good faith by the senior management or the Board of Directors of the Parent Borrower, Holdings or any Parent Holding Company, whose determination will be conclusive for all purposes under the Loan Documents).

"FATCA" means Sections 1471 through 1474 of the Code, as of the date of this Agreement (or any amended or successor version that is substantively comparable and not materially more onerous to comply with), any current or future Treasury regulations or official administrative interpretations thereof, any agreements entered into pursuant to current Section 1471(b)(1) of the Code (or any amended or successor version described above) and any intergovernmental agreements implementing the foregoing (together with any Laws implementing such agreements).

"Federal Funds Effective Rate" means, for any day, the rate calculated by the NYFRB based on such day's federal funds transactions by depositary institutions, as determined in such manner as the NYFRB shall set forth on its public website from time to time, and published on the next succeeding Business Day by the NYFRB as the effective federal funds rate, provided that if the Federal Funds Effective Rate as so determined would be less than zero, such rate shall be deemed to zero for the purposes of this Agreement.

"Federal Reserve Board" means the Board of Governors of the Federal Reserve System of the United States of America.

"Fee Letter" means that certain Fee Letter, dated as of July 5, 2018, by and among Antares and Holdings.

"First Lien Administrative Agent" shall mean JPMCB, in its capacity as administrative agent and collateral agent under the First Lien Facility Documentation, or any successor administrative agent and collateral agent under the First Lien Credit Agreement.

"First Lien Cash-Capped Incremental Amount" shall mean any amounts incurred under the "Cash-Capped Incremental Facility" (or any comparable provision) under the First Lien Credit Agreement.

"First Lien Credit Agreement" shall mean that certain first lien credit agreement, dated as of the date hereof, among Holdings, the Borrowers, the lenders party thereto from time to time and the First Lien Administrative Agent, as the same may be amended, restated, modified, supplemented, extended, increased, or refinanced or replaced pursuant to a Permitted Refinancing from time to time in one or more agreements (in each case with the same or new lenders, investors or agents), in each case as and to the extent permitted by this Agreement and the First Lien/Second Lien Intercreditor Agreement.

"First Lien Facilities" shall mean the first lien term loan facility and the first lien revolving facility under the First Lien Credit Agreement.

"First Lien Facilities Documentation" shall mean the First Lien Credit Agreement and all security agreements, guarantees, pledge agreements, notes and other agreements or instruments executed in connection therewith, including all "Loan Documents" (as defined in the First Lien Credit Agreement).

"First Lien Incremental Loans" shall mean the "New Term Loans" or any "Term Commitment Increase," each as defined in the First Lien Credit Agreement.

"First Lien Incremental Notes" shall mean the "New Incremental Notes" as defined in the First Lien Credit Agreement.

"First Lien Loans" shall have the meaning provided to the term "Loans" (or any equivalent thereto) in the First Lien Credit Agreement.

"First Lien Obligations" shall have the meaning provided to the term "Obligations" (or any equivalent thereto) in the First Lien Credit Agreement.

"First Lien/Second Lien Intercreditor Agreement" means the First Lien/Second Lien Intercreditor Agreement, dated as of the Closing Date, substantially in the form of Exhibit M, or otherwise in form and substance reasonably satisfactory to the Administrative Agent.

"Fixed GAAP Date" means the Closing Date; provided that at any time after the Closing Date, the Parent Borrower may by written notice to the Administrative Agent elect to change the Fixed GAAP Date to be the date specified in such notice, and upon such notice, the Fixed GAAP Date shall be such date for all periods beginning on and after the date specified in such notice.

"Fixed GAAP Terms" means (a) the definitions of the terms "Capitalized Lease Obligation," "Consolidated Interest Expense," "Consolidated Net Income," "Consolidated Net Tangible Assets," "Consolidated First Lien Net Leverage Ratio," "Consolidated Total Net Leverage Ratio," "Consolidated Senior Secured Net Leverage Ratio," "Consolidated Funded Indebtedness," "Consolidated Funded First Lien Indebtedness," "Consolidated Funded Senior Secured Indebtedness," "Consolidated EBITDA" and "Indebtedness," (b) all defined terms in this Agreement to the extent used in or relating to any of the foregoing definitions, and all ratios and computations based on any of the foregoing definitions, and (c) any other term or provision of this Agreement that, at the Parent Borrower's election, may be specified by the Parent Borrower by written notice to the Administrative Agent from time to time; provided that the Parent Borrower may elect to remove any term from constituting a Fixed GAAP Term.

"Flood Insurance Laws" means, collectively, (i) the National Flood Insurance Act of 1994 (which comprehensively revised the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973)

as now or hereafter in effect or any successor statute thereto, (ii) the Flood Insurance Reform Act of 2004 as now or hereafter in effect or any successor statute thereto, (iii) the Biggert-Waters Flood Insurance Reform Act of 2012 as now or hereafter in effect or any successor statute thereto, and (iv) all other applicable laws relating to policies and procedures that address requirements placed on federally regulated lenders relating to flood matters, in each case, as now or hereafter in effect or any successor statute thereto.

"Foreign Benefit Event" means, with respect to any Foreign Plan, (a) the existence of unfunded liabilities in excess of the amount permitted under any applicable Law, or in excess of the amount that would be permitted absent a waiver from a Governmental Authority, (b) the failure to make the required contributions or payments, under any applicable Law, on or before the due date for such contributions or payments, (c) the receipt of a notice from a Governmental Authority relating to the intention to terminate any such Foreign Plan or to appoint a trustee or similar official to administer any such Foreign Plan, or alleging the insolvency of any such Foreign Plan, (d) the incurrence of any liability by the Borrowers or any of their Subsidiaries under applicable Law on account of the complete or partial termination of such Foreign Plan or the complete or partial withdrawal of any participating employer therein or (e) the occurrence of any transaction that is prohibited under any applicable Law and that could reasonably be expected to result in the incurrence of any liability by the Borrowers or any of their Subsidiaries, or the imposition on the Borrowers or any of their Subsidiaries of, any fine, excise tax or penalty resulting from any noncompliance with any applicable Law.

"Foreign Casualty Event" shall have the meaning assigned to such term in Section 2.05(b)(viii).

"Foreign Disposition" shall have the meaning assigned to such term in Section 2.05(b)(viii).

"Foreign Lender" means a lender that is not a U.S. Person.

"Foreign Plan" means any pension plan, benefit plan, fund (including any superannuation fund) or other similar program established, maintained or contributed to by a Loan Party or any of its Subsidiaries primarily for the benefit of employees employed and residing outside the United States (other than plans, funds or other similar programs that are maintained exclusively by a Governmental Authority), and which plan is not subject to ERISA or the Code.

"Foreign Subsidiary" means any direct or indirect Subsidiary of the Parent Borrower that is not a Domestic Subsidiary.

"FRB" means the Board of Governors of the Federal Reserve System of the United States.

"FSHCO" means any direct or indirect Subsidiary of the Parent Borrower or any Subsidiary of a Guarantor, in each case, which Subsidiary owns no material assets other than Equity Interests (or, if applicable, Equity Interests and indebtedness) of one or more Controlled Foreign Subsidiaries or another FSHCO.

"Fund" means any Person (other than a natural person) that is (or will be) engaged in making, purchasing, holding or otherwise investing in commercial loans and similar extensions of credit in the ordinary course of its business.

"GAAP" means generally accepted accounting principles in the United States of America as in effect on the Fixed GAAP Date (for purposes of the Fixed GAAP Terms) and as in effect from time to time (for all other purposes of the Agreement), including those set forth in the opinions and pronouncements of the Accounting Principles Board of the American Institute of Certified Public Accountants and statements and pronouncements of the Financial Accounting Standards Board or in such other statements by such other entity as approved by a significant segment of the accounting profession (but excluding the policies, rules and regulations of the SEC applicable only to public companies); provided that the Parent Borrower may at any time elect by written notice to the Administrative Agent to use IFRS in lieu of GAAP for financial reporting purposes and, upon any such notice, references herein to GAAP shall thereafter be construed to mean (a) for periods beginning on and after the date specified in such notice, IFRS as in effect on the date specified in such notice (for purposes of the Fixed GAAP Terms) and as in effect from time to time (for all other purposes of this Agreement) and (b) for prior periods, GAAP

as defined in the first sentence of this definition without giving effect to the proviso thereto. All ratios and computations based on GAAP contained in this Agreement shall be computed in conformity with GAAP.

"Governmental Authority" means any nation or government, any state or other political subdivision thereof, any agency, authority, instrumentality, regulatory body, court, administrative tribunal, central bank or other entity exercising executive, legislative, judicial, taxing, regulatory or administrative powers or functions of or pertaining to government, including any applicable supranational bodies (such as the European Union or the European Central Bank).

"Granting Lender" has the meaning specified in Section 10.07(g).

"Guarantee" means, as to any Person, without duplication, (a) any obligation, contingent or otherwise, of such Person guaranteeing or having the economic effect of guaranteeing any Indebtedness or other monetary obligation payable or performable by another Person (the "primary obligor") in any manner, whether directly or indirectly, and including any obligation of such Person, direct or indirect, (i) to purchase or pay (or advance or supply funds for the purchase or payment of) such Indebtedness or other monetary obligation, (ii) to purchase or lease property, securities or services for the purpose of assuring the obligee in respect of such Indebtedness or other monetary obligation of the payment or performance of such Indebtedness or other monetary obligation, (iii) to maintain working capital, equity capital or any other financial statement condition or liquidity or level of income or cash flow of the primary obligor so as to enable the primary obligor to pay such Indebtedness or other monetary obligation or (iv) entered into for the purpose of assuring in any other manner the obligee in respect of such Indebtedness or other monetary obligation of the payment or performance thereof or to protect such obligee against loss in respect thereof (in whole or in part) or (b) any Lien on any assets of such Person securing any Indebtedness or other monetary obligation of any other Person, whether or not such Indebtedness or other monetary obligation is assumed by such Person (or any right, contingent or otherwise, of any holder of such Indebtedness to obtain any such Lien); provided that the term "Guarantee" shall not include endorsements for collection or deposit, in either case in the ordinary course of business, or customary or reasonable indemnity obligations in effect on the Closing Date, or entered into in connection with any acquisition or Disposition of assets permitted under this Agreement (other than such obligations with respect to Indebtedness). The amount of any Guarantee shall be deemed to be an amount equal to the stated or determinable amount of the related primary obligation, or portion thereof, in respect of which such Guarantee is made or, if not stated or determinable, the maximum reasonably anticipated liability in respect thereof as determined by the guaranteeing Person in good faith. The term "Guarantee" as a verb has a corresponding meaning.

"Guarantors" means, collectively, Holdings and, as of the Closing Date, the Subsidiaries of the Borrowers listed on Schedule 1 and each other Subsidiary of the Borrowers that executes and delivers a Guaranty or guaranty supplement pursuant to the Guaranty, Section 6.12 or 6.16 (subject to the consent of the Administrative Agent in the case of any Excluded Subsidiary pursuant to clause (e) thereof, such consent not to be unreasonably withheld, delayed or conditioned), unless it has ceased to be a Guarantor pursuant to the terms hereof.

"Guaranty" means, collectively, the Holdings Guaranty and the Subsidiary Guaranty.

"Hazardous Materials" means all explosive or radioactive substances or wastes and all hazardous or toxic substances, materials or wastes, including petroleum or petroleum distillates, asbestos or asbestos-containing materials, toxic mold, polychlorinated biphenyls, radon gas, infectious or medical wastes and all other toxic substances, materials or wastes of any nature regulated pursuant to any Environmental Law.

"Holdings" has the meaning specified in the introductory paragraph to this Agreement.

"Holdings Guaranty" means the Holdings Guaranty made by Holdings in favor of the Administrative Agent on behalf of the Secured Parties, substantially in the form of Exhibit F-1, as amended, supplemented or otherwise modified from time to time in accordance with the terms thereof.

"IFRS" means the International Financial Reporting Standards as issued by the International Accounting Standards Board.

"Immaterial Subsidiary" means any Subsidiary of any Borrower that, as of the date of the most recent financial statements required to be delivered pursuant to Section 6.01(a) or (b), does not have (a) assets (when combined with the assets of all other Immaterial Subsidiaries, after eliminating intercompany obligations) in excess of 5.0% of Consolidated Net Tangible Assets or (b) Consolidated EBITDA (when combined with the Consolidated EBITDA of all other Immaterial Subsidiaries, after eliminating intercompany obligations) for the period of four consecutive fiscal quarters ending on such date in excess of 5.0% of the Consolidated EBITDA of the Parent Borrower and the Subsidiaries for such period.

"Impacted Interest Period" has the meaning assigned to it in the definition of "Eurocurrency Rate."

"Increase Effective Date" has the meaning specified in Section 2.14(c).

"Incremental Amount" has the meaning specified in Section 2.14(a).

"Incremental Arranger" has the meaning specified in Section 2.14(a).

"Incremental Notes Arranger" has the meaning specified in Section 2.15(a).

"Incur" means, with respect to any Indebtedness, Capital Stock or Lien, to issue, assume, guarantee, incur or otherwise become liable for such Indebtedness, Capital Stock or Lien, as applicable; provided that any Indebtedness, Capital Stock or Lien of a Person existing at the time such Person becomes a Subsidiary (whether by merger, amalgamation, consolidation, acquisition or otherwise) shall be deemed to be Incurred by such Person at the time it becomes a Subsidiary.

"Indebtedness" means, with respect to any Person, without duplication:

(a) the principal of any indebtedness of such Person, whether or not contingent, (i) in respect of borrowed money, (ii) evidenced by bonds, notes, debentures or similar instruments or letters of credit or bankers' acceptances (or, without duplication, reimbursement agreements in respect thereof), (iii) representing the deferred and unpaid purchase price of any property, (iv) in respect of Capitalized Lease Obligations or (v) representing any Swap Contracts, in each case, if and to the extent that any of the foregoing Indebtedness (other than letters of credit and Swap Contracts) would appear as a liability on a balance sheet (excluding the footnotes thereto) of such Person prepared in accordance with GAAP;

(b) to the extent not otherwise included, any guarantee by such Person of the Indebtedness of another Person (other than by endorsement of negotiable instruments for collection in the ordinary course of business); and

(c) to the extent not otherwise included, Indebtedness of another Person secured by a Lien on any asset owned by such Person (whether or not such Indebtedness is assumed by such Person); provided, however, that the amount of such Indebtedness will be the lesser of: (a) the Fair Market Value of such asset at such date of determination, and (b) the amount of such Indebtedness of such other Person.

The term "Indebtedness" shall not include any lease, concession or license of property (or guarantee thereof) that would be considered an operating lease under GAAP as in effect on the Closing Date, any prepayments of deposits received from clients or customers in the ordinary course of business or consistent with past practices, or obligations under any license, permit or other approval (or guarantees given in respect of such obligations) Incurred prior to the Closing Date or in the ordinary course of business or consistent with past practices.

Notwithstanding the above provisions, in no event shall the following constitute Indebtedness:

(i) Contingent Obligations Incurred in the ordinary course of business or consistent with past practices;

(ii) obligations under or in respect of Receivables Financings;

(iii) any balance that constitutes a trade payable, accrued expense or similar obligation to a trade creditor, in each case Incurred in the ordinary course of business;

(iv) intercompany liabilities that would be eliminated on the consolidated balance sheet of the Parent Borrower and its consolidated Subsidiaries;

(v) prepaid or deferred revenue arising in the ordinary course of business;

(vi) Cash Management Services;

(vii) in connection with the purchase by the Parent Borrower or any Subsidiary of any business, any post-closing payment adjustments to which the seller may become entitled to the extent such payment is determined by a final closing balance sheet or such payment depends on the performance of such business after the closing; provided, however, that, at the time of closing, the amount of any such payment is not determinable and, to the extent such payment thereafter becomes fixed and determined, the amount is paid in a timely manner;

(viii) obligations, to the extent such obligations would otherwise constitute Indebtedness, under any agreement that have been defeased or satisfied and discharged pursuant to the terms of such agreement;

(ix) for the avoidance of doubt, any obligations in respect of workers' compensation claims, early retirement or termination obligations, deferred compensatory or employee or director equity plans, pension fund obligations or contributions or similar claims, obligations or contributions or social security or wage taxes; or

(x) Capital Stock (other than Disqualified Stock and Preferred Stock).

"Indemnified Liabilities" has the meaning specified in Section 10.05.

"Indemnified Taxes" means (a) all Taxes, other than Excluded Taxes, imposed on or with respect to any payment made by or on account of any obligation of any Loan Party under any Loan Document and (b) to the extent not otherwise described in (a), all Other Taxes.

"Indemnitees" has the meaning specified in Section 10.05.

"Independent Financial Advisor" means an accounting, appraisal or investment banking firm or consultant, in each case of nationally recognized standing that is, in the good faith determination of the Parent Borrower, qualified to perform the task for which it has been engaged.

"Information" has the meaning specified in Section 10.08.

"Initial Borrowing" means a borrowing consisting of simultaneous Initial Loans of the same Type and, in the case of Eurocurrency Rate Loans, having the same Interest Period made by each of the Lenders pursuant to Section 2.01(a), in each case, on the Closing Date.

"Initial Commitment" means, as to each Lender, its obligation to make Initial Loans to the Borrowers pursuant to Section 2.01(a) in an aggregate principal amount not to exceed the amount set forth opposite such Lender's name on Schedule 2.01 under the caption "Initial Commitment" as such amount may be adjusted from time to time in accordance with this Agreement. The initial aggregate amount of the Initial Commitments is $100,000,000.

"Initial Loans" has the meaning specified in Section 2.01(a).

"Initial Public Company Costs" means, as to any Person, costs relating to compliance with the provisions of the Securities Act and the Exchange Act (or similar regulations applicable in other listing jurisdictions), as

applicable to companies with equity securities held by the public, costs associated with, or in anticipation of, or preparation for, compliance with the requirements of the Sarbanes Oxley Act of 2002 (or similar non-U.S. regulations) and the rules and regulations promulgated in connection therewith (or similar regulations applicable in other listing jurisdictions), the rules of national securities exchange companies with listed equity, directors' compensation, fees and expense reimbursement, costs relating to investor relations, shareholder meetings and reports to shareholders, directors' and officers' insurance and other executive costs, legal and other professional fees, and listing fees, in each case to the extent arising solely by virtue of the initial listing of such Person's equity securities on a national securities exchange (or similar non-U.S. exchange); provided that any such costs arising from the costs described above in respect of the ongoing operation of such Person as a listed equity or its listed debt securities following the initial listing of such Person's equity securities or debt securities, respectively, on a national securities exchange (or similar non-U.S. exchange) shall not constitute Initial Public Company Costs.

"Intellectual Property Security Agreement" means, collectively, the intellectual property security agreement substantially in the form of Exhibit B to the Security Agreement, dated the date of this Agreement, together with each other intellectual property security agreement or Intellectual Property Security Agreement Supplement executed and delivered pursuant to Section 6.12, Section 6.14 or Section 6.16.

"Intellectual Property Security Agreement Supplement" means, collectively, any intellectual property security agreement supplement entered into in connection with, and pursuant to the terms of, any Intellectual Property Security Agreement.

"Intercompany Subordination Agreement" means an intercompany subordination agreement, in substantially the form ofExhibit J hereto, or otherwise in form and substance reasonably satisfactory to the Administrative Agent.

"Interest Payment Date" means, (a) as to any Loan other than a Base Rate Loan, the last day of each Interest Period applicable to such Loan and the Maturity Date of the Facility under which such Loan was made; provided, however, that if any Interest Period for a Eurocurrency Rate Loan exceeds three months, the respective dates that fall every three months after the beginning of such Interest Period shall also be Interest Payment Dates; and (b) as to any Base Rate Loan, the last Business Day of each March, June, September and December, and the Maturity Date of the Facility under which such Loan was made, commencing September 30, 2018.

"Interest Period" means, as to each Eurocurrency Rate Loan, the period commencing on the date such Eurocurrency Rate Loan is disbursed or converted to or continued as a Eurocurrency Rate Loan and ending on the date one (1), two (2), three (3) or six (6) months thereafter, or to the extent consented to by all Appropriate Lenders, twelve months thereafter (or such shorter interest period as may be agreed to by all Lenders of the applicable Tranche) as the Parent Borrower may elect; as selected by the Parent Borrower in a Committed Loan Notice; provided that:

(a) any Interest Period that would otherwise end on a day that is not a Business Day shall be extended to the next succeeding Business Day unless such Business Day falls in another calendar month, in which case such Interest Period shall end on the next preceding Business Day;

(b) any Interest Period that begins on the last Business Day of a calendar month (or on a day for which there is no numerically corresponding day in the calendar month at the end of such Interest Period) shall end on the last Business Day of the calendar month at the end of such Interest Period; and

(c) no Interest Period shall extend beyond the scheduled Maturity Date of the Facility under which such Loan was made.

"Interpolated Rate" means, at any time, for any Interest Period, the rate per annum (rounded to the same number of decimal places as the Screen Rate) determined by the Administrative Agent (which determination shall be conclusive and binding absent manifest error) to be equal to the rate that results from interpolating on a linear basis between: (a) the Screen Rate for the longest period for which the Screen Rate is available for Dollars) that is

shorter than the Impacted Interest Period; and (b) the Screen Rate for the shortest period (for which that Screen Rate is available for Dollars) that exceeds the Impacted Interest Period, in each case, at such time.

"Investment" means, with respect to any Person, (i) all investments by such Person in other Persons (including Affiliates) in the form of (a) loans (including guarantees of Indebtedness), (b) advances or capital contributions (excluding accounts receivable, trade credit and advances or other payments made to customers, dealers, suppliers and distributors and payroll, commission, travel and similar advances to officers, directors, managers, employees consultants and independent contractors made in the ordinary course of business), and (c) purchases or other acquisitions for consideration of Indebtedness, Equity Interests or other securities issued by any other Person and (ii) investments that are required by GAAP to be classified on the balance sheet of the Parent Borrower in the same manner as the other investments included in clause (i) of this definition to the extent such transactions involve the transfer of cash or other property; provided that Investments shall not include, in the case of the Parent Borrower and the Subsidiaries, intercompany loans, advances, or Indebtedness having a term not exceeding 364 days (inclusive of any roll-over or extensions of terms) and made in the ordinary course of business. If the Parent Borrower or any Subsidiary sells or otherwise disposes of any Equity Interests of any Subsidiary, or any Subsidiary issues any Equity Interests, in either case, such that, after giving effect to any such sale or disposition, such Person is no longer a Subsidiary of the Parent Borrower, the Parent Borrower shall be deemed to have made an Investment on the date of any such sale or other disposition equal to the Fair Market Value of the Equity Interests of and all other Investments in such Subsidiary retained. In no event shall a guarantee of an operating lease of the Parent Borrower or any Subsidiary be deemed an Investment.

The amount of any Investment outstanding at any time (including for purposes of calculating the amount of any Investment outstanding at any time under any provision of Section 7.10 and otherwise determining compliance with Section 7.10) shall be the original cost of such Investment (determined, in the case of any Investment made with assets of the Parent Borrower or any Subsidiary, based on the Fair Market Value of the assets invested and without taking into account subsequent increases or decreases in value), reduced by any dividend, distribution, interest payment, return of capital, repayment or other amount received in cash by the Parent Borrower or a Subsidiary in respect of such Investment and shall be net of any Investment by such Person in the Parent Borrower or any Subsidiary.

"Investment Grade Rating" means a rating equal to or higher than Baa3 (or the equivalent) by Moody's andBBB- (or the equivalent) by S&P, or an equivalent rating by any other "nationally recognized statistical rating organization" within the meaning of Section 3 under the Exchange Act selected by the Parent Borrower as a replacement agency for Moody's or S&P, as the case may be.

"Investment Grade Securities" means:

(1) securities issued or directly and guaranteed or insured by the U.S. government or any agency or instrumentality thereof (other than Cash Equivalents),

(2) securities that have an Investment Grade Rating, but excluding any debt securities or instruments constituting loans or advances among the Parent Borrower and its Subsidiaries,

(3) investments in any fund that invests at least 95.0% of its assets in investments of the type described in clauses (1) and (2) above and clause (4) below which fund may also hold immaterial amounts of cash pending investment and/or distribution, and

(4) corresponding instruments in countries other than the United States customarily utilized for high quality investments and in each case with maturities not exceeding two years from the date of acquisition.

"IP Rights" has the meaning specified in Section 5.16.

"IRS" means the United States Internal Revenue Service.

"joint venture" means any joint venture or similar arrangement (in each case, regardless of legal formation), including but not limited to collaboration arrangements, profit sharing arrangements or other contractual arrangements.

"JPMCB" means JPMorgan Chase Bank, N.A

"Judgment Currency" has the meaning specified in Section 10.23.

"Junior Financing" has the meaning specified in Section 7.05.

"Junior Financing Document" means any documentation governing any Junior Financing.

"JV Distribution" means, at any time, 50% of the aggregate amount of all cash dividends or distributions received by the Parent Borrower or any of its Subsidiaries as a return on an Investment in a Permitted Joint Venture that is not a Subsidiary during the period from the Closing Date through the end of the fiscal quarter most recently ended immediately prior to such date for which financial statements are internally available; provided that the Parent Borrower or any of its Subsidiaries are not required to reinvest such dividends or distributions in the Permitted Joint Venture.

"Latest Maturity Date" means, at any date of determination, the latest maturity or expiration date applicable to any Tranche at such time under this Agreement, in each case as extended in accordance with this Agreement from time to time.

"Laws" means, collectively, all applicable international, foreign, federal, state and local statutes, treaties, rules, guidelines, regulations, ordinances, codes and administrative or judicial precedents or authorities, including the interpretation or administration thereof by any Governmental Authority charged with the enforcement, interpretation or administration thereof, and all applicable administrative orders, directed duties, requests, licenses, authorizations and permits of, and agreements with, any Governmental Authority.

"Lender" has the meaning specified in the introductory paragraph to this Agreement.

"Lender Parent" means, with respect to any Lender, any Person as to which such Lender is, directly or indirectly, a subsidiary.

"Lending Office" means, as to any Lender, the office or offices of such Lender described as such in such Lender's Administrative Questionnaire, or such other office or offices as a Lender may from time to time notify the Parent Borrower and the Administrative Agent.

"Lien" means, with respect to any asset, any mortgage, lien, pledge, hypothecation, charge, security interest, preference, priority or encumbrance of any kind in respect of such asset, whether or not filed, recorded or otherwise perfected under applicable law (including any conditional sale or other title retention agreement, any lease in the nature thereof, any option or other agreement to sell or give a security interest in and any filing of or agreement to give any financing statement under the Uniform Commercial Code (or equivalent or similar statutes) of any jurisdiction); provided that in no event shall an operating lease or an agreement to sell be deemed to constitute a Lien.

"Loan" means an extension of credit by a Lender to the Borrowers under Article II.

"Loan Documents" means, collectively, (i) this Agreement, (ii) the Notes, (iii) the Guaranty, (iv) the Collateral Documents, (v) the Intercompany Subordination Agreement, (vi) the First Lien/Second Lien Intercreditor Agreement and any other intercreditor agreement required to be entered into pursuant to the terms of this Agreement and (vii) any Refinancing Amendment.

"Loan Parties" means, collectively, the Borrowers and each Guarantor.

"London Banking Day" means any day on which dealings in Dollar deposits are conducted by and between banks in the London interbank market.

"Majority Lenders" of any Tranche shall mean those Non-Defaulting Lenders which would constitute the Required Lenders under, and as defined in, this Agreement if all outstanding Obligations of the other Tranches under this Agreement were repaid in full and all Commitments with respect thereto were terminated.

"Management Agreement" means that certain Second Amended and Restated Advisory Agreement dated as of September 15, 2016 between GTCR Management XI LP, a Delaware limited liability partnership, Vector and TriLink, as the same may be amended, restated, modified or replaced, from time to time, to the extent such amendment, modification or replacement is not less advantageous to the Lenders in any material respect than such Management Agreement.

"Margin Stock" has the meaning assigned to such term in Regulation U of the Board as from time to time in effect.

"Material Adverse Effect" means (a) a material adverse effect on the business, assets, property, liabilities (actual or contingent), financial condition or results of operations of the Borrowers and the Subsidiaries, taken as a whole, (b) a material adverse effect on the ability of the Loan Parties (taken as a whole) to perform their respective obligations under the Loan Documents or (c) a material adverse effect on the rights or remedies of the Agents or the Lenders under the Loan Documents.

"Material Real Property" means any parcel of real property (other than a parcel with a Fair Market Value of less than $5,000,000 and other than a parcel constituting Excluded Property) owned in fee by a Loan Party and located in the United States; provided, however, that one or more parcels owned in fee by a Loan Party and located adjacent to, contiguous with, or in close proximity to, and comprising one property with a common street address, may, in the reasonable discretion of the Administrative Agent, be deemed to be one parcel for the purposes of this definition.

"Maturity Date" means: with respect to the Initial Loans, the earlier of (a) August 2, 2026 and (b) the date that the Initial Loans are declared due and payable pursuant to Section 8.02; provided that the reference to Maturity Date with respect to (i) Loans that are the subject of a loan modification offer pursuant to Section 10.01 and (ii) Loans that are incurred pursuant to Section 2.14 or 2.18 shall, in each case, be the final maturity date as specified in the loan modification documentation, incremental documentation, or specified refinancing documentation, as applicable thereto.

"Maximum Leverage Requirement" means, with respect to any request made in reliance on this definition under Article II for an increase in any Tranche for a New Facility or for the issuance of New Incremental Notes, the requirement that, on a Pro Forma Basis, after giving effect to such increase, such new Facility (assuming all commitments thereunder are fully drawn) or such New Incremental Notes (including, in each case, any acquisition consummated concurrently therewith) and excluding any increase to cash and Cash Equivalents resulting therefrom, (a) for any such increase, new Facility and/or New Incremental Notes that are secured on a *pari passu* basis with the Loans or that are secured on a junior basis to the Loans, the Consolidated Senior Secured Net Leverage Ratio as of the most recently ended fiscal quarter for which internal financial statements are available does not exceed 7.25:1.00 or (b) for any such increase, new Facility and/or New Incremental Notes that are unsecured, the Consolidated Total Net Leverage Ratio as of the most recently ended fiscal quarter for which internal financial statements are available does not exceed 7.25:1.00.

"Maximum Rate" has the meaning specified in Section 10.10.

"Minimum Tender Condition" has the meaning specified in Section 2.19.

"Moody's" means Moody's Investors Service, Inc. and any successor thereto.

"Mortgage" means, collectively, the deeds of trust, trust deeds, deeds to secure debt and mortgages in respect of Mortgaged Properties in the U.S. made by the Loan Parties in favor or for the benefit of the Collateral Agent on behalf of the Lenders in form and substance reasonably satisfactory to the Parent Borrower and Administrative Agent, in each case as the same may be amended, amended and restated, extended, supplemented, substituted or otherwise modified from time to time.

"Mortgage Policies" has the meaning specified in Section 6.14.

"Mortgaged Properties" means the parcels of real property identified on Schedule 5.08(b) and any other Material Real Property with respect to which a Mortgage is required pursuant to Section 6.12.

"Multiemployer Plan" means a "multiemployer plan" as defined in Section 4001(a)(3) of ERISA, to which any Loan Party or any ERISA Affiliate makes or is obligated to make contributions.

"Natural Person" means (a) any natural person or (b) a holding company, investment vehicle or trust for, or owned and operated for the primary benefit of a natural person or relatives thereof; provided that, with respect to clause (b) above, such holding company, investment vehicle or trust shall not constitute a Natural Person if it (x) has not been established for the primary purpose of acquiring any Loans or Commitments, (y) is managed by a professional advisor, who is not such natural person or a relative thereof, having significant experience in the business of making or purchasing commercial loans, and (z) has assets greater than $25,000,000 and a significant part of its activities consist of making or purchasing commercial loans and similar extensions of credit in the ordinary course of its business.

"Net Cash Proceeds" means:

(a) with respect to the Disposition of any asset by the Parent Borrower or any of its Subsidiaries (other than any Disposition of any Receivables Assets in a Qualified Receivables Factoring or Qualified Receivables Financing) or any Casualty Event, the excess, if any, of (i) the sum of cash and Cash Equivalents received in connection with such Disposition or Casualty Event (including any cash or Cash Equivalents received by way of deferred payment pursuant to, or by monetization of, a note receivable or otherwise, but only as and when so received and, with respect to any Casualty Event, any insurance proceeds or condemnation awards in respect of such Casualty Event received by or paid to or for the account of the Parent Borrower or any of its Subsidiaries and including any proceeds received as a result of unwinding any related Swap Contract in connection with such related transaction) over (ii) the sum of:

(A) the principal amount of any Indebtedness that is secured by a Lien on the asset subject to such Disposition or Casualty Event and that is required to be repaid in connection with such Disposition or Casualty Event (other than (x) Indebtedness under the Loan Documents and (y), if such asset constitutes Collateral, any Indebtedness secured by such asset with a Lien ranking *pari passu* with or junior to the Lien securing the Obligations), together with any applicable premiums, penalties, interest or breakage costs,

(B) the fees and out-of-pocket expenses incurred by the Parent Borrower or such Subsidiary in connection with such Disposition or Casualty Event (including attorneys' fees, accountants' fees, investment banking fees, survey costs, title insurance premiums, and related search and recording charges, transfer taxes, deed or mortgage recording taxes, other customary expenses and brokerage, consultant and other customary fees actually incurred in connection therewith),

(C) all taxes paid or reasonably estimated to be payable in connection with such Disposition or Casualty Event (or any tax distribution the Parent Borrower may make as a result of such Disposition or Casualty Event) and any repatriation costs associated with receipt or distribution by the applicable taxpayer of such proceeds,

(D) any costs associated with unwinding any related Swap Contract in connection with such transaction,

(E) any reserve for adjustment in respect of (x) the sale price of the property that is the subject of such Disposition established in accordance with GAAP and (y) any liabilities associated with such property and retained by the Parent Borrower or any of its Subsidiaries after such Disposition, including pension and other post-employment benefit liabilities and liabilities related to environmental matters or against any indemnification obligations associated with such transaction, and it being understood that "Net Cash Proceeds" shall include, without limitation, any cash or Cash Equivalents (i) received upon the Disposition of any non-cash consideration received by the Parent Borrower or any of its Subsidiaries in any such Disposition and (ii) upon the reversal (without the satisfaction of any applicable liabilities in cash in a corresponding amount) of any reserve described in this clause (E), and

(F) in the case of any Disposition or Casualty Event by a Subsidiary that is not a Wholly Owned Subsidiary, the*pro rata* portion of the Net Cash Proceeds thereof (calculated without regard to this clause (F)) attributable to the minority interests and not available for distribution to or for the account of the Parent Borrower or a Wholly Owned Subsidiary as a result thereof; and

(b) with respect to the incurrence or issuance of any Indebtedness by the Parent Borrower or any of its Subsidiaries, the excess, if any, of (i) the sum of the cash received in connection with such incurrence or issuance and in connection with unwinding any related Swap Contract in connection therewith over (ii) the investment banking fees, underwriting discounts and commissions, premiums, expenses, accrued interest and fees related thereto, taxes reasonably estimated to be payable and other out-of-pocket expenses and other customary expenses, incurred by the Parent Borrower or such Subsidiary in connection with such incurrence or issuance and any costs associated with unwinding any related Swap Contract in connection therewith and, in the case of Indebtedness of any Foreign Subsidiary, deductions in respect of withholding taxes that are or would otherwise be payable in cash if such funds were repatriated to the United States.

"New Commitment" has the meaning specified in Section 2.14(a).

"New Facility" has the meaning specified in Section 2.14(a).

"New Incremental Notes" has the meaning specified in Section 2.15(a).

"New Incremental Notes Indentures" means, collectively, the indentures or other similar agreements pursuant to which any New Incremental Notes are issued, together with all instruments and other agreements in connection therewith, as amended, supplemented or otherwise modified from time to time in accordance with the terms thereof, but only to the extent permitted under the terms of the Loan Documents.

"New Loan" has the meaning specified in Section 2.14(a).

"Non-Consenting Lender" has the meaning specified in Section 3.08(c).

"Non-Defaulting Lender" means any Lender other than a Defaulting Lender.

"Non-Loan Party" means any Subsidiary of the Parent Borrower that is not a Loan Party.

"Note" means any promissory note of the Borrowers payable to any Lender or its permitted assigns, in substantially the form of Exhibit C hereto, evidencing the indebtedness of the Borrowers to such Lender resulting from the Loans under the same Tranche made or held by such Lender.

"NPL" means the National Priorities List under CERCLA.

"NYFRB" means the Federal Reserve Bank of New York.

"NYFRB Rate" means, for any day, the greater of (a) the Federal Funds Effective Rate in effect on such day and (b) the Overnight Bank Funding Rate in effect on such day (or for any day that is not a Business Day, for the immediately preceding Business Day); provided that if none of such rates are published for any day that is a Business Day, the term "NYFRB Rate" means the rate for a federal funds transaction quoted at 11:00 a.m. on such day received by the Administrative Agent from a federal funds broker of recognized standing selected by it; provided, further, that if any of the aforesaid rates as so determined be less than zero, such rate shall be deemed to be zero for purposes of this Agreement.

"Obligations" means all advances to, and debts, liabilities, obligations, covenants and duties of, any Loan Party arising under any Loan Document or otherwise with respect to any Loan, whether direct or indirect (including those acquired by assumption), absolute or contingent, due or to become due, now existing or hereafter arising and including interest and fees that accrue after the commencement by or against any Loan Party of any proceeding under any Debtor Relief Laws naming such Person as the debtor in such proceeding, regardless of whether such interest and fees are allowed claims in such proceeding. Without limiting the generality of the foregoing, the Obligations of the Loan Parties under the Loan Documents include (a) the obligation to pay principal, interest, charges, expenses, fees, indemnities and other amounts payable by any Loan Party under any Loan Document and (b) the obligation of any Loan Party to reimburse any amount in respect of any of the foregoing pursuant to Section 10.04.

"OFAC" shall have the meaning specified in the definition of Sanctions Laws and Regulations.

"OID" means original issue discount.

"Organization Documents" means (a) with respect to any corporation, the certificate or articles of incorporation and the bylaws (or equivalent or comparable constitutive documents with respect to any non-U.S. jurisdiction), (b) with respect to any limited liability company, the certificate or articles of formation or organization and operating or limited liability company agreement (or equivalent or comparable constitutive documents with respect to any non-U.S. jurisdiction) and (c) with respect to any partnership, joint venture, trust or other form of business entity, the partnership, joint venture, trust or other applicable agreement of formation or organization and any agreement, instrument, filing or notice with respect thereto filed in connection with its formation or organization with the applicable Governmental Authority in the jurisdiction of its formation or organization and, if applicable, any certificate or articles of formation or organization of such entity.

"Other Affiliate" means the Sponsor and its Affiliates, other than Holdings, any Subsidiary of Holdings and any natural person.

"Other Connection Taxes" means, with respect to any Recipient, Taxes imposed as a result of a present or former connection between such Recipient and the jurisdiction imposing such Tax (other than connections arising from such Recipient having executed, delivered, become a party to, performed its obligations under, received payments under, received or perfected a security interest under, engaged in any other transaction pursuant to or enforced any Loan Document, or sold or assigned an interest in any Loan or Loan Document).

"Other Taxes" means all present or future stamp, court or documentary, intangible, recording, filing or similar Taxes that arise from any payment made under, from the execution, delivery, performance, enforcement or registration of, from the receipt or perfection of a security interest under, or otherwise with respect to, any Loan Document, except any such Taxes that are imposed with respect to an assignment (other than an assignment made pursuant to Section 3.01(f) or Section 3.08).

"Outstanding Amount" means: with respect to the Loans on any date, the aggregate outstanding principal amount thereof after giving effect to any borrowings and prepayments or repayments of the Loans occurring on such date.

"Overnight Bank Funding Rate" means, for any day, the rate comprised of both overnight federal funds and overnight Eurodollar borrowings by U.S.-managed banking offices of depository institutions, as such composite rate shall be determined by the NYFRB as set forth on its public website from time to time, and published on the next succeeding Business Day by the NYFRB as an overnight bank funding rate.

"Parent Borrower" has the meaning specified in the introductory paragraph to this Agreement.

"Parent Holding Company" means any direct or indirect parent entity of Holdings which holds directly or indirectly 100% of the Equity Interest of Holdings and which does not hold Capital Stock in any other Person (except for any other Parent Holding Company).

"Pari Passu Indebtedness" means:

(a) with respect to the Parent Borrower, any Indebtedness that ranks*pari passu* in right of security to the Loans; and

(b) with respect to any Guarantor, its guarantee of the Obligations and any Indebtedness that ranks*pari passu* in right of security to such Guarantor's guarantee of the Obligations.

"Participant" has the meaning specified in Section 10.07(d).

"Participant Register" has the meaning specified in Section 10.07(m).

"Participating Member State" means each state as described in any EMU Legislation.

"PATRIOT Act" has the meaning specified in Section 10.22.

"PBGC" means the Pension Benefit Guaranty Corporation.

"Pension Funding Rules" means the rules of the Code and ERISA regarding minimum required contributions (including any installment payment thereof) to Plans and set forth in Section 412 and 430 of the Code and Sections 302 and 303 of ERISA.

"Perfection Exceptions" means that no Loan Party shall be required to (i) enter into control agreements with respect to, or otherwise perfect any security interest by "control" (or similar arrangements) over securities accounts, deposit accounts, other bank accounts, cash and cash equivalents and accounts related to the clearing, payment processing and similar operations of Borrower and its Subsidiaries, (ii) perfect the security interest in the following other than by the filing of a UCC financing statement: (1) letter-of-credit rights (as defined in the UCC), (2) commercial tort claims (as defined in the UCC), (3) Fixtures (as defined in the UCC), except to the extent that the same are Equipment (as defined in the UCC) or are related to real property covered or intended by the Loan Documents to be covered by a Mortgage and (4) Assigned Agreements (as defined in the Security Agreement), (iii) send notices to account debtors or other contractual third-parties unless an Event of Default has not been cured or waived and is continuing and the Administrative Agent has exercised its rights pursuant to Section 8.02 of this Agreement, (iv) enter into any security documents to be governed by the law of any jurisdiction in which assets are located other than the United States, any state thereof (or the District of Columbia) except with respect to the equity and assets of any Foreign Subsidiary that becomes a Loan Party or (v) deliver landlord waivers, estoppels or collateral access letters.

"Permitted Asset Swap" means the substantially concurrent purchase and sale or exchange of Related Business Assets or a combination of Related Business Assets and cash or Cash Equivalents between Holdings or any of its Subsidiaries and another Person; provided that any cash or Cash Equivalents received must be applied in accordance with Section 7.04.

"Permitted Debt" has the meaning specified in Section 7.01.

"Permitted Debt Exchange" has the meaning specified in Section 2.19

"Permitted Debt Exchange Notes" means Indebtedness in the form of unsecured, first lien, second lien or other junior lien notes; provided that such Indebtedness (i) satisfies the Permitted Other Debt Conditions, (ii) such Indebtedness is not at any time guaranteed by any Person other than Guarantors, and (iii) to the extent secured, such Indebtedness is not secured by property other than the Collateral and the Liens securing such Indebtedness shall be subject to Applicable Intercreditor Arrangements and the security agreements governing such Liens shall be substantially the same as of the Collateral Documents (with such differences as are reasonably acceptable to the Administrative Agent).

"Permitted Debt Exchange Offer" has the meaning specified in Section 2.19(a).

"Permitted Holders" means each of (a) the Sponsor, (b) managers and members of management of the Parent Borrower (or any Permitted Parent (other than clause (c) of the definition thereof)) or its Subsidiaries that have ownership interests in the Parent Borrower (or such Permitted Parent (other than clause (c) of the definition thereof)), (c) any other beneficial owner in the common equity of the Parent Borrower (or such Permitted Parent (other than clause (c) of the definition thereof)) as of the Closing Date, (d) any group (within the meaning of Rule 13d-5 under the Exchange Act) of which any of the Persons described in clauses (a), (b) or (c) above are members; provided that, without giving effect to the existence of such group or any other group, any of the Persons described in clauses (a), (b) and (c), collectively, beneficially own Voting Stock representing 50% or more of the total voting power of the Voting Stock of the Parent Borrower (or any Permitted Parent (other than clause (c) of the definition thereof)) then held by such group, and (e) any Permitted Parent.

"Permitted Investments" means:

(1) any Investment in cash and Cash Equivalents or Investment Grade Securities and Investments that were Cash Equivalents or Investment Grade Securities when made;

(2) any Investment in the Borrowers or any Subsidiary;

(3) any Investments by Subsidiaries that are not Subsidiary Guarantors in other Subsidiaries that are not Subsidiary Guarantors;

(4) any Investment by the Borrowers or any Subsidiary in a Person that is primarily engaged in a Similar Business if as a result of such Investment (a) such Person becomes a Subsidiary, or (b) such Person, in one transaction or a series of related transactions, is merged, consolidated or amalgamated with or into, or transfers or conveys all or substantially all of its assets to, or is liquidated into, the Borrowers or a Subsidiary (and any Investment held by such Person that was not acquired by such Person in contemplation of so becoming a Subsidiary or in contemplation of such merger, consolidation, amalgamation, transfer, conveyance or liquidation);

(5) any Investment in securities or other assets received in connection with an Asset Sale made pursuant to Section 7.04 or any other Disposition of assets not constituting an Asset Sale;

(6) any Investment (x) existing on the Closing Date and listed on Schedule 7.10, (y) made pursuant to binding commitments in effect on the Closing Date and listed on Schedule 7.10 or (z) that replaces, refinances, refunds, renews or extends any Investment described under either of the immediately preceding clauses (x) or (y); provided that any such Investment is in an amount that does not exceed the amount replaced, refinanced, refunded, renewed or extended, except as contemplated pursuant to the terms of such Investment in existence on the Closing Date or as otherwise permitted under this definition or otherwise under Section 7.10;

(7) loans and advances to, or guarantees of Indebtedness of, employees, directors, officers, managers, consultants or independent contractors in an aggregate amount, taken together with all other

Investments made pursuant to this clause (7) that are at the time outstanding, not in excess of $8,050,000 outstanding at any one time in the aggregate;

(8) loans and advances to officers, directors, employees, managers, consultants and independent contractors for business related travel and entertainment expenses, moving and relocation expenses and other similar expenses, in each case in the ordinary course of business;

(9) any Investment (x) acquired by the Borrowers or any of their Subsidiaries (a) in exchange for any other Investment or accounts receivable held by the Borrowers or any such Subsidiary in connection with or as a result of a bankruptcy, workout, reorganization or recapitalization of the issuer or obligor of such other Investment or accounts receivable, or (b) as a result of a foreclosure or other remedial action by the Borrowers or any of their Subsidiaries with respect to any Investment or other transfer of title with respect to any Investment in default and (y) received in compromise or resolution of (A) obligations of trade creditors or customers that were incurred in the ordinary course of business of the Borrowers or any Subsidiary, including pursuant to any plan of reorganization or similar arrangement upon the bankruptcy or insolvency of any trade creditor or customer, or (B) litigation, arbitration or other disputes;

(10) Swap Contracts and cash management services permitted under Section 7.01(j), including any payments in connection with the termination thereof;

(11) any Investment by the Borrowers or any of their Subsidiaries in a Similar Business in an aggregate amount, taken together with all other Investments made pursuant to this clause (11) that are at the time outstanding, not to exceed $23,000,000; provided, however, that if any Investment pursuant to this clause (11) is made in any Person that is not a Subsidiary at the date of the making of such Investment and such Person becomes a Subsidiary after such date, such Investment shall thereafter be deemed to have been made pursuant to clause (2) above and shall cease to have been made pursuant to this clause (11) for so long as such Person continues to be a Subsidiary;

(12) additional Investments by the Borrowers or any of their Subsidiaries in an aggregate amount, taken together with all other Investments made pursuant to this clause (12) that are at the time outstanding, not to exceed $34,500,000; provided, however, that if any Investment pursuant to this clause (12) is made in any Person that is not a Subsidiary at the date of the making of such Investment and such Person becomes a Subsidiary after such date, such Investment shall thereafter be deemed to have been made pursuant to clause (2) above and shall cease to have been made pursuant to this clause (12) for so long as such Person continues to be a Subsidiary;

(13) any transaction to the extent it constitutes an Investment that is permitted and made in accordance with the provisions of Section 6.18(b) (except transactions described in clause (2), (3), (4), (8), (9), (13), (14) or (20) of such Section 6.18(b));

(14) Investments the payment for which consists of Equity Interests (other than Excluded Equity) of the Parent Borrower or any direct or indirect parent of the Parent Borrower, as applicable; provided, however, that such Equity Interests will not increase the amount available for Restricted Payments under clause (c) of the first paragraph of Section 7.05;

(15) Investments consisting of the leasing, licensing, sublicensing or contribution of intellectual property in the ordinary course of business or pursuant to joint marketing arrangements with other Persons;

(16) Investments consisting of purchases or acquisitions of inventory, supplies, materials and equipment or purchases, acquisitions, licenses, sublicenses or leases or subleases of intellectual property, or other rights or assets, in each case in the ordinary course of business;

(17) any Investment in a Receivables Subsidiary or any Investment by a Receivables Subsidiary in any other Person in connection with a Qualified Receivables Financing, including

Investments of funds held in accounts permitted or required by the arrangements governing such Qualified Receivables Financing or any related Indebtedness;

(18) Investments of a Subsidiary acquired after the Closing Date or of an entity merged into or amalgamated or consolidated with a Subsidiary in a transaction that is not prohibited by Section 7.03 after the Closing Date to the extent that such Investments were not made in contemplation of such acquisition, merger, amalgamation or consolidation and were in existence on the date of such acquisition, merger, amalgamation or consolidation;

(19) [reserved];

(20) guarantees of Indebtedness permitted to be incurred under Section 7.01 and obligations relating to such Indebtedness and guarantees (other than guarantees of Indebtedness) in the ordinary course of business;

(21) advances, loans or extensions of trade credit in the ordinary course of business by the Borrowers or any of the Subsidiaries;

(22) Investments consisting of purchases and acquisitions of assets or services in the ordinary course of business;

(23) Investments in the ordinary course of business consisting of Uniform Commercial Code Article 3 endorsements for collection or deposit and Uniform Commercial Code Article 4 customary trade arrangements with customers;

(24) intercompany current liabilities owed to joint ventures Incurred in the ordinary course of business in connection with the cash management operations of the Borrowers and their Subsidiaries;

(25) Investments in joint ventures of the Borrowers or any of their Subsidiaries in an aggregate amount, taken together with all other Investments made pursuant to this clause (25) that are at the time outstanding, not to exceed $8,050,000; provided that the Investments permitted pursuant to this clause may be increased by the amount of JV Distributions, without duplication of dividends or distributions increasing amounts available pursuant to clause (c) of the first paragraph of Section 7.05;

(26) the Transactions;

(27) accounts receivable, security deposits and prepayments and other credits granted or made in the ordinary course of business and any Investments received in satisfaction or partial satisfaction thereof from financially troubled account debtors and others, including in connection with the bankruptcy or reorganization of, or settlement of delinquent accounts and disputes with or judgments against, such account debtors and others, in each case in the ordinary course of business;

(28) Investments acquired as a result of a foreclosure by the Borrowers or any Subsidiary with respect to any secured Investments or other transfer of title with respect to any secured Investment in default;

(29) Investments resulting from pledges and deposits that are Permitted Liens;

(30) acquisitions of obligations of one or more officers or other employees of any direct or indirect parent of the Parent Borrower, the Borrowers or any Subsidiary of the Borrowers in connection with such officer's or employee's acquisition of Equity Interests of any direct or indirect parent of the Parent Borrower, so long as no cash is actually advanced by the Borrowers or any Subsidiary to such officers or employees in connection with the acquisition of any such obligations;

(31) guarantees of operating leases (for the avoidance of doubt, excluding Capitalized Lease Obligations) or of other obligations that do not constitute Indebtedness, in each case, entered into by the Borrowers or any Subsidiary in the ordinary course of business;

(32) Investments consisting of the redemption, purchase, repurchase or retirement of any Equity Interests permitted by Section 7.05;

(33) non-cash Investments made in connection with tax planning and reorganization activities;

(34) Investments made pursuant to obligations entered into when the Investment would have been permitted hereunder so long as such Investment when made reduces the amount available under the clause under which the Investment would have been permitted; and

(35) Investments made in the ordinary course of business in connection with obtaining, maintaining or renewing client and customer contracts and loans or advances made to, and guarantees with respect to obligations of, distributors, suppliers, licensors and licensees in the ordinary course of business.

"Permitted Joint Venture" means, with respect to any specified Person, a joint venture in any other Person engaged in a Similar Business in respect of which any Borrower or a Subsidiary beneficially owns at least 35% of the shares of Equity Interests of such Person.

"Permitted Liens" means, with respect to any Person:

(1) Liens Incurred in connection with workers' compensation laws, unemployment insurance laws or similar legislation, or in connection with bids, tenders, contracts (other than for the payment of Indebtedness) or leases to which such Person is a party, or to secure public or statutory obligations of such Person or to secure surety, stay, customs or appeal bonds to which such Person is a party, or as security for contested taxes or import duties or for the payment of rent, in each case Incurred in the ordinary course of business;

(2) Liens imposed by law, such as carriers', warehousemen's, landlords', materialmen's, repairman's, construction contractors', mechanics' or other like Liens, in each case for sums not yet overdue by more than 30 days or being contested in good faith by appropriate proceedings or other Liens arising out of judgments or awards against such Person with respect to which such Person shall then be proceeding with an appeal or other proceedings for review (or which, if due and payable, are being contested in good faith by appropriate proceedings and for which adequate reserves are being maintained, to the extent required by GAAP) or with respect to which the failure to make payment could not reasonably be expected to have a Material Adverse Effect;

(3) Liens for taxes, assessments or other governmental charges or levies (i) that are not yet delinquent or (ii) that are being contested in good faith by appropriate proceedings and for which adequate reserves are being maintained to the extent required by GAAP, or for property taxes on property such Person or one of its Subsidiaries has determined to abandon if the sole recourse for such tax, assessment, charge, levy or claim is to such property;

(4) Liens in favor of the issuers of performance and surety bonds, bid, indemnity, warranty, release, appeal or similar bonds or with respect to regulatory requirements or letters of credit or bankers' acceptances issued and completion of guarantees provided for, in each case, pursuant to the request of and for the account of such Person in the ordinary course of its business;

(5) survey exceptions, encumbrances, easements or reservations of, or rights of others for, licenses, rights-of-way, servitudes, sewers, electric lines, drains, telegraph and telephone and cable television lines, gas and oil pipelines and other similar purposes, reservations of rights, or zoning, building codes or other restrictions (including, without limitation, minor defects or irregularities in title and similar encumbrances) as to the use of real properties or Liens incidental to the conduct of the business of such

Person or to the ownership of its properties which do not in the aggregate materially adversely interfere with the ordinary conduct of the business of such Person;

(6) Liens Incurred to secure obligations in respect of Indebtedness permitted to be Incurred pursuant to Section 7.01(a) or (d) and obligations secured ratably thereunder; provided that, in the case of such clause (d), such Lien extends only to the assets and/or Capital Stock the acquisition, lease, construction, repair, replacement or improvement of which is financed thereby and any replacements, additions and accessions thereto and any income or profits thereof; provided that individual financings provided by a lender of the type described in such clause (d) may be cross collateralized to other financings provided by such lender or its affiliates;

(7) Liens of the Borrowers or any of the Guarantors existing on the Closing Date and listed on Schedule 7.02 and any modifications, replacements, renewals or extensions thereof; provided that (i) the Lien does not extend to any additional property other than (A) after-acquired property that is affixed or incorporated into the property covered by such Lien or (B) proceeds and products thereof; provided that individual financings provided by a lender may be cross collateralized to other financings provided by such lender or its affiliates and (ii) the modification, replacement, renewal, extension or refinancing of the obligations secured or benefited by such Liens (if such obligations constitute Permitted Debt) shall constitute a Permitted Refinancing;

(8) Liens on assets of, or Equity Interests (other than Equity Interests in any Subsidiary that is required to become a Guarantor pursuant to this Agreement) in, a Person at the time such Person becomes a Subsidiary; provided, however, that such Liens are not created or Incurred in connection with, or in contemplation of, such other Person becoming such a Subsidiary; provided, further, that such Liens are limited to all or a portion of the assets (and improvements on such assets) that secured (or, under the written arrangements under which the Liens arose, could secure) the obligations to which such Liens relate; provided, further, that for purposes of this clause (8), if a Person becomes a Subsidiary, any Subsidiary of such Person shall be deemed to become a Subsidiary of the Parent Borrower, and any property or assets of such Person or any Subsidiary of such Person shall be deemed acquired by the Parent Borrower at the time of such merger, amalgamation or consolidation;

(9) Liens on assets at the time the Borrowers or any Subsidiary acquired the assets, including any acquisition by means of a merger, amalgamation or consolidation with or into the Borrowers or such Subsidiary; provided, however, that such Liens are not created or Incurred in connection with, or in contemplation of, such acquisition; provided, further, that such Liens are limited to all or a portion of the property or assets (and improvements on such property or assets) that secured (or, under the written arrangements under which the Liens arose, could secure) the obligations to which such Liens relate; provided, further, that for purposes of this clause (9), if, in connection with an acquisition by means of a merger, amalgamation or consolidation with or into any Borrower or any Subsidiary, a Person other than such Borrower or Subsidiary is the successor company with respect thereto, any Subsidiary of such Person shall be deemed to become a Subsidiary of such Borrower or such Subsidiary, as applicable, and any property or assets of such Person or any such Subsidiary of such Person shall be deemed acquired by such Borrower or such Subsidiary, as the case may be, at the time of such merger, amalgamation or consolidation;

(10) [reserved];

(11) Liens on cash and Cash Equivalents securing Swap Contracts Incurred in accordance with Section 7.01;

(12) Liens on specific items of inventory or other goods and proceeds of any Person securing such Person's obligations in respect of bankers' acceptances or letters of credit entered into in the ordinary course of business issued or created for the account of such Person to facilitate the purchase, shipment or storage of such inventory or other goods;

(13) leases, subleases, licenses, sublicenses, occupancy agreements or assignments of or in respect of real or personal property;

(14) Liens arising from, or from Uniform Commercial Code financing statement filings regarding, operating leases or consignments entered into by the Borrowers and the Guarantors in the ordinary course of business;

(15) Liens in favor of any Borrower or any Subsidiary Guarantor;

(16) (i) Liens on Receivables Assets and related assets sold, conveyed, assigned or otherwise transferred or purported to be so sold, conveyed, assigned or otherwise transferred in connection with a Qualified Receivables Factoring and/or Qualified Receivables Financing and (ii) Liens securing Indebtedness or other obligations of any Receivables Subsidiary;

(17) deposits made or other security provided in the ordinary course of business to secure liability to insurance carriers or under self-insurance arrangements in respect of such obligations;

(18) [reserved];

(19) Non-exclusive and exclusive (in the ordinary course of business) grants of intellectual property, software and other technology licenses;

(20) judgment and attachment Liens not giving rise to an Event of Default pursuant to Section 8.01(f), (g) or (h) and notices of *lis pendens* and associated rights related to litigation being contested in good faith by appropriate proceedings and for which adequate reserves have been made;

(21) Liens arising out of conditional sale, title retention, consignment or similar arrangements for the sale of goods entered into in the ordinary course of business;

(22) Liens incurred to secure Cash Management Services and other "bank products" (including those described in Sections 7.01(j) and (w));

(23) Liens to secure any refinancing, refunding, extension, renewal or replacement (or successive refinancings, refundings, extensions, renewals or replacements) as a whole, or in part, of any Indebtedness secured by any Lien referred to in the foregoing clauses (7), (8), (9) or (11), or succeeding clauses (24) or (25) of this definition; provided, however, that (x) such new Lien shall be limited to all or part of the same property that secured (or, under the written arrangements under which the original Lien arose, could secure) the original Lien (plus any replacements, additions, accessions and improvements on such property), (y) the Indebtedness secured by such Lien at such time is not increased to any amount greater than the sum of (A) the outstanding principal amount of the Indebtedness described under clause (7), (8), (9), (11), (24) or (25) of this definition at the time the original Lien became a Permitted Lien, and (B) an amount necessary to pay any fees and expenses, including unpaid accrued interest and the aggregate amount of premiums (including tender premiums), and underwriting discounts, defeasance costs and fees and expenses in connection therewith, related to such refinancing, refunding, extension, renewal or replacement and (z)(A) any amounts Incurred under this clause (23) as a refinancing indebtedness of clause (24) of this definition hereunder shall be secured to the same extent, including with respect to any subordination provisions, and subject to Applicable Intercreditor Arrangements and (B) any amounts Incurred under this clause (23) as a refinancing indebtedness of clause (25) of this definition hereunder shall reduce the amount available under such clause (25);

(24) Liens securing Indebtedness permitted to be Incurred pursuant to Section 7.01 if at the time of any Incurrence of such Indebtedness and after giving pro forma effect thereto (i) for any such Indebtedness that is secured by the Collateral on a *pari passu* basis with the Liens securing the First Obligations, the Consolidated First Lien Net Leverage Ratio would not exceed 5.00 to 1.00 or (ii) for any such Indebtedness that is secured by the Collateral on a *pari passu* basis with, or a "junior" basis to, the

Liens securing the Obligations, the Consolidated Senior Secured Net Leverage Ratio would not exceed 7.25 to 1.00; provided that (x) such Indebtedness shall be secured by the Collateral on a first lien "equal and ratable" basis with the Liens securing the First Lien Obligations or on a *pari passu* basis with, or a "junior" basis to, the Liens securing the Obligations (in each case pursuant to Applicable Intercreditor Arrangements), (y) solely for purposes of this clause (24), any Indebtedness secured pursuant to clause (i) of this clause (24) shall be deemed to constitute Consolidated Funded First Lien Indebtedness and (z) solely for purposes of this clause (24), any Indebtedness secured pursuant to clause (ii) of this clause (24) shall be deemed to constitute Consolidated Funded Senior Secured Indebtedness;

(25) other Liens securing obligations the principal amount of which does not exceed $23,000,000 at any one time outstanding (after giving effect to clause (23) above as applicable);

(26) Liens on the Equity Interests or assets of a joint venture to secure Indebtedness of such joint venture Incurred pursuant to Section 7.01(u);

(27) Liens on equipment of any Borrower or any Guarantor granted in the ordinary course of business to such Borrower's or such Guarantor's client at which such equipment is located;

(28) Liens on the Collateral that rank senior in priority to the Liens securing the Obligations pursuant to the First Lien/Second Lien Intercreditor Agreement securing obligations incurred pursuant to Section 7.01(b);

(29) Liens on property or assets used to redeem, repay, defease or to satisfy and discharge Indebtedness;provided that such redemption, repayment, defeasance or satisfaction and discharge is not prohibited by this Agreement and that such deposit shall be deemed for purposes of Section 7.05 (to the extent applicable) to be a prepayment of such Indebtedness;

(30) Liens in favor of customs and revenue authorities arising as a matter of law to secure payment of customs duties in connection with the importation and exportation of goods in the ordinary course of business;

(31) Liens (i) of a collection bank arising under Section 4-210 of the Uniform Commercial Code, or any comparable or successor provision, on items in the course of collection; (ii) attaching to pooling, commodity trading accounts or other commodity brokerage accounts Incurred in the ordinary course of business; and (iii) in favor of banking or other financial institutions or entities, or electronic payment service providers, arising as a matter of law encumbering deposits (including the right of setoff) and which are within the general parameters customary in the banking or finance industry;

(32) Liens that are contractual rights of set-off (i) relating to the establishment of depository relations with banks or other Persons not given in connection with the issuance of Indebtedness; (ii) relating to pooled deposit or sweep accounts of any Borrower or any Guarantor to permit satisfaction of overdraft or similar obligations Incurred in the ordinary course of business of the Borrowers and the Guarantors; or (iii) relating to purchase orders and other agreements entered into with customers of any Borrower or any Guarantor in the ordinary course of business;

(33) any encumbrance or restriction (including put and call arrangements) with respect to Equity Interests of any joint venture or similar arrangement pursuant to any joint venture or similar agreement;

(34) Liens on insurance policies and the proceeds thereof securing the financing of the premiums with respect thereto;

(35) Liens on vehicles or equipment of any Borrower or any Guarantor granted in the ordinary course of business;

(36) Liens on assets of Non-Loan Parties securing Indebtedness Incurred in accordance with Section 7.01(t);

(37) Liens disclosed by the title insurance policies delivered on or subsequent to the Closing Date for any Mortgaged Property and any replacement, extension or renewal of any such Liens (so long as the Indebtedness and other obligations secured by such replacement, extension or renewal Liens are permitted by this Agreement); provided that such replacement, extension or renewal Liens do not cover any property other than the property that was subject to such Liens prior to such replacement, extension or renewal;

(38) Liens arising solely by virtue of any statutory or common law provision or customary business provision relating to banker's liens, rights of setoff or similar rights;

(39) (a) Liens solely on any cash earnest money deposits made by any Borrower or any Subsidiary in connection with any letter of intent or other agreement in respect of any Permitted Investment and (b) Liens on advances of cash or Cash Equivalents in favor of the seller of any property to be acquired in a Permitted Investment to be applied against the purchase price for such Investment;

(40) the prior rights of consignees and their lenders under consignment arrangements entered into in the ordinary course of business;

(41) Liens on securities that are the subject of repurchase agreements constituting Cash Equivalents under clause (4) of the definition thereof;

(42) Liens encumbering reasonable customary initial deposits and margin deposits and similar Liens attaching to commodity trading accounts or other brokerage accounts Incurred in the ordinary course of business and not for speculative purposes;

(43) rights reserved or vested in any Person by the terms of any lease, license, franchise, grant or permit held by the Borrowers or any of their Subsidiaries or by a statutory provision, to terminate any such lease, license, franchise, grant or permit, or to require annual or periodic payments as a condition to the continuance thereof;

(44) restrictive covenants affecting the use to which real property may be put; provided that such covenants are complied with;

(45) security given to a public utility or any municipality or governmental authority when required by such utility or authority in connection with the operations of that Person in the ordinary course of business;

(46) zoning by-laws and other land use restrictions, including, without limitation, site plan agreements, development agreements and contract zoning agreements;

(47) Liens on property constituting Collateral securing obligations issued or incurred under (i) any Refinancing Notes and the Refinancing Notes Indentures related thereto, and (ii) any New Incremental Notes and the New Incremental Notes Indentures related thereto and, in each case, any Permitted Refinancings thereof (or successive Permitted Refinancings thereof); provided that such Liens are subject to customary Applicable Intercreditor Arrangements; and

(48) Liens on cash proceeds of Indebtedness (and related escrow accounts) in connection with the issuance of such Indebtedness into (and pending the release from) a customary escrow arrangement, to the extent such Indebtedness is incurred in compliance with Section 7.01.

For purposes of determining compliance with this definition, (x) a Lien need not be Incurred solely by reference to one category of Permitted Liens described in this definition but may be Incurred under any combination

of such categories (including in part under one such category and in part under any other such category), (y) in the event that a Lien (or any portion thereof) meets the criteria of one or more of such categories of Permitted Liens, the Parent Borrower shall, in its sole discretion, classify or reclassify such Lien (or any portion thereof) in any manner that complies with this definition, and (z) in the event that a portion of the Indebtedness secured by a Lien could be classified as secured in part pursuant to clause (6) or (24) above (giving effect to the Incurrence of such portion of such Indebtedness), the Parent Borrower, in its sole discretion, may classify such portion of such Indebtedness (and any obligations in respect thereof) as having been secured pursuant to clause (6) or (24) above and thereafter the remainder of the Indebtedness as having been secured pursuant to one or more of the other clauses of this definition.

"Permitted Other Debt Conditions" means that such applicable Indebtedness (i) does not mature or have scheduled amortization payments of principal and is not subject to mandatory redemption, repurchase, prepayment or sinking fund obligations (except (x) customary offers or obligations to repurchase, repay or redeem upon a change of control, asset sale, casualty or condemnation event or initial public offering, (y) maturity payments and customary mandatory prepayments for a customary bridge financing which, subject to customary conditions, provides for automatic conversion or exchange into Indebtedness that otherwise complies with the requirements of this definition or (z) "AHYDO" payments), in each case prior to the Latest Maturity Date at the time such Indebtedness is incurred and (ii) the covenants of such Indebtedness are, taken as a whole, not more restrictive to the Borrowers and the Subsidiaries than those contained in the Loan Documents (taken as a whole) (except for (x) covenants or other provisions applicable only to periods after the Maturity Date of the applicable Facility existing at the time of incurrence or issuance thereof and (y) any financial maintenance covenant to the extent such covenant is also added for the benefit of the lenders under the Facility).

"Permitted Parent" means (a) any direct or indirect parent of the Parent Borrower so long as a Permitted Holder pursuant to clause (a), (b), (c) or (d) of the definition thereof holds 50% or more of the Voting Stock of such direct or indirect parent of the Parent Borrower, (b) Holdings, so long as it is a Permitted Holder pursuant to clause (a), (b), (c) or (d) of the definition thereof, and (c) any Public Company (or Wholly Owned Subsidiary of such Public Company) to the extent and until such time as any Person or group (other than a Permitted Holder under clause (a), (b), (c) or (d) of the definition thereof) is deemed to be or become a beneficial owner of Voting Stock of such Public Company representing more than 50% of the total voting power of the Voting Stock of such Public Company.

"Permitted Refinancing" means, with respect to any Person, any modification, refinancing, refunding, renewal, replacement, exchange or extension of any Indebtedness of such Person; provided that (a) the principal amount (or accreted value, if applicable) thereof does not exceed the principal amount (or accreted value, if applicable) of the Indebtedness so modified, refinanced, refunded, renewed, replaced, exchanged or extended except by an amount equal to accrued and unpaid interest and a reasonable premium thereon plus other reasonable amounts paid, and fees and expenses reasonably incurred (including original issue discount and upfront fees), in connection with such modification, refinancing, refunding, renewal, replacement, exchange or extension and by an amount equal to any existing commitments unutilized thereunder; (b) other than with respect to Indebtedness under Section 7.01(d), such modification, refinancing, refunding, renewal, replacement, exchange or extension has a final maturity date equal to or later than the final maturity date of, and has a Weighted Average Life to Maturity equal to or greater than the Weighted Average Life to Maturity of, the Indebtedness being modified, refinanced, refunded, renewed, replaced, exchanged or extended; (c) if the Indebtedness being modified, refinanced, refunded, renewed, replaced, exchanged or extended is subordinated in right of payment to the Obligations, such modification, refinancing, refunding, renewal, replacement, exchange or extension is subordinated in right of payment to the Obligations on terms, taken as a whole, as favorable in all material respects to the Lenders (including, if applicable, as to Collateral) as those contained in the documentation governing the Indebtedness being modified, refinanced, refunded, renewed, replaced, exchanged or extended or otherwise acceptable to the Administrative Agent; (d) if the Indebtedness being modified, refinanced, refunded, renewed, replaced, exchanged or extended is (i) unsecured, such modification, refinancing, refunding, renewal, replacement, exchange or extension is unsecured, or (ii) if secured by Liens on the Collateral, such modification, refinancing, refunding, replacement, renewal or extension is secured to the same extent, including with respect to any subordination provisions, and subject to Applicable Intercreditor Arrangements; (e) the terms and conditions (including, if applicable, as to collateral) of any such modified, refinanced, refunded, renewed, replaced, exchanged or extended (other than to the extent permitted by any other clause of this definition or with respect to interest rate, optional prepayment premiums and optional redemption provisions) Indebtedness are, either (i) substantially identical to or less favorable to the investors providing such

Permitted Refinancing, taken as a whole, than the terms and conditions of the Indebtedness being modified, refinanced, refunded, renewed, replaced, exchanged or extended, or (ii) when taken as a whole (other than interest rate, prepayment premiums and redemption premiums), not more restrictive to the Borrowers and the Subsidiaries than those set forth in this Agreement (provided that a certificate of a Responsible Officer of the Parent Borrower delivered to the Administrative Agent in good faith at least five Business Days prior to the incurrence of such Indebtedness, together with a reasonably detailed description of the material terms and conditions of such Indebtedness or drafts of the documentation relating thereto, stating that the Parent Borrower has determined in good faith that such terms and conditions satisfy the requirement set out in this clause (e), shall be conclusive evidence that such terms and conditions satisfy such requirement unless the Administrative Agent provides notice to the Parent Borrower of its objection during such five Business Day period (including a reasonable description of the basis upon which it objects)), in each case, except for terms and conditions only applicable to periods after the Latest Maturity Date; (f) such modification, refinancing, refunding, renewal, replacement, exchange or extension is incurred by the Person who is or would have been permitted to be the obligor or guarantor (or any successor thereto) on the Indebtedness being modified, refinanced, refunded, renewed, replaced or extended (it being understood that the roles of such obligors as a borrower or a guarantor with respect to such obligations may be interchanged); and (g) at the time thereof, other than with respect to Indebtedness under Section 7.01(d) and Section 7.01(j), no Event of Default shall have occurred and be continuing.

"Person" means any natural person, corporation, limited liability company, trust, joint venture, association, company, partnership, Governmental Authority, unincorporated organization or other entity.

"Plan" means any "employee benefit plan" (other than a Multiemployer Plan) within the meaning of Section 3(3) of ERISA that is maintained or is contributed to by a Loan Party or any ERISA Affiliate and is subject to Title IV of ERISA or the minimum funding standards under Section 412 of the Code or Section 302 of ERISA.

"Plan Asset Regulations" means 29 CFR § 2510.3-101 *et seq.*, as modified by Section 3(42) of ERISA, as amended from time to time.

"Pledged Debt" means "Pledged Debt" as defined in the Security Agreement.

"Pledged Interests" means "Pledged Interests" as defined in the Security Agreement.

"Pounds Sterling" and "£" means freely transferable lawful money of the United Kingdom (expressed in Pounds Sterling).

"Preferred Stock" means any Equity Interest with preferential right of payment of dividends or upon liquidation, dissolution or winding up.

"Prepayment Amount" has the meaning specified in Section 2.05(c).

"Prepayment Date" has the meaning specified in Section 2.05(c).

"Prepayment Premium" has the meaning specified in Section 2.05(a)(iii)

"Primary Disqualified Institution" has the meaning specified in the definition of "Disqualified Institution."

"Prime Rate" means the rate of interest last quoted by*The Wall Street Journal* as the "Prime Rate" in the U.S. or, if The Wall Street Journal ceases to quote such rate, the highest per annum interest rate published by the Federal Reserve Board in Federal Reserve Statistical Release H.15 (519) (Selected Interest Rates) as the "bank prime loan" rate or, if such rate is no longer quoted therein, any similar rate quoted therein (as determined by the Administrative Agent) or any similar release by the Federal Reserve Board (as determined by the Administrative Agent). Each change in the Prime Rate shall be effective from and including the date such change is publicly announced or quoted as being effective.

"Pro Forma Basis," "Pro Forma Compliance" and "Pro Forma Effect" mean, with respect to the calculation of any test, financial ratio, basket or covenant under this Agreement, including the Consolidated First Lien Net Leverage Ratio, the Consolidated Total Net Leverage Ratio and the Consolidated Senior Secured Net Leverage Ratio and the calculation of Consolidated Net Tangible Assets, of any Person and its Subsidiaries, as of any date, that pro forma effect will be given to the Transactions, any acquisition, merger, amalgamation, consolidation, Investment, any issuance, Incurrence, assumption or repayment or redemption of Indebtedness (including Indebtedness issued, Incurred or assumed or repaid or redeemed as a result of, or to finance, any relevant transaction and for which any such test, financial ratio, basket or covenant is being calculated), any issuance or redemption of Preferred Stock or Disqualified Stock, all sales, transfers and other dispositions or discontinuance of any Subsidiary, line of business, division, segment or operating unit, any operational change (including the entry into any material contract or arrangement) that have occurred during the four consecutive fiscal quarter period of such Person being used to calculate such test, financial ratio, basket or covenant (the "Reference Period"), or, subsequent to the end of the Reference Period but prior to such date or prior to or substantially simultaneously with the event for which a determination under this definition is made (including any such event occurring at a Person who became a Subsidiary of the subject Person or was merged, amalgamated or consolidated with or into the subject Person or any other Subsidiary of the subject Person after the commencement of the Reference Period), as if each such event occurred on the first day of the Reference Period; provided that (x) pro forma effect will be given to reasonably identifiable and quantifiable pro forma cost savings or expense reductions related to operational efficiencies (including the entry into any material contract or arrangement), strategic initiatives or purchasing improvements and other cost savings, improvements or synergies, in each case, that have been realized, or are reasonably expected to be realized, by such Person and its Subsidiaries based upon actions to be taken within 24 months after the consummation of the action as if such cost savings, expense reductions, improvements and synergies occurred (or were realized) on the first day of the Reference Period and (y) no amount shall be added back pursuant to this definition to the extent duplicative of amounts that are otherwise included in computing Consolidated EBITDA for such Reference Period.

For purposes of making any computation referred to above:

(1) if any Indebtedness bears a floating rate of interest and is being given pro forma effect, the interest on such Indebtedness shall be calculated as if the rate in effect on the date for which a determination under this definition is made had been the applicable rate for the entire period (taking into account any Swap Contracts applicable to such Indebtedness if such Swap Contracts has a remaining term in excess of 12 months);

(2) interest on a Capitalized Lease Obligation shall be deemed to accrue at an interest rate reasonably determined by a responsible financial or accounting officer, in his or her capacity as such and not in his or her personal capacity, of the Borrowers or a direct or indirect parent of the Borrowers to be the rate of interest implicit in such Capitalized Lease Obligation in accordance with GAAP;

(3) interest on Indebtedness that may optionally be determined at an interest rate based upon a factor of a prime or similar rate, a eurocurrency interbank offered rate, or other rate, shall be deemed to have been based upon the rate actually chosen, or, if none, then based upon such optional rate chosen as the Parent Borrower may designate;

(4) interest on any Indebtedness under a revolving credit facility or a Qualified Receivables Financing computed on a pro forma basis shall be computed based upon the average daily balance of such Indebtedness during the applicable period; and

(5) to the extent not already covered above, any such calculation may include adjustments calculated in accordance with Regulation S-X under the Securities Act.

Any pro forma calculation may include, without limitation, (1) adjustments calculated in accordance with Regulation S-X under the Securities Act and (2) adjustments calculated to give effect to any Pro Forma Cost Savings, to the extent such adjustments, without duplication, continue to be applicable to the Reference Period; provided that any such adjustments that consist of reductions in costs and other operating improvements or synergies

shall be calculated in accordance with, and satisfy the requirements specified in, the definition of "Pro Forma Cost Savings."

"Pro Forma Cost Savings" means, without duplication of any amounts referenced in the definition of "Pro Forma Basis," an amount equal to the amount of cost savings, operating expense reductions, operating improvements (including the entry into any material contract or arrangement) and synergies, in each case, projected in good faith to be realized (calculated on a pro forma basis as though such items had been realized on the first day of such period) as a result of actions taken or to be taken by any Borrower (or any successor thereto) or any Subsidiary, net of the amount of actual benefits realized or expected to be realized during such period that are otherwise included in the calculation of Consolidated EBITDA from such actions; provided that such cost savings, operating expense reductions, operating improvements and synergies are factually supportable and reasonably identifiable (as determined in good faith by a responsible financial or accounting officer, in his or her capacity as such and not in his or her personal capacity, of the Parent Borrower (or any successor thereto) or any direct or indirect parent of the Parent Borrower) and are reasonably anticipated to result from actions taken or to be taken within 18 months after the consummation of any change that is expected to result in such cost savings, expense reductions, operating improvements or synergies; provided, further, that no cost savings, operating expense reductions, operating improvements and synergies shall be added pursuant to this definition to the extent duplicative of any expenses or charges otherwise added to Consolidated Net Income or Consolidated EBITDA, whether through a pro forma adjustment, add back, exclusion or otherwise, for such period.

"Pro Rata Share" means, with respect to each Lender and any Facility or all the Facilities or any Tranche or all the Tranches (as the case may be) at any time, a fraction (expressed as a percentage, carried out to the ninth decimal place, and subject to adjustment as provided in Section 2.17), the numerator of which is the amount of the Commitments of such Lender under the applicable Facility or the Facilities or Tranche or Tranches (and, in the case of any Tranche after the applicable borrowing date and without duplication, the outstanding principal amount of Loans under such Tranche, of such Lender, at such time) at such time and the denominator of which is the amount of the Aggregate Commitments under the applicable Facility or the Facilities or Tranche or Tranches at such time (and, in the case of any Tranche and without duplication, the outstanding principal amount of Loans under such Tranche, at such time); provided that if the commitment of each Lender to make Loans has been terminated pursuant to Section 8.02, then the Pro Rata Share of each Lender shall be determined based on the Pro Rata Share of such Lender immediately prior to such termination and after giving effect to any subsequent assignments made pursuant to the terms hereof. The initial Pro Rata Share of each Lender is set forth opposite the name of such Lender on Schedule 2.01 or in the Assignment and Assumption pursuant to which such Lender became a party hereto, as applicable.

"PTE" means a prohibited transaction class exemption issued by the U.S. Department of Labor, as any such exemption may be amended from time to time.

"Public Company" means any Person with a class or series of Voting Stock that is traded on a stock exchange or in the over-the-counter market.

"Public Sider" means a Lender whose representatives may trade in securities of the Borrowers or its controlling person or any of its Subsidiaries while in possession of the financial statements provided by the Parent Borrower under the terms of this Agreement.

"Qualified Holding Company Indebtedness" means Indebtedness of Holdings (A) that is not subject to any Guarantee by any Subsidiary of Holdings (other than a Subsidiary as contemplated under clause (i) of the proviso in Section 7.09 of this Agreement), (B) that has no scheduled amortization or scheduled payments of principal and is not subject to mandatory redemption, repurchase, prepayment or sinking fund obligation (it being understood that such Indebtedness may have mandatory prepayment, repurchase or redemption provisions satisfying the requirements of clause (C) below), (C) that has mandatory prepayment, repurchase or redemption, covenant, default and remedy provisions customary for senior notes (or no more restrictive than is customary) of an issuer that is the parent of a borrower under senior secured credit facilities, and in any event, with respect to covenant, default and remedy provisions, no more restrictive (taken as a whole) than those set forth in this Agreement (other than provisions customary for senior notes of a holding company, including (x) customary assets sale, change of control provisions and customary acceleration rights after an event of default and (y) customary "AHYDO" payments) and

(D) if such Indebtedness is secured, it shall only be secured by assets of any Parent Holding Company (other than Holdings) and any Subsidiary of Holdings that is not prohibited from guaranteeing such Indebtedness as provided in clause (A) of this definition; provided that Holdings shall have delivered a certificate of a Responsible Officer to the Administrative Agent at least five Business Days (or such shorter period as may be agreed by the Administrative Agent) prior to the incurrence of such Indebtedness, together with a reasonably detailed description of the material terms and conditions of such Indebtedness or drafts of the documentation relating thereto, stating that Holdings has reasonably determined in good faith that such terms and conditions satisfy the foregoing requirement (and such certificate shall be conclusive evidence that such terms and conditions satisfy the foregoing requirement unless the Administrative Agent notifies Holdings within such applicable period that it disagrees with such determination (including a reasonably detailed description of the basis upon which it disagrees)); provided, further, that any such Indebtedness shall constitute Qualified Holding Company Indebtedness only if immediately after giving effect to the issuance or incurrence thereof and the use of proceeds thereof, no Event of Default shall have occurred and be continuing.

"Qualified IPO" means the issuance by Holdings or any Parent Holding Company of its common Capital Stock in an underwritten primary public offering (other than a public offering pursuant to a registration statement on Form S-8) or through merger with a special purpose acquisition company resulting in such Capital Stock being listed on a nationally-recognized stock exchange in the applicable jurisdiction.

"Qualified Receivables Factoring" means any Factoring Transaction that meets the following conditions:

(1) such Factoring Transaction is non-recourse to, and does not obligate, any Borrower or any Subsidiary, or their respective properties or assets (other than Receivables Assets) in any way other than pursuant to Standard Securitization Undertakings,

(2) all sales, conveyances, assignments and/or contributions of Receivables Assets by any Borrower or any Subsidiary are made at Fair Market Value (as determined in good faith by the Borrower), and

(3) such Factoring Transaction (including financing terms, covenants, termination events (if any) and other provisions thereof) is on market terms at the time such Factoring Transaction is first entered into (as determined in good faith by the Parent Borrower) and may include Standard Securitization Undertakings.

The grant of a security interest in any accounts receivable of the Borrowers or any of their Subsidiaries (other than a Receivables Subsidiary) to secure any Credit Agreement shall not be deemed a Qualified Receivables Factoring.

Notwithstanding the foregoing, the aggregate principal amount of accounts receivables at any time with stated due dates after such time that are subject to Qualified Receivables Factorings or Qualified Receivables Financings shall not exceed $23,000,000.

"Qualified Receivables Financing" means any Receivables Financing that meets the following conditions:

(1) the Board of Directors of the Parent Borrower, Holdings or any Parent Holding Company shall have determined in good faith that such Qualified Receivables Financing (including financing terms, covenants, termination events and other provisions) is in the aggregate economically fair and reasonable to the Borrowers and their Subsidiaries,

(2) all sales, conveyances, assignments and/or contributions of Receivables Assets by any Borrower or any Subsidiary to any Receivables Subsidiary and by any Receivables Subsidiary to any other Person are made at Fair Market Value (as determined in good faith by the Parent Borrower), and

(3) the financing terms, covenants, termination events and other provisions thereof shall be market terms at the time such Receivables Financing is first entered into (as determined in good faith by the Parent Borrower) and may include Standard Securitization Undertakings.

The grant of a security interest in any accounts receivable of the Borrowers or any of their Subsidiaries (other than a Receivables Subsidiary) to secure any Credit Agreement shall not be deemed a Qualified Receivables Financing.

Notwithstanding the foregoing, the aggregate principal amount of accounts receivables at any time with stated due dates after such time that are subject to Qualified Receivables Factorings or Qualified Receivables Financings shall not exceed $23,000,000.

"Qualifying Bids" has the meaning specified in the definition of "Dutch Auction."

"Ratio-Based Incremental Facility" has the meaning specified in the Section 2.14(a).

"Ratio Debt" has the meaning specified in the first paragraph of Section 7.01.

"Receivables Assets" means accounts receivable (whether now existing or arising in the future) of the Borrowers or any of their Subsidiaries, and any assets related thereto including, without limitation, all collateral securing such accounts receivable, all contracts and all guarantees or other obligations in respect of such accounts receivable, proceeds of such accounts receivable and other assets which are customarily transferred or in respect of which security interests are customarily granted in connection with non-recourse, asset securitization or factoring transactions involving accounts receivable and any Swap Contracts entered into by any Borrower or any such Subsidiary in connection with such accounts receivable.

"Receivables Fees" means distributions or payments made directly or by means of discounts with respect to any participation interest issued or sold in connection with, and other fees paid to a Person that is not a Subsidiary in connection with, any Receivables Financing.

"Receivables Financing" means any transaction or series of transactions that may be entered into by any Borrower or any Subsidiary pursuant to which such Borrower or any such Subsidiary may sell, contribute, convey, assign or otherwise transfer Receivables Assets to (a) a Receivables Subsidiary (in the case of a transfer by the Borrowers or any of their Subsidiaries), and (b) any other Person (in the case of a transfer by a Receivables Subsidiary), which in either case, may include a backup or precautionary grant of security interest in such Receivables Assets so sold, contributed, conveyed, assigned or otherwise transferred.

"Receivables Repurchase Obligation" means any obligation of a seller of receivables in a Qualified Receivables Factoring or Qualified Receivables Financing to repurchase receivables arising as a result of a breach of a representation, warranty or covenant or otherwise, including as a result of a receivable or portion thereof becoming subject to any asserted defense, dispute, off-set or counterclaim of any kind as a result of any action taken by, any failure to take action by or any other event relating to the seller, in each case, that are customary (as determined in good faith by the Parent Borrower) for non-recourse receivables financings.

"Receivables Subsidiary" means a Wholly Owned Subsidiary of the Parent Borrower (or another Person formed for the purposes of engaging in a Qualified Receivables Financing with the Parent Borrower in which the Parent Borrower or any Subsidiary of the Parent Borrower or a direct or indirect parent of the Parent Borrower makes an Investment and to which the Parent Borrower or any Subsidiary of the Parent Borrower or a direct or indirect parent of the Parent Borrower sells, conveys, assigns or otherwise transfers Receivables Assets (which may include a backup or precautionary grant of security interest in such Receivables Assets sold, conveyed, assigned or otherwise transferred or purported to be so sold, conveyed, assigned or otherwise transferred)) which engages in no activities other than in connection with the purchase, acquisition or financing of Receivables Assets of the Parent Borrower and its Subsidiaries or a direct or indirect parent of the Parent Borrower, all proceeds thereof and all rights (contractual or other), collateral and other assets relating thereto, and any business or activities incidental or related

to such business, and which is designated by the Board of Directors of the Parent Borrower or any Parent Holding Company (as provided below) as a Receivables Subsidiary and:

(1) no portion of the Indebtedness or any other obligations (contingent or otherwise) of which (i) is guaranteed by the Parent Borrower or any Subsidiary (other than a Receivables Subsidiary, excluding guarantees of obligations (other than the principal of, and interest on, Indebtedness) pursuant to Standard Securitization Undertakings), (ii) is recourse to or obligates the Parent Borrower or any Subsidiary (other than a Receivables Subsidiary) in any way other than pursuant to Standard Securitization Undertakings, or (iii) subjects any property or asset of the Parent Borrower or any Subsidiary (other than a Receivables Subsidiary), directly or indirectly, contingently or otherwise, to the satisfaction thereof, other than pursuant to Standard Securitization Undertakings,

(2) with which neither the Parent Borrower nor any Subsidiary (other than a Receivables Subsidiary) has any material contract, agreement, arrangement or understanding other than on terms which the Parent Borrower reasonably believes to be no less favorable to the Parent Borrower or such Subsidiary than those that might be obtained at the time from Persons that are not Affiliates of the Parent Borrower, and

(3) to which neither the Parent Borrower nor any other Subsidiary of the Parent Borrower has any obligation to maintain or preserve such entity's financial condition or cause such entity to achieve certain levels of operating results.

Any such designation by the Board of Directors of the Parent Borrower or any Parent Holding Company shall be evidenced to the Administrative Agent by filing with the Administrative Agent a certified copy of the resolution of the Board of Directors of the Parent Borrower or such Parent Holding Company giving effect to such designation and an officer's certificate certifying that such designation complied with the foregoing conditions.

"Recipient" means the Administrative Agent and any Lender.

"Reference Period" has the meaning given to such term in the definition of "Pro Forma Basis."

"Refinancing" has the meaning given to such term in the definition of "Transactions."

"Refinancing Amendment" means an amendment to this Agreement, in form and substance reasonably satisfactory to the Administrative Agent, among the Borrowers, the Administrative Agent and the Lenders providing Specified Refinancing Debt, effecting the incurrence of such Specified Refinancing Debt in accordance with Section 2.18.

"Refinancing Indebtedness" has the meaning specified in Section 7.01.

"Refinancing Notes" means one or more series of senior unsecured notes, or senior secured notes secured by the Collateral on a*pari passu* basis with the Liens securing the Obligations or senior secured notes secured by the Collateral on a "junior" basis to the Liens securing the Obligations, in each case issued in respect of a refinancing of outstanding Indebtedness of the Borrowers under any one or more Tranches; provided that, (a) if such Refinancing Notes shall be secured, then (i) such Refinancing Notes shall only be secured by a security interest in the Collateral that secured the Tranche being refinanced, and (ii) such Refinancing Notes shall be issued subject to Applicable Intercreditor Arrangements; (b) no Refinancing Notes shall (i) mature prior to the Latest Maturity Date with respect to Loans then in effect immediately after giving effect to such refinancing or (ii) be subject to any amortization prior to the final maturity thereof, or be subject to any mandatory redemption or prepayment provisions or rights (except (x) customary assets sale, casualty events or similar event, change of control provisions, special mandatory redemptions in connection with customary escrow arrangements and customary acceleration rights after an event of default and (y) customary "AHYDO" payments); (c) the covenants, events of default, guarantees, collateral and other terms of such Refinancing Notes are customary for similar debt securities in light of then-prevailing market conditions at the time of issuance (it being understood that no Refinancing Notes shall include any financial maintenance covenants (including indirectly by way of a cross-default to this Agreement), but that customary cross-

acceleration provisions may be included and that any negative covenants with respect to indebtedness, investments, liens or restricted payments shall be incurrence-based) and in any event are not more favorable to the investors providing such Refinancing Notes, taken as a whole, than the terms and conditions of the Indebtedness being refinanced by such Refinancing Notes (excluding pricing and optional prepayment or redemption terms), except for covenants or other provisions (x) applicable only to periods after the Latest Maturity Date then in effect immediately after giving effect to such refinancing or (y) reasonably satisfactory to the Administrative Agent or as are, in consultation with the Administrative Agent, incorporated into this Agreement (or any other applicable Loan Document) for the benefit of all existing Lenders (to the extent applicable to such Lender) without further amendment requirements (provided that a certificate of a Responsible Officer of the Parent Borrower delivered to the Administrative Agent in good faith at least five Business Days (or such shorter period as may be agreed by the Administrative Agent) prior to the incurrence of such Refinancing Notes, together with a reasonably detailed description of the material terms and conditions of such Refinancing Notes or drafts of the documentation relating thereto, stating that the Parent Borrower has determined in good faith that such terms and conditions satisfy the requirement set forth in this clause (c), shall be conclusive evidence that such terms and conditions satisfy such requirement unless the Administrative Agent provides notice to the Parent Borrower of its objection during such five Business Day period (or shorter) (including a reasonable description of the basis upon which it objects)); (d) such Refinancing Notes may not have obligors or Liens that are more extensive than those which applied to the Indebtedness being refinanced (it being understood that the roles of such obligors as a borrower or a guarantor with respect to such obligations may be interchanged); and (e) the Net Cash Proceeds of such Refinancing Notes shall be applied, substantially concurrently with the incurrence thereof, to the pro rata prepayment of outstanding Loans under the applicable Tranche being so refinanced and the payment of fees, expenses and premiums, if any, payable in connection therewith.

"Refinancing Notes Indentures" means, collectively, the indentures or other similar agreements pursuant to which any Refinancing Notes are issued, together with all instruments and other agreements in connection therewith, as amended, supplemented or otherwise modified from time to time in accordance with the terms thereof, but only to the extent permitted under the terms of the Loan Documents.

"Refunding Capital Stock" has the meaning specified in Section 7.05.

"Register" has the meaning specified in Section 10.07(c).

"Regulation S-X" means Regulation S-X under the Securities Act.

"Related Business Assets" means assets (other than cash or Cash Equivalents) used or useful in a Similar Business;provided that any assets received by the Borrowers or a Subsidiary in exchange for assets transferred by the Borrowers or a Subsidiary will not be deemed to be Related Business Assets if they consist of securities of a Person, unless such Person is, or upon receipt of the securities of such Person, such Person would become, a Subsidiary.

"Related Parties" means, with respect to any Person, such Person's Affiliates and the partners, members, directors, managers, officers, employees, agents, attorneys-in-fact, trustees and advisors of such Person and of such Person's Affiliates.

"Release" means any release, spill, emission, leaking, dumping, injection, pouring, deposit, disposal, discharge, dispersal, migration or leaching into or through the Environment.

"Relevant Transaction" has the meaning specified in Section 2.05(b)(ii).

"Replaceable Lender" has the meaning specified in Section 3.08(a).

"Replacement Assets" means (1) substantially all the assets of a Person primarily engaged in a Similar Business or (2) a majority of the Voting Stock of any Person primarily engaged in a Similar Business that will become, on the date of acquisition thereof, a Subsidiary.

"Reply Amount" has the meaning specified in the definition of "Dutch Auction."

"Reply Discount" has the meaning specified in the definition of "Dutch Auction."

"Reportable Event" means any of the events set forth in Section 4043(c) of ERISA or the regulations issued thereunder, other than events for which the 30-day notice period has been waived.

"Request for Credit Extension" means with respect to a Borrowing, conversion or continuation of Loans, a Committed Loan Notice.

"Required Lenders" means, as of any date of determination, Lenders having more than 50% of the sum of the (a) Total Outstandings and (b) aggregate unused Commitments; provided that the unused Commitments of, and the portion of the Total Outstandings held or deemed held by (x) any Defaulting Lender shall be excluded for purposes of making a determination of Required Lenders and (y) any Affiliate Lenders (other than Debt Fund Affiliates) shall be deemed to have voted in the same proportion as Lenders that are not Affiliate Lenders vote on such matter; provided, further, that if at any time there are three or more Lenders (treating Affiliates as a single lender) with Total Outstandings or unused Commitments, then at such time, the Required Lenders shall constitute at least two such Lenders.

"Responsible Officer" means the chief executive officer, representative, director, manager, president, vice president, executive vice president, chief financial officer, treasurer or assistant treasurer, secretary or assistant secretary, an authorized signatory, an attorney-in-fact (to the extent empowered by the board of directors/managers of Holdings or the Parent Borrower), or other similar officer of a Loan Party. Any document delivered hereunder that is signed by a Responsible Officer of a Loan Party shall be conclusively presumed to have been authorized by all necessary corporate, partnership and/or other action on the part of such Loan Party and such Responsible Officer shall be conclusively presumed to have acted on behalf of such Loan Party.

"Restricted Investment" means an Investment other than a Permitted Investment.

"Restricted Payment" has the meaning specified in Section 7.05.

"Retained Asset Sale Proceeds" has the meaning specified in Section 2.05(b)(ii).

"Retained Excess Cash Flow Amount" means, at any date of determination, an amount, no less than zero and determined on a cumulative basis, that is equal to the aggregate cumulative sum of Excess Cash Flow that is not required to be applied to make a payment under Section 2.05(b)(i) (or Section 2.05(b)(i) of the First Lien Credit Agreement) for each completed fiscal year commencing with the first full fiscal year after the Closing Date.

"Retired Capital Stock" has the meaning specified in Section 7.05.

"Return Bid" has the meaning specified in the definition of "Dutch Auction."

"Sale/Leaseback Transaction" means an arrangement relating to property now owned or hereafter acquired by any Borrower or a Subsidiary whereby any Borrower or a Subsidiary transfers such property to a Person and such Borrower or such Subsidiary leases it from such Person, other than leases between a Borrower and a Subsidiary or between Subsidiaries.

"Sanctions Laws and Regulations" means economic or financial sanctions or trade embargoes imposed, administered or enforced from time to time by (a) the U.S. government, including those administered by the U.S. Department of the Treasury's Office of Foreign Assets Control ("OFAC") or the U.S. Department of State, or (b) the United Nations Security Council, the European Union, any European Union member state or Her Majesty's Treasury of the United Kingdom or any other governmental authority with jurisdiction over Holdings, the Borrowers or any of their respective Subsidiaries.

"S&P" means Standard & Poor's Financial Services LLC, and any successor thereto.

"Screen Rate" means, for any day and time, with respect to any Eurocurrency Rate Borrowing in Dollars and for any Interest Period, the London interbank offered rate as administered by ICE Benchmark Administration (or any other Person that takes over the administration of such rate for Dollars for a period equal in length to such Interest Period as displayed on such day and time on pages LIBOR01 or LIBOR02 of the Reuters screen that displays such rate (or, in the event such rate does not appear on a Reuters page or screen, on any successor or substitute page on such screen that displays such rate, or on the appropriate page of such other information service that publishes such rate from time to time as selected by the Administrative Agent in its reasonable discretion); provided that if the Screen Rate as so determined would be less than zero, such rate shall be deemed to zero for the purposes of this Agreement.

"SEC" means the Securities and Exchange Commission, or any Governmental Authority succeeding to any of its principal functions.

"Secured Obligations" has the meaning specified in the Security Agreement.

"Secured Parties" means, collectively, the Administrative Agent, the Collateral Agent, the Lenders and each co-agent or subagent appointed by the Administrative Agent or the Collateral Agent from time to time pursuant to Article IX.

"Securities Act" means the U.S. Securities Act of 1933, as amended, and the rules and regulations of the SEC promulgated thereunder.

"Security Agreement" means, collectively, the Security Agreement dated as of the date hereof executed by the Loan Parties party thereto, substantially in the form of Exhibit G, as amended, supplemented or otherwise modified from time to time in accordance with the terms thereof, together with each other security agreement and security agreement supplement executed and delivered pursuant to Section 6.12, 6.14 or 6.16.

"Security Agreement Supplement" has the meaning specified in the Security Agreement.

"Similar Business" means any business engaged or proposed to be engaged in by Holdings and its Subsidiaries on the Closing Date and any business or other activities that are similar, ancillary, complementary, incidental or related thereto, or an extension, development or expansion of, the businesses in which Holdings and its Subsidiaries are engaged on the Closing Date.

"Solvent" means, with respect to any Person on any date of determination, that on such date (a) the fair value of the assets of such Person is greater than the total amount of liabilities, including contingent liabilities, of such Person, (b) the present fair salable value of the assets of such Person is greater than or equal to the total amount that will be required to pay the probable liabilities, including contingent liabilities, of the Loan Parties as they become absolute and matured, (c) the capital of such Person is not unreasonably small in relation to its business as contemplated on such date of determination, (d) such Person has not and does not intend to, and does not believe that it will, incur debts or other obligations, including current obligations, beyond its ability to pay such debts and liabilities as they become due (whether at maturity or otherwise) and (e) such Person is "solvent" within the meaning given to that term and similar terms under Laws applicable to such Person relating to fraudulent transfers and conveyances, transactions at an undervalue, unfair preferences or equivalent concepts. The amount of contingent liabilities at any time shall be computed as the amount that, in the light of all the facts and circumstances existing at such time, represents the amount that can reasonably be expected to become an actual or matured liability or, if a different methodology is prescribed by applicable Laws, as prescribed by such Laws.

"SPC" has the meaning specified in Section 1.01(g).

"Specified Refinancing Agent" has the meaning specified in Section 2.18(a).

"Specified Refinancing Commitment" has the meaning specified in Section 2.18(a).

"Specified Refinancing Debt" has the meaning specified in Section 2.18(a).

"Specified Refinancing Loans" means Specified Refinancing Debt constituting term loans.

"Specified Transaction" means any incurrence or repayment of Indebtedness (excluding Indebtedness incurred for working capital purposes other than pursuant to this Agreement) or Investment that results in a Person becoming a Subsidiary, any acquisition or any Disposition that results in a Subsidiary ceasing to be a Subsidiary of a Borrower, any Investment constituting an acquisition of assets constituting a business unit, line of business or division of another Person or any Disposition of a business unit, line of business or division of the Borrowers or any of the Subsidiaries, in each case whether by merger, consolidation, amalgamation or otherwise or any material restructuring of the Borrowers or implementation of any initiative not in the ordinary course of business.

"Sponsor" means GTCR LLC or any of its Control Investment Affiliates and, in each case (whether individually or as a group), Affiliates of each of the foregoing (but excluding any operating portfolio companies of the foregoing).

"Sponsor Model" means the model delivered to the Arrangers on June 20, 2018 (together with any updates or modifications thereto reasonably agreed between Holdings and the Arrangers).

"Standard Securitization Undertakings" means representations, warranties, covenants, indemnities and guarantees of performance entered into by any Borrower or any Subsidiary of a Borrower which the Parent Borrower has determined in good faith to be customary in a Factoring Transaction or Receivables Financing, including, without limitation, those relating to the servicing of the assets of a Receivables Subsidiary, it being understood that any Receivables Repurchase Obligation shall be deemed to be a Standard Securitization Undertaking.

"Stated Maturity" means with respect to any security, the date specified in such security as the fixed date on which the final payment of principal of such security is due and payable, including pursuant to any mandatory redemption provision (but excluding any provision providing for the repurchase of such security at the option of the holder thereof upon the happening of any contingency unless such contingency has occurred).

"Statutory Reserve Rate" means a fraction (expressed as a decimal), the numerator of which is the number one and the denominator of which is the number one minus the aggregate of the maximum reserve percentages (including any marginal, special, emergency or supplemental reserves) expressed as a decimal established by the FRB to which the Administrative Agent is subject with respect to the Adjusted Eurocurrency Rate, for Eurocurrency funding (currently referred to as "Eurocurrency Liabilities" in Regulation D of the FRB). Such reserve percentages shall include those imposed pursuant to such Regulation D. Eurocurrency Rate Loans shall be deemed to constitute Eurocurrency funding and to be subject to such reserve requirements without benefit of or credit for proration, exemptions or offsets that may be available from time to time to any Lender under such Regulation D or any comparable regulation. The Statutory Reserve Rate shall be adjusted automatically on and as of the effective date of any change in any reserve percentage.

"Stock Certificates" has the meaning specified in Section 4.01.

"Subject Lien" has the meaning specified in Section 7.02.

"Subordinated Indebtedness" means (a) with respect to any Borrower, any Indebtedness of such Borrower which is by its terms expressly subordinated in right of payment to the Obligations, and (b) with respect to any Guarantor, any Indebtedness of such Guarantor which is by its terms expressly subordinated in right of payment to its Guarantee of the Obligations.

"Subsidiary" means, with respect to any Person (1) any corporation, association or other business entity (other than a partnership, joint venture, limited liability company or similar entity) of which more than 50% of the total voting power of the Voting Stock is at the time of determination owned or controlled, directly or indirectly, by such Person or one or more of the other Subsidiaries of that Person or a combination thereof, (2) any partnership, joint venture, limited liability company or similar entity of which (x) more than 50% of the capital accounts, distribution rights, total equity and voting interests or general and limited partnership interests, as applicable, are

owned or controlled, directly or indirectly, by such Person or one or more of the other Subsidiaries of that Person or a combination thereof, whether in the form of membership, general, special or limited partnership interests or otherwise, and (y) such Person or any Subsidiary of such Person is a controlling general partner or otherwise controls such entity and (3) any Person that is consolidated in the consolidated financial statements of the specified Person in accordance with GAAP.

"Subsidiary Guarantor" means, collectively, all Guarantors other than Holdings.

"Subsidiary Guaranty" means, collectively, the Subsidiary Guaranty made by the Subsidiary Guarantors in favor of the Administrative Agent on behalf of the Secured Parties, substantially in the form of Exhibit F-2, as amended, supplemented or otherwise modified from time to time in accordance with the terms thereof, together with each other guaranty and guaranty supplement delivered pursuant to Section 6.12 or 6.16.

"Supplemental Agent" has the meaning specified in Section 9.14(a).

"Swap Contract" means (a) any and all rate swap transactions, basis swaps, credit derivative transactions, forward rate transactions, commodity swaps, commodity options, forward commodity contracts, equity or equity index swaps or options, bond or bond price or bond index swaps or options or forward bond or forward bond price or forward bond index transactions, interest rate options, forward foreign exchange transactions, cap transactions, floor transactions, collar transactions, currency swap transactions, cross-currency rate swap transactions, currency options, spot contracts, or any other similar transactions or any combination of any of the foregoing (including any options to enter into any of the foregoing), whether or not any such transaction is governed by or subject to any master agreement, and (b) any and all transactions of any kind, and the related confirmations, which are subject to the terms and conditions of, or governed by, any form of master agreement published by the International Swaps and Derivatives Association, Inc., any International Foreign Exchange Master Agreement, or any other master agreement, including any obligations or liabilities under any such master agreement.

"Swap Termination Value" means, in respect of any one or more Swap Contracts, after taking into account the effect of any legally enforceable netting agreement relating to such Swap Contracts, (a) for any date on or after the date such Swap Contracts have been closed out and termination value(s) determined in accordance therewith, such termination value(s), and (b) for any date prior to the date referenced in clause (a), the amount(s) determined as the mark-to-market value(s) for such Swap Contracts, as determined based upon one or more mid-market or other readily available quotations provided by any recognized dealer in such Swap Contracts (which may include a Lender or any Affiliate of a Lender).

"Tax Distributions" has the meaning assigned to such term in Section 7.05(13).

"Taxes" means all present or future taxes, levies, imposts, duties, deductions, withholdings (including backup withholding), assessments, fees or other charges imposed by any Governmental Authority, including any interest, additions to tax or penalties applicable thereto.

"Threshold Amount" means the greater of (x) $16,100,000 and (y) 30% of Consolidated EBITDA.

"Total Outstandings" means the aggregate Outstanding Amount of all Loans.

"Tranche" means the respective facility and commitments utilized in making Loans hereunder, with there being one Tranche on the Closing Date, i.e., Initial Loans and Initial Commitments. Additional Tranches may be added after the Closing Date pursuant to the terms hereof, i.e., New Loans, Specified Refinancing Loans, New Commitments and Specified Refinancing Commitments.

"Transactions" means, collectively, each of the following transactions:

(a) the Borrowers obtaining the Initial Loans;

(b) the Borrowers obtaining the First Lien Facilities;

(c) the repayment, redemption, repurchase, defeasance, discharge, refinancing or termination (or the giving of notice for the repayment or redemption thereof to the extent accompanied by any prepayments or deposits required to defease, terminate and satisfy and discharge in full the obligations under any related indentures or notes) of all existing third party Indebtedness for borrowed money of the Borrowers and their Subsidiaries under the Existing Credit Agreements and the termination and release of all related guaranties and security interests (or making arrangements for such release that are reasonably satisfactory to the Administrative Agent) (the "Refinancing");

(d) the payment of a dividend to the Borrower's indirect equityholders in an amount not to exceed $52,000,000; and

(e) the payment of all fees, costs and expenses incurred in connection with the transactions described in the foregoing provisions of this definition (the "Transaction Costs").

"Transaction Agreement Date" has the meaning specified in Section 1.02.

"Transaction Costs" has the meaning given to such term in the definition of "Transactions."

"Type" means, with respect to a Loan, its character as a Base Rate Loan or a Eurocurrency Rate Loan.

"Undisclosed Administration" means in relation to a Lender or its direct or indirect parent company the appointment of an administrator, provisional liquidator, conservator, receiver, trustee, custodian or other similar official by a supervisory authority or regulator under or based on the law in the country where such Person is subject to home jurisdiction supervision if applicable law requires that such appointment is not to be publicly disclosed.

"UCC Filing Collateral" has the meaning specified in Section 4.01.

"Unfunded Advances/Participations" means with respect to the Administrative Agent, the aggregate amount, if any (i) made available to the Borrowers on the assumption that each Lender has made available to the Administrative Agent such Lender's share of the applicable Borrowing available to the Administrative Agent as contemplated by Section 2.12(b) and (ii) with respect to which a corresponding amount shall not in fact have been returned to the Administrative Agent by the Borrowers or made available to the Administrative Agent by any such Lender.

"Unfunded Pension Liability" means the excess of a Plan's benefit liabilities under Section 4001(a) of ERISA over the current value of such Plan's assets, determined in accordance with assumptions used for funding the Plan pursuant to Section 412 of the Code for the applicable plan year.

"Uniform Commercial Code" or "UCC" means the Uniform Commercial Code as the same may from time to time be in effect in the State of New York or the Uniform Commercial Code (or similar code or statute) of another jurisdiction, to the extent it may be required to apply to any item or items of Collateral.

"United States" and "U.S." mean the United States of America.

"Unpaid Amount" has the meaning specified in Section 7.05.

"U.S. Person" means any Person that is a "United States person" as defined in Section 7701(a)(30) of the Code.

"U.S. Tax Compliance Certificate" has the meaning assigned to such term in Section 3.01(g)(ii).

"Voting Stock" of any Person as of any date means the Capital Stock of such Person that is at the time entitled to vote (without regard to the occurrence of any contingency) in the election of the Board of Directors of such Person.

"Weighted Average Life to Maturity" means, when applied to any Indebtedness or Disqualified Stock or Preferred Stock, as the case may be, at any date, the number of years (and/or portion thereof) obtained by dividing: (a) the sum of the products obtained by multiplying (i) the amount of each then remaining installment, sinking fund, serial maturity or other required payments of principal, including payment at final maturity, in respect of such Indebtedness or redemption or similar payment, in respect of such Disqualified Stock or Preferred Stock, by (ii) the number of years (calculated to the nearest one-twelfth) that will elapse between such date and the making of such payment; by (b) the then outstanding principal amount of such Indebtedness.

"Wholly Owned Subsidiary" of any Person means a direct or indirect Subsidiary of such Person 100% of the outstanding Capital Stock or other ownership interests of which (other than directors' qualifying shares or shares or interests required to be held by foreign nationals or other third parties to the extent required by applicable law) shall at the time be owned by such Person or by one or more Wholly Owned Subsidiaries of such Person.

"Withholding Agent" shall mean any Loan Party, the Administrative Agent and any other applicable withholding agent.

"Working Capital" means, with respect to the Borrowers and the Subsidiaries on a consolidated basis, Consolidated Current Assets minus Consolidated Current Liabilities.

"Write-Down and Conversion Powers" means, with respect to any EEA Resolution Authority, the write- down and conversion powers of such EEA Resolution Authority from time to time under the Bail-In Legislation for the applicable EEA Member Country, which write-down and conversion powers are described in the EU Bail-In Legislation Schedule.

Section 1.02 Other Interpretive Provisions. With reference to this Agreement and each other Loan Document, unless otherwise specified herein or in such other Loan Document:

(a) The meanings of defined terms are equally applicable to the singular and plural forms of the defined terms.

(b) The words "herein," "hereto," "hereof" and "hereunder" and words of similar import when used in any Loan Document shall refer to such Loan Document as a whole and not to any particular provision thereof.

(c) References in this Agreement to an Exhibit, Schedule, Article, Section, clause or subclause refer (A) to the appropriate Exhibit or Schedule to, or Article, Section, clause or subclause in this Agreement or (B) to the extent such references are not present in this Agreement, to the Loan Document in which such reference appears.

(d) The term "including" is by way of example and not limitation.

(e) The term "documents" includes any and all instruments, documents, agreements, certificates, notices, reports, financial statements and other writings, however evidenced, whether in physical or electronic form.

(f) Any reference herein to any Person shall be construed to include such Person's successors and assigns.

(g) In the computation of periods of time from a specified date to a later specified date, the word "from" means "from and including;" the words "to" and "until" each mean "to but excluding;" and the word "through" means "to and including."

(h) Section headings herein and in the other Loan Documents are included for convenience of reference only and shall not affect the interpretation of this Agreement or any other Loan Document.

(i) In measuring compliance with this Agreement with respect to any (x) Investment or acquisition, in each case, for which Holdings or any Subsidiary thereof may not terminate its obligations under the documentation therefor due to a lack of financing for such Investment or acquisition (whether by merger, consolidation or other business combination or acquisition of Capital Stock or otherwise) as applicable and (y) repayment, repurchase or refinancing of Indebtedness with respect to which an irrevocable notice of repayment (or similar irrevocable notice), which may be conditional, has been delivered, in each case for purposes of determining:

(1) whether any Indebtedness (including Acquired Indebtedness) that is being incurred in connection with such Investment, acquisition or repayment, repurchase or refinancing of Indebtedness is permitted to be incurred in compliance with Section 7.01;

(2) whether any Lien being incurred in connection with such Investment, acquisition or repayment, repurchase or refinancing of Indebtedness or to secure any such Indebtedness is permitted to be incurred in accordance with Section 7.02 or the definition of "Permitted Liens";

(3) whether any other transaction undertaken or proposed to be undertaken in connection with such Investment, acquisition or repayment, repurchase or refinancing of Indebtedness complies with the covenants or agreements contained in this Agreement; and

(4) any calculation of the ratios or baskets, including Consolidated First Lien Net Leverage Ratio, Consolidated Total Net Leverage Ratio, Consolidated Senior Secured Net Leverage Ratio, Consolidated Net Income, Consolidated EBITDA and/or Pro Forma Cost Savings and baskets determined by reference to Consolidated EBITDA or Consolidated Net Tangible Assets and, whether a Default or Event of Default exists in connection with the foregoing,

at the option of the Parent Borrower, the date that the definitive agreement for such Investment, acquisition or repayment, repurchase or refinancing of Indebtedness is entered into or notice, which may be conditional, of such repayment, repurchase or refinancing of Indebtedness is given to the holders of such Indebtedness (the "Transaction Agreement Date") may be used as the applicable date of determination, as the case may be, in each case with such pro forma adjustments as are appropriate and consistent with the pro forma adjustment provisions set forth in the definition of "Pro Forma Basis" or "Consolidated EBITDA." For the avoidance of doubt, if the Parent Borrower elects to use the Transaction Agreement Date as the applicable date of determination in accordance with the foregoing, (a) any fluctuation or change in the Consolidated First Lien Net Leverage Ratio, Consolidated Total Net Leverage Ratio, Consolidated Senior Secured Net Leverage Ratio, Consolidated Net Income, Consolidated EBITDA, Consolidated Net Tangible Assets and/or Pro Forma Cost Savings of the Borrowers from the Transaction Agreement Date to the consummation of such Investment, acquisition or repayment, repurchase or refinancing of Indebtedness, will not be taken into account for purposes of determining whether any Indebtedness or Lien that is being incurred in connection with such Investment, acquisition or repayment, repurchase or refinancing of Indebtedness, or in connection with compliance by the Borrowers or any of the Subsidiaries with any other provision of the Loan Documents or any other transaction undertaken in connection with such Investment, acquisition or repayment, repurchase or refinancing of Indebtedness, is permitted to be incurred and (b) until such Investment, acquisition or repayment, repurchase or refinancing of Indebtedness is consummated or such definitive agreements are terminated (or conditions in any conditional notice can no longer be met or such notice is otherwise revoked or withdrawn by the Parent Borrower), such Investment, acquisition or repayment, repurchase or refinancing of Indebtedness and all transactions proposed to be undertaken in connection therewith (including the incurrence of Indebtedness and Liens) will be given pro forma effect when determining compliance of other transactions (including the incurrence of Indebtedness and Liens unrelated to such Investment, acquisition or repayment, repurchase or refinancing of Indebtedness) that are consummated after the Transaction Agreement Date and on or prior to the consummation of such Investment, acquisition or repayment, repurchase or refinancing of Indebtedness and any such transactions (including any incurrence of Indebtedness and the use of proceeds thereof) will be deemed to have occurred on the date the definitive agreements are entered and outstanding thereafter for purposes of calculating any baskets or ratios under the Loan Documents after the date of such agreement and before the consummation

of such Investment, acquisition or repayment, repurchase or refinancing of Indebtedness; provided that the calculation of Consolidated Net Income (and any defined term a component of which is Consolidated Net Income) shall not include the Consolidated Net Income of the Person or assets to be acquired in the relevant Investment or acquisition for purposes of calculating whether the Borrowers or any Subsidiary are permitted to make any Restricted Payment pursuant to Section 7.05 until such time as such Investment or acquisition is actually consummated.

(j) As used in Article VII and the definitions of "Permitted Investments" and "Permitted Liens", the term "Consolidated EBITDA" is deemed to refer to Consolidated EBITDA of the Borrower Parties for the four fiscal quarter period most recently then ended for which financial statements have been delivered pursuant to Section 6.01(a) or (b), as applicable, calculated on a Pro Forma Basis.

Section 1.03 Accounting Term.

(a) All accounting terms not specifically or completely defined herein shall be construed in conformity with, and all financial data (including financial ratios and other financial calculations) required to be submitted pursuant to this Agreement shall be prepared in conformity with, GAAP, as in effect from time to time.

(b) If at any time any change in GAAP or the application thereof would affect the computation or interpretation of any financial ratio, basket, requirement or other provision set forth in any Loan Document, and either the Parent Borrower or the Required Lenders shall so request, the Administrative Agent and the Parent Borrower shall negotiate in good faith to amend such ratio, basket, requirement or other provision to preserve the original intent thereof in light of such change in GAAP or the application thereof (subject to the approval of the Required Lenders not to be unreasonably withheld, conditioned or delayed); provided that, until so amended, (i) (A) such ratio, basket, requirement or other provision shall continue to be computed or interpreted in accordance with GAAP or the application thereof prior to such change therein and (B) the Parent Borrower shall provide to the Administrative Agent and the Lenders a written reconciliation in form and substance reasonably satisfactory to the Administrative Agent, between calculations of such ratio, basket, requirement or other provision made before and after giving effect to such change in GAAP or the application thereof or (ii) the Parent Borrower may elect to fix GAAP (for purposes of such ratio, basket, requirement or other provision) as of another later date notified in writing to the Administrative Agent from time to time.

(c) Notwithstanding anything to the contrary contained herein, all such financial statements shall be prepared, and all financial covenants contained herein or in any other Loan Document shall be calculated, in each case, without giving effect to any election under FASB ASC 825 (or any similar accounting principle) permitting a Person to value its financial liabilities at the fair value thereof.

Section 1.04 Rounding. Any financial ratios required to be maintained by the Parent Borrower, or satisfied in order for a specific action to be permitted, under this Agreement shall be calculated by dividing the appropriate component by the other component, carrying the result to one place more than the number of places by which such ratio is expressed herein and rounding the result up or down to the nearest number (with a rounding-up if there is no nearest number).

Section 1.05 References to Agreements and Laws. Unless otherwise expressly provided herein, (a) references to Organization Documents, agreements (including the Loan Documents) and other contractual instruments shall be deemed to include all subsequent amendments, restatements, extensions, supplements and other modifications thereto, but only to the extent that such amendments, restatements, extensions, supplements and other modifications are permitted by any Loan Document and (b) references to any Law shall include all statutory and regulatory provisions consolidating, amending, replacing, supplementing or interpreting such Law. References to specific provisions (or defined terms) in the First Lien Facilities Documentation shall be to such provisions (or defined terms) as amended or replaced (to the extent such amendment or replacement is permitted by the Loan Documents), and cross-references shall be deemed amended as necessary to refer to the same provisions that are referenced in the First Lien Facilities Documentation as in effect on the Closing Date.

Section 1.06 Times of Day. Unless otherwise specified, all references herein to times of day shall be references to Eastern time (daylight savings or standard, as applicable).

Section 1.07 Timing of Payment or Performance. When the payment of any obligation or the performance of any covenant, duty or obligation is stated to be due or performance required on a day which is not a Business Day, the date of such payment (other than as specifically provided in Section 2.12 or as described in the definition of Interest Period) or performance shall extend to the immediately succeeding Business Day.

Section 1.08 Currency Equivalents Generally.

(a) Any amount specified in this Agreement (other than in Articles II, IX and X or as set forth in clause (b) of this Section 1.08) or any of the other Loan Documents to be in Dollars shall also include the equivalent of such amount in any currency other than Dollars, such equivalent amount to be determined at the rate of exchange quoted by the Reuters World Currency Page for such other currency at 11:00 a.m. (London time) on such day (or, in the event such rate does not appear on any Reuters World Currency Page, by reference to such other publicly available service for displaying exchange rates as may be agreed upon by the Administrative Agent and the Parent Borrower, or, in the absence of such agreement, such rate shall instead be the arithmetic average of the spot rates of exchange of the Administrative Agent in the market where its foreign currency exchange operations in respect of such currency are then being conducted, at or about 10:00 a.m. (New York City time) on such date for the purchase of Dollars for delivery two Business Days later); provided that if any basket is exceeded solely as a result of fluctuations in applicable currency exchange rates after the last time such basket was utilized, such basket will not be deemed to have been exceeded solely as a result of such fluctuations in currency exchange rates.

(b) For purposes of determining the Consolidated First Lien Net Leverage Ratio, the Consolidated Total Net Leverage Ratio and the Consolidated Senior Secured Net Leverage Ratio, amounts denominated in a currency other than Dollars will be converted to Dollars at the Dollar Equivalent at such date, and will, in the case of Indebtedness and Consolidated Funded Indebtedness, be the weighted average exchange rates used for determining Consolidated EBITDA for the relevant period, provided that if any Borrower Party has entered into any currency Swap Contracts in respect of any borrowings, the currency and amount of such borrowings shall be determined by first taking into account the effects of that currency Swap Contract.

(c) The Administrative Agent does not warrant, nor accept responsibility, nor shall the Administrative Agent have any liability with respect to the administration, submission or any other matter related to the rates in the definition of "Eurocurrency Rate" or with respect to any comparable or successor rate thereto.

Section 1.09 [Reserved].

Section 1.10 Pro Forma Calculations. Notwithstanding anything to the contrary herein (subject to Section 1.02(i)), the Consolidated First Lien Net Leverage Ratio, the Consolidated Total Net Leverage Ratio, the Consolidated Senior Secured Net Leverage Ratio, Consolidated EBITDA and Consolidated Net Tangible Assets shall be calculated (including for purposes of Sections 2.14 and 2.15) on a Pro Forma Basis with respect to each Specified Transaction occurring during the applicable four quarter period to which such calculation relates, and/or subsequent to the end of such four-quarter period but not later than the date of such calculation; provided that notwithstanding the foregoing, when calculating the Consolidated First Lien Net Leverage Ratio for purposes of (i) determining the applicable percentage of Excess Cash Flow for purposes of Section 2.05(b), (ii) the Applicable Rate and (iii) determining actual compliance (and not Pro Forma Compliance or compliance on a Pro Forma Basis) with any Specified Transaction and any related adjustment contemplated in the definition of Pro Forma Basis (and corresponding provisions of the definition of Consolidated EBITDA) that occurred subsequent to the end of the applicable four quarter period shall not be given Pro Forma Effect.

Section 1.11 Calculation of Baskets. If any of the baskets set forth in this Agreement are exceeded solely as a result of fluctuations to Consolidated Net Tangible Assets for the most recently completed fiscal quarter after the last time such baskets were calculated for any purpose under this Agreement, such baskets will not be deemed to have been exceeded solely as a result of such fluctuations.

Section 2.01 The Loans.

(a) The Initial Borrowing. Subject to the terms and conditions set forth herein, each Lender with an Initial Commitment severally agrees to make a single loan denominated in Dollars (the "Initial Loans") to the Borrowers on the Closing Date in an amount not to exceed such Lender's Initial Commitment. The Initial Borrowing shall consist of Initial Loans made simultaneously by the Lenders in accordance with their respective Initial Commitments. Amounts borrowed under this Section 2.01(a) and subsequently repaid or prepaid may not be reborrowed. Initial Loans may be Base Rate Loans or Eurocurrency Rate Loans as further provided herein. Notwithstanding the Borrowers' joint and several liability for all payments to be made under this Agreement, as of the Closing Date, each Borrower hereby agrees, solely as between such Persons that, including for federal or state income tax purposes, the initial principal amount of the outstanding Initial Borrowing of the Parent Borrower is $18,088,087.33, the initial principal amount of the outstanding Initial Borrowing of Vector is $34,513,019.72, the initial principal amount of the outstanding Initial Borrowing of Cygnus is $33,928,948.71 and the initial principal amount of the outstanding Initial Borrowing of TriLink is $13,469,944.24.

(b) [Reserved].

(c) After the Closing Date, subject to and upon the terms and conditions set forth herein, each Lender with a Commitment (other than an Initial Commitment) with respect to any Tranche of Loans (other than Initial Loans) severally agrees to make a Loan denominated in Dollars under such Tranche to the Borrowers in an amount not to exceed such Lender's Commitment under such Tranche on the date of incurrence thereof, which Loans under such Tranche shall be incurred pursuant to a single drawing on the date set forth for such incurrence. Such Loans may be Base Rate Loans or Eurocurrency Rate Loans as further provided herein. Once repaid, Loans incurred hereunder may not be reborrowed.

Section 2.02 Borrowings, Conversions and Continuations of Loans.

(a) Each Borrowing, each conversion of Loans from one Type to the other, and each continuation of Eurocurrency Rate Loans, shall be made upon irrevocable notice by the Parent Borrower to the Administrative Agent. Each such notice must be in writing and must be received by the Administrative Agent not later than (i) 12:00 p.m. (New York City time) three Business Days prior to the requested date of any Borrowing of, conversion of Base Rate Loans to, or continuation of, Eurocurrency Rate Loans (or in the case of any such Borrowing to be made on the Closing Date, one Business Day prior to the Closing Date) and (ii) 12:00 p.m. on the requested date of any Borrowing of Base Rate Loans or of any conversion of Eurocurrency Rate Loans to Base Rate Loans. Each notice pursuant to this Section 2.02(a) shall be delivered to the Administrative Agent in the form of a written Committed Loan Notice, appropriately completed and signed by a Responsible Officer of the Parent Borrower.

Each Borrowing of, conversion to or continuation of Eurocurrency Rate Loans shall be (i) in a principal amount of $2,000,000, or (ii) a whole multiple of $1,000,000 in excess thereof. Each Borrowing of, or conversion to, Base Rate Loans shall be (i) in a principal amount of $500,000, or (ii) a whole multiple of $500,000 in excess thereof.

Each Committed Loan Notice shall specify (i) whether the Borrowers are requesting a Borrowing, a conversion of a Tranche of Loans from one Type to the other, or a continuation of Eurocurrency Rate Loans, (ii) the requested date of the Borrowing, conversion or continuation, as the case may be (which shall be a Business Day), (iii) the principal amount of Loans to be borrowed, converted or continued, (iv) the Type of Loans to be borrowed or to which existing Tranche of Loans are to be converted, (v) if applicable, the duration of the Interest Period with respect thereto and (vi) the applicable Borrower to which such Loan shall be made. If, with respect to any Eurocurrency Rate Loans, the Parent Borrower fails to specify a Type of Loan in a Committed Loan Notice or if the Parent Borrower fails to give a timely notice requesting a conversion or continuation, then the applicable Tranche of Loans shall be made as, or converted to, Eurocurrency Rate Loans with an Interest Period of 1 month. Any such automatic conversion or continuation pursuant to the immediately preceding sentence shall be effective as of the last day of the Interest Period then in effect with respect to the applicable Eurocurrency Rate Loans. If the Parent

Borrower requests a Borrowing of, conversion to, or continuation of Eurocurrency Rate Loans in any such Committed Loan Notice, but fails to specify an Interest Period, it will be deemed to have specified an Interest Period of one month.

(b) Following receipt of a Committed Loan Notice, the Administrative Agent shall promptly notify each applicable Lender of the amount of its ratable share of the applicable Tranche of Loans, and if no timely notice of a conversion or continuation of Eurocurrency Rate Loan is provided by the Parent Borrower, the Administrative Agent shall notify each Lender of the details of any automatic conversion to Eurocurrency Rate Loans with an Interest Period of one month as described in Section 2.02(a). In the case of a Borrowing, each Appropriate Lender shall make the amount of its Loan available to the Administrative Agent in immediately available funds at the Administrative Agent's Office not later than 1:00 p.m. (New York City time), on the Business Day specified in the applicable Committed Loan Notice. Each Lender may, at its option, make any Loan available to the Borrowers by causing any foreign or domestic branch or Affiliate of such Lender to make such Loan; provided that any exercise of such option shall not affect the obligation of the Borrowers to repay such Loan in accordance with the terms of this Agreement. Upon satisfaction of the applicable conditions set forth in Section 4.01, the Administrative Agent shall make all funds so received available to the Borrowers in like funds as received by the Administrative Agent either by (i) crediting the account of the Borrowers on the books of the Administrative Agent with the amount of such funds or (ii) wire transfer of such funds, in each case in accordance with instructions provided to (and reasonably acceptable to) the Administrative Agent by the Parent Borrower.

(c) Except as otherwise provided herein, a Eurocurrency Rate Loan may be continued or converted only on the last day of an Interest Period for such Eurocurrency Rate Loan unless the Borrowers pay the amount due under Section 3.06 in connection therewith. During the existence of an Event of Default, at the election of the Administrative Agent or the Required Lenders, no Loans may be requested as, converted to or continued as Eurocurrency Rate Loans.

(d) The Administrative Agent shall promptly notify the Parent Borrower and the Lenders of the interest rate applicable to any Interest Period for Eurocurrency Rate Loans upon determination of such interest rate. The determination of the Eurocurrency Rate by the Administrative Agent shall be conclusive in the absence of manifest error.

(e) After giving effect to all Borrowings, all conversions of Loans from one Type to the other, and all continuations of Loans of the same Type, there shall not be more than ten Interest Periods in effect.

(f) The failure of any Lender to make the Loan to be made by it as part of any Borrowing shall not relieve any other Lender of its obligation, if any, hereunder to make its Loan on the date of such Borrowing, but no Lender shall be responsible for the failure of any other Lender to make the Loan to be made by such other Lender on the date of any Borrowing, which for the avoidance of doubt does not limit such Lender's obligations under Section 2.17.

Section 2.03 [Reserved].

Section 2.04 [Reserved].

Section 2.05 Prepayments.

(a) Optional. (i) A Borrower may, upon notice by the Parent Borrower substantially in the form of Exhibit L-1 to the Administrative Agent, at any time or from time to time voluntarily prepay Loans in whole or in part without premium or penalty except as set forth in Section 2.05(a)(iii) below; provided that (1) such notice must be received by the Administrative Agent not later than 2:00 p.m. (New York City time) (A) three Business Days prior to any date of prepayment of Eurocurrency Rate Loan and (B) on the date of prepayment of Base Rate Loans (or such shorter period as the Administrative Agent shall agree); (2) any prepayment of Eurocurrency Rate Loans shall be (x) in a principal amount of $2,000,000, or (y) a whole multiple of $1,000,000 in excess thereof; and (3) any prepayment of Base Rate Loans shall be (x) in a principal amount of $500,000, or (y) a whole multiple of $500,000 in excess thereof or, in each case, if less, the entire principal amount thereof then outstanding. Each such notice

shall specify the date, amount and currency of such prepayment, the Tranche of Loans to be prepaid, the Type(s) of Loans to be prepaid and, if Eurocurrency Rate Loans are to be prepaid, the Interest Period(s) of such Loans (except that if the class of Loans to be prepaid includes both Base Rate Loans and Eurocurrency Rate Loans, absent direction by the Parent Borrower, the applicable prepayment shall be applied first to Base Rate Loans to the full extent thereof before application to Eurocurrency Rate Loans, in each case in a manner that minimizes the amount payable by the applicable Borrower in respect of such prepayment pursuant to Section 3.06). The Administrative Agent will promptly notify each Lender of its receipt of each such notice, and of the amount of such Lender's ratable portion of such prepayment (based on such Lender's ratable share of the relevant Facility). If such notice is given by the Parent Borrower, subject to clause (ii) below, the applicable Borrower shall make such prepayment and the payment amount specified in such notice shall be due and payable on the date specified therein. Any prepayment of a Eurocurrency Rate Loan shall be accompanied by all accrued interest thereon, together with any additional amounts required pursuant to Section 2.05(a)(iii) and Section 3.06. Subject to Section 2.17, each prepayment of outstanding Tranches pursuant to this Section 2.05(a) shall be applied to the Tranche or Tranches designated on such notice on a *pro rata* basis within such Tranche. Subject to Section 2.17, each prepayment of an outstanding Tranche pursuant to this Section 2.05(a) shall be applied to the remaining amortization payments of such Tranche as directed by the Parent Borrower (or, if the Parent Borrower has not made such designation, in direct order of maturity), but, in any event, on a pro rata basis to the Lenders within such Tranche.

(ii) Notwithstanding anything to the contrary contained in this Agreement, any notice of prepayment under Section 2.05(a)(i) may state that it is conditioned upon the occurrence or non-occurrence of any event specified therein (including the effectiveness of other credit facilities), in which case such notice may be revoked by the Parent Borrower (by written notice to the Administrative Agent on or prior to the specified effective date) if such condition is not satisfied.

(iii) Notwithstanding anything to the contrary contained in this Agreement, if the Borrowers (A) make a voluntary prepayment of any Initial Loans pursuant to Section 2.05(a) or (B) make a repayment of any Initial Loans pursuant to Section 2.05(b)(iii), the Borrowers shall pay to the Administrative Agent, for the ratable account of the applicable Lenders with respect to clauses (A) and (B), (x) if such payment or prepayment is made on or prior to the first anniversary of the Closing Date, a prepayment premium in an amount equal to 2.00% of the principal amount of Loans prepaid or repaid or (y) if such prepayment or repayment is made on or prior to the second anniversary of the Closing Date but after the first anniversary of the Closing Date, a prepayment premium in an amount equal to 1.00% of the principal amount of Loans prepaid or repaid (the "Prepayment Premium"); provided no Prepayment Premium will be required after the second anniversary of the Closing Date.

(b) Mandatory. (i) For any Excess Cash Flow Period, within ten Business Days after financial statements have been delivered pursuant to Section 6.01(a) and the related Compliance Certificate has been delivered pursuant to Section 6.02(b) (or, if later, the date on which such financial statements and such Compliance Certificate are required to be delivered), the Parent Borrower shall prepay an aggregate principal amount of Term Loans in an amount equal to (A) 50% (as may be adjusted pursuant to the proviso below) of Excess Cash Flow for such Excess Cash Flow Period, *minus* (B) the sum of (1) the aggregate amount of voluntary principal prepayments of the Loans and "Loans" as defined in the First Lien Credit Agreement, in each case, made during the period commencing on the first day of the relevant Excess Cash Flow Period and ending on the date immediately prior to the date on which the relevant Excess Cash Flow prepayment is or would be required to be made (excluding prepayments at a discount to par and open market purchases) (except prepayments of Loans (as defined in the First Lien Credit Agreement) under any Revolving Tranche (as defined in the First Lien Credit Agreement) that are not accompanied by a corresponding permanent commitment reduction of the Revolving Tranches (as defined in the First Lien Credit Agreement)), in each case other than to the extent that any such prepayment is funded with the proceeds of Specified Refinancing Debt, Refinancing Notes or any other long-term Indebtedness and (2) any amount not required to be applied to such prepayment pursuant to Section 2.05(b)(viii) or (ix); provided that such percentage in respect of any Excess Cash Flow Period shall be reduced to 25% or 0% if the Consolidated First Lien Net Leverage Ratio as of the last day of the fiscal year to which such Excess Cash Flow Period relates was equal to or less than 4.00:1.00 or 3.50:1.00, respectively; provided, further, that no prepayment shall be required with respect to any Excess Cash Flow Period to the extent Excess Cash Flow for such period is equal to or less than $1,000,000 (and for such period such prepayment shall be limited to the amount in excess of $1,000,000); provided, further, that, if the Consolidated First Lien Net Leverage Ratio on a Pro Forma Basis after giving effect to any Excess Cash Flow prepayment would result in the percentage in respect of the applicable Excess Cash Flow Period being reduced

to 25% or 0%, then such reduced percentage applicable to the Excess Cash Flow prepayment required to be made shall apply; provided, further, that no such prepayment shall be required for any Excess Cash Flow Period (x) if any First Lien Facilities remain outstanding at the time the financial statements and related Compliance Certificate for such Excess Cash Flow Period are required to be delivered pursuant to this Section 2.05(b)(i) or (y) unless with the proceeds of mandatory prepayments pursuant to Section 2.05(b)(i) of the First Lien Credit Agreement declined by the Lenders thereunder.

(ii) If any Asset Sale or Casualty Event (or series of related Asset Sales or Casualty Events) results in the receipt by any Borrower or any Subsidiary of aggregate Net Cash Proceeds in excess of $2,500,000 ("Relevant Transaction"), then, except to the extent the Parent Borrower elects in a written notice to reinvest all or a portion of such Net Cash Proceeds in accordance with Section 7.04, the Borrowers shall prepay, subject to Section 2.05(b)(viii), an aggregate principal amount of Loans in an amount equal to 100% (as may be adjusted pursuant to the second proviso below) of the Net Cash Proceeds received from such Relevant Transaction within 15 Business Days of receipt thereof (or within 15 Business Days after the later of the date the threshold referred to above is first exceeded and the date the relevant Net Cash Proceeds are received) by such Borrower or such Subsidiary; provided that such Borrower may use a portion of the Net Cash Proceeds received from such Relevant Transaction to prepay or repurchase any other Indebtedness (and, in the case of revolving indebtedness, permanently reduce related commitments) that is secured by the Collateral on a *pari passu* basis with Liens securing the Obligations to the extent such other Indebtedness and the Liens securing the same are permitted hereunder and the documentation governing such other Indebtedness requires such a prepayment or repurchase thereof with the proceeds of such Relevant Transaction, to the extent not deducted in the calculation of Net Cash Proceeds, in each case in an amount not to exceed the product of (1) the amount of such Net Cash Proceeds and (2) a fraction, the numerator of which is the outstanding principal amount of such other Indebtedness (or to the extent such amount is not in Dollars, such equivalent amount of such Indebtedness converted into Dollars as determined in accordance with Section 1.08) and the denominator of which is the aggregate outstanding principal amount of Loans and such other Indebtedness (or to the extent such amount is not in Dollars, such equivalent amount of such Indebtedness converted into Dollars as determined in accordance with Article I); provided, further, that, so long as no Event of Default shall have occurred and be continuing or would result therefrom, such prepayment percentage shall be reduced from 100% to 50% or 0% if, on a Pro Forma Basis after giving effect to such Asset Sale or Casualty Event, as the case may be, and the use of proceeds therefrom, the Consolidated First Lien Net Leverage Ratio would be equal to or less than 5.175:1.00 or 4.60:1.00 (such amounts not required to be prepaid as a result of such prepayment percentage reduction, the "Retained Asset Sale Proceeds"), respectively; provided, further, that only the amount of Net Cash Proceeds in excess of $2,500,000 in any fiscal year shall be subject to prepayment pursuant to this Section 2.05(b)(ii); provided further, that until the Discharge of First Lien Credit Agreement Obligations, no mandatory prepayments of Loans shall be required under this Section 2.05(b)(ii), pursuant to the terms hereof and Section 7.04, except to the extent of mandatory prepayments pursuant to Section 2.05(b)(ii) of the First Lien Credit Agreement declined by the lenders thereunder.

(iii) Upon the incurrence or issuance by any Borrower or any Subsidiary of (A) any Refinancing Notes, (B) any Specified Refinancing Loans or (C) any Indebtedness not expressly permitted to be incurred or issued pursuant to Section 7.01, the Borrowers shall prepay an aggregate principal amount of Tranches in an amount equal to 100% of all Net Cash Proceeds received therefrom immediately upon receipt thereof by such Borrower or such Subsidiary; provided, that until (x) the Discharge of First Lien Credit Agreement Obligations and (y) the discharge of any indebtedness secured on a pari passu basis with the First Lien Credit Agreement Obligations (an "Other First Lien Loan Facility") in the form of loans requiring such mandatory prepayments, no mandatory prepayments of Loans shall be required under clause (C) of this Section 2.05(b)(iii), except to the extent of mandatory prepayments pursuant to Section 2.05(b)(iii) of the First Lien Credit Agreement (or a similar provision under any Other First Lien Loan Facility) declined by the lenders thereunder.

(iv) [Reserved].

(v) [Reserved].

(vi) Subject to Section 2.17, each prepayment of Loans pursuant to this Section 2.05(b) shall be applied to each Tranche on a *pro rata* basis (or, if agreed to in writing by the Majority Lenders of a Tranche, in a manner that provides for more favorable prepayment treatment of other Tranches, so long as each other such

Tranche receives its Pro Rata Share of any amount to be applied more favorably, except to the extent otherwise agreed by the Majority Lenders of each Tranche receiving less than such Pro Rata Share) (other than a prepayment of (x) Loans with the proceeds of Indebtedness incurred pursuant to Section 2.18, which shall be applied to the Tranche being refinanced pursuant thereto or (y) Loans with the proceeds of any Refinancing Notes issued to the extent permitted under Section 7.01(a), which shall be applied to the Tranche being refinanced pursuant thereto). Amounts to be applied to a Term Loan Tranche in connection with prepayments made pursuant to this Section 2.05(b) shall be applied to the remaining scheduled installments with respect to such Term Loan Tranche in direct order of maturity. Each prepayment of Loans under a Facility pursuant to this Section 2.05(b) shall be applied on a *pro rata* basis to the then outstanding Base Rate Loans and Eurocurrency Rate Loans under such Facility; provided that, if there are no Declining Lenders with respect to such prepayment, then the amount thereof shall be applied first to Base Rate Loans under such Facility to the full extent thereof before application to Eurocurrency Rate Loans, in each case in a manner that minimizes the amount payable by the Borrowers in respect of such prepayment pursuant to Section 3.06.

(vii) All prepayments under this Section 2.05 shall be made together with, in the case of any such prepayment of a Eurocurrency Rate Loan on a date other than the last day of an Interest Period therefor, any amounts owing in respect of such Eurocurrency Rate Loan pursuant to Section 3.06 and, to the extent applicable, any additional amounts required pursuant to Section 2.05(a)(iii). Notwithstanding any of the other provisions of this Section 2.05(b), so long as no Event of Default shall have occurred and be continuing, if any prepayment of Eurocurrency Rate Loans is required to be made under this Section 2.05(b), other than on the last day of the Interest Period therefor, the Borrowers may, in its sole discretion, deposit the amount of any such prepayment otherwise required to be made thereunder into a cash collateral account until the last day of such Interest Period, at which time the Administrative Agent shall be authorized (without any further action by or notice to or from the Borrowers or any other Loan Party) to apply such amount to the prepayment of such Loans in accordance with this Section 2.05(b) (it being agreed, for clarity, that interest shall continue to accrue on the Loans so prepaid until the amount so deposited is actually applied to prepay such Loans). Upon the occurrence and during the continuance of any Event of Default, the Administrative Agent shall also be authorized (without any further action by or notice to or from the Borrowers or any other Loan Party) to apply such amount to the prepayment of the outstanding Loans in accordance with this Section 2.05(b).

(viii) Notwithstanding any other provisions of this Section 2.05, to the extent that any or all of the Net Cash Proceeds of any Asset Sale by a Foreign Subsidiary (or a Domestic Subsidiary of a Foreign Subsidiary) (a "Foreign Disposition") or the Net Cash Proceeds of any Casualty Event from a Foreign Subsidiary (or a Domestic Subsidiary of a Foreign Subsidiary) (a "Foreign Casualty Event"), in each case giving rise to a prepayment event pursuant to Section 2.05(b)(ii), or Excess Cash Flow giving rise to a prepayment event pursuant to Section 2.05(b)(i) are or is prohibited, restricted or delayed by applicable local law, rule or regulation (including, without limitation, financial assistance and corporate benefit restrictions and fiduciary and statutory duties of any director or officer of such Subsidiaries) from being repatriated to the Parent Borrower or so prepaid or such repatriation or prepayment would present a material risk of liability for the applicable Subsidiary or its directors or officers (or gives rise to a material risk of breach of fiduciary or statutory duties by any director or officer), the portion of such Net Cash Proceeds or Excess Cash Flow so affected will not be required to be applied to repay Loans at the times provided in this Section 2.05 but may be retained by the applicable Foreign Subsidiary.

(ix) Notwithstanding any other provisions of this Section 2.05, to the extent that the Parent Borrower has determined in good faith that repatriation of any or all of the Net Cash Proceeds of any Foreign Disposition or any Foreign Casualty Event, in each case giving rise to a prepayment event pursuant to Section 2.05(b)(ii), or Excess Cash Flow giving rise to a prepayment event pursuant to Section 2.05(b)(i) would have a material adverse tax cost consequence on the Parent Borrower or any Subsidiary or their Affiliates (taking into account any foreign tax credit or benefit actually realized in connection with such repatriation) with respect to such Net Cash Proceeds or Excess Cash Flow, the Net Cash Proceeds or Excess Cash Flow so affected may be retained by the applicable Foreign Subsidiary.

(c) Lender Opt-Out. With respect to any prepayment of Initial Loans and, unless otherwise specified in the documents therefor, other Term Tranches pursuant to Section 2.05(b)(ii) or (iii), any Appropriate Lender, at its option (but solely to the extent the Parent Borrower elects for this clause (c) to be applicable to a given prepayment), other than in connection with any Refinancing Notes or any Specified Refinancing Loans, may elect

not to accept such prepayment as provided below. The Parent Borrower may notify the Administrative Agent of any event giving rise to a prepayment under Section 2.05(b)(ii) or (iii) at least ten Business Days prior to the date of such prepayment. Each such notice shall specify the date of such prepayment and provide a reasonably detailed calculation of the amount of such prepayment that is required to be made under Section 2.05(b)(ii) or (iii) (the "Prepayment Amount"). The Administrative Agent will promptly notify each Appropriate Lender of the contents of any such prepayment notice so received from the Parent Borrower, including the date on which such prepayment is to be made (the "Prepayment Date"). Any Appropriate Lender may (but solely to the extent the Parent Borrower elects for this clause (c) to be applicable to a given prepayment) decline to accept all (but not less than all) of its share of any such prepayment (any such Lender, a "Declining Lender") by providing written notice to the Administrative Agent no later than five Business Days after the date of such Appropriate Lender's receipt of notice from the Administrative Agent regarding such prepayment. If any Appropriate Lender does not give a notice to the Administrative Agent on or prior to such fifth Business Day informing the Administrative Agent that it declines to accept the applicable prepayment, then such Lender will be deemed to have accepted such prepayment. On any Prepayment Date, an amount equal to the Prepayment Amount minus the portion thereof allocable to Declining Lenders, in each case for such Prepayment Date, shall be paid to the Administrative Agent by the Parent Borrower and applied by the Administrative Agent ratably to prepay Loans under the Tranches owing to Appropriate Lenders (other than Declining Lenders) in the manner described in Section 2.05(b) for such prepayment. Any amounts that would otherwise have been applied to prepay Loans owing to Declining Lenders shall be retained by the Borrowers, unless contrary to the terms of First Lien/Second Lien Intercreditor Agreement (such amounts, "Declined Amounts").

(d) All Loans shall be repaid, whether pursuant to this Section 2.05 or otherwise, in the currency in which they were made.

Section 2.06 Termination or Reduction of Commitments. The Aggregate Commitments under Tranche shall be automatically and permanently reduced to zero on the date of the initial incurrence of Loans under such Tranche, which in the case of the Initial Commitments shall be the Closing Date.

Section 2.07 Repayment of Loans.

(a) Initial Loans. The Borrowers shall repay to the Administrative Agent for the ratable account of the Lenders holding Initial Loans on the Maturity Date, the aggregate principal amount of all Initial Loans outstanding on such date.

(b) [Reserved].

(c) All Loans shall be repaid, whether pursuant to this Section 2.07 or otherwise, in the currency in which they were made.

Section 2.08 Interest.

(a) Subject to the provisions of the following sentence, (i) each Eurocurrency Rate Loan under a Facility shall bear interest on the outstanding principal amount thereof for each Interest Period at a rate per annum equal to the sum of (A) the Adjusted Eurocurrency Rate for such Interest Period *plus* (B) the Applicable Rate for Eurocurrency Rate Loans under such Facility; and (ii) each Base Rate Loan under a Facility shall bear interest on the outstanding principal amount thereof from the applicable borrowing date or conversion date, as the case may be, at a rate per annum equal to the sum of (A) the Base Rate *plus* (B) the Applicable Rate for Base Rate Loans under such Facility. The Borrowers shall pay interest on all overdue Obligations hereunder, which shall include all Obligations following an acceleration pursuant to Section 8.02 (including an automatic acceleration) at a fluctuating interest rate per annum at all times equal to the Default Rate to the fullest extent permitted by applicable Laws. Accrued and unpaid interest on past due amounts (including interest on past due interest) shall be due and payable upon demand.

(b) Accrued interest on each Loan shall be due and payable in arrears on each Interest Payment Date applicable thereto and at such other times as may be specified herein; provided that in the event of any repayment or prepayment of any Loan, accrued interest on the principal amount repaid or prepaid shall be payable on the date of

such repayment or prepayment. Interest hereunder shall be due and payable in accordance with the terms hereof before and after judgment, and before and after the commencement of any proceeding under any Debtor Relief Law.

(c) Interest on each Loan shall be payable in the currency in which each Loan was made.

(d) All computations of interest hereunder shall be made in accordance with Section 2.10 of this Agreement.

Section 2.09 Fees. The Borrowers shall pay to the Lenders, the Arrangers and the Administrative Agent such fees as shall have been separately agreed upon in writing in the amounts and at the times so specified.

Section 2.10 Computation of Interest and Fees. All computations of interest for Base Rate Loans shall be made on the basis of a year of 365 or 366 days, as the case may be, and actual days elapsed. All other computations of fees and interest shall be made on the basis of a 360-day year and actual days elapsed (which results in more fees or interest, as applicable, being paid than if computed on the basis of a 365-day year). Interest shall accrue on each Loan for the day on which the Loan is made, and shall not accrue on a Loan, or any portion thereof, for the day on which the Loan or such portion is paid; provided that any Loan that is repaid on the same day on which it is made shall, subject to Section 2.12(a), bear interest for one day. Each determination by the Administrative Agent of an interest rate or fee hereunder shall be conclusive and binding for all purposes, absent manifest error.

Section 2.11 Evidence of Indebtedness.

(a) The Credit Extensions made by each Lender shall be evidenced by one or more accounts or records maintained by such Lender and evidenced by one or more entries in the Register maintained by the Administrative Agent, acting solely for purposes of Treasury Regulations Section 5f.103-1(c), as a non-fiduciary agent for the Borrowers, in each case in the ordinary course of business. The accounts or records maintained by the Administrative Agent and each Lender shall be prima facie evidence absent manifest error of the amount of the Credit Extensions made by the Lenders to the Borrowers and the interest and payments thereon. Any failure to so record or any error in doing so shall not, however, limit the obligation of the Borrowers hereunder to pay any amount owing with respect to the Obligations. In the event of any conflict between the accounts and records maintained by any Lender and the accounts and records of the Administrative Agent in respect of such matters, the accounts and records of the Administrative Agent shall control in the absence of manifest error. Upon the written request of any Lender made through the Administrative Agent, the Borrowers shall execute and deliver to such Lender (through the Administrative Agent) a Note payable to such Lender, which shall evidence such Lender's Loans in addition to such accounts or records. Each Lender may attach schedules to its Note and endorse thereon the date, Type (if applicable), amount and maturity of its Loans and payments with respect thereto.

(b) [Reserved].

(c) Entries made in good faith by the Administrative Agent in the Register pursuant to Section 2.11(a), and by each Lender in its accounts or records pursuant to Section 2.11(a), shall be *prima facie* evidence of the amount of principal and interest due and payable or to become due and payable from the Borrowers to, in the case of the Register, each Lender and, in the case of such accounts or records, such Lender, under this Agreement and the other Loan Documents, absent manifest error; provided that the failure of the Administrative Agent or such Lender to make an entry, or any finding that an entry is incorrect, in the Register or such accounts or records shall not limit the obligations of the Borrowers under this Agreement and the other Loan Documents.

Section 2.12 Payments Generally; Administrative Agent's Clawback.

(a) General. All payments to be made by the Borrowers shall be made without condition or deduction for any counterclaim, defense, recoupment or setoff. Except as otherwise expressly provided herein, all payments by the Borrowers hereunder shall be made to the Administrative Agent, for the account of the respective Lenders to which such payment is owed, at the Administrative Agent's Office in Dollars and in immediately available funds not later than 3:00 p.m. (New York City time) on the date specified herein. The Administrative Agent will promptly

distribute to each Lender its ratable share in respect of the relevant Facility or Tranche thereof (or other applicable share as provided herein) of such payment in like funds as received by wire transfer to such Lender's Lending Office. All payments received by the Administrative Agent after 3:00 p.m. (New York City time) shall, at the option of the Administrative Agent, be deemed received on the next succeeding Business Day and any applicable interest or fee shall continue to accrue. If any payment to be made by the Borrowers shall come due on a day other than a Business Day, payment shall be made on the next following Business Day, and such extension of time shall be reflected in computing interest or fees, as the case may be; provided, however, that, if such extension would cause payment of interest on or principal of Eurocurrency Rate Loans to be made in the next succeeding calendar month, such payment shall be made on the immediately preceding Business Day.

(b) (i) Funding by Lenders; Presumption by Administrative Agent. Unless the Administrative Agent shall have received notice from a Lender prior to the proposed date of any Borrowing of Eurocurrency Rate Loans (or, in the case of any Borrowing of Base Rate Loans, prior to 1:00 p.m. (New York City time) on the date of such Borrowing) that such Lender will not make available to the Administrative Agent such Lender's share of such Borrowing, the Administrative Agent may assume that such Lender has made such share available on such date in accordance with and at the time required by Section 2.02(b) and may, in reliance upon such assumption, make available to the Borrowers a corresponding amount. In such event, if any Lender does not in fact make its share of the applicable Borrowing available to the Administrative Agent, then such Lender and the Borrowers severally agree to pay to the Administrative Agent forthwith on demand an amount equal to such applicable share in immediately available funds with interest thereon, for each day from and including the date such amount is made available to the Borrowers by the Administrative Agent to but excluding the date of payment to the Administrative Agent, at (A) in the case of a payment to be made by such Lender, the greater of the NYFRB Rate and a rate reasonably determined by the Administrative Agent in accordance with banking industry rules on interbank compensation, plus any reasonable administrative, processing or similar fees customarily charged by the Administrative Agent in connection with the foregoing and (B) in the case of a payment to be made by the Borrowers, the interest rate applicable to Base Rate Loans under the applicable Facility. If both the Borrowers and such Lender pay such interest to the Administrative Agent for the same or an overlapping period, the Administrative Agent shall promptly remit to the Borrowers the amount of such interest paid by the Borrowers for such period. If such Lender pays its share of the applicable Borrowing to the Administrative Agent, then the amount so paid (less interest and fees) shall constitute such Lender's Loan included in such Borrowing. Any payment by the Borrowers shall be without prejudice to any claim the Borrowers may have against a Lender that shall have failed to make its share of any Borrowing available to the Administrative Agent.

(ii) Payments by the Borrowers; Presumptions by Administrative Agent. Unless the Administrative Agent shall have received notice from the Parent Borrower prior to the date on which any payment is due to the Administrative Agent for the account of the Lenders hereunder that the Borrowers will not make such payment, the Administrative Agent may assume that the Borrowers have made such payment on such date in accordance herewith and may, in reliance upon such assumption, distribute to the Appropriate Lenders the amount due. In such event, if the Borrowers do not in fact make such payment, then each of the Appropriate Lenders severally agrees to repay to the Administrative Agent forthwith on demand the amount so distributed to such Lender, in immediately available funds with interest thereon, for each day from and including the date such amount is distributed by the Administrative Agent to but excluding the date of payment to the Administrative Agent, at the greater of the NYFRB Rate and a rate reasonably determined by the Administrative Agent in accordance with banking industry rules on interbank compensation, plus any reasonable administrative, processing or similar fees customarily charged by the Administrative Agent in connection with the foregoing.

A notice of the Administrative Agent to any Lender or the Parent Borrower with respect to any amount owing under this Section 2.12(b) shall be conclusive, absent manifest error.

(c) Failure to Satisfy Conditions Precedent. If any Lender makes available to the Administrative Agent funds for any Loan to be made by such Lender as provided in the foregoing provisions of this Article II, and such funds are not made available to the Borrowers by the Administrative Agent because the conditions to the applicable Credit Extension set forth in Article IV are not satisfied or waived in accordance with the terms hereof, the Administrative Agent shall return such funds (in like funds as received from such Lender) to such Lender on demand, without interest.

(d) Obligations of the Lenders Several. The obligations of the Lenders hereunder to make Loans and to make payments pursuant to Section 9.07 are several and not joint. The failure of any Lender to make any Loan or to make any payment under Section 9.07 on any date required hereunder shall not relieve any other Lender of its corresponding obligation to do so on such date, and no Lender shall be responsible for the failure of any other Lender to so make its Loan or to make its payment under Section 9.07.

(e) Funding Source. Nothing herein shall be deemed to obligate any Lender to obtain the funds for any Loan in any particular place or manner or to constitute a representation by any Lender that it has obtained or will obtain the funds for any Loan in any particular place or manner.

(f) Insufficient Funds. If at any time insufficient funds are received by and available to the Administrative Agent to pay fully all amounts of principal, interest and fees then due hereunder, such funds shall be applied (i) first, toward payment of interest and fees then due hereunder, ratably among the parties entitled thereto in accordance with the amounts of interest and fees then due to such parties, and (ii) second, toward payment of principal then due hereunder, ratably among the parties entitled thereto in accordance with the amounts of principal then due to such parties.

(g) Unallocated Funds. If the Administrative Agent receives funds for application to the Obligations of the Loan Parties under or in respect of the Loan Documents under circumstances for which the Loan Documents do not specify the manner in which such funds are to be applied, the Administrative Agent may, but shall not be obligated to, elect to distribute such funds to each of the Lenders in accordance with such Lender's ratable share of the sum of the Outstanding Amount of all Loans or other Obligations outstanding at such time, in repayment or prepayment of such of the outstanding Loans or other Obligations then owing to such Lender.

Section 2.13 Sharing of Payments. If, other than as expressly provided elsewhere herein (including the application of funds arising from the existence of a Defaulting Lender), any Lender shall obtain on account of the Loans made by it, any payment (whether voluntary, involuntary, through the exercise of any right of setoff, or otherwise) in excess of its ratable share (or other share contemplated hereunder) thereof, such Lender shall immediately (a) notify the Administrative Agent of such fact and (b) purchase from the other Lenders such participations in the Loans made by them as shall be necessary to cause such purchasing Lender to share the excess payment in respect of such Loans, *pro rata* with each of them; provided, however, that if all or any portion of such excess payment is thereafter recovered from the purchasing Lender under any of the circumstances described in Section 10.06 (including pursuant to any settlement entered into by the purchasing Lender in its discretion), such purchase shall to that extent be rescinded and each other Lender shall repay to the purchasing Lender the purchase price paid therefor, together with an amount equal to such paying Lender's ratable share (according to the proportion of (i) the amount of such paying Lender's required repayment to (ii) the total amount so recovered from the purchasing Lender) of any interest or other amount paid or payable by the purchasing Lender in respect of the total amount so recovered, without further interest thereon. The Borrowers agree that any Lender so purchasing a participation from another Lender may, to the fullest extent permitted by Law, exercise all its rights of payment (including the right of setoff, but subject to Section 10.09) with respect to such participation as fully as if such Lender were the direct creditor of the Borrowers in the amount of such participation. The Administrative Agent will keep records (which shall be conclusive and binding in the absence of manifest error) of participations purchased under this Section 2.13 and will in each case notify the Lenders following any such purchases or repayments. Each Lender that purchases a participation pursuant to this Section 2.13 shall from and after such purchase have the right to give all notices, requests, demands, directions and other communications under this Agreement with respect to the portion of the Obligations purchased to the same extent as though the purchasing Lender were the original owner of the Obligations purchased. For the avoidance of doubt, the provisions of this Section shall not be construed to apply to (A) the assignments and participations (including by means of a Dutch Auction and open market debt repurchases) described in Section 10.07, (B) (i) the incurrence of any New Loans in accordance with Section 2.14, or (ii) any Specified Refinancing Debt in accordance with Section 2.18, (C) any loan modification offer described in Section 10.01, or (D) any applicable circumstances contemplated by Sections 2.05(b), 2.14, 2.17 or 3.08.

Section 2.14 Incremental Facilities.

(a) The Borrowers may, from time to time after the Closing Date, upon notice by the Parent Borrower to the Administrative Agent specifying the proposed amount thereof and the proposed currency denomination

thereof, request (i) an increase in any Tranche then outstanding (which shall be on the same terms as, and become part of, the Tranche proposed to be increased hereunder) (each, a "Commitment Increase") and (ii) the addition of one or more new term loan facilities, in each case, in such currency or currencies as the Parent Borrower identifies in such notice (each, a "New Facility"; and any advance made by a Lender thereunder, a "New Loan"; and the commitments thereof, the "New Commitment") in an amount not to exceed the sum of (x) $25,000,000*minus* the amount incurred prior to the date of incurrence thereof under the First Lien Cash-Capped Incremental Amount (the "Cash-Capped Incremental Facility") and (y) an unlimited amount (the "Ratio-Based Incremental Facility") so long as the Maximum Leverage Requirement is satisfied (such sum, at any such time, the "Incremental Amount"); provided that any such request for an increase shall be in a minimum amount of the lesser of (x) $3,500,000, and (y) the entire amount of any increase that may be requested under this Section 2.14; provided, further, that for purposes of any Commitment established pursuant to this Section 2.14 and New Incremental Notes issued pursuant to Section 2.15:

(A) the Borrowers shall be deemed to have used the Ratio-Based Incremental Facility (to the extent compliant therewith) prior to utilization of the Cash-Capped Incremental Facility,

(B) New Commitments pursuant to this Section 2.14 and New Incremental Notes pursuant to Section 2.15 may be incurred under the Ratio-Based Incremental Facility (to the extent compliant therewith) and the Cash-Capped Incremental Facility, and proceeds from any such incurrence may be utilized in a single transaction by first calculating the incurrence under the Ratio-Based Incremental Facility (without inclusion of any amounts substantially concurrently utilized pursuant to the Cash-Capped Incremental Facility) and then calculating the incurrence under the Cash-Capped Incremental Facility, and

(C) solely for the purpose of calculating the Consolidated Senior Secured Net Leverage Ratio or the Consolidated Total Net Leverage Ratio to determine the availability under the Ratio-Based Incremental Facility at the time of incurrence, any cash proceeds incurred pursuant to this Section 2.14 and/or New Incremental Notes being incurred at such test date in calculating such Consolidated Senior Secured Net Leverage Ratio or Consolidated Total Net Leverage Ratio shall be excluded.

The Borrowers may designate any Person (such Person, the "Incremental Arranger") with such titles under the New Commitments as Borrowers may deem appropriate.

(b) Any Lender approached to participate in any New Commitment may elect or decline, in its sole discretion, to participate in such increase or new facility. The Borrowers may also invite additional Eligible Assignees with the consent of the Administrative Agent to become Lenders pursuant to a joinder agreement to this Agreement.

(c) If (i) a Tranche is increased in accordance with this Section 2.14 or (ii) a New Facility is added in accordance with this Section 2.14, the Borrowers shall determine the effective date (the "Increase Effective Date") and the final allocation of such increase, New Facility among the applicable Lenders. In connection with (i) any increase in a Tranche or (ii) any addition of a New Facility, in each case, pursuant to this Section 2.14, this Agreement and the other Loan Documents shall be amended in a writing (which shall be executed and delivered by the Borrowers and the Administrative Agent (and the Lenders hereby authorize the Administrative Agent to execute and deliver any such documentation)) in order to establish the New Facility or to effectuate the increases to the Tranche and to reflect any technical changes necessary or appropriate to give effect to such increase or new facility in accordance with its terms as set forth herein.

(d) With respect to any Commitment Increase or addition of a New Facility pursuant to this Section 2.14, (i) no Event of Default (subject to Section 1.02(i) in connection with any acquisition or investment) would exist after giving effect to such increase; (ii) (A) in the case of any increase of a Tranche, the final maturity of the Loans, New Commitments or Specified Refinancing Loans increased pursuant to this Section shall be no earlier than the Latest Maturity Date for, and such additional Loans shall not have a Weighted Average Life to Maturity shorter than the longest remaining Weighted Average Life to Maturity of, any other outstanding Loans, New Loans or Specified Refinancing Loans, as applicable; provided that Extendable Bridge Loans may have a maturity date earlier than the Latest Maturity Date of all then outstanding Loans and (B) in the case of any New Facility, (1) other than in the case of Extendable Bridge Loans, such New Facility shall have a final maturity no earlier than the then Latest

Maturity Date of any Tranche and (2) the Weighted Average Life to Maturity of such New Facility shall be no shorter than that of any existing Tranche; (iii) except with respect to All-in Yield and as set forth in subclause (D) above with respect to final maturity and Weighted Average Life to Maturity, any such New Facility shall have terms reasonably satisfactory to the Administrative Agent; provided, that (x) to the extent such terms are more favorable to the existing Lenders than comparable terms existing in the Loan Documents, such terms shall be, as determined by the Parent Borrower in consultation with the Administrative Agent, incorporated into this Agreement (or any other applicable Loan Document) for the benefit of all existing Lenders (to the extent applicable to such Lender) without further amendment requirements, including, for the avoidance of doubt, at the option of the Parent Borrower, any increase in the Applicable Rate relating to any existing Facility to bring such Applicable Rate in line with the New Facility to achieve fungibility with such existing Facility and (y) otherwise, may be incorporated if reasonably satisfactory to the Parent Borrower, the Incremental Arranger and the Administrative Agent and (iv) to the extent reasonably requested by the Incremental Arranger, the Incremental Arranger shall have received legal opinions, resolutions, officers' certificates and/or reaffirmation agreements consistent with those delivered on the Closing Date under Section 4.01 or delivered from time to time pursuant to Section 6.12, Section 6.14 and/or Section 6.16 with respect to Holdings and the Borrowers and each material Subsidiary Guarantor to the extent reasonably requested by the Administrative Agent. Subject to the foregoing, the conditions precedent to each such increase or New Commitment shall be agreed to by the Lenders providing such increase or New Commitment, as applicable, and the Borrowers.

(e) The additional Loans made under the Tranche subject to the increases shall be made by the applicable Lenders participating therein pursuant to the procedures set forth in Sections 2.01 and 2.02 and on the date of the making of such new Loans, and notwithstanding anything to the contrary set forth in Sections 2.01 and 2.02, such new Loans shall be added to (and form part of) each Borrowing of outstanding Loans under such Tranche on a *pro rata* basis (based on the relative sizes of the various outstanding Borrowings), so that each Lender under such Tranche will participate proportionately in each then outstanding Borrowing of Loans under the Tranche.

(f) (i) Any New Facility shall not be guaranteed by any Person that is not a Borrower or Guarantor under each of the other Facilities, and be unsecured, secured either on a *pari passu* basis with the other Facilities or on a "junior" basis to the other Facilities, in each case over the same (or less) Collateral that secures the Facilities (and in the case of any such junior secured New Facility, such New Facility shall be subject to intercreditor arrangements that are reasonably satisfactory to the Administrative Agent, (ii) the New Facility shall, for purposes of prepayments, be treated substantially the same as (and in any event no more favorably than) the Facility unless the Borrowers otherwise elect (but in any event no more favorably than the existing Loans), and (iii) with respect to any New Facility that is secured on a *pari passu* basis with the other Facilities, the All-in Yield payable by the Borrowers applicable to such New Facility shall be determined by the Borrowers and the Lenders providing such New Facility and shall not be more than 50 basis points higher than the corresponding All-in Yield payable by the Borrowers for the Initial Loans, unless the All-in Yield with respect to the Initial Loans is increased to the amount necessary so that the difference between the All-in Yield with respect to such New Facility and the corresponding All-in Yield on the Initial Loans is equal to 50 basis points.

Section 2.15 New Incremental Notes.

(a) The Borrowers may from time to time after the Closing Date incur one or more series of senior secured, senior unsecured, senior subordinated, subordinated notes or Extendable Bridge Loans (which notes and/or Extendable Bridge Loans, if secured, are secured by the Collateral on a *pari passu* basis with the Liens securing the Obligations or on a "junior" basis to the Liens securing the Obligations) and guaranteed only by Loan Parties or entities who become Loan Parties (such notes and/or Extendable Bridge Loans, collectively, "New Incremental Notes") in an amount not to exceed the Incremental Amount (at the time of issuance); provided that no Event of Default would exist after giving Pro Forma Effect to any such request, subject to Section 1.02(i); provided, further, that any New Commitment established pursuant to Section 2.14 and New Incremental Notes issued pursuant to this Section 2.15, (A) will count, first, to reduce the amount available under the Ratio-Based Incremental Facilities (to the extent compliant therewith) and, second, to reduce the maximum amount under the Cash-Capped Incremental Facilities and (B) New Incremental Notes pursuant to this Section 2.15 may be incurred under the Ratio-Based Incremental Facilities and the Cash-Capped Incremental Facilities, and proceeds from any such incurrence may be utilized in a single transaction, by first calculating the incurrence under the Ratio-Based Incremental Facilities (without inclusion of any amounts utilized pursuant to the Cash-Capped Incremental Facility) and then calculating

the incurrence under the Cash-Capped Incremental Facility. With respect to any New Incremental Notes that are secured on a *pari passu* basis in right of payment and security with the Initial Loans, the All-in Yield payable by the Borrowers applicable to such New Incremental Notes shall be determined by the Borrowers and the Lenders providing such New Incremental Notes and shall not be more than 50 basis points higher than the corresponding All-in Yield payable by the Borrowers for the Initial Loans, unless the All-in Yield with respect to the Initial Loans is increased to the amount necessary so that the difference between the All-in Yield with respect to such New Incremental Notes and the corresponding All-in Yield on the Initial Loans is equal to 50 basis points. The Parent Borrower may appoint any Person as arranger of such New Incremental Notes (such Person (who may be the Administrative Agent, if it so agreed), the "Incremental Notes Arranger").

(b) As a condition precedent to the issuance of any New Incremental Notes pursuant to this Section 2.15, (i) such New Incremental Notes shall not be guaranteed by any Person that is not a Loan Party or that does not become a Loan Party and shall not be secured by a lien on any assets of a Loan Party that is not part of the Collateral, (ii) to the extent secured by the Collateral, such New Incremental Notes shall be subject to intercreditor arrangements that are reasonably satisfactory to the Incremental Notes Arranger and, if such Incremental Notes Arranger is not the Administrative Agent, the Administrative Agent, (iii) such New Incremental Notes shall have a final maturity no earlier than the then Latest Maturity Date, provided, that Extendable Bridge Loans may have a maturity date earlier than the Latest Maturity Date, (iv) the Weighted Average Life to Maturity of such New Incremental Notes shall not (A) be shorter than that of any then-existing Tranche, or (B) to the extent unsecured, be subject to any amortization prior to the final maturity thereof, or be subject to any mandatory redemption or prepayment provisions or rights (except (x) customary assets sale, event of loss or similar event or change of control provisions and customary acceleration rights after an event of default or (y) so-called "AHYDO" payments); provided, that, with respect to Extendable Bridge Loans, the Weighted Average Life to Maturity may be shorter than the longest remaining Weighted Average Life to Maturity of any then outstanding Loans, (v) such New Incremental Notes shall not be subject to any mandatory redemption or prepayment provisions or rights (except to the extent any such mandatory redemption or prepayment is required to be applied pro rata (or greater than pro rata) to the Loans and other Indebtedness that is secured on a *pari passu* basis with the Obligations) and (vi) the covenants and events of default of such New Incremental Notes are no more restrictive to the Borrowers and the Subsidiaries (taken as a whole) than those contained in this Agreement (it being understood that (x) no New Incremental Notes shall include any financial maintenance covenants (including indirectly by way of a cross-default to this Agreement), but that customary cross-acceleration provisions may be included and (y) any negative covenants with respect to indebtedness, investments, liens or restricted payments shall be incurrence-based) (provided that a certificate of a Responsible Officer of the Parent Borrower delivered to the Incremental Notes Arranger in good faith at least three Business Days prior to the incurrence of such New Incremental Notes, together with a reasonably detailed description of the material terms and conditions of such New Incremental Notes or drafts of the documentation relating thereto, stating that the Parent Borrower has determined in good faith that such terms and conditions satisfy the requirement set forth in this clause (b), shall be conclusive evidence that such terms and conditions satisfy such requirement unless the Incremental Notes Arranger provides notice to the Parent Borrower of its objection during such three Business Day period (including a reasonable description of the basis upon which it objects)) and, for the avoidance of doubt, New Incremental Notes shall not benefit from any "most favored nation" pricing protection. Subject to the foregoing, the conditions precedent to each such increase shall be agreed to by the Lenders providing such increase and the Borrower.

(c) The Lenders hereby authorize the Incremental Notes Arranger (and the Lenders hereby authorize the Incremental Notes Arranger) to enter into any Applicable Intercreditor Agreement or amendment thereto in order to establish the Lien priority of any New Incremental Notes on terms consistent with this Section 2.15. If the Incremental Notes Arranger is not the Administrative Agent, the actions authorized to be taken by the Incremental Notes Arranger herein shall be done in consultation with the Administrative Agent and, with respect to applicable documentation (including amendments to this Agreement and the other Loan Documents), any comments to such documentation reasonably requested by the Administrative Agent shall be reflected therein.

Section 2.16 [Reserved].

Section 2.17 Defaulting Lenders.

(a) Notwithstanding anything to the contrary contained in this Agreement, if any Lender becomes a Defaulting Lender, then, until such time as that Lender is no longer a Defaulting Lender, to the extent permitted by applicable Law:

(i) That Defaulting Lender's right to approve or disapprove any amendment, waiver or consent with respect to this Agreement shall be restricted as set forth in Section 10.01.

(ii) Any payment of principal, interest, fees or other amounts received by the Administrative Agent for the account of that Defaulting Lender (whether voluntary or mandatory, at maturity, pursuant to Article VIII or otherwise, and including any amounts made available to the Administrative Agent by that Defaulting Lender pursuant to Section 10.09), shall be applied at such time or times as may be determined by the Administrative Agent as follows: first, to the payment of any amounts owing by that Defaulting Lender to the Administrative Agent hereunder; second, as the Parent Borrower may request (so long as no Default or Event of Default exists), to the funding of any Loan in respect of which that Defaulting Lender has failed to fund its portion thereof as required by this Agreement, as determined by the Administrative Agent; third, if so determined by the Administrative Agent and the Parent Borrower, to be held in a non- interest bearing deposit account and released in order to satisfy obligations of that Defaulting Lender to fund Loans under this Agreement; fourth, to the payment of any amounts owing to the Lenders as a result of any non-appealable judgment of a court of competent jurisdiction obtained by any Lender against that Defaulting Lender as a result of that Defaulting Lender's breach of its obligations under this Agreement; fifth, so long as no Default or Event of Default exists, to the payment of any amounts owing to the Borrowers as a result of any non-appealable judgment of a court of competent jurisdiction obtained by the Borrowers against that Defaulting Lender as a result of that Defaulting Lender's breach of its obligations under this Agreement; and sixth, to that Defaulting Lender or as otherwise directed by a court of competent jurisdiction; provided that if such payment is a payment of the principal amount of any Loans in respect of which that Defaulting Lender has not fully funded its appropriate share, such payment shall be applied solely to pay the Loans of all non-Defaulting Lenders on a *pro rata* basis prior to being applied to the payment of any Loans of that Defaulting Lender. Any payments, prepayments or other amounts paid or payable to a Defaulting Lender that are applied (or held) to pay amounts owed by a Defaulting Lender pursuant to this Section 2.17(a)(ii) shall be deemed paid to and redirected by that Defaulting Lender, and each Lender irrevocably consents hereto.

(b) If the Parent Borrower and the Administrative Agent agree in writing in their sole discretion that a Defaulting Lender should no longer be deemed to be a Defaulting Lender, the Administrative Agent will so notify the parties hereto, whereupon as of the effective date specified in such notice and subject to any conditions set forth therein, that Lender will, to the extent applicable, purchase that portion of outstanding Loans of the other Lenders or take such other actions as the Administrative Agent may reasonably determine to be necessary to cause the Loans to be held on a *pro rata* basis by the Lenders in accordance with their ratable shares in respect of that Lender, whereupon that Lender will cease to be a Defaulting Lender; provided that no adjustments will be made retroactively with respect to fees accrued or payments made by or on behalf of the Borrowers while that Lender was a Defaulting Lender; and provided, further, that except to the extent otherwise expressly agreed by the affected parties, no change hereunder from Defaulting Lender to Lender will constitute a waiver or release of any claim of any party hereunder arising from that Lender having been a Defaulting Lender.

Section 2.18 Specified Refinancing Debt.

(a) The Borrowers may, from time to time after the Closing Date, add one or more new term loan facilities to the Facility ("Specified Refinancing Commitment") pursuant to procedures reasonably specified by any Person appointed by the Parent Borrower, after consultation with the Administrative Agent, as agent under such Specified Refinancing Debt (such Person (who may be the Administrative Agent, if it so agrees), the "Specified Refinancing Agent") and reasonably acceptable to the Parent Borrower, to refinance all or any portion of any Tranches then outstanding under this Agreement; provided that such Specified Refinancing Debt: (i) will rank *pari passu* in right of payment as the other Loans and Commitments hereunder; (ii) will not have obligors other than the Loan Parties or entities who shall have become Loan Parties (it being understood that the roles of such obligors as Borrower or guarantors with respect to such obligations may be interchanged); (iii) will be (x) unsecured or (y) secured by the Collateral on a *pari passu* basis with the Liens securing the Obligations or on a "junior" basis to the

Liens securing the Obligations (in each case pursuant to Applicable Intercreditor Arrangements); (iv) will have such pricing and optional prepayment terms as may be agreed by the Parent Borrower and the applicable Lenders thereof; (v) will have a maturity date that is not prior to the date that is the scheduled Maturity Date of, and will have a Weighted Average Life to Maturity that is not shorter than the Weighted Average Life to Maturity of, the Loans being refinanced; provided, that Extendable Bridge Loans may have a maturity date earlier than the Latest Maturity Date of all then outstanding Loans and, with respect to Extendable Bridge Loans, the Weighted Average Life to Maturity thereof may be shorter than the then longest remaining Weighted Average Life to Maturity of any then outstanding Loans; (vi) any Specified Refinancing Loans shall share ratably in any prepayments of Loans pursuant to Section 2.05 (or otherwise provide for more favorable prepayment treatment for the then outstanding Tranches than the Specified Refinancing Loans); (vii) [reserved]; (viii) subject to clauses (iv) and (v) above, will have terms and conditions (other than pricing and optional prepayment and redemption terms) that are substantially identical to, or less favorable, when taken as a whole, to the investors providing such Specified Refinancing Debt than, the terms and conditions of the Facility and Loans being refinanced (as reasonably determined by the Parent Borrower in good faith, which determination shall be conclusive evidence that such terms and conditions satisfy such requirement unless the Specified Refinancing Agent provides notice to the Parent Borrower of an objection (including a reasonable description of the basis upon which it objects) within five Business Days after being notified of such determination by the Parent Borrower); and (ix) the Net Cash Proceeds of such Specified Refinancing Debt shall be applied, substantially concurrently with the incurrence thereof, to the pro rata prepayment of outstanding Loans being so refinanced, in each case pursuant to Section 2.05 and 2.06, as applicable, and the payment of fees, expenses and premiums, if any, payable in connection therewith; provided, however, that such Specified Refinancing Debt (x) may provide for any additional or different financial or other covenants or other provisions that are agreed among the Borrowers and the Lenders thereof and applicable only during periods after the then Latest Maturity Date in effect and (y) shall not have a principal or commitment amount (or accreted value) greater than the Loans being refinanced (*plus* an amount equal to accrued interest, fees, discounts, premiums and expenses). Any Lender approached to provide all or a portion of any Specified Refinancing Debt may elect or decline, in its sole discretion, to provide such Specified Refinancing Debt. To achieve the full amount of a requested issuance of Specified Refinancing Debt, the Borrowers may also invite additional Eligible Assignees to become Lenders in respect of such Specified Refinancing Debt pursuant to a joinder agreement to this Agreement in form and substance reasonably satisfactory to the Specified Refinancing Agent.

(b) The effectiveness of any Refinancing Amendment shall be subject to conditions as are mutually agreed with the participating Lenders providing such Specified Refinancing Debt and to the extent reasonably requested by the Specified Refinancing Agent, receipt by the Specified Refinancing Agent of legal opinions, board resolutions, officers' certificates and/or reaffirmation agreements with respect to the Borrowers and the Guarantors, including any supplements or amendments to the Collateral Documents providing for such Specified Refinancing Debt to be secured thereby, consistent with those delivered on the Closing Date under Section 4.01 or delivered from time to time pursuant to Section 6.12, 6.14 and/or Section 6.16 (other than changes to such legal opinions resulting from a change in Law, change in fact or change to counsel's form of opinion reasonably satisfactory to the Specified Refinancing Agent). The Lenders hereby authorize the Specified Refinancing Agent to enter into amendments to this Agreement and the other Loan Documents with the Borrowers as may be necessary in order to establish new Tranches of Specified Refinancing Debt and to make such technical amendments as may be necessary or appropriate in the reasonable opinion of the Administrative Agent and the Parent Borrower in connection with the establishment of such new Tranches, in each case on terms consistent with and/or to effect the provisions of this Section 2.18.

(c) Each class of Specified Refinancing Debt incurred under this Section 2.18 shall be in an aggregate principal amount that is (x) not less $3,500,000 and (y) an integral multiple of $1,000,000 in excess thereof.

(d) The Specified Refinancing Agent shall promptly notify each Lender as to the effectiveness of each Refinancing Amendment. Each of the parties hereto hereby agrees that, upon the effectiveness of any Refinancing Amendment, this Agreement shall be deemed amended to the extent (but only to the extent) necessary to reflect the existence and terms of the Specified Refinancing Debt incurred pursuant thereto (including the addition of such Specified Refinancing Debt as a separate "Facility" hereunder and treated in a manner consistent with the Facility being refinanced, including for purposes of prepayments and voting). Any Refinancing Amendment may, without the consent of any Person other than the Borrowers, the Specified Refinancing Agent and the Lenders providing such Specified Refinancing Debt, effect such amendments to this Agreement and the other Loan Documents as may

be necessary or appropriate, in the reasonable opinion of the Specified Refinancing Agent and the Parent Borrower, to effect the provisions of or consistent with this Section 2.18. If the Specified Refinancing Agent is not the Administrative Agent, the actions authorized to be taken by the Specified Refinancing Agent herein shall be done in consultation with the Administrative Agent and, with respect to the preparation of any documentation necessary or appropriate to carry out the provisions of this Section 2.18 (including amendments to this Agreement and the other Loan Documents), any comments to such documentation reasonably requested by the Administrative Agent shall be reflected therein.

Section 2.19 Permitted Debt Exchanges.

(a) Notwithstanding anything to the contrary contained in this Agreement, pursuant to one or more offers (each, a "Permitted Debt Exchange Offer") made from time to time by the Parent Borrower, the Borrowers may from time to time following the Closing Date consummate one or more exchanges of Loans for Permitted Debt Exchange Notes (each such exchange a "Permitted Debt Exchange"), so long as the following conditions are satisfied: (i) no Event of Default shall have occurred and be continuing at the time the final offering document in respect of a Permitted Debt Exchange Offer is delivered to the relevant Lenders, (ii) the aggregate principal amount (calculated on the face amount thereof) of Loans exchanged shall equal no more than the aggregate principal amount (calculated on the face amount thereof) of Permitted Debt Exchange Notes issued in exchange for such Loans; provided that the aggregate principal amount of the Permitted Debt Exchange Notes may include accrued interest and premium (if any) under the Loans exchanged and underwriting discounts, fees, commissions and expenses in connection with the issuance of such Permitted Debt Exchange Notes, (iii) the aggregate principal amount (calculated on the face amount thereof) of all Loans exchanged by the Borrowers pursuant to any Permitted Debt Exchange shall automatically be cancelled and retired by the Borrowers on the date of the settlement thereof (and, if requested by the Administrative Agent, any applicable exchanging Lender shall execute and deliver to the Administrative Agent an Assignment and Assumption, or such other form as may be reasonably requested by the Administrative Agent, in respect thereof pursuant to which the respective Lender assigns its interest in the Loans being exchanged pursuant to the Permitted Debt Exchange to the Borrowers for immediate cancellation), (iv) if the aggregate principal amount of all Loans (calculated on the face amount thereof) tendered by Lenders in respect of the relevant Permitted Debt Exchange Offer (with no Lender being permitted to tender a principal amount of Loans which exceeds the principal amount thereof actually held by it) shall exceed the maximum aggregate principal amount of such Loans offered to be exchanged by the Borrowers pursuant to such Permitted Debt Exchange Offer, then the Borrowers shall exchange Loans subject to such Permitted Debt Exchange Offer tendered by such Lenders ratably up to such maximum amount based on the respective principal amounts so tendered, (v) all documentation in respect of such Permitted Debt Exchange shall be consistent with the foregoing, and all written communications generally directed to the Lenders in connection therewith shall be in form and substance consistent with the foregoing and made in consultation with the Parent Borrower and the Exchange Agent and (vi) any applicable Minimum Tender Condition (as defined below) shall be satisfied.

(b) With respect to all Permitted Debt Exchanges effected by the Borrowers pursuant to this Section 2.19, (i) such Permitted Debt Exchanges (and the cancellation of the exchanged Loans in connection therewith) shall not constitute voluntary or mandatory payments or prepayments for purposes of Section 2.05(a) or (b), and (ii) such Permitted Debt Exchange Offer shall be made for not less than $3,500,000 in aggregate principal amount of Loans; provided that subject to the foregoing clause (ii) the Parent Borrower may at its election specify as a condition (a "Minimum Tender Condition") to consummating any such Permitted Debt Exchange that a minimum amount (to be determined and specified in the relevant Permitted Debt Exchange Offer in the Parent Borrower's discretion) of Loans of any or all applicable classes be tendered.

(c) In connection with each Permitted Debt Exchange, the Parent Borrower and the Exchange Agent shall mutually agree to such procedures as may be necessary or advisable to accomplish the purposes of this Section 2.19 and without conflict with Section 2.19(d); provided that the terms of any Permitted Debt Exchange Offer shall provide that the date by which the relevant Lenders are required to indicate their election to participate in such Permitted Debt Exchange shall be not less than a reasonable period (in the discretion of the Parent Borrower and the Exchange Agent) of time following the date on which the Permitted Debt Exchange Offer is made.

(d) The Borrowers shall be responsible for compliance with, and hereby agrees to comply with, all applicable securities and other laws and regulations in connection with each Permitted Debt Exchange, it being

understood and agreed that (x) none of the Exchange Agent, the Administrative Agent nor any Lender assumes any responsibility in connection with the Borrowers' compliance with such laws and regulations in connection with any Permitted Debt Exchange and (y) each Lender shall be solely responsible for its compliance with any applicable "insider trading" laws and regulations to which such Lender may be subject under the Securities Exchange Act of 1934, as amended, and/or other applicable securities laws and regulations.

(e) If the Exchange Agent is not the Administrative Agent, the actions authorized to be taken by the Exchange Agent herein shall be done in consultation with the Administrative Agent.

Section 2.20 Co-Borrowers.

(a) Each Borrower accepts joint and several liability hereunder in consideration of the financial accommodation to be provided by the Administrative Agent and the Lenders under this Agreement and the other Loan Documents, for the mutual benefit, directly and indirectly, of each Borrower and in consideration of the undertakings of each Borrower to accept joint and several liability for the obligations of each Borrower.

(b) Each Borrower shall be jointly and severally liable for the Obligations, regardless of which Borrower actually receives the Loans hereunder or the amount of the Obligations received or the manner in which the Administrative Agent or any Lender accounts for the Obligations on its books and records. Each Borrower's obligations with respect to Loans made to it, and each Borrower's obligations arising as a result of the joint and several liability of such Borrower hereunder, with respect to Loans made to and other Obligations owing by the Borrowers hereunder, shall be separate and distinct obligations, but all such obligations shall be primary obligations of each Borrower.

(c) Each Borrower's obligations arising as a result of the joint and several liability of such Borrower hereunder with respect to Loans made to and other Obligations owing by the Borrowers hereunder shall, to the fullest extent permitted by law, be unconditional irrespective of (A) the validity or enforceability, avoidance or subordination of the obligations of any other Borrower or of any promissory note or other document evidencing all or any part of the obligations of any other Borrower, (B) the absence of any attempt to collect the Obligations from any other Borrower, any other guarantor, or any other security therefor, or the absence of any other action to enforce the same, (C) the waiver, consent, extension, forbearance or granting of any indulgence by the Administrative Agent or any Lender with respect to any provision of any instrument evidencing the obligations of any other Borrower, or any part thereof, or any other agreement now or hereafter executed by any other Borrower and delivered to the Administrative Agent or any Lender, (D) the failure by the Administrative Agent or any Lender to take any steps to perfect and maintain its security interest in, or to preserve its rights to, any security or collateral for the obligations of any other Borrower, (E) the Administrative Agent's or any Lender's election, in any proceeding instituted under the Bankruptcy Code, of the application of Section 1111(b)(2) of the Bankruptcy Code of the United States, (F) any borrowing or grant of a security interest by any other Borrower, as Debtor In Possession under Section 364 of the Bankruptcy Code of the United States, (G) the disallowance of all or any portion of the Administrative Agent's or any Lender's claim(s) for the repayment of the obligations of any other Borrower under Section 502 of the Bankruptcy Code of the United States, or (H) any other circumstances which might constitute a legal or equitable discharge or defense of a guarantor or of any other Borrower. With respect to each Borrower's obligations arising as a result of the joint and several liability of such Borrower hereunder with respect to Loans made to the Borrowers hereunder, such Borrower waives, until the Obligations shall have been paid in full and this Agreement and the other Loan Documents shall have been terminated, any right to enforce any right of subrogation or any remedy which the Administrative Agent or any Lender now has or may hereafter have against such Borrower, any endorser or any guarantor of all or any part of the Obligations, and any benefit of, and any right to participate in, any security or collateral given to the Administrative Agent or any Lender to secure payment of the Obligations or any other liability of any Borrower to the Administrative Agent or any Lender.

(d) Upon the occurrence and during the continuation of any Event of Default, the Administrative Agent and the Lenders may proceed directly and at once, without notice, against any Borrower to collect and recover the full amount, or any portion of the Obligations, without first proceeding against any other Borrower or any other Person, or against any security or collateral for the Obligations. Each Borrower consents and agrees that the Administrative Agent and the Lenders shall be under no obligation to marshal any assets in favor of any Borrower or against or in payment of any or all of the Obligations.

(e) Each Borrower hereby irrevocably appoints the Parent Borrower as the borrowing agent and attorney-in-fact for the Borrowers, which appointment shall remain in full force and effect unless and until the Administrative Agent shall have received prior written notice signed by all of the Borrowers that such appointment has been revoked and that another Borrower has been appointed in the place of the Parent Borrower. Each Borrower hereby irrevocably appoints and authorizes the Parent Borrower (i) to provide to the Administrative Agent and receive from the Administrative Agent all notices with respect to Loans obtained for the benefit of any Borrower and all other notices and instructions under this Agreement and the other Loan Documents and (ii) to take such action as the Parent Borrower deems appropriate on its behalf to obtain Loans and to exercise such other powers as are reasonably incidental thereto to carry out the purposes of this Agreement. It is understood that the handling of the Collateral of the Borrowers in a combined fashion, as more fully set forth herein and in the Collateral Documents, is done solely as an accommodation to the Borrowers in order to utilize the collective borrowing powers of the Borrowers in the most efficient and economical manner and at their request, and that neither the Agents nor the Lenders shall incur liability to the Borrowers as a result hereof. Each of the Borrowers expects to derive benefit, directly or indirectly, from the handling of the Collateral in a combined fashion since the successful operation of each Borrower is dependent on the continued successful performance of the integrated group.

(f) In any action or proceeding involving any state corporate limited partnership or limited liability company law, or any applicable state, federal or foreign bankruptcy, insolvency, reorganization or other Law affecting the rights of creditors generally, if the obligations of any Borrower hereunder would otherwise be held or determined to be void, voidable, invalid or unenforceable, or subordinated to the claims of any other creditors, on account of the amount of its liability hereunder, then, notwithstanding any other provision to the contrary, the amount of such liability shall, without any further action by such Borrower, any Loan Party or any other Person, be automatically limited and reduced to the highest amount that is valid and enforceable and not subordinated to the claims of other creditors as determined in such action or proceeding.

(g) After the Closing Date, the Parent Borrower may, at any time and from time to time, designate any Subsidiary that is a Domestic Subsidiary as a Borrower by delivery to the Administrative Agent of a Borrower Joinder Agreement executed by such Subsidiary and the Parent Borrower, together with any documentation and other information with respect to such additional Borrower required by regulatory authorities under applicable "know your customer" and anti-money laundering rules and regulations, including, without limitation, the PATRIOT Act requested by the Administrative Agent (and to the extent not theretofore delivered on the Closing Date or otherwise), and upon such delivery and satisfaction, such Subsidiary shall for all purposes of this Agreement and the other Loan Documents be a Borrower and a party to this Agreement. As soon as practicable upon receipt of a Borrower Joinder Agreement, the Administrative Agent shall furnish a copy thereof to each Lender.

ARTICLE III.
Taxes, Increased Costs Protection and Illegality

Section 3.01 Taxes.

(a) All payments by or on account of any obligation of the Borrowers or any other Loan Party hereunder or under any other Loan Document shall be made without deduction or withholding for any Taxes, except as required by applicable Law. If any applicable Law (as determined in the good faith discretion of an applicable Withholding Agent) requires the deduction or withholding of any Tax from or in respect of any such payment, then the applicable Withholding Agent shall be entitled to make such deduction or withholding and shall timely pay the full amount deducted or withheld to the relevant Governmental Authority in accordance with applicable Law and, if such Tax is an Indemnified Tax, the sum payable by the Borrowers or other applicable Loan Party shall be increased as necessary so that after all such deductions or withholdings for Indemnified Taxes have been made (including such deductions and withholdings for Indemnified Taxes applicable to additional sums payable under this Section 3.01) the applicable Recipient receives an amount equal to the sum it would have received had no such deduction or withholding for Indemnified Taxes been made.

(b) In addition but without duplication, the Loan Parties shall timely pay to the relevant Governmental Authority in accordance with applicable Law, or at the option of the Administrative Agent timely reimburse it for the payment of, any Other Taxes.

(c) Without duplication of amounts paid pursuant to Section 3.01, the Loan Parties shall jointly and severally indemnify each Recipient, within 20 days after written demand therefor, for the full amount of any Indemnified Taxes (including Indemnified Taxes imposed or asserted on or attributable to amounts payable under this Section 3.01) payable or paid by such Recipient or required to be withheld or deducted from a payment to such Recipient and any reasonable out-of-pocket expenses arising therefrom or with respect thereto, whether or not such Indemnified Taxes were correctly or legally imposed or asserted by the relevant Governmental Authority. The relevant Recipient shall notify the Parent Borrower of the imposition of any Indemnified Tax reasonably promptly after becoming aware of the imposition of such Tax. A certificate as to the amount of such payment or liability delivered to the Parent Borrower by a Lender (with a copy to the Administrative Agent), or by the Administrative Agent on its own behalf or on behalf of a Lender, shall be conclusive absent manifest error.

(d) Within 30 days after any payment of Taxes by any Loan Party to a Governmental Authority pursuant to this Section 3.01, such Loan Party shall deliver to the Administrative Agent the original or a certified copy of a receipt issued by such Governmental Authority evidencing such payment, a copy of the return reporting such payment or other evidence of such payment reasonably satisfactory to the Administrative Agent.

(e) If any Recipient determines, in its sole discretion exercised in good faith, that it has received a refund of any Indemnified Taxes as to which it has been indemnified pursuant to this Section 3.01 (including by the payment of additional amounts pursuant to this Section 3.01), it shall pay to the indemnifying party an amount equal to such refund (but only to the extent of indemnity payments made under this Section 3.01 with respect to the Indemnified Taxes giving rise to such refund), net of all out-of-pocket expenses (including Taxes) of such indemnified party and without interest (other than any interest paid by the relevant Governmental Authority with respect to such refund). Such indemnifying party, upon the request of such indemnified party, shall promptly repay to such indemnified party the amount paid over pursuant to this clause (e) (*plus* any penalties, interest or other charges imposed by the relevant Governmental Authority) in the event that such indemnified party is required to repay such refund to such Governmental Authority. Notwithstanding anything to the contrary in this clause (e), in no event will the indemnified party be required to pay any amount to an indemnifying party pursuant to this clause (e) the payment of which would place the indemnified party in a less favorable net after-Tax position than the indemnified party would have been in if the Tax subject to indemnification and giving rise to such refund had not been deducted, withheld or otherwise imposed and the indemnification payments or additional amounts with respect to such Tax had never been paid. This clause (e) shall not be construed to require any indemnified party to make available its Tax returns (or any other information relating to its Taxes that it deems confidential) to the indemnifying party or any other Person.

(f) Each Lender agrees that, upon the occurrence of any event giving rise to the operation of Section 3.01(a) or (c) or Section 3.05 with respect to such Lender it will, if requested by the Parent Borrower, use commercially reasonable efforts (subject to such Lender's overall internal policies of general application and legal and regulatory restrictions) to avoid or reduce to the greatest extent possible any indemnification or additional amounts being due under this Section 3.01 or Section 3.05, including to designate another Lending Office for any Loan affected by such event; provided that such efforts are made on terms that, in the reasonable judgment of such Lender, cause such Lender and its Lending Office(s) to suffer no material economic, legal or regulatory disadvantage; and provided, further, that nothing in this Section 3.01(f) shall affect or postpone any of the Obligations of any of the Borrowers or the rights of such Lender pursuant to Sections 3.01(a) and (c) and Section 3.05. The Borrowers hereby agree to pay all reasonable costs and expenses incurred by any Lender as a result of a request by the Parent Borrower under this Section 3.01(f).

(g) (i) Any Lender that is entitled to an exemption from or reduction of withholding Tax with respect to any payments made under any Loan Document shall deliver to the Parent Borrower and the Administrative Agent, at the time or times reasonably requested by the Parent Borrower or the Administrative Agent, such properly completed and executed documentation reasonably requested by the Parent Borrower or the Administrative Agent as will permit such payments to be made without withholding or at a reduced rate of withholding. In addition, any Lender, if reasonably requested by the Parent Borrower or the Administrative Agent, shall deliver such other documentation prescribed by applicable Law or reasonably requested by the Parent Borrower or the Administrative Agent as will enable the Parent Borrower or the Administrative Agent to determine whether or not such Lender is subject to backup withholding or information reporting requirements. Notwithstanding anything to the contrary in the preceding two sentences, the completion, execution and submission of such documentation shall not be required

if in the Lender's reasonable judgment such completion, execution or submission would subject such Lender to any material unreimbursed cost or expense or would materially prejudice the legal or commercial position of such Lender.

(ii) Without limiting the generality of the foregoing,

(A) any Lender that is a U.S. Person shall deliver to the Parent Borrower and the Administrative Agent (in such number of copies as shall be requested by the recipient) on or prior to the date on which such Lender becomes a Lender under this Agreement (and from time to time thereafter upon the reasonable request of the Parent Borrower or the Administrative Agent) executed copies of IRS Form W-9 (or any successor form) certifying that such Lender is exempt from U.S. federal backup withholding;

(B) any Foreign Lender shall deliver to the Parent Borrower and the Administrative Agent (in such number of copies as shall be requested by the recipient) on or prior to the date on which such Foreign Lender becomes a Lender under this Agreement (and from time to time thereafter upon the reasonable request of the Parent Borrower or the Administrative Agent), whichever of the following is applicable:

(a) in the case of a Foreign Lender claiming the benefits of an income tax treaty to which the United States is a party, (x) with respect to payments of interest under any Loan Document, executed copies of IRS Form W-8BEN or IRS Form W-8BEN-E establishing an exemption from, or reduction of, U.S. federal withholding Tax pursuant to the "interest" article of such tax treaty and (y) with respect to any other applicable payments under any Loan Document, IRS Form W-8BEN or IRS Form W-8BEN-E establishing an exemption from, or reduction of, U.S. federal withholding Tax pursuant to the "business profits" or "other income" article of such tax treaty;

(b) executed copies of IRS Form W-8ECI (or any successor form);

(c) in the case of a Foreign Lender claiming the benefits of the exemption for portfolio interest under Section 871(h) or Section 881(c) of the Code, (x) a certificate substantially in the form of Exhibit K-1 to the effect that such Foreign Lender is not a "bank" within the meaning of Section 881(c)(3)(A) of the Code, a "10-percent shareholder" of any Borrower within the meaning of Section 871(h)(3)(B) of the Code, a "controlled foreign corporation" related to any Borrower, as described in Section 881(c)(3)(C), of the Code and that no payments in connection with any Loan Document are effectively connected with such Lender's conduct of a U.S. trade or business (a "U.S. Tax Compliance Certificate") and (y) executed copies of IRS Form W-8BEN or IRS Form W-8BEN-E, as applicable (or any successor form); or

(d) to the extent a Foreign Lender is not the beneficial owner (*e.g.*, where the Foreign Lender is a partnership or a participating Lender), executed copies of IRS Form W-8IMY, accompanied by IRS Form W-8ECI, IRS Form W-8BEN, IRS Form W-8BEN-E, a certificate substantially in the form of Exhibit K-2 or Exhibit K-3, IRS Form W-9, and/or other certification documents from each beneficial owner, as applicable; provided that if the Foreign Lender is a partnership (and not a participating Lender) and one or more direct or indirect partners of such Foreign Lender are claiming the portfolio interest exemption, such Foreign Lender shall provide a certificate substantially in the form of Exhibit K-4 on behalf of each such direct and indirect partner;

(C) any Foreign Lender shall, to the extent it is legally entitled to do so, deliver to the Parent Borrower or the Administrative Agent (in such number of copies as shall be requested by the recipient) on or prior to the date on which such Foreign Lender becomes a Lender under this Agreement (and from time to time thereafter upon the reasonable request of the Parent Borrower or the Administrative Agent), executed copies of any other form prescribed by applicable Law as a basis for claiming exemption from or a reduction in U.S. federal withholding Tax, duly completed, together with such supplementary documentation as may be prescribed by applicable Law to permit the Parent Borrower or the Administrative Agent to determine the withholding or deduction required to be made;

(D) if a payment made to a Recipient under any Loan Document would be subject to Tax imposed by FATCA if such Lender or the Administrative Agent were to fail to comply with the applicable reporting requirements of FATCA (including those contained in Section 1471(b) or 1472(b) of the Code, as applicable), such Recipient shall deliver to the Parent Borrower and the Administrative Agent at the time or times prescribed by Law and at such time or times reasonably requested by the Parent Borrower or the Administrative Agent such documentation prescribed by applicable Law (including as prescribed by Section 1471(b)(3)(C)(i) of the Code) and such additional documentation reasonably requested by the Parent Borrower or the Administrative Agent as may be necessary for the relevant Borrower and the Administrative Agent to comply with their obligations under FATCA and to determine whether such Recipient has complied with such Recipient's obligations under FATCA or to determine the amount to deduct and withhold from such payment. Solely for purposes of this clause (D), "FATCA" shall include any amendments made to FATCA after the date of this Agreement; and

(E) the Administrative Agent, and any successor or supplemental Administrative Agent, shall deliver to the Parent Borrower (in such number of copies as shall be requested by the recipient) on or prior to the date on which the Administrative Agent becomes the administrative agent hereunder or under any other Loan Document (and from time to time thereafter upon the reasonable request of the Parent Borrower) executed copies of either (i) IRS Form W-9 (or any successor form) or (ii) a U.S. branch withholding certificate on IRS Form W-8IMY (or any successor form) evidencing its agreement with the Borrowers to be treated as a U.S. person (with respect to amounts received on account of any Lender) and IRS Form W-8ECI (with respect to amounts received on its own account), with the effect that, in either case, the Borrowers will be entitled to make payments hereunder to the Administrative Agent without withholding or deduction on account of U.S. federal withholding tax.

Each Recipient agrees that if any documentation it previously delivered expires or becomes obsolete or inaccurate in any respect, it shall promptly update and deliver such form or certification to the Parent Borrower and the Administrative Agent or promptly notify the Parent Borrower and the Administrative Agent in writing of its legal ineligibility to do so. Notwithstanding any other provision of this Section 3.01, a Lender shall not be required to deliver any documentation that such Lender is not legally eligible to deliver.

Each Lender hereby authorizes the Administrative Agent to deliver to the Loan Parties and to any successor Administrative Agent any documentation provided by such Lender to the Administrative Agent pursuant to Section 3.01(g).

(h) Each Lender shall severally indemnify the Administrative Agent, within 10 days after demand therefor, for (i) any Indemnified Taxes attributable to such Lender (but only to the extent that any Loan Party has not already indemnified the Administrative Agent for such Indemnified Taxes and without limiting the obligation of the Loan Parties to do so), (ii) any Taxes attributable to such Lender's failure to comply with the provisions of Section 10.07(m) relating to the maintenance of a Participant Register and (iii) any Excluded Taxes attributable to such Lender, in each case, that are payable or paid by the Administrative Agent in connection with any Loan Document, and any reasonable expenses arising therefrom or with respect thereto, whether or not such Taxes were correctly or legally imposed or asserted by the relevant Governmental Authority. A certificate as to the amount of such payment or liability delivered to any Lender by the Administrative Agent shall be conclusive absent manifest error. Each Lender hereby authorizes the Administrative Agent to setoff and apply any and all amounts at any time owing to such Lender under any Loan Document or otherwise payable by the Administrative Agent to the Lender from any other source against any amount due to the Administrative Agent under this paragraph (h).

(i) The agreements in this Section 3.01 shall survive the resignation and/or replacement of the Administrative Agent, any assignment of rights by, or the replacement of, a Lender, the termination of the Commitments and the repayment, satisfaction or discharge of all other Obligations.

(j) For the avoidance of doubt, the term "applicable law" includes FATCA.

Section 3.02 [Reserved].

Section 3.03 Illegality. If any Lender reasonably determines that any Law has made it unlawful, or that any Governmental Authority has asserted that it is unlawful, for any Lender or its applicable Lending Office to make, maintain or fund Loans whose interest is determined by reference to the Eurocurrency Rate, or to determine or charge interest rates based upon the Adjusted Eurocurrency Rate, or any Governmental Authority has imposed material restrictions on the authority of such Lender to purchase or sell, or to take deposits of, Dollars in the applicable interbank market, then, on notice thereof by such Lender to the Parent Borrower through the Administrative Agent, (i) any obligation of such Lender to make or continue Eurocurrency Rate Loans or to convert Base Rate Loans to Eurocurrency Rate Loans shall be suspended and (ii) if such notice asserts the illegality of such Lender making or maintaining Base Rate Loans, the interest rate on which is determined by reference to the Adjusted Eurocurrency Rate component of the Base Rate, the interest rate on which Base Rate Loans of such Lender, shall, if necessary to avoid such illegality, be determined by the Administrative Agent without reference to the Eurocurrency Rate component of the Base Rate, in each case until such Lender notifies the Administrative Agent and the Parent Borrower that the circumstances giving rise to such determination no longer exist. Upon receipt of such notice, (x) the Borrowers shall, upon demand from such Lender (with a copy to the Administrative Agent), prepay or, if applicable, convert all of such Lender's Eurocurrency Rate Loans to Base Rate Loans (the interest rate on which Base Rate Loans of such Lender shall, if necessary to avoid such illegality, be determined by the Administrative Agent without reference to the Adjusted Eurocurrency Rate component of the Base Rate). Upon any such prepayment or conversion, the Borrowers shall also pay accrued interest on the amount so prepaid or converted and all amounts due, if any, in connection with such prepayment or conversion under Section 3.06. Each Lender agrees to designate a different Lending Office if such designation will avoid the need for such notice and will not, in the good faith judgment of such Lender, otherwise be materially disadvantageous to such Lender.

Section 3.04 Inability to Determine Rates.

(a) If the Administrative Agent reasonably determines (which determination shall be conclusive absent manifest error) that (i) for any reason, adequate and reasonable means do not exist for determining the Eurocurrency Rate for any requested Interest Period and currency with respect to a proposed Eurocurrency Rate Loan, or (ii) is informed by the Required Lenders that the Eurocurrency Rate for any requested Interest Period and currency with respect to a proposed Eurocurrency Rate Loan does not adequately and fairly reflect the cost to such Lenders of funding such Loan, or (iii) that deposits are not being offered to banks in the relevant interbank market for the applicable amount, currency and the Interest Period of such Eurocurrency Rate Loan, the Administrative Agent will promptly so notify the Parent Borrower and each Lender. Thereafter, (x) the obligation of the Lenders to make or maintain Eurocurrency Rate Loans of such currency shall be suspended and (y) in the event of a determination described in the preceding sentence with respect to the Eurocurrency Rate component of the Base Rate, the utilization of the Eurocurrency Rate component in determining the Base Rate shall be suspended, in each case until the Administrative Agent (upon the instruction of the Required Lenders) revokes such notice. Upon receipt of such notice, the Parent Borrower may revoke any pending request for a Borrowing of, conversion to or continuation of Eurocurrency Rate Loans of such currency or, failing that, will be deemed to have converted such request into a request for a Borrowing of Base Rate Loans in the amount specified therein.

(b) If at any time the Administrative Agent determines (which determination shall be conclusive absent manifest error) that (i) the circumstances set forth in clause (a)(i) have arisen and such circumstances are unlikely to be temporary or (ii) the circumstances set forth in clause (a)(i) above have not arisen but either (w) the supervisor for the administrator of the Screen Rate has made a public statement that the administrator of the Screen Rate is insolvent (and there is no successor administrator that will continue publication of the Screen Rate), (x) the administrator of the Screen Rate has made a public statement identifying a specific date after which the Screen Rate will permanently or indefinitely cease to be published by it (and there is no successor administrator that will continue publication of the Screen Rate), (y) the supervisor for the administrator of the Screen Rate has made a public statement identifying a specific date after which the Screen Rate will permanently or indefinitely cease to be published or (z) the supervisor for the administrator of the Screen Rate or a Governmental Authority having jurisdiction over the Administrative Agent has made a public statement identifying a specific date after which the Screen Rate may no longer be used for determining interest rates for loans, then the Administrative Agent and the Parent Borrower shall endeavor to establish an alternate rate of interest of to the Eurocurrency Rate that gives due consideration to the then prevailing market convention for determining a rate of interest for syndicated loans in the United States in Dollars at such time, and shall enter into an amendment to this Agreement to reflect such alternate rate of interest and such other related changes to this Agreement as may be applicable (but for the avoidance of

doubt, such related changes shall not include a reduction of the Applicable Rate); provided that, if such alternate rate of interest as so determined would be less than 1.00%, such rate shall be deemed to be 1.00% for the purposes of this Agreement. Notwithstanding anything to the contrary in Section 10.01, such amendment shall become effective without any further action or consent of any other party to this Agreement so long as the Administrative Agent shall not have received, within five Business Days of the date notice of such alternate rate of interest is provided to the Lenders, a written notice from the Required Lenders stating that such Required Lenders object to such amendment.

Section 3.05 Increased Cost and Reduced Return; Capital Adequacy and Liquidity Requirements.

(a) If any Lender reasonably determines that as a result of the introduction of or any change in or in the interpretation of any Law, in each case after the date hereof, or such Lender's compliance therewith, there shall be any material increase in the cost to such Lender of agreeing to make or making, funding or maintaining any Loan the interest on which is determined by reference to the Eurocurrency Rate, or a material reduction in the amount received or receivable by such Lender in connection with any of the foregoing (including Taxes on or in respect of its loans, commitments, or other obligations, or its deposits, reserves, other liabilities or capital attributable thereto, but excluding for purposes of this Section 3.05(a) any such increased costs or reduction in amount resulting from (i) Indemnified Taxes indemnifiable under Section 3.01 and (ii) Excluded Taxes), then within 15 days after demand of such Lender setting forth in reasonable detail such increased costs (with a copy of such demand to the Administrative Agent given in accordance with Section 3.06), the Borrowers shall pay to such Lender such additional amounts as will compensate such Lender for such increased cost or reduction.

(b) If any Lender reasonably determines that the introduction of any Law regarding capital adequacy and liquidity requirements or any change therein or in the interpretation thereof, in each case after the date hereof, or compliance by such Lender (or its Lending Office) therewith, has the effect of materially reducing the rate of return on the capital of such Lender or any corporation controlling such Lender as a consequence of such Lender's obligations hereunder (taking into consideration its policies with respect to capital adequacy and liquidity and such Lender's desired return on capital), then within 15 days after demand of such Lender setting forth in reasonable detail the charge and the calculation of such reduced rate of return (with a copy of such demand to the Administrative Agent given in accordance with Section 3.06), the Borrowers shall pay to such Lender such additional amounts as will compensate such Lender for such reduction.

(c) The Borrowers shall pay to each Lender, (i) as long as such Lender shall be required to maintain reserves or liquidity with respect to liabilities or assets consisting of or including Eurocurrency Rate funds or deposits, additional interest on the unpaid principal amount of each Eurocurrency Rate Loan equal to the actual costs of such reserves or liquidity allocated to such Loan by such Lender (as determined by such Lender in good faith, which determination shall be conclusive in the absence of manifest error), and (ii) as long as such Lender shall be required to comply with any liquidity requirement, reserve ratio requirement or analogous requirement of any other central banking or financial regulatory authority imposed in respect of the maintenance of the Commitments or the funding of the Eurocurrency Rate Loans, such additional costs (expressed as a percentage per annum and rounded upwards, if necessary, to the nearest five decimal places) equal to the actual costs allocated to such Commitment or Loan by such Lender (as determined by such Lender in good faith, which determination shall be conclusive absent manifest error) which in each case shall be due and payable on each date on which interest is payable on such Loan; provided the Parent Borrower shall have received at least 15 days' prior written notice (with a copy to the Administrative Agent) of such additional interest or cost from such Lender. If a Lender fails to give written notice fifteen days prior to the relevant Interest Payment Date, such additional interest or cost shall be due and payable 15 days from receipt of such written notice.

(d) For purposes of this Section 3.05, (i) the Dodd-Frank Wall Street Reform and Consumer Protection Act and all requests, rules, regulations, guidelines or directives thereunder or issued in connection therewith and (ii) all requests, rules, guidelines, requirements and directives promulgated by the Bank for International Settlements, the Basel Committee on Banking Supervision (or any successor or similar authority) or the United States or foreign regulatory authorities (other than foreign regulatory authorities in Switzerland), in each case pursuant to Basel III, shall, in each case, be deemed to have gone into effect after the date hereof, regardless of the date enacted, adopted or issued.

Section 3.06 Funding Losses. Upon written demand of any Lender (with a copy to the Administrative Agent) from time to time, setting forth in reasonable detail the basis for calculating such compensation, the Borrowers shall promptly compensate such Lender for and hold such Lender harmless from any loss, cost or expense incurred by it as a result of:

(a) any continuation, conversion, payment or prepayment of any Eurocurrency Rate Loan on a day other than the last day of the Interest Period for such Loan (whether voluntary, mandatory, automatic, by reason of acceleration, or otherwise);

(b) any failure by the Borrowers (for a reason other than the failure of such Lender to make a Loan or pursuant to a conditional notice) to prepay, borrow, continue or convert any Eurocurrency Rate Loan on the date or in the amount notified by the Parent Borrower;

(c) any failure by the Borrowers to make payment of any Loan on its scheduled due date or any payment of any Loan in a different currency from such Loan; or

(d) any mandatory assignment of such Lender's Eurocurrency Rate Loans pursuant to Section 3.08 on a day other than the last day of the Interest Period for such Loans,

including any loss or expense arising from the liquidation or reemployment of funds obtained by it to maintain such Loan or from fees payable to terminate the deposits from which such funds were obtained (but excluding anticipated profits). The Borrowers shall also pay any customary administrative fees charged by such Lender in connection with the foregoing.

Section 3.07 Matters Applicable to All Requests for Compensation.

(a) A certificate of any Agent or any Lender claiming compensation under this Article III and setting forth in reasonable detail a calculation of the additional amount or amounts to be paid to it hereunder shall be conclusive in the absence of manifest error. In determining such amount, such Agent or such Lender may use any reasonable averaging and attribution methods. With respect to any Lender's claim for compensation under Section 3.03, 3.04 or 3.05, the Loan Parties shall not be required to compensate such Lender for any amount incurred more than 180 days prior to the date that such Lender notifies the Parent Borrower of the event that gives rise to such claim; provided that, if the circumstance giving rise to such claim is retroactive, then such 180-day period referred to above shall be extended to include the period of retroactive effect thereof.

(b) If any Lender requests compensation under Section 3.05, or the Borrowers are required to pay any additional amount to any Lender or any Governmental Authority for the account of any Lender pursuant to Section 3.01, or if any Lender gives a notice pursuant to Section 3.03, then such Lender will, if requested by the Parent Borrower and at the Borrowers' expense, use commercially reasonable efforts to designate another Lending Office for any Loan affected by such event; provided that such efforts (i) would eliminate or reduce amounts payable pursuant to Section 3.01 or 3.04, as applicable, in the future and (ii) would not, in the judgment of such Lender be inconsistent with the internal policies of, or otherwise be disadvantageous in any material legal, economic or regulatory respect to such Lender or its Lending Office. The provisions of this clause (b) shall not affect or postpone any Obligations of the Borrowers or rights of such Lender pursuant to Section 3.05.

(c) If any Lender requests compensation by the Borrowers under Section 3.05, the Parent Borrower may, by notice to such Lender (with a copy to the Administrative Agent), suspend the obligation of such Lender to make or continue from one Interest Period to another Eurocurrency Rate Loans, or to convert Base Rate Loans into Eurocurrency Rate Loans, until the event or condition giving rise to such request ceases to be in effect (in which case the provisions of Section 3.07(e) shall be applicable); provided that such suspension shall not affect the right of such Lender to receive the compensation so requested.

(d) If the obligation of any Lender to make or continue from one Interest Period to another any Eurocurrency Rate Loan, or to convert Base Rate Loans into Eurocurrency Rate Loans shall be suspended pursuant to Section 3.07(c) hereof, such Lender's Eurocurrency Rate Loans shall be automatically converted into Base Rate

Loans on the last day(s) of the then current Interest Period(s) for such Eurocurrency Rate Loans (or, in the case of an immediate conversion required by Section 3.03, on such earlier date as required by Law) and, unless and until such Lender gives notice as provided below that the circumstances specified in Section 3.03, 3.04 or 3.05 hereof that gave rise to such conversion no longer exist:

(i) to the extent that such Lender's Eurocurrency Rate Loans have been so converted, all payments and prepayments of principal that would otherwise be applied to such Lender's Eurocurrency Rate Loans shall be applied instead to its Base Rate Loans; and

(ii) all Loans that would otherwise be made or continued from one Interest Period to another by such Lender as Eurocurrency Rate Loans shall be made or continued instead as Base Rate Loans, and all Base Rate Loans of such Lender that would otherwise be converted into Eurocurrency Rate Loans shall remain as Base Rate Loans.

(e) If any Lender gives notice to the Parent Borrower (with a copy to the Administrative Agent) that the circumstances specified in Section 3.03, 3.04 or 3.05 hereof that gave rise to the conversion of such Lender's Eurocurrency Rate Loans pursuant to this Section 3.07 no longer exist (which such Lender agrees to do promptly upon such circumstances ceasing to exist) at a time when Eurocurrency Rate Loans made by other Lenders are outstanding, such Lender's Base Rate Loans shall be automatically converted, on the first day(s) of the next succeeding Interest Period(s) for such outstanding Eurocurrency Rate Loans, to the extent necessary so that, after giving effect thereto, all Loans held by the Lenders holding Eurocurrency Rate Loans and by such Lender are held pro rata (as to principal amounts, interest rate basis, and Interest Periods) in accordance with their respective Commitments.

(f) A Lender shall not be entitled to any compensation pursuant to the foregoing sections to the extent such Lender is not imposing such charges or requesting such compensation from borrowers (similarly situated to the Borrowers hereunder) under comparable syndicated credit facilities.

Section 3.08 Replacement of Lenders under Certain Circumstances.

(a) If at any time (i) the Borrowers become obligated to pay additional amounts or indemnity payments described in Section 3.01 or 3.05 (other than with respect to Other Taxes) as a result of any condition described in such Sections or any Lender ceases to make Eurocurrency Rate Loans as a result of any condition described in Section 3.03 or 3.04, (ii) any Lender becomes a Defaulting Lender or (iii) any Lender becomes a Non-Consenting Lender (as defined below in this Section 3.08) (collectively, a "Replaceable Lender"), then the Parent Borrower may, on written notice from the Parent Borrower to the Administrative Agent and such Lender, either (i) replace such Lender by causing such Lender to (and such Lender shall be obligated to) assign pursuant to Section 10.07(b) (with the assignment fee to be paid by the Borrowers in such instance unless waived by the Administrative Agent) all of its rights and obligations under this Agreement (or, in the case of a Non-Consenting Lender, all of its rights and obligations under this Agreement with respect to the Facility or Facilities for which its consent is required) to one or more Eligible Assignees; provided that neither the Administrative Agent nor any Lender shall have any obligation to the Borrowers to find a replacement Lender or other such Person or (ii) so long as no Default or Event of Default shall have occurred and be continuing, terminate the Commitment of such Lender and in the case of a Lender, repay all Obligations of the Borrowers owing (and the amount of all accrued interest and fees in respect thereof) to such Lender relating to the Loans and participations held by such Lender as of such termination date; provided that (i) in the case of any such replacement of, or termination of Commitments with respect to aNon-Consenting Lender such replacement or termination shall be sufficient (together with all other consenting Lenders including any other replacement Lender) to cause the adoption of the applicable modification, waiver or amendment of the Loan Documents and (ii) in the case of any such replacement as a result of the Borrowers having become obligated to pay amounts described in Section 3.01 or 3.05, such replacement would eliminate or reduce payments pursuant to Section 3.01 or 3.05, as applicable, in the future. Any Lender being replaced pursuant to this Section 3.08(a) (i) need not be a party to an Assignment and Assumption in order for such assignment to be effective and shall be deemed to have consented to an be bound by the terms thereof; provided that, following the effectiveness of any such assignment, the other parties to such assignment agree to execute and deliver such documents necessary to evidence such assignment as reasonably requested by the applicable Lender, provided that any such documents shall be without recourse to or warranty by the parties thereto and (ii) shall deliver any Notes evidencing such Loans to

the Borrowers (for return to the Borrower) or the Administrative Agent. Pursuant to such Assignment and Assumption, (A) the assignee Lender shall acquire all or a portion, as the case may be, of the assigning Lender's Commitment and outstanding Loans, (B) all Obligations relating to the Loans and participations (and the amount of all accrued interest, fees and premiums in respect thereof) so assigned shall be paid in full by the assignee Lender to such assigning Lender concurrently with such assignment and assumption and (C) upon such payment and, if so requested by the assignee Lender, the assigning Lender shall deliver to the assignee Lender the applicable Note or Notes executed by the Borrower, the assignee Lender shall become a Lender hereunder and the assigning Lender shall cease to constitute a Lender hereunder with respect to such assigned Loans, Commitments and participations, except with respect to indemnification provisions under this Agreement, which shall survive as to such assigning Lender. In connection with any such replacement, if any such Replaceable Lender does not execute and deliver to the Administrative Agent a duly executed Assignment and Assumption reflecting such replacement within two Business Days of the date on which the assignee Lender executes and delivers such Assignment and Assumption to such Replaceable Lender, then such Replaceable Lender shall be deemed to have executed and delivered such Assignment and Assumption without any action on the part of the Replaceable Lender. In connection with the replacement of any Lender pursuant to this Section 3.08(a), the Borrowers shall pay to such Lender such amounts as may be required pursuant to Section 3.06.

(b) Notwithstanding anything to the contrary contained above, the Lender that acts as the Administrative Agent may not be replaced hereunder except in accordance with the terms of Section 9.09.

(c) In the event that (i) the Parent Borrower or the Administrative Agent has requested the Lenders to consent to a waiver of any provisions of the Loan Documents or to agree to any amendment or other modification thereto, (ii) the waiver, amendment or modification in question requires the agreement of all affected Lenders in accordance with the terms of Section 10.01 or all the Lenders with respect to a certain class of the Loans and (iii) the Required Lenders have agreed to such waiver, amendment or modification, then any Lender who does not agree to such waiver, amendment or modification, in each case, shall be deemed a "Non-Consenting Lender"; provided, that the term "Non-Consenting Lender" shall also include any Lender that rejects (or is deemed to reject) (x) a loan modification offer under Section 10.01, which loan modification has been accepted by at least the Majority Lenders of the respective Tranche of Loans whose Loans and/or Commitments are to be extended pursuant to such loan modification and (y) any Lender that does not elect to become a lender in respect of any Specified Refinancing Debt pursuant to Section 2.18. For the avoidance of doubt, if any applicable Lender shall be deemed a Non-Consenting Lender and is required to assign all or any portion of its Initial Loans or its Initial Loans are prepaid by the Borrowers, pursuant to Section 3.08(a), the Borrowers shall pay the applicable Prepayment Premium that would otherwise be payable by the Borrower in connection with a voluntary prepayment thereof.

(d) Survival. All of the Loan Parties' obligations under this Article III shall survive termination of the Aggregate Commitments and repayment of all other Obligations hereunder, any assignment by or replacement of a Lender and any resignation or removal of the Administrative Agent.

ARTICLE IV.
Conditions Precedent to Credit Extensions

Section 4.01 Conditions to the Initial Credit Extension on the Closing Date. The obligation of each Lender to make its initial Credit Extension hereunder on the Closing Date is subject to satisfaction or due waiver in accordance with Section 10.01 of each of the following conditions precedent, except as otherwise agreed between the Parent Borrower and the Administrative Agent:

(a) The Administrative Agent shall have received all of the following, each of which shall be originals or facsimiles or "pdf" files (followed promptly by originals) unless otherwise specified, each properly executed by a Responsible Officer of the signing Loan Party, each dated as of the Closing Date (or, in the case of certificates of governmental officials, as of a recent date before the Closing Date), each in form and substance reasonably satisfactory to the Administrative Agent, and each accompanied by their respective required schedules and other attachments (and set forth thereon shall be all required information with respect to Holdings and its Subsidiaries, giving effect to the Transactions):

(i) executed counterparts of (A) this Agreement from Holdings and the Borrowers,

(B) the Holdings Guaranty from Holdings, (C) the Subsidiary Guaranty from each Subsidiary Guarantor and (D) the Intercompany Subordination Agreement;

(ii) a customary perfection certificate, duly executed by the Loan Parties;

(iii) the Security Agreement, duly executed by Holdings, the Borrowers and each Subsidiary Guarantor, together with (subject to the last paragraph of this Section 4.01):

(1) certificates, if any, representing the Pledged Interests in each Borrower and each wholly owned Domestic Subsidiary other than Immaterial Subsidiaries, accompanied by undated stock powers executed in blank (or stock transfer forms, as applicable) and instruments evidencing the Pledged Debt indorsed in blank (or instrument of transfer, as applicable) shall have been delivered to the First Lien Administrative Agent following pay-off of the Existing Credit Agreements,

(2) copies of proper financing statements, filed or duly prepared for filing under the Uniform Commercial Code in all United States jurisdictions that the Administrative Agent may deem reasonably necessary in order to perfect and protect the Liens on assets of Holdings, each Borrower and each Subsidiary Guarantor created under the Security Agreement, covering the Collateral described in the Security Agreement, and

(3) evidence that all other actions, recordings and filings of or with respect to the Security Agreement that the Administrative Agent may deem reasonably necessary or desirable in order to perfect and protect the Liens created thereby (subject to the Perfection Exceptions) shall have been taken, completed or otherwise provided for in a manner reasonably satisfactory to the Administrative Agent (including receipt of duly executed payoff letters, customary lien searches and UCC-3 termination statements);

(iv) an Intellectual Property Security Agreement, duly executed by each Loan Party that owns intellectual property (and, to the extent applicable, is the exclusive licensee of registered copyrights) that is required to be pledged in accordance with the Security Agreement;

(v) a Note executed by the Borrowers in favor of each Lender requesting a Note reasonably in advance of the Closing Date;

(vi) a Committed Loan Notice relating to the initial Credit Extension;

(vii) a solvency certificate executed by the chief financial officer or similar officer, director or authorized signatory of the Parent Borrower (after giving effect to the Transactions) substantially in the form attached hereto as Exhibit I;

(viii) such documents and certifications (including Organization Documents and, if applicable, good standing certificates) as the Administrative Agent may reasonably require to evidence (A) the identity, authority and capacity of each Responsible Officer of the Loan Parties acting as such in connection with this Agreement and the other Loan Documents and (B) that Holdings, each Borrower and each Subsidiary Guarantor is duly organized or formed, and that each of them is validly existing and, to the extent applicable, in good standing, except to the extent that failure to be so qualified could not reasonably be expected to have a Material Adverse Effect; and

(ix) an opinion of Kirkland & Ellis LLP, special New York and California counsel to Holdings, the Borrowers and the Subsidiary Guarantors, addressed to each Secured Party, in form and substance reasonably satisfactory to the Administrative Agent.

(b) The Arrangers and the Administrative Agent shall have received (i) audited consolidated

balance sheets and the related consolidated statements of income and cash flows of the Parent Borrower as of and for the fiscal year ended December 31, 2017 and (ii) unaudited condensed consolidated balance sheets and the related consolidated statements of income of the Parent Borrower as of the end of and for the three month period ended March 31, 2018 and as of and for any fiscal quarter (other than the fourth fiscal quarter) ended at least 45 days prior to the Closing Date.

(c) The Arrangers and the Administrative Agent shall have received a pro forma consolidated balance sheet and related pro forma consolidated statement of income of the Parent Borrower or a direct or indirect parent of the Parent Borrower and its Subsidiaries as of and for the twelve-month period ending on March 31, 2018, prepared so as to give effect to the Transactions as if the Transactions had occurred as of such date (in the case of such balance sheet) or as if the Transactions had occurred at the beginning of such period (in the case of such other financial statements), which need not be prepared in compliance with Regulation S-X, or include adjustments for purchase accounting.

(d) (i) Holdings and the Borrowers shall have provided the documentation and other information reasonably requested in writing at least ten days prior to the Closing Date by the Arrangers as they reasonably determine is required by regulatory authorities under applicable "know your customer" and anti-money-laundering rules and regulations, including, without limitation, the PATRIOT Act, in each case at least three business days prior to the Closing Date (or such shorter period as the Administrative Agent shall otherwise agree) and (ii) to the extent any Borrower qualifies as a "legal entity customer" under the Beneficial Ownership Regulation, at least five days prior to the Closing Date, any Lender that has requested, in a written notice to the Parent Borrower at least 10 days prior to the Closing Date, a Beneficial Ownership Certification in relation to the Borrowers shall have received such Beneficial Ownership Certification (provided that, upon the execution and delivery by such Lender of its signature page to this Agreement, the condition set forth in this clause (ii) shall be deemed to be satisfied).

(e) The First Lien Facilities Documentation required by the terms of the First Lien Credit Agreement and the First Lien/Second Lien Intercreditor Agreement shall have been duly executed and delivered by each Loan Party thereto to the First Lien Administrative Agent and shall be in full force and effect, and substantially contemporaneously with the funding of the Initial Loans, the First Lien Facilities shall be funded.

(f) (i) the Refinancing shall have been, or shall concurrently with the initial funding of the Facility be, consummated.

(ii) All fees required to be paid on the Closing Date pursuant to this Agreement, the Fee Letter and any other arrangements with the Administrative Agent or the Arrangers and reasonable out-of-pocket expenses required to be paid on the Closing Date pursuant to any other written agreement with the Arrangers, to the extent invoiced at least three Business Days prior to the Closing Date (or such later date as the Parent Borrower may reasonably agree) shall have been paid (which amounts may be offset against the proceeds of the Initial Loans at the Parent Borrower's election).

Without limiting the generality of the provisions of Section 9.03, for purposes of determining compliance with the conditions specified in this Section 4.01, each Lender as of the Closing Date shall be deemed to have consented to, approved or accepted or to be satisfied with, each document or other matter required hereunder to be consented to or approved by or acceptable or satisfactory to a Lender unless the Administrative Agent shall have received written notice from such Lender prior to the Closing Date specifying its objection thereto.

Notwithstanding anything herein to the contrary, it is understood that, other than with respect to (a) the execution and delivery by Holdings and the Borrowers of the Security Agreement and the Intellectual Property Security Agreement and (b) UCC Filing Collateral or Stock Certificates (each as defined below), to the extent any Lien on any Collateral is not or cannot be provided and/or perfected on the Closing Date after Holdings' and the Borrowers' use of commercially reasonable efforts to do so or without undue burden or expense, the provision and/or perfection of a Lien on such Collateral shall not constitute a condition precedent for purposes of this Section 4.01, but instead shall be required to be perfected after the Closing Date in accordance with Section 6.16; provided that Holdings and the Borrowers shall have delivered all Stock Certificates. For purposes of this paragraph, 'UCC

Filing Collateral" means Collateral, including Collateral constituting investment property, for which a security interest can be perfected by filing a UCC-1 financing statement. "Stock Certificates" means certificates representing Capital Stock of each Borrower and the wholly owned Domestic Subsidiaries of the Loan Parties (other than Immaterial Subsidiaries) (provided that Holdings and the Borrowers shall not be required to deliver Stock Certificates constituting Excluded Property) for which a security interest can be perfected by delivering such certificates, together with undated stock powers or other appropriate instruments of transfer executed in blank for each such certificate.

Section 4.02 [Reserved].

ARTICLE V.
Representations and Warranties

Each of Holdings (with respect to Sections 5.01, 5.02, 5.03, 5.04, 5.08, 5.12, 5.13, 5.14, 5.18, 5.19 and 5.20) and the Borrowers represent and warrant to the Administrative Agent, Collateral Agent and the Lenders that:

Section 5.01 Existence, Qualification and Power; Compliance with Laws. Each Loan Party and each of the Subsidiaries (subject, in the case of clause (c), to Section 5.03) (a) is a Person duly organized, formed or incorporated, validly existing and in good standing (to the extent such concept is applicable in the relevant jurisdiction) under the Laws of the jurisdiction of its incorporation or organization, (b) has all requisite power and authority to (i) own or lease its assets and carry on its business and (ii) execute, deliver and perform its obligations under the Loan Documents to which it is a party, (c) is duly qualified and is authorized to do business and in good standing (to the extent such concept is applicable in the relevant jurisdiction) under the Laws of each jurisdiction where its ownership, lease or operation of properties or the conduct of its business requires such qualification and (d) has all requisite governmental licenses, authorizations, consents and approvals to operate its business as currently conducted; except in each case referred to in clause (b)(i), (c) and (d), to the extent that any failure to be so or to have such could not reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect.

Section 5.02 Authorization; No Contravention. The execution, delivery and performance by each Loan Party of each Loan Document to which such Person is or is to be a party, are within such Loan Party's corporate or other powers, have been duly authorized by all necessary corporate or other organizational action and do not (a) contravene the terms of any of such Person's Organization Documents or (b) violate any Law; except to the extent that such violation under clause (b) could not reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect.

Section 5.03 Governmental Authorization; Other Consents. No approval, consent, exemption, authorization or other action by, or notice to, or filing with, any Governmental Authority or any other Person is necessary or required in connection with (a) the execution, delivery, performance by, or enforcement against, any Loan Party of this Agreement or any other Loan Document, or for the consummation of the Transactions, (b) the grant by any Loan Party of the Liens granted by it pursuant to the Collateral Documents or (c) the perfection or maintenance of the Liens created under the Collateral Documents, except for (w) filings and registrations necessary to perfect the Liens on the Collateral granted by the Loan Parties consisting of UCC financing statements, filings in the United States Patent and Trademark Office and the United States Copyright Office and Mortgages, and, (x) the approvals, consents, exemptions, authorizations, actions, notices and filings which have been duly obtained, taken, given or made and are in full force and effect, (y) those approvals, consents, exemptions, authorizations or other actions, notices or filings set out in the Collateral Documents and (z) those approvals, consents, exemptions, authorizations or other actions, notices or filings, the failure of which to obtain or make could not reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect.

Section 5.04 Binding Effect. This Agreement and each other Loan Document has been duly executed and delivered by each Loan Party (subject, in each case, to Section 5.03) that is party thereto. This Agreement and each other Loan Document constitutes a legal, valid and binding obligation of such Loan Party, enforceable against each Loan Party that is party thereto in accordance with its terms, subject to applicable bankruptcy, insolvency, reorganization, moratorium or other laws affecting creditors' rights generally and subject to general principles of equity, regardless of whether considered in a proceeding in equity or at law.

Section 5.05 Financial Statements; No Material Adverse Effect.

(a) The audited consolidated financial statements of the Parent Borrower (or of any Parent Holding Company or Subsidiary of a Parent Holding Company allowed to be delivered pursuant to the terms hereof) and its Subsidiaries most recently delivered pursuant to Section 4.01(b)(i) or 6.01(a), as applicable, fairly present in all material respects the consolidated financial condition of the Parent Borrower (or of any Parent Holding Company or Subsidiary of a Parent Holding Company allowed to be delivered pursuant to the terms hereof) and its Subsidiaries as of the dates thereof and their results of operations for the period covered thereby in accordance with GAAP consistently applied throughout the period covered thereby, except as otherwise expressly noted therein.

(b) The unaudited consolidated financial statements of the Parent Borrower (or of any Parent Holding Company or Subsidiary of a Parent Holding Company allowed to be delivered pursuant to the terms hereof) and its Subsidiaries most recently delivered pursuant to Section 4.01(b)(ii) or 6.01(b), as applicable, (i) were prepared in accordance with GAAP and consistently applied throughout the period covered thereby, except as otherwise expressly noted therein, and (ii) fairly present in all material respects the consolidated financial condition of the Parent Borrower (or of any Parent Holding Company or Subsidiary of a Parent Holding Company allowed to be delivered pursuant to the terms hereof) and its Subsidiaries as of the date thereof and their results of operations for the period covered thereby, subject to the absence of footnotes and to normal and recurring year-end audit adjustments.

(c) Since December 31, 2017, there has been no event or circumstance, either individually or in the aggregate, that has had or would reasonably be expected to have a Material Adverse Effect.

(d) The consolidated forecasted balance sheets, statements of income and statements of cash flows of the Parent Borrower (or of any Parent Holding Company allowed to be delivered pursuant to the terms hereof) and its Subsidiaries most recently delivered pursuant to Section 6.01(c) were prepared in good faith on the basis of the assumptions stated therein, which assumptions were reasonable in light of the conditions existing at the time of delivery of such forecasts; it being understood that no assurance can be given that any particular projections will be realized, actual results may vary from such forecasts and that such variations may be material.

Section 5.06 Litigation. There are no actions, suits, proceedings, claims or disputes pending or, to the knowledge of the Borrowers, threatened in writing, at law, in equity, in arbitration or before any Governmental Authority, against the Borrowers or any Subsidiary, or against any of their properties or revenues that would reasonably be expected to have a Material Adverse Effect.

Section 5.07 Use of Proceeds. The Borrowers will only use the proceeds of the Initial Loans to finance the Transactions and pay Transaction Costs (including paying any fees, commissions and expenses associated therewith).

Section 5.08 Ownership of Property; Liens.

(a) Each Loan Party and each of the Subsidiaries has good and marketable fee simple title to, or valid leasehold interests in, all real property necessary in the ordinary conduct of its business, free and clear of all Liens except for minor defects in title that do not materially interfere with its ability to conduct its business or to utilize such assets for their intended purposes and Liens permitted by Section 7.02, except where the failure to have such title or interests could not reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect on the use or operation of any Material Real Property or any real property necessary for the ordinary conduct of the Borrower's business, taken as a whole.

(b) Set forth on Schedule 5.08(b) hereto is a complete and accurate list, in all material respects, of all Material Real Property owned by any Loan Party as of the Closing Date, showing as of the Closing Date, the street address (to the extent available), county or other relevant jurisdiction, state and record owner; and as of the Closing Date, no Loan Party owns any Material Real Property except as listed on Schedule 5.08(b).

Section 5.09 Environmental Compliance. Except as would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect:

(a) The Borrowers and the Subsidiaries and their respective operations and properties, are in compliance with all Environmental Laws and Environmental Permits and none of the Borrowers or the Subsidiaries are subject to any Environmental Liability.

(b) (i) None of the properties currently or formerly owned or operated by the Borrowers or any Subsidiary is listed or, to the knowledge of the Parent Borrower, proposed for listing on the NPL or on the CERCLIS or any analogous foreign, state or local list, (ii) there is no asbestos or asbestos-containing material on any property currently owned or operated by the Borrowers or any of the Subsidiaries requiring investigation, remediation, mitigation, removal, or assessment, or other response, remedial or corrective action, pursuant to any Environmental Law and (iii) Hazardous Materials have not been Released and there exists no threat of Release of Hazardous Materials on any property currently or, to the knowledge of the Parent Borrower, formerly owned or operated by the Borrowers or any of the Subsidiaries, except for such Releases or threats of Releases that were in compliance with, or would not reasonably be expected to give rise to liability of the Borrowers or any Subsidiary under Environmental Laws.

(c) None of the Borrowers or any of the Subsidiaries is undertaking, and none has completed, either individually or together with other potentially responsible parties, any investigation, remediation, mitigation, removal, assessment or remedial, response or corrective action relating to any actual or threatened release, discharge or disposal of Hazardous Materials at any site, location or operation, either voluntarily or pursuant to the order of any Governmental Authority or the requirements of any Environmental Law.

(d) All Hazardous Materials generated, used, treated, handled or stored at, or transported to or from, any property currently or, to the knowledge of the Parent Borrower, formerly owned or operated by the Borrowers or any of the Subsidiaries have been disposed of in a manner not reasonably expected to result in liability to the Borrowers or any of the Subsidiaries.

(e) None of the Borrowers or any of the Subsidiaries has received a notice of or is subject to any claim, action, proceeding or suit alleging liability pursuant to any Environmental Law.

Section 5.10 Taxes. Each Borrower and each of the Subsidiaries has filed or have caused to be filed all Tax returns and reports required to be filed, and has paid all Taxes (including in its capacity as a withholding agent) levied or imposed upon it or its properties, income or assets otherwise due and payable, except those (a) that are being contested in good faith by appropriate proceedings diligently conducted and for which adequate reserves have been provided in accordance with GAAP or (b) with respect to which the failure to make such filing or payment would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect.

Section 5.11 Employee Benefits Plans.

(a) Except as would not reasonably be expected, individually or in the aggregate, to result in a Material Adverse Effect, (i) each Plan is in compliance with the applicable provisions of ERISA, the Code and other applicable federal and state laws and (ii) each Plan that is intended to be a qualified plan under Section 401(a) of the Code may rely upon an opinion letter for a prototype plan or has received a favorable determination letter from the IRS to the effect that the form of such Plan is qualified under Section 401(a) of the Code and the trust related thereto has been determined by the IRS to be exempt from federal income tax under Section 501(a) of the Code, or an application for such a letter will be submitted to the IRS within the applicable required time period with respect thereto or is currently being processed by the IRS, and to the knowledge of any Loan Party, nothing has occurred that would prevent, or cause the loss of, such tax-qualified status.

(b) Except as would not reasonably be expected, individually or in the aggregate, to result in a Material Adverse Effect, (i) each Foreign Plan is in compliance with all requirements of Law applicable thereto and the respective requirements of the governing documents for such plan and (ii) with respect to each Foreign Plan,

none of the Borrowers or any of its Subsidiaries or any of their respective directors, officers, employees or agents has engaged in a transaction that could subject the Borrowers or any Subsidiary, directly or indirectly, to any tax or civil penalty.

(c) There are no pending or, to the knowledge of any Loan Party, threatened claims, actions or lawsuits, or action by any Governmental Authority, with respect to any Plan that would reasonably be expected to have a Material Adverse Effect. There has been no "prohibited transaction" within the meaning of Section 4975 of the Code or Section 406 or 407 of ERISA (and not otherwise exempt under Section 408 of ERISA) with respect to any Plan that would reasonably be expected to result in a Material Adverse Effect.

(d) (i) No ERISA Event has occurred and neither any Loan Party nor, to the knowledge of any Loan Party, any ERISA Affiliate is aware of any fact, event or circumstance that could reasonably be expected to constitute or result in an ERISA Event with respect to any Plan, Multiemployer Plan or Foreign Plan, (ii) each Loan Party and each ERISA Affiliate has met all applicable requirements under the Pension Funding Rules in respect of each Plan, and no waiver of the minimum funding standards under such Pension Funding Rules has been applied for or obtained, (iii) there exists no Unfunded Pension Liability, (iv) as of the most recent valuation date for any Plan, the present value of all accrued benefits under such Plan (based on the actuarial assumptions used to fund such Plan) did not exceed the value of the assets of such Plan allocable to such accrued benefits, (v) neither any Loan Party nor, to the knowledge of any Loan Party any ERISA Affiliate knows of any facts or circumstances that could reasonably be expected to cause the funding target attainment percentage (as defined in Section 430(d)(2) of the Code) for any Plan, if applicable, to drop below 80% as of the most recent valuation date, (vi) neither any Loan Party nor any ERISA Affiliate has incurred any liability to the PBGC other than for the payment of premiums, and there are no premium payments which have become due that are unpaid, (vii) neither any Loan Party nor any ERISA Affiliate has engaged in a transaction that could be subject to Sections 4069 or 4212(c) of ERISA and (viii) no Plan has been terminated by the plan administrator thereof or by the PBGC and no event or circumstance has occurred or exists that could reasonably be expected to cause the PBGC to institute proceedings under Title IV of ERISA to terminate any Plan or Multiemployer Plan, except with respect to each of the foregoing clauses (i) through (viii) of this Section 5.11(a), as would not reasonably be expected, individually or in the aggregate, to result in a Material Adverse Effect.

(e) (i) With respect to each Foreign Plan, reserves have been established in the financial statements furnished to Lenders in respect of any unfunded liabilities in accordance with applicable Law and, where required, in accordance with ordinary accounting practices in the jurisdiction in which such Foreign Plan is maintained and (ii) except as disclosed or reflected in such financial statements, there are no aggregate unfunded liabilities with respect to Foreign Plans and the present value of the aggregate accumulated benefit liabilities of all Foreign Plans did not, as of the last annual valuation date applicable thereto, exceed the assets of all such Foreign Plans, except with respect to each of the foregoing clauses (i) and (ii) of this Section 5.11(e), as would not reasonably be expected, individually or in the aggregate, to result in a Material Adverse Effect.

Section 5.12 Subsidiaries; Capital Stock. As of the Closing Date, there are no Subsidiaries other than those specifically disclosed in Schedule 5.12, and all of the outstanding Capital Stock in such Subsidiaries that are owned by a Loan Party have been validly issued, are fully paid and non-assessable (other than for those Subsidiaries that are limited liability companies and limited partnerships and to the extent such concepts are not applicable in the relevant jurisdiction) and are owned free and clear of all Liens except (i) those created under the Collateral Documents, (ii) those created under the First Lien Facilities Documentation and (iii) any nonconsensual Lien that is permitted under Section 7.02.

Section 5.13 Margin Regulations; Investment Company Act.

(a) Each of the Loan Parties is not engaged and will not engage, principally or as one of its important activities, in the business of purchasing or carrying Margin Stock, or extending credit for the purpose of purchasing or carrying Margin Stock and no proceeds of any Borrowings will be used to purchase or carry any Margin Stock or to extend credit to others for the purpose of purchasing or carrying any Margin Stock. Neither the making of any Credit Extension hereunder nor the use of proceeds thereof will violate any regulations of the FRB, including the provisions of Regulations T, U or X of the FRB.

(b) None of the Loan Parties is or is required to be registered as an "investment company" under the Investment Company Act of 1940, as amended.

Section 5.14 Disclosure.

(a) As of the Closing Date, no report, financial statement, certificate or other written information furnished by or on behalf of any Loan Party (other than projected financial information, pro forma financial information and information of a general economic or industry nature) to any Agent or any Lender in connection with the transactions contemplated hereby and the negotiation of this Agreement or delivered hereunder or any other Loan Document (as modified or supplemented by other information so furnished), when taken as a whole, contains any material misstatement of fact or omits to state any material fact necessary to make the statements therein (when taken as a whole), in the light of the circumstances under which they were made, not materially misleading; provided that, with respect to projected and pro forma financial information, the Parent Borrower represents only that such information was prepared in good faith based upon assumptions believed to be reasonable at the time of preparation and delivery; it being understood that actual results may vary from such forecasts and that such variances may be material.

(b) As of the Closing Date, the information included in the Beneficial Ownership Certification is true and correct in all respects.

Section 5.15 Compliance with Laws. The Borrowers and each Subsidiary are in compliance in all material respects with the requirements of all Laws and all orders, writs, injunctions and decrees applicable to it or to its properties, except in such instances in which (a) such requirement of Law or order, writ, injunction or decree is being contested in good faith by appropriate proceedings diligently conducted or (b) the failure to comply therewith, either individually or in the aggregate, could not reasonably be expected to have a Material Adverse Effect.

Section 5.16 Intellectual Property; Licenses, Etc. To the knowledge of the Borrowers and each Subsidiary Guarantor own, license or possess the right to use, all of the trademarks, service marks, trade names, copyrights, patents and other intellectual property rights (collectively, "IP Rights") that are necessary for the operation of its respective business, as currently conducted, except to the extent such failure to own, license or possess, either individually or in the aggregate, could not reasonably be expected to have a Material Adverse Effect and provided that the foregoing shall not deem to constitute a representation that the Borrowers and the Subsidiary Guarantors do not infringe or violate the IP Rights held by any other Person. Set forth on Schedule 5.16 is a complete and accurate list of all registrations or applications to register in the United States Patent and Trademark Office or the United States Copyright Office patents, trademarks, and copyrights owned or, in the case of copyrights, exclusively licensed by the Borrowers and Subsidiary Guarantors as of the Closing Date. To the knowledge of the Borrowers, the conduct of the business of the Borrowers or Subsidiary Guarantors as currently conducted does not infringe upon or violate any IP Rights held by any other Person, except for such infringements and violations which, individually or in the aggregate, could not reasonably be expected to have a Material Adverse Effect. No claim or litigation regarding any of the foregoing is pending or, to the knowledge of the Borrowers, threatened in writing, which, either individually or in the aggregate, could reasonably be expected to have a Material Adverse Effect.

Section 5.17 Solvency. On the Closing Date, after giving effect to the Transactions, the Borrowers and their Subsidiaries, on a consolidated basis, are Solvent.

Section 5.18 Perfection, Etc. Subject to Section 5.03, each Collateral Document delivered pursuant to this Agreement will, upon execution and delivery thereof, be effective to create in favor of the Collateral Agent for the benefit of the Secured Parties, legal, valid and enforceable first priority Liens on, and security interests in the Collateral described therein to the extent intended to be created thereby, except as to enforcement, as may be limited by applicable domestic bankruptcy, insolvency, fraudulent conveyance, reorganization (by way of voluntary arrangement, schemes of arrangements or otherwise), moratorium and other similar laws relating to or affecting creditors' rights generally, general equitable principles (whether considered in a proceeding in equity or at law) and (a) when financing statements are filed in the offices of the Secretary of State of each Loan Party's jurisdiction of organization or formation and applicable documents are filed and recorded as applicable in the United States Copyright Office or the United States Patent and Trademark Office and (b) upon the taking of possession or control by the Collateral Agent (or, if applicable, the First Lien Administrative Agent in accordance with the First

Lien/Second Lien Intercreditor Agreement) of such Collateral with respect to which a security interest may be perfected only by possession or control (which possession or control shall be given to the Collateral Agent (or, if applicable, the First Lien Administrative Agent in accordance with the First Lien/Second Lien Intercreditor Agreement) to the extent possession or control by the Collateral Agent is required by the applicable Collateral Document) the Liens created by the Collateral Documents shall constitute fully perfected second priority Liens so far as possible under relevant law on, and security interests in (to the extent intended to be created thereby and required to be perfected under the Loan Documents), all right, title and interest of the grantors in such Collateral in each case free and clear of any Liens other than Liens permitted hereunder.

Section 5.19 Sanctions; OFAC.

(a) Sanctions Laws and Regulations. Each of Holdings, the Borrowers and each of their respective Subsidiaries is (i) in compliance, in all material respects, with applicable Sanctions Laws and Regulations and (ii) in compliance, in all material respects, with applicable anti-money laundering laws and regulations. No Borrowing, or use of proceeds, will violate or result in the violation of any Sanctions Laws and Regulations applicable to any party hereto.

(b) OFAC. None of (I) Holdings, the Borrowers or any other Loan Party and (II) the Subsidiaries that are not Loan Parties or, to the knowledge of Holdings and the Borrowers, any director, manager, officer, agent or employee of Holdings, the Borrowers or any of their respective Subsidiaries, in each case, (i) is a person whose property or interest in property is blocked or subject to blocking pursuant to Section 1 of the Executive Order, (ii) in any material respect, engages in any dealings or transactions prohibited by Section 2 of the Executive Order, or is otherwise associated with any such person in any manner that violates Section 2 of the Executive Order, (iii) is a person on the list of "Specially Designated Nationals and Blocked Persons" or otherwise targeted by limitations or prohibitions under any other OFAC regulation or executive order or (iv) is otherwise the subject or target of any Sanctions Laws and Regulations. The Borrowers will not directly or indirectly use the proceeds of the Loans or otherwise make available such proceeds to any Person, for the purpose of financing the activities of any Person, or in any country or territory, that is the subject or target of any Sanctions Laws and Regulations in violation of Sanctions Laws and Regulations, or in any other manner that would result in a material violation of any Sanctions Laws and Regulations by any Person, unless specifically or generally licensed by OFAC.

Section 5.20 Anti-Corruption Laws. No part of the proceeds of any Loan will be used for any improper payments, directly or, to the Borrowers' knowledge, indirectly, to any governmental official or employee, political party, official of a political party, candidate for political office, or anyone else acting in an official capacity, or any other party (if applicable) in order to obtain, retain or direct business or obtain any improper advantage, in violation of the United States Foreign Corrupt Practices Act of 1977, as amended, the United Kingdom Bribery Act of 2010, as amended and any similar laws, rules or regulations issued, administered or enforced by any Governmental Authority having jurisdiction over the Borrowers (collectively, the "Anti-Corruption Laws"). The Borrowers have implemented and maintains in effect policies and procedures designed to reasonably ensure compliance by the Borrowers, their Subsidiaries and their respective directors, officer, employees and agents with Anti-Corruption Laws, and the Borrowers, their Subsidiaries and their respective officers and employees and, to the knowledge of the Borrowers, their respective directors and agents, are in compliance in all material respects with Anti-Corruption Laws.

ARTICLE VI.
Affirmative Covenants

So long as any Lender shall have any Commitment hereunder, any Loan or other Obligation (other than contingent indemnification obligations as to which no claim has been asserted) hereunder shall remain unpaid or unsatisfied, (A) the Parent Borrower shall, and shall (except in the case of the covenants set forth in Sections 6.01, 6.02 and 6.03) cause each Subsidiary to and (B) with respect to Section 6.14, Holdings shall:

Section 6.01 Financial Statements. Deliver to the Administrative Agent for further distribution to each Lender:

(a) within 120 days after the end of each fiscal year of the Parent Borrower, beginning with the fiscal year ended December 31, 2018, a consolidated balance sheet of the Parent Borrower and its Subsidiaries as at the end of such fiscal year, and the related consolidated statements of income or operations, shareholders' equity and cash flows for such fiscal year, setting forth in each case in comparative form the figures for the previous fiscal year, all in reasonable detail and prepared in accordance with GAAP, audited and accompanied by a report and opinion of any independent certified public accountant of nationally recognized standing, which report and opinion shall be prepared in accordance with generally accepted auditing standards and shall not be subject to any "going concern" or like qualification, exception or explanatory paragraph or any qualification, exception or explanatory paragraph as to the scope of such audit, together with a customary management's discussion and analysis of financial information;

(b) within 60 days after the end of each of the first three fiscal quarters of each fiscal year of the Parent Borrower (commencing with the fiscal quarter ended June 30, 2018), a consolidated balance sheet of the Parent Borrower and its Subsidiaries as at the end of such fiscal quarter, and the related consolidated statements of income or operations, shareholders' equity and cash flows for such fiscal quarter and for the portion of the fiscal year then ended, setting forth in each case, in comparative form the figures for the corresponding fiscal quarter of the previous fiscal year and the corresponding portion of the previous fiscal year, all in reasonable detail and certified by a Responsible Officer of the Parent Borrower as fairly presenting in all material respects the financial condition, results of operations, shareholders' equity and cash flows of the Parent Borrower and its Subsidiaries in accordance with GAAP, subject only to normal year-end audit adjustments and the absence of footnotes, together with a customary management's discussion and analysis of financial information; and

(c) within 120 days after the end of each fiscal year, beginning with the fiscal year ended December 31, 2018, to be distributed only to each Lender that has selected the "Private Side Information" or similar designation, reasonably detailed segment-level forecasts along with written assumptions prepared by management of the Parent Borrower (including projected consolidated balance sheets, income statements, and cash flow statements of the Parent Borrower and its Subsidiaries) on a quarterly basis for the fiscal year following such fiscal year then ended, which forecasts shall be prepared in good faith on the basis of assumptions believed to be reasonable at the time of preparation thereof; provided that delivery of such forecasts pursuant to this Section 6.01(c) shall only be required hereunder prior to an initial public offering of the Capital Stock of the Parent Borrower, Holdings or any Parent Holding Company.

Notwithstanding the foregoing, (A) the obligations in clauses (a), (b) and (c) of this Section 6.01 may be satisfied by furnishing, at the option of the Parent Borrower, the applicable financial statements or, as applicable, forecasts of (I) any successor of the Parent Borrower, or (II) Holdings or any Parent Holding Company; provided that to the extent such information relates to Holdings or a Parent Holding Company, such information is accompanied by consolidating information that explains in reasonable detail the differences between the information relating to Holdings or any Parent Holding Company, on the one hand, and the information relating to the Parent Borrower and the Subsidiaries on a standalone basis, on the other hand, and (B) (i) in the event that the Parent Borrower or Holdings (or any Parent Holding Company allowed to be delivered pursuant to the terms hereof) delivers to the Administrative Agent an Annual Report on Form 10-K for any fiscal year (or similar filing in the applicable jurisdiction), as filed with the SEC or in such form as would have been suitable for filing with the SEC, within the time frames set forth in clause (a) above, such Form 10-K shall satisfy all requirements of clause (a) of this Section 6.01 with respect to such fiscal year to the extent that it contains the information and report and opinion required by such clause (a) and such report and opinion does not contain any "going concern" or like qualification, exception or explanatory paragraph or any qualification, exception or explanatory paragraph as to the scope of audit and (ii) in the event that the Parent Borrower (or any Parent Holding Company allowed to be delivered pursuant to the terms hereof) delivers to the Administrative Agent a Quarterly Report on Form 10-Q for any fiscal quarter (or similar filing in the applicable jurisdiction), as filed with the SEC or in such form as would have been suitable for filing with the SEC, within the time frames set forth in clause (b) above, such Form 10-Q shall satisfy all requirements of clause (b) of this Section with respect to such fiscal quarter to the extent that it contains the information required by such clause (b); in each case to the extent that information contained in such Form 10-K or Form 10-Q (or similar filings in the applicable jurisdiction) satisfies the requirements of clauses (a) or (b) of this Section 6.01, as the case may be.

Section 6.02 Certificates; Other Information. Deliver to the Administrative Agent:

(a) no later than five days after the delivery of (i) the financial statements referred to in Section 6.01(a) or (ii) an Annual Report on Form 10-K (delivered pursuant to the last paragraph of Section 6.01), but only to the extent permitted by accounting industry policies generally followed by independent certified public accountants, a certificate of the independent certified public accountants certifying such financial statements and stating that in making the examination necessary therefor no knowledge was obtained of any Event of Default arising from a breach of any financial covenant (to the extent then applicable) or, if any such Event of Default shall exist, stating the nature and status of such event;

(b) no later than five days after the delivery of (i) the financial statements referred to in Sections 6.01(a) and (b) or (ii) an Annual Report on Form 10-K or a Quarterly Report on Form 10-Q (in either case, delivered pursuant to the last paragraph of Section 6.01), a duly completed Compliance Certificate signed by a Responsible Officer of the Parent Borrower (which delivery may, unless the Administrative Agent or a Lender requests executed originals, be by electronic communication including fax or email and shall be deemed to be an original authentic counterpart thereof for all purposes);

(c) promptly after the same are available, copies of all annual, regular, periodic and special reports and registration statements which Holdings or the Parent Borrower may file or be required to file, copies of any report, filing or communication with the SEC under Section 13 or 15(d) of the Exchange Act, or with any Governmental Authority that may be substituted therefor, or with any national securities exchange, and in any case not otherwise required to be delivered to the Administrative Agent pursuant hereto;

(d) promptly after the furnishing thereof, copies of any notices received by any Loan Party (other than in the ordinary course of business) and copies of any statement or report furnished to any holder of debt securities or loans of any Loan Party or of any of its Subsidiaries (other than any immaterial correspondence in the ordinary course of business or any regularly required quarterly or annual certificates), in each case pursuant to the terms of the First Lien Credit Agreement or any Junior Financing in a principal amount greater than the Threshold Amount and not otherwise required to be furnished to the Lenders pursuant to any other clause of this Section 6.02;

(e) promptly after the receipt thereof by any Loan Party or any of its Subsidiaries, copies of each notice or other correspondence received from the SEC (or comparable agency in any applicable non-U.S. jurisdiction) concerning any material investigation or other material inquiry by such agency regarding financial or other operational results of any Loan Party or any of its Subsidiaries;

(f) promptly after the assertion or occurrence thereof, notice of any action arising under any Environmental Law against or of any noncompliance by any Loan Party or any of its Subsidiaries with any Environmental Law or Environmental Permit, in each case that would reasonably be expected to have a Material Adverse Effect;

(g) together with the delivery of each Compliance Certificate pursuant to Section 6.02(b), a report supplementing Schedule 5.12 hereto to the extent necessary so that the related representation and warranty would be true and correct if made as of the date of such Compliance Certificate; and

(h) promptly, such additional information regarding the business, legal, financial or corporate affairs of any Loan Party or any Subsidiary thereof as the Administrative Agent or any Lender through the Administrative Agent may from time to time reasonably request.

Documents required to be delivered pursuant to Section 6.01(a), (b), (c) or (d) or Section 6.02(c) or (d) (or to the extent any such documents are included in materials otherwise filed with the SEC) may be delivered electronically and if so delivered, shall be deemed to have been delivered on the date on which such documents are posted on the Parent Borrower's (or any Parent Holding Company or Subsidiary of a Parent Holding Company allowed to be delivered pursuant to the terms hereof) behalf on the Approved Electronic Platform or another relevant

Internet or intranet website, if any, to which each Lender and the Administrative Agent have access (whether a commercial, third-party website or whether sponsored by the Administrative Agent); provided that: (i) upon written request by the Administrative Agent, the Parent Borrower shall deliver paper copies of such documents to the Administrative Agent for further distribution to each Lender until a written request to cease delivering paper copies is given by the Administrative Agent or such Lender and (ii) the Parent Borrower shall notify (which may be by facsimile or electronic mail) the Administrative Agent of the posting of any such documents described in this paragraph and provide to the Administrative Agent by electronic mail electronic versions (i.e., soft copies) of such documents to the extent requested by the Administrative Agent. The Administrative Agent shall have no obligation to request the delivery of or to maintain or deliver to Lenders paper copies of the documents referred to above, and in any event shall have no responsibility to monitor compliance by the Parent Borrower with any such request for delivery, and each Lender shall be solely responsible for timely accessing posted documents or requesting delivery of paper copies of such documents from the Administrative Agent and maintaining its copies of such documents.

Each Borrower represents and warrants that each of it and its controlling and controlled entities, in each case, if any (collectively with the Borrowers, the "Relevant Entities"), either (i) has no SEC registered or unregistered, publicly traded securities outstanding, or (ii) files its financial statements with the SEC and/or makes its financial statements available to potential holders of its securities, and, accordingly, each Borrower hereby (i) authorizes the Administrative Agent to make the financial statements to be provided under Sections 6.02(a) and (b) above, along with the Loan Documents, available to Public Siders and (ii) agrees that at the time such financial statements are provided hereunder, they shall already have been made available to holders of any such securities. The Borrowers will not request that any other material be posted to Public Siders without expressly representing and warranting to the Administrative Agent in writing that such materials do not constitute material non-public information within the meaning of the federal securities laws or that the Relevant Entities have no outstanding SEC registered or unregistered, publicly traded securities. Notwithstanding anything herein to the contrary, in no event shall the Borrowers request that the Administrative Agent make available to Public Siders budgets or any certificates, reports or calculations with respect to the Borrowers' compliance with the covenants contained herein.

Section 6.03 Notices. Promptly, after a Responsible Officer of any Borrower or any Guarantor has obtained knowledge thereof, notify the Administrative Agent:

(a) of the occurrence of any Default or Event of Default;

(b) of the institution of any material litigation not previously disclosed by the Parent Borrower to the Administrative Agent, or any material development in any material litigation that is reasonably likely to be adversely determined, and would, in either case, if adversely determined be reasonably expected to have a Material Adverse Effect;

(c) of the occurrence of any ERISA Event, where there is any reasonable likelihood of the imposition of liability on any Loan Party as a result thereof that would be reasonably expected to have a Material Adverse Effect; and

(d) of the occurrence of any Foreign Benefit Event, where there is any reasonable likelihood of the imposition of liability on any Loan Party as a result thereof that would be reasonably expected to have a Material Adverse Effect.

Each notice pursuant to this Section 6.03 shall be accompanied by a statement of a Responsible Officer of the Parent Borrower setting forth details of the occurrence referred to therein and stating what action the Parent Borrower has taken and proposes to take with respect thereto.

Section 6.04 Payment of Taxes. Pay, discharge or otherwise satisfy as the same shall become due and payable, all Taxes (including in its capacity as withholding agent) imposed upon it or its income, profits, properties or other assets, unless the same are being contested in good faith by appropriate proceedings diligently conducted and adequate reserves in accordance with GAAP are being maintained by such Borrower or such Subsidiary; except to the extent the failure to pay, discharge or satisfy the same could not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect.

Section 6.05 Preservation of Existence, Etc. (a) Preserve, renew and maintain in full force and effect its legal existence under the Laws of the jurisdiction of its organization except in a transaction permitted by Section 7.03 or 7.04, (b) take all reasonable action to maintain all rights, privileges (including its good standing, if such concept is applicable in its jurisdiction of organization), permits, licenses and franchises necessary or desirable in the normal conduct of its business, except to the extent that failure to do so could not reasonably be expected to have a Material Adverse Effect or as otherwise permitted hereunder, and (c) use commercially reasonable efforts to preserve or renew all of its registered IP Rights, the non-preservation of which could reasonably be expected to have a Material Adverse Effect or as otherwise permitted hereunder, provided that nothing in this Section 6.05 shall require the preservation, renewal or maintenance of, or prevent the abandonment by, the Borrowers or Subsidiary of any registered IP Rights that the Borrowers or Subsidiary reasonably determine are not useful to its business or no longer commercially desirable.

Section 6.06 Maintenance of Properties. Except if the failure to do so could not reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect, maintain, preserve and protect all of its tangible properties and equipment that are necessary in the operation of its business in good working order, repair and condition, ordinary wear and tear excepted and casualty or condemnation excepted.

Section 6.07 Maintenance of Insurance.

(a) Maintain in full force and effect, with insurance companies that the Parent Borrower believes (in the good faith judgment of the management of the Parent Borrower) are financially sound and responsible at the time the relevant coverage is placed or renewed, insurance in at least such amounts (after giving effect to any self-insurance which the Parent Borrower believes (in the good faith judgment of management of the Parent Borrower) is reasonable and prudent in light of the size and nature of its business) and against at least such risks (and with such risk retentions) as are usually insured against in the same general area by companies engaged in businesses similar to those engaged by the Borrowers and the Subsidiaries. Subject to Section 6.16, the Parent Borrower shall use commercially reasonable efforts to ensure that at all times the Collateral Agent, for the benefit of the Secured Parties, shall be named as an additional insured with respect to liability policies (other than directors and officers policies and workers compensation) maintained by Holdings, the Borrowers and each Subsidiary Guarantor and the Collateral Agent, for the benefit of the Secured Parties, shall be named as loss payee and mortgagee with respect to the property insurance maintained by Holdings, the Borrowers and each Subsidiary Guarantor; provided that, unless an Event of Default shall have occurred and be continuing, (A) all proceeds from insurance policies shall be paid to the applicable Borrower or applicable Subsidiary Guarantor, (B) to the extent the Collateral Agent receives any proceeds, the Collateral Agent shall turn over to the Parent Borrower any amounts received by it as an additional insured or loss payee under any property insurance maintained by the Borrowers and their Subsidiaries, and (C) the Collateral Agent agrees that the Borrowers and/or their applicable Subsidiaries shall have the sole right to adjust or settle any claims under such insurance.

(b) Without limiting the foregoing, (i) maintain, if available, fully paid flood hazard insurance on all improved real property that is located in a special flood hazard area and that constitutes Mortgaged Property, on such terms and in such amounts as required by the Flood Insurance Laws, (ii) furnish to the Collateral Agent promptly upon written request evidence of the renewal (and payment of renewal premiums therefor) of all such policies prior to the expiration or lapse thereof, and (iii) furnish to the Collateral Agent prompt written notice of any redesignation of any such improved real property into or out of a special flood hazard area.

Section 6.08 Compliance with Laws. Comply with the requirements of all applicable Laws (including, without limitation, ERISA, the PATRIOT Act, Sanctions Laws and Regulations and Environmental Laws) and all orders, writs, injunctions and decrees of any Governmental Authority applicable to it or to its business or property, except if the failure to comply therewith, either individually or in the aggregate, could not reasonably be expected to have a Material Adverse Effect.

Section 6.09 Books and Records. Maintain proper books of record and account, in a manner to allow financial statements to be prepared in all material respects in conformity with GAAP consistently applied in respect of all financial transactions and matters involving the assets and business of the Borrowers or, if applicable, Holdings or such Subsidiary, as the case may be (it being understood and agreed that Foreign Subsidiaries may

maintain individual books and records in conformity with generally accepted accounting principles that are applicable in their respective jurisdiction of organization).

Section 6.10 Inspection Rights. Permit representatives of the Administrative Agent and, during the continuance of any Event of Default, of each Lender to visit and inspect any of its properties (subject to the rights of lessees or sublessees thereof and subject to any restrictions or limitations in the applicable lease, sublease or other written occupancy arrangement pursuant to which such Borrower or such Subsidiary is a party), to examine its corporate, financial and operating records, and make copies thereof or abstracts therefrom, and to discuss its affairs, finances and accounts with its directors, managers, officers, and independent public accountants (subject to such accountants' customary policies and procedures), all at the reasonable expense of the Parent Borrower and at such reasonable times during normal business hours and as often as may be reasonably desired, upon reasonable advance written notice to the Parent Borrower; provided that, excluding any such visits and inspections during the continuation of an Event of Default, (i) only the Administrative Agent on behalf of the Lenders may exercise rights under this Section 6.10, (ii) the Administrative Agent shall not exercise such rights more often than one time during any calendar year and (iii) such exercise shall be at the Parent Borrower's expense; provided further, that when an Event of Default is continuing the Administrative Agent (or any of their respective representatives) may do any of the foregoing at the expense of the Parent Borrower at any time and from time to time during normal business hours and upon reasonable advance written notice. The Administrative Agent and the Lenders shall give the Parent Borrower the opportunity to participate in any discussions with the Parent Borrower's accountants. Notwithstanding anything to the contrary in this Section 6.10, none of the Borrowers nor any Subsidiary will be required to disclose or permit the inspection or discussion of, any document, information or other matter (i) that constitutes non-financial trade secrets or non-financial proprietary information, (ii) in respect of which disclosure to the Administrative Agent or any Lender (or their respective representatives or contractors) is prohibited by Law or any binding agreement or (iii) that is subject to attorney client or similar privilege or constitutes attorney work product; provided that the Borrowers shall notify the Administrative Agent of the fact that information is being withheld pursuant to this sentence.

Section 6.11 Use of Proceeds. The Borrowers will use the proceeds of the Loans only as provided in Sections 5.07, 5.13(a), 5.19 and 5.20.

Section 6.12 Covenant to Guarantee Obligations and Give Security.

(a) Upon the formation or acquisition of any new wholly owned Domestic Subsidiaries by any Loan Party (provided that any Excluded Subsidiary ceasing to be an Excluded Subsidiary but remaining a Subsidiary (including a Controlled Foreign Subsidiary ceasing to be a Controlled Foreign Subsidiary or a FSHCO ceasing to be a FSHCO) shall be deemed to constitute the acquisition of a Subsidiary for all purposes of this Section 6.12), and upon the acquisition of any property (other than Excluded Property and real property that is not Material Real Property and other than foreign intellectual property and U.S. intellectual property that is not registered with, or that is not the subject of an application for registration with, the United States Patent and Trademark Office or United States Copyright Office) by any Loan Party, which property, in the reasonable judgment of the Administrative Agent, is not already subject to a perfected Lien in favor of the Collateral Agent for the benefit of the Secured Parties (and where such a perfected Lien would be required in accordance with the terms of the Collateral Documents or other Loan Documents), the Parent Borrower shall, at the Parent Borrower's expense:

(i) in connection with such formation or acquisition of a Domestic Subsidiary, within 90 days after such formation or acquisition or such longer period as the Collateral Agent may agree in its reasonable discretion, (A) cause each such Subsidiary that is not an Excluded Subsidiary to duly execute and deliver to the Collateral Agent a guaranty or guaranty supplement, in form and substance reasonably satisfactory to the Collateral Agent, guaranteeing the Obligations and a joinder or supplement to the applicable Collateral Documents and (B) (if not already so delivered) deliver certificates (or the foreign equivalent thereof, as applicable) representing the Pledged Interests of each such Subsidiary (if any) held by the applicable Loan Party accompanied by undated stock powers or other appropriate instruments of transfer executed in blank and instruments evidencing the Pledged Debt owing by such Subsidiary to any Loan Party indorsed in blank to the Collateral Agent (or, if applicable, the First Lien Administrative Agent in accordance with the First Lien/Second Lien Intercreditor Agreement), together with, if requested by the

Collateral Agent, supplements to the Security Agreement; provided that any Excluded Property shall not be required to be pledged as Collateral,

(ii) within 90 days after such formation or acquisition of any such property or any request therefor by the Collateral Agent (or such longer period, as the Collateral Agent may agree in its reasonable discretion) duly execute and deliver, and cause each such Subsidiary that is not an Excluded Subsidiary to duly execute and deliver, to the Collateral Agent one or more Mortgages (and other documentation and instruments referred to in Section 6.14) (with respect to Material Real Properties only), Security Agreement Supplements, Intellectual Property Security Agreement Supplements, as specified by and in form and substance reasonably satisfactory to the Collateral Agent (consistent, to the extent applicable, with the Security Agreement, the Intellectual Property Security Agreement, the Mortgages and the other Collateral Documents (and Section 6.14)), securing payment of all the Obligations (provided that to the extent any property to be subject to a Mortgage is located in a jurisdiction which imposes mortgage recording taxes, intangibles tax, documentary tax or similar recording fees or taxes, the relevant Mortgage shall not secure an amount in excess of the Fair Market Value of such property subject thereto) of the applicable Loan Party or such Subsidiary, as the case may be, under the Loan Documents and establishing Liens on all such properties or property; provided that such properties or property shall not be required to be pledged as Collateral, and no Security Agreement Supplements, Intellectual Property Security Agreement Supplements shall be required to be delivered in respect thereof, to the extent that any such properties or property constitute Excluded Property,

(iii) within 90 days after such request, formation or acquisition, or such longer period, as the Collateral Agent may agree in its reasonable discretion, take, and cause such Subsidiary that is not an Excluded Subsidiary and each applicable Loan Party to take, whatever action (including the recording of Mortgages (with respect to Material Real Properties only), the filing of UCC financing statements, the giving of notices and delivery of stock and membership interest certificates or foreign equivalents representing the applicable Capital Stock) as may be necessary or advisable in the reasonable opinion of the Collateral Agent to vest in the Collateral Agent (or in any representative of the Collateral Agent designated by it), subject to Section 5.03, valid and subsisting Liens on the properties purported to be subject to the Mortgages, Security Agreement Supplements, Intellectual Property Security Agreement Supplements, supplements to other Collateral Documents and security agreements delivered pursuant to this Section 6.12, in each case to the extent required under the Loan Documents and subject to the Perfection Exceptions, enforceable against all third parties in accordance with their terms,

(iv) within 90 days after the request of the Collateral Agent, or such longer period as the Collateral Agent may agree in its reasonable discretion, deliver to the Collateral Agent, Organization Documents, resolutions and a signed copy of one or more customary opinions, addressed to the Collateral Agent and the other Secured Parties, of counsel for the Loan Parties (or the Collateral Agent, as applicable) reasonably acceptable to the Collateral Agent as to such matters as the Collateral Agent may reasonably request (limited, in the case of any opinions of local counsel to Loan Parties constituting material Subsidiary Guarantors in jurisdictions in which any Mortgaged Property is located, to opinions relating to Material Real Property (and any other Mortgaged Properties located in the same jurisdiction as any such Material Real Property)),

(v) within 90 days after the request of the Collateral Agent, or such longer period as the Collateral Agent may agree in its reasonable discretion, deliver to the Collateral Agent with respect to each Material Real Property that is the subject of such request and subject to a Mortgage, title reports in scope, form and substance reasonably satisfactory to the Collateral Agent (but only to the extent such reports exist and are in the possession of the relevant Loan Party or can reasonably be obtained), fully paid American Land Title Association Lender's title insurance policies or the equivalent or other form available in the applicable jurisdiction in form and substance, with endorsements as provided in Section 6.14 and in amounts, reasonably acceptable to the Collateral Agent (not to exceed the Fair Market Value of the Material Real Properties covered thereby and subject to any tie-in coverage available) but only to the extent such Material Real Property is located in the United States, and

(vi) at any time and from time to time, promptly execute and deliver any and all further instruments and documents and take all such other action as the Collateral Agent in its reasonable judgment may deem necessary or desirable in obtaining the full benefits of, or in perfecting and preserving the Liens of, such guaranties, Mortgages, Security Agreement Supplements, Intellectual Property Security Agreement Supplements, Collateral Documents and security agreements.

Section 6.13 Compliance with Environmental Laws. Except, in each case, to the extent that the failure to do so could not reasonably be expected to have a Material Adverse Effect: (a) comply, and take commercially reasonable efforts to cause all lessees operating or occupying its properties to comply with all Environmental Laws and Environmental Permits; (b) obtain, maintain and renew all applicable Environmental Permits necessary for its operations and properties; and (c) to the extent required under Environmental Laws, conduct any investigation, mitigation, study, sampling and testing, and undertake any cleanup, removal or remedial, corrective or other action necessary to respond to and remove and clean up all Hazardous Materials from any of its properties, in accordance with the requirements of Environmental Laws.

Section 6.14 Further Assurances.

(a) Promptly upon request by the Administrative Agent, or the Collateral Agent or any Lender through the Administrative Agent, and subject to the limitations described in Section 6.12, (i) correct any material defect or error that may be discovered in any Loan Document or other document or instrument relating to any Collateral or in the execution, acknowledgment, filing or recordation thereof and (ii) do, execute, acknowledge, deliver, record, re-record, file, re-file, register and re-register any and all such further acts, deeds, certificates, assurances and other instruments as the Administrative Agent, or the Collateral Agent or any Lender through the Administrative Agent, may reasonably require from time to time in order to grant, preserve, protect and continue the validity, perfection and priority of the security interests created or intended to be created by the Collateral Documents. Notwithstanding anything to the contrary herein, neither the Borrowers nor any Loan Party (except for any Foreign Subsidiary that is a Loan Party) shall be required to make any filings or take any other actions to perfect the Lien on and security interest in any intellectual property except for filings in the United States Patent and Trademark Office and the United States Copyright Office and filings of UCC-1 financing statements in the applicable jurisdiction.

(b) By the date that is 120 days after the Closing Date, as such time period may be extended in the Collateral Agent's reasonable discretion, the Borrowers shall, and shall cause each Subsidiary to, deliver to the Collateral Agent:

(i) a Mortgage with respect to each Mortgaged Property, together with evidence each such Mortgage has been duly executed, acknowledged and delivered by a duly authorized officer of each party thereto on or before such date in a form suitable for filing and recording in all appropriate local filing or recording offices that the Collateral Agent may deem reasonably necessary or desirable in order to create a valid and subsisting perfected Lien on the property described therein in favor of the Collateral Agent for the benefit of the Secured Parties, subject only to Permitted Liens, and that all filing and recording taxes and fees have been paid or otherwise provided for in a manner reasonably satisfactory to the Collateral Agent; *provided* that to the extent any property to be subject to a Mortgage is located in a jurisdiction that imposes mortgage recording taxes, intangibles tax, documentary tax or similar recording fees or taxes, the relevant Mortgage shall not secure an amount in excess of the Fair Market Value of such property subject thereto;

(ii) fully paid American Land Title Association or equivalent Lender's title insurance policies or marked up unconditional binder for such insurance (the "Mortgage Policies") in form and substance reasonably requested by Collateral Agent, with endorsements reasonably requested by Collateral Agent, in amounts reasonably acceptable to the Collateral Agent (not to exceed the Fair Market Value of the Material Real Properties covered thereby and subject to any tie-in coverage available), issued, coinsured and reinsured by title insurers reasonably acceptable to the Collateral Agent in connection with any Material Real Property located in the United States;

(iii) American Land Title Association/American Congress on Surveying and Mapping form surveys, for which all necessary fees (where applicable) have been paid, certified to the Collateral Agent

and the issuer of the Mortgage Policies in a manner reasonably satisfactory to the Collateral Agent by a land surveyor duly registered and licensed in the States in which the property described in such surveys is located and reasonably acceptable to the Collateral Agent and sufficient for the title company to remove the general survey exception and issue survey-related endorsements for the Mortgage Policies; provided that new or updated surveys will not be required if an existing survey, ExpressMap or other similar documentation is available and survey coverage is available for the Mortgage Policies without the need for such new or updated surveys and provided, further, this foregoing requirement shall only be in connection with any Material Real Property located in the United States;

(iv) in each case with respect to any Material Real Property (and any other Mortgaged Properties located in the same state as any such Material Real Property), customary opinions of local counsel to the Loan Parties in jurisdictions in which the Mortgaged Property is located, with respect to the enforceability and perfection of the Mortgages and, if applicable any related fixture filings, in form and substance reasonably satisfactory to the Collateral Agent;

(v) customary opinions of counsel to the Loan Parties in the states in which the Loan Parties party to the Mortgages are organized or formed, with respect to the valid existence, corporate power and authority of such Loan Parties in the granting of the Mortgages, in form and substance reasonably satisfactory to the Administrative Agent;

(vi) with respect to each improved Mortgaged Property, a "Life-of Loan" Federal Emergency Management Agency Standard Flood Hazard Determination and, to the extent such Mortgaged Property is located in a special flood hazard area, a notice about special flood hazard area status and flood disaster assistance, duly executed by the Borrowers and each Loan Party relating thereto and evidence of flood insurance required by Section 6.07 hereof;

(vii) evidence that all other actions reasonably requested by the Administrative Agent, that are necessary in order to create valid and subsisting Liens on the property described in the Mortgage, have been taken; and

(viii) evidence that all documented and invoiced fees, costs and expenses have been paid in connection with the preparation, execution, filing and recordation of the Mortgages, including reasonable attorneys' fees, filing and recording fees, title insurance company coordination fees, documentary stamp, mortgage and intangible taxes and title search charges and other charges incurred in connection with the recordation of the Mortgages and the other matters described in this Section 6.14 and as otherwise required to be paid in connection therewith under Section 10.04.

Section 6.15 Maintenance of Ratings. Use commercially reasonable efforts to obtain and maintain (but not obtain or maintain a specific rating) (i) a public corporate family rating of the Parent Borrower and a rating of the Facility, in each case from Moody's, and (ii) a public corporate credit rating of the Parent Borrower and a rating of the Facility, in each case from S&P (it being understood and agreed that "commercially reasonable efforts" shall in any event include the payment by the Parent Borrower of customary rating agency fees and cooperation with information and data requests by Moody's and S&P in connection with their ratings process).

Section 6.16 Post-Closing Undertakings. Within the time periods specified on Schedule 6.16 hereto (as each may be extended by the Administrative Agent in its reasonable discretion), provide such Collateral Documents and complete such undertakings as are set forth on Schedule 6.16 hereto.

Section 6.17 No Change in Line of Business. Continue to engage in substantially similar lines of business as those lines of business conducted by the Borrowers and the Subsidiaries on the date hereof including any business reasonably related, complementary, synergistic or ancillary thereto or reasonable extensions thereof.

Section 6.18 Transactions with Affiliates.

(a) The Parent Borrower will not, and will not permit any of its Subsidiaries to, directly or indirectly, make any payment to, or sell, lease, transfer or otherwise dispose of any of its properties or assets to, or purchase any property or assets from, or enter into or make or amend any transaction or series of transactions, contract, agreement, understanding, loan, advance or guarantee with, or for the benefit of, any Affiliate of the Parent Borrower involving aggregate consideration in excess of $8,050,000 (each of the foregoing, an "Affiliate Transaction"), unless:

(i) such Affiliate Transaction is on terms that are not materially less favorable to the Parent Borrower or the relevant Subsidiary than those that could have been obtained in a comparable transaction by the Parent Borrower or such Subsidiary with an unrelated Person on an arm's length basis; and

(ii) with respect to any Affiliate Transaction or series of related Affiliate Transactions involving aggregate consideration in excess of $11,500,000, the Parent Borrower delivers to the Administrative Agent a resolution adopted in good faith by the majority of the Board of Directors of the Parent Borrower, Holdings or any Parent Holding Company, approving such Affiliate Transaction, together with a certificate signed by a Responsible Officer of the Parent Borrower certifying that the Board of Directors of the Parent Borrower, Holdings or any Parent Holding Company determined or resolved that such Affiliate Transaction complies with Section 6.18(a)(i).

(b) The provisions of Section 6.18(a) shall not apply to the following:

(1) (a) transactions between or among the Loan Parties (other than Holdings) and/or any of its Subsidiaries (or an entity that becomes a Subsidiary as a result of such transaction) and (b) any merger, amalgamation or consolidation of the Parent Borrower and Holdings or any Parent Holding Company; provided that such parent entity shall have no material liabilities and no material assets (other than cash, Cash Equivalents and the Capital Stock of the Parent Borrower) and such merger, amalgamation or consolidation is otherwise in compliance with the terms of this Agreement and effected for a bona fide business purpose;

(2) (a) Restricted Payments permitted by Section 7.05 and (b) Permitted Investments (other than Permitted Investments under clause (13) of the definition thereof);

(3) transactions in which the Parent Borrower or any Subsidiary, as the case may be, delivers to the Administrative Agent a letter from an Independent Financial Advisor stating that such transaction is fair to the Parent Borrower or such Subsidiary from a financial point of view or meets the requirements of Section 6.18(a)(i);

(4) payments, loans, advances or guarantees (or cancellation of loans, advances or guarantees) to employees, officers, directors, managers, consultants or independent contractors for bona fide business purposes or in the ordinary course of business;

(5) any agreement or arrangement as in effect as of the Closing Date (other than the Management Agreement) or as thereafter amended, supplemented or replaced (so long as such amendment, supplement or replacement agreement is not materially disadvantageous (as determined in good faith by the senior management of the Board of Directors of the Parent Borrower or any direct or indirect parent of the Parent Borrower) to the Lenders when taken as a whole as compared to the original agreement or arrangement as in effect on the Closing Date) or any transaction or payments contemplated thereby;

(6) the Management Agreement or any transaction or payments (including reimbursement of out-of-pocket expenses or payments under any indemnity obligations) contemplated thereby;

(7) the existence of, or the performance by the Parent Borrower or any of its Subsidiaries of its obligations under the terms of, any stockholders or similar agreement (including any registration rights agreement or purchase agreement related thereto) to which it is a party as of the Closing Date or similar transactions, arrangements or agreements which it may enter into thereafter; provided, however, that the

existence of, or the performance by the Parent Borrower or any of its Subsidiaries of its obligations under, any future amendment to any such existing transaction, arrangement or agreement or under any similar transaction, arrangement or agreement entered into after the Closing Date shall only be permitted by this clause (7) to the extent that the terms of any such existing transaction, arrangement or agreement, together with all amendments thereto, taken as a whole, or new transaction, arrangement or agreement are not otherwise disadvantageous (as determined in good faith by the senior management of the Board of Directors of the Parent Borrower or any direct or indirect parent of the Parent Borrower) to the Lenders, in any material respect when taken as a whole as compared with the original transaction, arrangement or agreement as in effect on the Closing Date;

(8) transactions with customers, clients, suppliers or purchasers or sellers of goods or services, in each case, in the ordinary course of business and otherwise in compliance with the terms of this Agreement, which are fair to the Parent Borrower and its Subsidiaries or are on terms at least as favorable as might reasonably have been obtained at such time from an unaffiliated party (as determined in good faith by the senior management of the Board of Directors of the Parent Borrower or any direct or indirect parent of the Borrower);

(9) any transaction effected as part of a Qualified Receivables Financing;

(10) the sale, issuance or transfer of Equity Interests (other than Disqualified Stock) of the Parent Borrower;

(11) payments by the Parent Borrower or any of its Subsidiaries to the Sponsor made for any financial advisory, financing, underwriting or placement services or in respect of other investment banking activities, including, without limitation, in connection with acquisitions or divestitures, which payments are approved by a majority of the Board of Directors of the Parent Borrower, Holdings or any Parent Holding Company in good faith or a majority of the disinterested members of the Board of Directors of the Parent Borrower, Holdings or any Parent Holding Company in good faith;

(12) any contribution to the capital of the Parent Borrower (other than Disqualified Stock) or any investments by the Sponsor or a direct or indirect parent of the Parent Borrower in Equity Interests (other than Disqualified Stock) of the Parent Borrower (and payment of reasonable out-of-pocket expenses incurred by the Sponsor or a direct or indirect parent of the Parent Borrower in connection therewith);

(13) any transaction with a Person that would constitute an Affiliate Transaction solely because the Parent Borrower or a Subsidiary owns an Equity Interest in or otherwise controls such Person; provided that no Affiliate of the Parent Borrower or any of its Subsidiaries (other than the Parent Borrower or a Subsidiary) shall have a beneficial interest or otherwise participate in such Person;

(14) transactions between the Parent Borrower or any of its Subsidiaries and any Person that would constitute an Affiliate Transaction solely because such Person is a director or such Person has a director which is also a director of the Parent Borrower or any direct or indirect parent of the Parent Borrower; provided, however, that such director abstains from voting as a director of the Parent Borrower or such direct or indirect parent of the Parent Borrower, as the case may be, on any matter involving such other Person;

(15) the entering into of any tax sharing agreement or arrangement and any payments pursuant thereto, in each case to the extent permitted by clause (13), (14)(a) or (14)(e) of the second paragraph under Section 7.05;

(16) transactions to effect the Transactions and payment of all transaction, underwriting, commitment and other fees and expenses related to the Transactions (including the Transaction Costs);

(17) [reserved];

(18) the issuances of securities or other payments, awards or grants in cash, securities or otherwise pursuant to, or the funding of, employment arrangements, equity purchase agreements, stock options and stock ownership plans or similar employee benefit plans approved by the Board of Directors of the Parent Borrower, Holdings or any Parent Holding Company or of a Subsidiary, as appropriate, in good faith;

(19) (i) any employment, consulting, service or termination agreement, or customary indemnification arrangements, entered into by the Parent Borrower or any of its Subsidiaries with current, former or future officers, directors, employees, managers, consultants and independent contractors of the Parent Borrower or any of its Subsidiaries (or of any direct or indirect parent of the Parent Borrower to the extent such agreements or arrangements are in respect of services performed for the Parent Borrower or any of the Subsidiaries), (ii) any subscription agreement or similar agreement pertaining to the repurchase of Equity Interests pursuant to put/call rights or similar rights with current, former or future officers, directors, employees, managers, consultants and independent contractors of the Parent Borrower or any of its Subsidiaries or of any direct or indirect parent of the Parent Borrower and (iii) any payment of compensation or other employee compensation, benefit plan or arrangement, any health, disability or similar insurance plan which covers officers, directors, employees, managers, consultants and independent contractors of the Parent Borrower or any of its Subsidiaries or any direct or indirect parent of the Parent Borrower (including amounts paid pursuant to any management equity plan or any other management or employee benefit plan or agreement or any stock subscription or shareholder agreement, stock option or similar plans and any successor plan thereto and any supplemental executive retirement benefit plans or arrangements), in each case in the ordinary course of business or as otherwise approved in good faith by the Board of Directors of Parent Borrower, Holdings or any Parent Holding Company or of a Subsidiary or a direct or indirect parent of the Parent Borrower, as appropriate;

(20) investments by Affiliates in Indebtedness or preferred Equity Interests of the Parent Borrower or any of its Subsidiaries, so long as non-Affiliates were also offered the opportunity to invest in such Indebtedness or preferred Equity Interests, and transactions with Affiliates solely in their capacity as holders of Indebtedness or preferred Equity Interests of the Parent Borrower or any of its Subsidiaries, so long as such transaction is with all holders of such class (and there are such non-Affiliate holders) and such Affiliates are treated no more favorably than all other holders of such class generally;

(21) the existence of, or the performance by the Parent Borrower or any of its Subsidiaries of their obligations under the terms of, any registration rights agreement to which they are a party or become a party in the future;

(22) investments by the Sponsor or a direct or indirect parent of the Parent Borrower in securities of the Parent Borrower or any Subsidiary (and payment of reasonable out-of-pocket expenses incurred by the Sponsor or a direct or indirect parent of the Parent Borrower in connection therewith);

(23) transactions with joint ventures for the purchase or sale of goods, equipment and services entered into in the ordinary course of business;

(24) any lease entered into between the Parent Borrower or any Subsidiary, as lessee, and any Affiliate of the Parent Borrower, as lessor, in the ordinary course of business;

(25) (i) intellectual property licenses in the ordinary course of business and (ii) intercompany intellectual property licenses and research and development agreements in the ordinary course of business;

(26) transactions pursuant to, and complying with, Section 7.01 (to the extent such transaction complies with Section 6.18(a)) or Section 7.03; or

(27) intercompany transactions undertaken in good faith for the purpose of improving the tax efficiency of the Parent Borrower and its Subsidiaries and not for the purpose of circumventing any covenant set forth herein.

Section 6.19 Lender Conference Calls. After the date of delivery of the annual and quarterly financial information required pursuant to Section 6.01(a) and (b), the Parent Borrower will hold and participate in quarterly conference calls or teleconferences at a time selected by the Parent Borrower and reasonably acceptable to the Administrative Agent, with all of the Lenders that choose to participate, to review the financial results of the previous fiscal year of the Parent Borrower and its Subsidiaries.

ARTICLE VII.
Negative Covenants

So long as any Lender shall have any Commitment hereunder, any Loan or other Obligation (other than contingent indemnification obligations as to which no claim has been asserted) hereunder shall remain unpaid or unsatisfied, (A) except with respect to Section 7.09, the Parent Borrower shall not, nor shall they permit any other Subsidiary to, directly or indirectly and (B) with respect to Section 7.09, Holdings shall not:

Section 7.01 Indebtedness. Directly or indirectly, Incur any Indebtedness (including Acquired Indebtedness) or issue any shares of Disqualified Stock, and the Parent Borrower will not permit any of its Subsidiaries to issue any shares of Preferred Stock; provided, however, that the Parent Borrower and any Subsidiary may incur Indebtedness (including Acquired Indebtedness) or issue shares of Disqualified Stock and any Subsidiary may issue shares of Preferred Stock, in each case if (1) in the case of Indebtedness that is secured by the Collateral on a *pari passu* basis with the Lien securing the First Lien Obligations, the Consolidated First Lien Net Leverage Ratio for the Parent Borrower and its Subsidiaries calculated on a Pro Forma Basis (including pro forma application of the proceeds therefrom, but excluding the cash proceeds therefrom in calculating such Consolidated First Lien Net Leverage Ratio) as of the date on which such additional Indebtedness is Incurred or such Disqualified Stock or Preferred Stock is issued would be no greater than 5.00 to 1.00, and/or (2) in the case of Indebtedness that is secured by the Collateral on a pari passu or junior lien basis to the Lien securing the Obligations, the Consolidated Senior Secured Net Leverage Ratio for the Parent Borrower and its Subsidiaries (including pro forma application of the proceeds therefrom, but excluding the cash proceeds therefrom in calculating such Consolidated Senior Secured Net Leverage Ratio) as of the date on which such additional Indebtedness is Incurred would be no greater than 7.25 to 1.00 and/or (3) in the case of unsecured Indebtedness, the Consolidated Total Net Leverage Ratio for the Parent Borrower and its Subsidiaries calculated on a Pro Forma Basis (including pro forma application of the proceeds therefrom, but excluding the cash proceeds therefrom in calculating such Consolidated Total Net Leverage Ratio) as of the date on which such additional Indebtedness is Incurred or such Disqualified Stock or Preferred Stock is issued would be no greater than 7.25 to 1.00 (collectively, "Ratio Debt"); provided, further, that the Ratio Debt satisfies the Permitted Other Debt Conditions;provided, further, that the aggregate amount of Indebtedness (including Acquired Indebtedness) that may be Incurred and Disqualified Stock or Preferred Stock that may be issued pursuant to the foregoing by Subsidiaries that are not Loan Parties (together with the aggregate amount of Indebtedness that may be incurred or assumed and Disqualified Stock or Preferred Stock that may be issued pursuant to clause (o) of the second paragraph of this Section 7.01 by Subsidiaries that are not Loan Parties) shall not exceed $23,000,000, at any one time outstanding, on a Pro Forma Basis (including pro forma application of the proceeds therefrom).

The foregoing limitations will not apply to (collectively, "Permitted Debt"):

(a) (x) Indebtedness arising under the Loan Documents including any refinancing thereof in accordance with Section 2.18, (y) Indebtedness of the Loan Parties evidenced by Refinancing Notes and any Permitted Refinancing thereof (or successive Permitted Refinancings thereof) and (z) Indebtedness of the Loan Parties evidenced by New Incremental Notes and any Permitted Refinancing thereof (or successive Permitted Refinancings thereof);

(b) Indebtedness Incurred under the First Lien Credit Agreement on the Closing Date by the Borrowers or any Guarantor in an aggregate outstanding principal amount at any time outstanding not to exceed $300,000,000, *plus* the aggregate principal amount of any First Lien Incremental Loans or First Lien Incremental Notes incurred after the Closing Date and permitted to be incurred under the First Lien Credit Agreement, in each case as in effect on the Closing Date, and any Permitted Refinancing thereof (or successive Permitted Refinancings thereof);

(c) Indebtedness of the Borrowers and their Subsidiaries (other than Indebtedness described in clause (a) or (b) above) that is existing on the Closing Date and listed on Schedule 7.01;

(d) Indebtedness (including, without limitation, Capitalized Lease Obligations and mortgage financings as purchase money obligations) Incurred by the Borrowers or any of their Subsidiaries, Disqualified Stock issued by the Borrowers or any of their Subsidiaries and Preferred Stock issued by any Subsidiaries to finance all or any part of the purchase, lease, construction, installation, repair or improvement of property (real or personal), plant or equipment or other fixed or capital assets (whether through the direct purchase of assets or the Equity Interests of any Person owning such assets) and Indebtedness arising from the conversion of the obligations of the Borrowers or any Subsidiary under or pursuant to any "synthetic lease" transactions to on-balance sheet Indebtedness of such Borrower or such Subsidiary, in an aggregate principal amount or liquidation preference, including all Indebtedness Incurred and Disqualified Stock or Preferred Stock issued to renew, refund, refinance, replace, defease or discharge any Indebtedness Incurred or Disqualified Stock or Preferred Stock issued pursuant to this clause (d), not to exceed $16,100,000, at any one time outstanding, *plus,* in the case of any refinancing of any Indebtedness permitted under this clause (d) or any portion thereof, the aggregate amount of fees, underwriting discounts, accrued and unpaid interest, premiums and other costs and expenses incurred in connection with such refinancing; provided that Capitalized Lease Obligations Incurred by the Borrowers or any Subsidiary pursuant to this clause (d) in connection with a Sale/Leaseback Transaction shall not be subject to the foregoing limitation so long as the proceeds of such Sale/Leaseback Transaction are used by such Borrower or such Subsidiary to permanently repay outstanding Loans under this Agreement or other Pari Passu Indebtedness;

(e) Indebtedness Incurred by the Borrowers or any of their Subsidiaries constituting reimbursement obligations with respect to letters of credit or bank guarantees or similar instruments issued in the ordinary course of business, including, without limitation, (i) letters of credit or performance or surety bonds in respect of workers' compensation claims, health, disability or other employee benefits (whether current or former) or property, casualty or liability insurance or self-insurance, or other Indebtedness with respect to reimbursement-type obligations regarding workers' compensation claims, health, disability or other employee benefits (whether current or former) or property, casualty or liability insurance and (ii) guarantees of Indebtedness Incurred by customers in connection with the purchase or other acquisition of equipment or supplies in the ordinary course of business;

(f) Indebtedness, Disqualified Stock or Preferred Stock arising from agreements of the Borrowers or their Subsidiaries providing for indemnification, earn-outs, adjustment of purchase or acquisition price or similar obligations, in each case, Incurred in connection with the Transactions or with the acquisition or disposition of any business, assets or a Subsidiary of a Borrower in accordance with this Agreement, other than guarantees of Indebtedness Incurred or Disqualified Stock or Preferred Stock issued by any Person acquiring all or any portion of such business, assets or Subsidiary for the purpose of financing such acquisition;

(g) Indebtedness or Disqualified Stock of a Borrower owing to a Subsidiary;provided that (x) such Indebtedness or Disqualified Stock owing to a Non-Loan Party shall be subordinated in right of payment to such Borrower's Obligations with respect to this Agreement pursuant to the Intercompany Subordination Agreement and (y) any subsequent issuance or transfer of any Capital Stock or any other event which results in any such Subsidiary ceasing to be a Subsidiary or any other subsequent transfer of any such Indebtedness or Disqualified Stock (except to a Borrower or another Subsidiary) shall be deemed, in each case, to be an Incurrence of such Indebtedness or issuance of a such Disqualified Stock not permitted by this clause (g);

(h) shares of Preferred Stock of a Subsidiary issued to a Borrower or another Subsidiary;provided that any subsequent issuance or transfer of any Capital Stock or any other event that results in any Subsidiary that holds such shares of Preferred Stock of another Subsidiary ceasing to be a Subsidiary or any other subsequent transfer of any such shares of Preferred Stock (except to a Borrower or another Subsidiary) shall be deemed, in each case, to be an issuance of shares of Preferred Stock not permitted by this clause (h);

(i) Indebtedness, Disqualified Stock or Preferred Stock of a Subsidiary or a Borrower owing to another Borrower or another Subsidiary; provided that (x) if a Borrower or a Loan Party Incurs such Indebtedness, Disqualified Stock or Preferred Stock owing to a Non-Loan Party, such Indebtedness, Disqualified Stock or Preferred Stock is subordinated in right of payment to such Borrower's Obligations or Guarantee of such Loan Party, as applicable, pursuant to the Intercompany Subordination Agreement and (y) any subsequent issuance or transfer of any Capital Stock or any other event that results in any Subsidiary lending such Indebtedness, Disqualified Stock or Preferred Stock ceasing to be a Subsidiary or any other subsequent transfer of any such Indebtedness, Disqualified Stock or Preferred Stock (except to a Borrower or another Subsidiary) shall be deemed, in each case, to be an Incurrence of such Indebtedness, Disqualified Stock or Preferred Stock not permitted by this clause (i);

(j) Swap Contracts and cash management services Incurred, other than for speculative purposes;

(k) obligations (including reimbursement obligations with respect to letters of credit or bank guarantees or similar instruments) in respect of customs, self-insurance, performance, bid, appeal and surety bonds and completion guarantees and similar obligations provided by any Borrower or any Subsidiary;

(l) Indebtedness or Disqualified Stock of any Borrower or any of their Subsidiaries and Preferred Stock of any of their Subsidiaries in an aggregate principal amount or liquidation preference that, when aggregated with the principal amount or liquidation preference of all other Indebtedness, Disqualified Stock and Preferred Stock then outstanding and Incurred pursuant to this clause (l), does not exceed $23,000,000, at any one time outstanding, *plus,* in the case of any refinancing of any Indebtedness, Disqualified Stock or Preferred Stock permitted under this clause (l) or any portion thereof, the aggregate amount of fees, underwriting discounts, accrued and unpaid interest, original issue discount, premiums (including tender premiums), defeasance costs and other costs and expenses incurred in connection with such refinancing (it being understood that any Indebtedness Incurred or Disqualified Stock or Preferred Stock issued pursuant to this clause (l) shall cease to be deemed Incurred, issued or outstanding pursuant to this clause (l) but shall be deemed Incurred or issued and outstanding as Ratio Debt from and after the first date on which such Borrower or such Subsidiary, as the case may be, could have Incurred such Indebtedness or issued such Disqualified Stock or Preferred Stock as Ratio Debt (to the extent such Borrower or such Subsidiary is able to Incur any Liens related thereto as Permitted Liens after such reclassification);

(m) any guarantee by a Borrower or a Subsidiary of Indebtedness or other obligations of any Borrower or any of their Subsidiaries so long as the incurrence of such Indebtedness or other obligations by such Borrower or such Subsidiary is permitted under the terms of this Agreement;

(n) the Incurrence by any Borrower or any of their Subsidiaries of Indebtedness or the incurrence of Disqualified Stock or Preferred Stock of a Subsidiary that serves to refund, refinance, replace, redeem, repurchase, retire or defease, and is in an aggregate principal amount (or if issued with original issue discount an aggregate issue price) that is equal to or less than, Indebtedness incurred or Disqualified Stock or Preferred Stock issued as Ratio Debt or permitted under clause (c), this clause (n), clause (o) or clause (r) of this Section 7.01 or subclause (y) of clauses (d), (l), (t), (cc) or (dd) of this Section 7.01 (provided that any amounts incurred under this clause (n) as Refinancing Indebtedness of subclause (y) of these clauses shall reduce the amount available under such subclause (y) of such clauses so long as such Refinancing Indebtedness remains outstanding or any Indebtedness Incurred or Disqualified Stock or Preferred Stock issued to so refund, replace, refinance, redeem, repurchase, retire or defease such Indebtedness, Disqualified Stock or Preferred Stock remains outstanding), plus any additional Indebtedness Incurred or Disqualified Stock or Preferred Stock issued to pay unpaid accrued interest and the aggregate amount of original issue discount, premiums (including reasonable tender premiums), and underwriting discounts, defeasance costs and fees and expenses in connection therewith (subject to the following proviso, "Refinancing Indebtedness"); provided, however, that such Refinancing Indebtedness:

(1) has a Weighted Average Life to Maturity at the time such Refinancing Indebtedness is Incurred that is not less than the remaining Weighted Average Life to Maturity of the Indebtedness, Disqualified Stock or Preferred Stock being refunded, refinanced, replaced, redeemed, repurchased or retired (which, in the case of bridge loans, shall be determined by reference to the notes or loans into which such bridge loans are converted or for which such bridge loans are exchanged at maturity and will be subject to other customary offers to repurchase or mandatory prepayments upon a change of control, asset sale or event of loss and customary acceleration rights after an event of default);

(2) in the case of any revolving Indebtedness, has a Stated Maturity that is no earlier than the Stated Maturity of the Indebtedness being refunded, refinanced, replaced, redeemed, repurchased or retired (which, in the case of bridge loans, shall be determined by reference to the notes or loans into which such bridge loans are converted or for which such bridge loans are exchanged at maturity and will be subject to other customary offers to repurchase or mandatory prepayments upon a change of control, asset sale or event of loss and customary acceleration rights after an event of default);

(3) to the extent that such Refinancing Indebtedness refinances (i) Subordinated Indebtedness, such Refinancing Indebtedness is Subordinated Indebtedness or (ii) Disqualified Stock or Preferred Stock, such Refinancing Indebtedness is Disqualified Stock or Preferred Stock, respectively; and

(4) shall not include Indebtedness, Disqualified Stock or Preferred Stock of a Non-Loan Party that refinances Indebtedness, Disqualified Stock or Preferred Stock of a Borrower or a Guarantor;

provided that subclauses (1) and (2) will not apply to any refunding or refinancing of any secured Indebtedness (other than Indebtedness secured on a *pari passu* basis with, or junior lien basis to, the Obligations);

(o) [reserved];

(p) Indebtedness arising from the honoring by a bank or other financial institution of a check, draft or similar instrument drawn against insufficient funds in the ordinary course of business;

(q) Indebtedness of any Borrower or any Subsidiary supported by a letter of credit or bank guarantee issued pursuant to any credit facility permitted hereunder, so long as such letter of credit has not been terminated and is in a principal amount not in excess of the stated amount of such letter of credit or bank guarantee;

(r) Contribution Indebtedness;

(s) Indebtedness, Disqualified Stock or Preferred Stock of any Borrower or any Subsidiary consisting of (x) the financing of insurance premiums or (y) take-or-pay obligations contained in supply arrangements, in each case, in the ordinary course of business;

(t) Indebtedness, Disqualified Stock or Preferred Stock of Non-Loan Parties in an aggregate principal amount not to exceed $20,125,000, at any one time outstanding, *plus,* in the case of any refinancing of any Indebtedness, Disqualified Stock or Preferred Stock permitted under this clause (t) or any portion thereof, the aggregate amount of accrued and unpaid interest, original issue discount, premiums (including tender premiums), and underwriting discounts, defeasance costs and fees and expenses Incurred in connection with such refinancing, outstanding at any one time (it being understood that any Indebtedness Incurred or Disqualified Stock or Preferred Stock issued pursuant to this clause (t) shall cease to be deemed Incurred, issued or outstanding pursuant to this clause (t) but shall be deemed Incurred or issued and outstanding as Ratio Debt from and after the first date on which such Borrower or such Subsidiary, as the

case may be, could have Incurred such Indebtedness or issued such Disqualified Stock or Preferred Stock as Ratio Debt (to the extent such Borrower or such Subsidiary is able to Incur any Liens related thereto as Permitted Liens after such reclassification);

(u) Indebtedness, Disqualified Stock or Preferred Stock of a joint venture to a Borrower or a Subsidiary and to the other holders of Equity Interests or participants of such joint venture, so long as the percentage of the aggregate amount of such Indebtedness, Disqualified Stock or Preferred Stock of such joint venture owed to such holders of its Equity Interests or participants of such joint venture does not exceed the percentage of the aggregate outstanding amount of the Equity Interests of such joint venture held by such holders or such participant's participation in such joint venture;

(v) Indebtedness Incurred or Disqualified Stock or Preferred Stock issued by a Receivables Subsidiary in a Qualified Receivables Factoring or Qualified Receivables Financing that is not recourse to any Borrower or any Subsidiary other than (x) a Receivables Subsidiary (except for Standard Securitization Undertakings) or (y) a Person described in the definition of "Factoring Transaction";

(w) Indebtedness owed on a short-term basis to banks and other financial institutions incurred in the ordinary course of business of the Borrowers and the Subsidiaries with such banks or financial institutions that arises in connection with ordinary banking arrangements, including cash management, cash pooling arrangements and related activities to manage cash balances of the Borrowers and their Subsidiaries and joint ventures including treasury, depository, overdraft, credit, purchasing or debit card, electronic funds transfer and other cash management arrangements and Indebtedness in respect of netting services, overdraft protection, credit card programs, automatic clearinghouse arrangements and similar arrangements;

(x) Indebtedness, Disqualified Stock or Preferred Stock consisting of Indebtedness, Disqualified Stock or Preferred Stock issued by any Borrower or any Subsidiary to future, current or former officers, directors, managers, employees, consultants and independent contractors thereof or any direct or indirect parent thereof, their respective estates, heirs, family members, spouses or former spouses, in each case to finance the purchase or redemption of Equity Interests of the Parent Borrower or any direct or indirect parent of the Borrowers to the extent permitted under Section 7.05;

(y) customer deposits and advance payments received in the ordinary course of business from customers for goods purchased in the ordinary course of business;

(z) Indebtedness Incurred by a Borrower or a Subsidiary in connection with bankers' acceptances, discounted bills of exchange, warehouse receipts or similar facilities or the discounting or factoring of receivables for credit management purposes, in each case incurred or undertaken in the ordinary course of business;

(aa) [reserved];

(bb) (i) guarantees Incurred in the ordinary course of business in respect of obligations to suppliers, customers, franchisees, lessors, licensees, sub-licensees and distribution partners and (ii) Indebtedness Incurred by a Borrower or a Subsidiary as a result of leases entered into by such Borrower or such Subsidiary or any Permitted Parent in the ordinary course of business;

(cc) the Incurrence by any Borrower or any Subsidiary of Indebtedness Incurred or Disqualified Stock or Preferred Stock issued on behalf, or representing guarantees of Indebtedness incurred or Disqualified Stock or Preferred Stock issued by, joint ventures; provided that the aggregate principal amount or liquidation preference, as applicable, of Indebtedness incurred or guaranteed or Disqualified Stock or Preferred Stock issued or guaranteed pursuant to this clause (cc) does not at any one time outstanding exceed $8,050,000 at any one time outstanding, *plus,* in the case of any refinancing of any Indebtedness, Disqualified Stock or Preferred Stock permitted under this clause (cc) or any portion thereof, the aggregate amount of fees, underwriting discounts, accrued and unpaid interest, premiums and other

costs and expenses incurred in connection with such refinancing (it being understood that any Indebtedness Incurred or Disqualified Stock or Preferred Stock issued pursuant to this clause (cc) shall cease to be deemed Incurred, issued or outstanding pursuant to this clause (cc) but shall be deemed Incurred or issued and outstanding as Ratio Debt from and after the first date on which such Borrower or such Subsidiary, as the case may be, could have Incurred such Indebtedness or issued such Disqualified Stock or Preferred Stock as Ratio Debt (to the extent such Borrower or such Subsidiary is able to Incur any Liens related thereto as Permitted Liens after such reclassification);

(dd) Indebtedness, Disqualified Stock or Preferred Stock of a Borrower or a Subsidiary assumed in connection with an acquisition of any assets (including Capital Stock), business or Person in an aggregate principal amount or liquidation preference that does not exceed $18,400,000, at any one time outstanding, *plus,* in the case of any refinancing of any Indebtedness, Disqualified Stock or Preferred Stock permitted under this clause (dd) or any portion thereof, the aggregate amount of fees, underwriting discounts, accrued and unpaid interest, premiums and other costs and expenses incurred in connection with such refinancing (it being understood that any Indebtedness Incurred or Disqualified Stock or Preferred Stock issued pursuant to this clause (dd) shall cease to be deemed Incurred, issued or outstanding pursuant to this clause (dd) but shall be deemed Incurred or issued and outstanding as Ratio Debt from and after the first date on which such Borrower or such Subsidiary, as the case may be, could have Incurred such Indebtedness or issued such Disqualified Stock or Preferred Stock as Ratio Debt (to the extent such Borrower or such Subsidiary is able to Incur any Liens related thereto as Permitted Liens after such reclassification);

(ee) Indebtedness, Disqualified Stock or Preferred Stock consisting of obligations of any Borrower or any Subsidiary under deferred compensation or other similar arrangements incurred by such Person in connection with the Transactions or any Permitted Investment;

(ff) unfunded pension fund and other employee benefit plan obligations and liabilities to the extent that they are permitted to remain unfunded under applicable law; and

(gg) Indebtedness Incurred in connection with a Qualified Receivables Factoring or Qualified Receivables Financing, in each case, which constitutes Standard Securitization Undertakings.

For purposes of determining compliance with this Section 7.01, in the event that an item of Indebtedness, Disqualified Stock or Preferred Stock (or any portion thereof) meets the criteria of more than one of the categories of Permitted Debt or is entitled to be incurred or issued as Ratio Debt, the Parent Borrower shall, in its sole discretion, at the time of incurrence or issuance, divide, classify or reclassify, or at any later time divide, classify or reclassify, such item of Indebtedness, Disqualified Stock or Preferred Stock (or any portion thereof) in any manner that complies with this Section 7.01; provided that all Indebtedness under this Agreement incurred on the Closing Date shall be deemed to have been Incurred pursuant to Section 7.01(a) and all Indebtedness under the First Lien Credit Agreement on the Closing Date shall be deemed to have been Incurred pursuant to Section 7.01(b) and the Parent Borrower shall not be permitted to reclassify all or any portion of Indebtedness Incurred on the Closing Date pursuant to Section 7.01(a) or 7.01(b). Accrual of interest or dividends, the accretion of accreted value, the accretion or amortization of original issue discount, the payment of interest or dividends in the form of additional Indebtedness with the same terms, the payment of dividends on Disqualified Stock or Preferred Stock in the form of additional shares of Disqualified Stock or Preferred Stock of the same class, the accretion of liquidation preference and increases in the amount of Indebtedness, Disqualified Stock or Preferred Stock outstanding solely as a result of fluctuations in the exchange rate of currencies will not be deemed to be an Incurrence of Indebtedness or issuance of Disqualified Stock or Preferred Stock for purposes of this Section 7.01. Guarantees of, or obligations in respect of letters of credit relating to, Indebtedness that are otherwise included in the determination of a particular amount of Indebtedness shall not be included in the determination of such amount of Indebtedness; provided that the Incurrence of the Indebtedness represented by such guarantee or letter of credit, as the case may be, was in compliance with this Section 7.01.

For purposes of determining compliance with any U.S. dollar-denominated restriction on the Incurrence of Indebtedness or the issuance of Disqualified Stock or Preferred Stock, the U.S. dollar-equivalent principal amount or liquidation preference, as applicable, of Indebtedness, Disqualified Stock or Preferred Stock denominated in a

foreign currency shall be calculated based on the relevant currency exchange rate in effect on the date such Indebtedness was Incurred, in the case of term debt, or first committed or first Incurred (whichever yields the lower U.S. dollar-equivalent), in the case of revolving credit debt or such Disqualified Stock or Preferred Stock was issued; provided that if such Indebtedness, Disqualified Stock or Preferred Stock is Incurred to refinance other Indebtedness, Disqualified Stock or Preferred Stock denominated in a foreign currency, and such refinancing would cause the applicable U.S. dollar-denominated restriction to be exceeded if calculated at the relevant currency exchange rate in effect on the date of such refinancing, such U.S. dollar-denominated restriction shall be deemed not to have been exceeded so long as the principal amount or liquidation preference, as applicable, of such Refinancing Indebtedness does not exceed the principal amount or liquidation preference, as applicable, of such Indebtedness, Disqualified Stock or Preferred Stock, as the case may be, being refinanced (plus unpaid accrued interest and the aggregate amount of premiums (including reasonable tender premiums) and underwriting discounts, defeasance costs and fees, discounts and expenses in connection therewith).

The principal amount or liquidation preference, as applicable, of any Indebtedness, Disqualified Stock or Preferred Stock, as the case may be, Incurred to refinance other Indebtedness, Disqualified Stock or Preferred Stock, if Incurred in a different currency from the Indebtedness, Disqualified Stock or Preferred Stock, as the case may be, being refinanced, shall be calculated based on the currency exchange rate applicable to the currencies in which such respective Indebtedness, Disqualified Stock or Preferred Stock is denominated that is in effect on the date of such refinancing.

Section 7.02 Limitations on Liens.

Permit the Borrowers or any Subsidiary to, create, incur, assume or suffer to exist any Lien upon any property or assets of any kind (real or personal, tangible or intangible) of the Borrowers or any Subsidiary, whether now owned or hereafter acquired (each, a "Subject Lien") that secures obligations under any Indebtedness on any asset or property of the Borrowers or any Subsidiary, except:

(a) in the case of Subject Liens on any Collateral, such Subject Lien is a Permitted Lien; and

(b) in the case of any other asset or property, any Subject Lien if (i) the Obligations are equally and ratably secured with (or on a senior basis to, in the case such Subject Lien secures any Junior Financing) the obligations secured by such Subject Lien or (ii) such Subject Lien is a Permitted Lien.

Any Lien created for the benefit of the Secured Parties pursuant to the preceding clause (b) shall provide by its terms that such Lien shall be automatically and unconditionally be released and discharged upon the release and discharge of the Subject Lien that gave rise to the obligation to so secure the Obligations.

Section 7.03 Fundamental Changes. Merge, dissolve, liquidate, amalgamate, consolidate with or into another Person, or Dispose of (whether in one transaction or in a series of transactions) all or substantially all of its assets (whether now owned or hereafter acquired) to or in favor of any Person, except that, (other than in the case of clause (e) below) so long as no Event of Default would result therefrom:

(a) any Subsidiary may merge, amalgamate or consolidate with (i) a Borrower (including a merger, the purpose of which is to reorganize such Borrower into a new jurisdiction in any State of the United States); provided that such Borrower shall be the continuing or surviving Person or the surviving Person shall expressly assume the obligations of such Borrower pursuant to documents reasonably acceptable to the Administrative Agent and such Borrower (or, if not such Borrower, the surviving Person) shall be a corporation or a limited liability company organized under the laws of the United States, any state thereof or the District of Columbia or (ii) any one or more other Subsidiaries; provided that (x) any Subsidiary that is not a Controlled Foreign Subsidiary or a FSHCO may not merge with any Subsidiary that is a Controlled Foreign Subsidiary or a FSHCO if such Controlled Foreign Subsidiary or such FSHCO shall be the continuing or surviving Person and (y) when any Guarantor is merging with another Subsidiary that is not a Loan Party (A) the Guarantor shall be the continuing or surviving Person, (B) to the extent constituting an Investment, such Investment must be a Permitted Investment or Indebtedness of a Subsidiary which is not a Loan Party in accordance with Section 7.01, respectively and (C) to the extent constituting a Disposition, such Disposition must be permitted hereunder;

(b) (i) any Subsidiary that is not a Loan Party may merge, amalgamate or consolidate with or into any other Subsidiary that is not a Loan Party and (ii) any Subsidiary (other than a Borrower) may liquidate or dissolve, or any Borrower or any Subsidiary may (if the validity, perfection and priority of the Liens securing the Obligations is not adversely affected thereby) change its legal form if the Parent Borrower determines in good faith that such action is in the best interest of Holdings and its Subsidiaries and is not disadvantageous to the Lenders in any material respect (it being understood that in the case of any dissolution of a Subsidiary that is a Guarantor, such Subsidiary shall at or before the time of such dissolution transfer its assets to another Subsidiary that is a Guarantor in the same jurisdiction or a different jurisdiction reasonably satisfactory to the Administrative Agent unless such Disposition of assets is permitted hereunder; and in the case of any change in legal form, a Subsidiary that is a Guarantor will remain a Guarantor unless such Guarantor is otherwise permitted to cease being a Guarantor hereunder);

(c) any Subsidiary may Dispose of all or substantially all of its assets (upon voluntary liquidation or otherwise) to any Borrower or to any Subsidiary; provided that if the transferor in such a transaction is a Borrower or a Guarantor, then (i) the transferee must either be a Borrower or a Guarantor in the same jurisdiction or a different jurisdiction reasonably satisfactory to the Administrative Agent and (ii) to the extent constituting an Investment, such Investment must be a Permitted Investment or Indebtedness of a Subsidiary which is not a Loan Party in accordance with Section 7.01, respectively; provided, further, that the Borrowers may Dispose of all or substantially all of their assets (upon voluntary liquidation or otherwise) to any other Loan Party;

(d) any Subsidiary (other than a Borrower) may merge, amalgamate or consolidate with, or dissolve into, any other Person in order to effect Permitted Investment; provided that (i) the continuing or surviving Person shall, to the extent subject to the terms hereof, have complied with the requirements of Section 6.12 and (ii) to the extent constituting an Investment, such Investment must be a Permitted Investment and (iii) to the extent constituting a Disposition, such Disposition must be permitted hereunder;

(e) [reserved];

(f) any Subsidiary (other than a Borrower) may merge, dissolve, liquidate, amalgamate, consolidate with or into another Person in order to effect a Disposition permitted pursuant to Section 7.04 (other than Dispositions permitted by Section 7.03); and

(g) any Permitted Investment may be structured as a merger, consolidation or amalgamation of a Subsidiary that is not a Borrower.

Section 7.04 Asset Sales. Cause or make an Asset Sale, unless:

(1) the Borrowers or any of their Subsidiaries, as the case may be, receive consideration (including by way of relief from, or by any other person assuming responsibility for, any liabilities, contingent or otherwise) at the time of such Asset Sale at least equal to the Fair Market Value (as determined at the time of contractually agreeing to such Asset Sale) of the assets sold or otherwise disposed of; and

(2) except in the case of a Permitted Asset Swap, at least 75% of the consideration therefor received by such Borrower or such Subsidiary, as the case may be, is in the form of cash or Cash Equivalents or Replacement Assets; provided, that the amount of:

(a) any liabilities (as shown on such Borrower's or such Subsidiary's most recent balance sheet or in the notes thereto for which internal financial statements are available immediately preceding such date or, if incurred or accrued subsequent to the date of such balance sheet, such liabilities that would have been reflected on such Borrower's or such Subsidiary's balance sheet or in the footnotes thereto if such incurrence or accrual had taken place on or prior to the date of such balance sheet in the good faith determination of the Borrower) of such Borrower or such Subsidiary other than liabilities that are by their terms subordinated to the Obligations or

are otherwise extinguished in connection with the transactions relating to such Asset Sale, or that are assumed by the transferee of any such assets or Equity Interests pursuant to an agreement that releases or indemnifies such Borrower or such Subsidiary, as the case may be, from further liability;

(b) any notes or other obligations or other securities or assets received by such Borrower or such Subsidiary from such transferee that are converted by such Borrower or such Subsidiary into cash or Cash Equivalents, or by their terms are required to be satisfied for cash or Cash Equivalents (to the extent of the cash or Cash Equivalents received) within 180 days of the receipt thereof; and

(c) any Designated Non-Cash Consideration received by the Borrowers or any of their Subsidiaries in such Asset Sale having an aggregate Fair Market Value, taken together with all other Designated Non-Cash Consideration received pursuant to this clause (c) that is at that time outstanding, not to exceed $17,825,000, calculated at the time of the receipt of such Designated Non-Cash Consideration (with the Fair Market Value of each item of Designated Non-Cash Consideration being measured at the time received and without giving effect to subsequent changes in value);

shall each be deemed to be Cash Equivalents for the purposes of this clause (2).

Within 18 months after any Borrower's or any Subsidiary's receipt of the Net Cash Proceeds of any Asset Sale or Casualty Event, such Borrower or such Subsidiary shall apply an amount equal to the Net Cash Proceeds from such Asset Sale or such Casualty Event, at its option:

(3) to prepay Loans and other Permitted Debt in accordance with Section 2.05(b)(ii) (or, prior to the Discharge of First Lien Credit Agreement Obligations, to prepay First Lien Loans and other Permitted Debt (as defined in the First Lien Credit Agreement) in accordance with Section 2.05(b)(ii) of the First Lien Credit Agreement).

(4) to acquire or make a similar investment in any one or more businesses, assets (other than working capital assets), or property or capital expenditures, in each case used or useful in a Similar Business and that will be owned by a Borrower or a Subsidiary;

(5) to acquire or make a similar investment in any one or more businesses, properties (other than working capital assets) or assets (other than working capital assets) that replace the businesses, properties and/or assets that are the subject of such Asset Sale or Casualty Event and that will be owned by a Borrower or a Subsidiary; or

(6) any combination of the foregoing;

provided that the Borrowers and their Subsidiaries will be deemed to have complied with the provisions described in clause (4) or (5) of this paragraph if and to the extent that, within 18 months (or within 6 months in the case of any Asset Sale resulting in Net Cash Proceeds in excess of 10% of Consolidated EBITDA, calculated at the time of the receipt of such Net Cash Proceeds) after the Asset Sale that generated the Net Cash Proceeds, such Borrower or such Subsidiary, as applicable, has entered into and not abandoned or rejected a binding agreement to make an investment in compliance with the provision described in clauses (4) and (5) of this paragraph, and that investment is thereafter completed within 180 days after the end of such 18 month period.

Pending the final application of any such amount of Net Cash Proceeds pursuant to Section 2.05(b)(ii) (or, prior to the Discharge of the First Lien Credit Agreement Obligations, pursuant to Section 2.05(b)(ii) of the First Lien Credit Agreement) and this Section 7.04, such Borrower or such Subsidiary may otherwise invest or utilize such Net Cash Proceeds in any manner not prohibited by this Agreement.

Section 7.05 Restricted Payments. Directly or indirectly:

(1) declare or pay any dividend or make any payment or distribution on account of the Borrowers' or any of their Subsidiaries' Equity Interests, including any payment made in connection with any merger or consolidation involving a Borrower (other than (A) dividends or distributions by such Borrower payable solely in Equity Interests (other than Disqualified Stock) of such Borrower; or (B) dividends or distributions by a Subsidiary so long as, in the case of any dividend or distribution payable on or in respect of any class or series of securities issued by a Subsidiary other than a Wholly Owned Subsidiary, a Borrower or a Subsidiary receives at least its pro rata share of such dividend or distribution in accordance with its Equity Interests in such class or series of securities);

(2) purchase, redeem, defease or otherwise acquire or retire for value any Equity Interests of the Parent Borrower or any direct or indirect parent of Parent Borrower, including in connection with any merger or consolidation; or

(3) make any principal payment on, or redeem, repurchase, defease or otherwise acquire or retire for value, in each case, prior to any scheduled repayment, sinking fund payment or maturity, any (i) Subordinated Indebtedness of any Borrower or any Guarantor (other than the payment, redemption, repurchase, defeasance, acquisition or retirement of (A) Subordinated Indebtedness of any Borrower or any Guarantor in anticipation of satisfying a sinking fund obligation, principal installment or final maturity, in each case due within one year of the date of such payment, redemption, repurchase, defeasance, acquisition or retirement and (B) Indebtedness permitted under Section 7.01(g) or (i)) or (ii) any Indebtedness that is secured by a security interest in the Collateral that is expressly junior to the Liens securing the Obligations (clauses (i) and (ii) above, "Junior Financing");

(all such payments and other actions set forth in clauses (1) through (3) above being collectively referred to as "Restricted Payments"), unless, at the time of such Restricted Payment:

(a) no Event of Default shall have occurred and be continuing or would occur as a consequence thereof;

(b) immediately after giving effect to the making of such Restricted Payment on a Pro Forma Basis, the Parent Borrower's Consolidated First Lien Net Leverage Ratio does not exceed 3.00:1.00; and

(c) such Restricted Payment, together with the aggregate amount of all other Restricted Payments made by the Borrowers and their Subsidiaries after the Closing Date (including Restricted Payments permitted by clause (1) of the next succeeding paragraph, but excluding all other Restricted Payments permitted by the next succeeding paragraph), is less than the sum of, without duplication,

(i) the Retained Excess Cash Flow Amount, *plus*

(ii) 100% of the aggregate net proceeds, including cash and the Fair Market Value of assets (other than cash), received by the Parent Borrower after the Closing Date from the issue or sale of Equity Interests of the Parent Borrower (other than Excluded Equity), including such Equity Interests issued upon exercise of warrants or options, *plus*

(iii) 100% of the aggregate amount of contributions to the capital of the Parent Borrower received in cash and the Fair Market Value of assets (other than cash) after the Closing Date (other than Excluded Equity), *plus*

(iv) the principal amount of any Indebtedness, or the liquidation preference or maximum fixed repurchase price, as the case may be, of any Disqualified Stock, in each case, of any Borrower or any Subsidiary thereof issued after the Closing Date (other than Indebtedness or Disqualified Stock issued to a Subsidiary or an employee stock ownership plan or trust established by any Borrower or any Subsidiary (other than to the extent such employee stock ownership plan or trust has been funded by any Borrower or any Subsidiary)) that, in each case, has been

converted into or exchanged for Equity Interests in the Parent Borrower or any direct or indirect parent of the Parent Borrower (other than Excluded Equity), *plus*

(v) 100% of the aggregate amount received by any Borrower or any Subsidiary in cash and the Fair Market Value of assets (other than cash) received by any Borrower or any Subsidiary from the sale or other disposition (other than to a Borrower or a Subsidiary of the Borrower) of Restricted Investments made by the Borrowers and their Subsidiaries and from repurchases and redemptions of such Restricted Investments from the Borrowers and their Subsidiaries by any Person (other than the Borrowers or any of their Subsidiaries) and from repayments of loans or advances that constituted Restricted Investments, *plus*

(vi) the aggregate amount of Declined Amounts since the Closing Date, *plus*

(d) the aggregate amount of Retained Asset Sale Proceeds.

This Section 7.05 will not prohibit:

(1) the payment of any dividend or distribution or consummation of any redemption within 60 days after the date of declaration thereof or the giving of a redemption notice related thereto, if at the date of declaration or notice such payment would have complied with the provisions of this Agreement;

(2) (a) the redemption, repurchase, retirement or other acquisition of any Equity Interests ("Retired Capital Stock") of the Parent Borrower or any direct or indirect parent of the Parent Borrower, or Junior Financing of any Borrower or any Subsidiary Guarantor, in exchange for, or out of the proceeds of the issuance or sale of, Equity Interests of the Parent Borrower or any direct or indirect parent of the Parent Borrower or contributions to the equity capital of the Parent Borrower (other than Excluded Equity) (collectively, including any such contributions, "Refunding Capital Stock");

(b) the declaration and payment of accrued dividends on the Retired Capital Stock out of the proceeds of the issuance or sale (other than to a Subsidiary of a Borrower or to an employee stock ownership plan or any trust established by any Borrower or any of its Subsidiaries) of Refunding Capital Stock; and

(c) if immediately prior to the retirement of the Retired Capital Stock, the declaration and payment of dividends thereon was permitted under clause (6) of this paragraph of Section 7.05 and has not been made as of such time (the "Unpaid Amount"), the declaration and payment of dividends on the Refunding Capital Stock (other than Refunding Capital Stock the proceeds of which were used to redeem, repurchase, retire or otherwise acquire any Equity Interests of the Parent Borrower or any direct or indirect parent of the Parent Borrower) in an aggregate amount no greater than the Unpaid Amount (with the payment of such Unpaid Amount being treated as a payment under the applicable provision);

(3) the prepayment, redemption, defeasance, repurchase or other acquisition or retirement of Junior Financing of any Borrower or any Subsidiary Guarantor made by exchange for, or out of the proceeds of the Incurrence of, Refinancing Indebtedness thereof;

(4) [reserved];

(5) the purchase, retirement, redemption or other acquisition (or Restricted Payments to the Parent Borrower or any direct or indirect parent of the Parent Borrower to finance any such purchase, retirement, redemption or other acquisition) for value of Equity Interests (including related stock appreciation rights or similar securities) of the Parent Borrower or any direct or indirect parent of the Parent Borrower held directly or indirectly by any future, present or former employee, officer, director, manager, consultant or independent contractor of the Parent Borrower or any direct or indirect parent of the Parent Borrower or any Subsidiary of the Parent Borrower or their estates, heirs, family members, spouses or

former spouses or permitted transferees (including for all purposes of this clause (5), Equity Interests held by any entity whose Equity Interests are held by any such future, present or former employee, officer, director, manager, consultant or independent contractor or their estates, heirs, family members, spouses or former spouses or permitted transferees) pursuant to any management equity plan or stock option plan or any other management or employee benefit plan or other agreement or arrangement or any stock subscription or shareholder or similar agreement; provided, however, that the aggregate amounts paid under this clause (5) shall not exceed (x) $4,025,000 in any calendar year or (y) subsequent to the consummation of an underwritten public equity offering of common stock of the Parent Borrower or any direct or indirect parent of the Parent Borrower, $8,050,000 in any calendar year (with unused amounts in any calendar year being permitted to be carried over for the next two succeeding calendar years); provided, further, however, that such amount in any calendar year may be increased by an amount not to exceed:

(a) the cash proceeds received by a Borrower from the issuance or sale of Equity Interests (other than Disqualified Stock) of such Borrower or any direct or indirect parent of the such Borrower (to the extent contributed to such Borrower), in each case, to any future, present or former employees, officers, directors, managers, consultants or independent contractors of the Borrowers or their Subsidiaries or any direct or indirect parent of the Borrowers that occurs after the Closing Date; provided that the amount of such cash proceeds utilized for any such repurchase, retirement, other acquisition or dividend will not increase the amount available for Restricted Payments under clause (c) of the immediately preceding paragraph; *plus*

(b) the cash proceeds of key man life insurance policies received by the Borrowers or their Subsidiaries or any direct or indirect parent of the Borrowers (to the extent contributed to such Borrower) after the Closing Date; *plus*

(c) the amount of any cash bonuses otherwise payable to employees, officers, directors, managers, consultants or independent contractors of the Borrowers or their Subsidiaries or any direct or indirect parent of the Borrowers that are foregone in return for the receipt of Equity Interests; *less*

(d) the amount of cash proceeds described in clause (a), (b) or (c) of this clause (5) previously used to make Restricted Payments pursuant to this clause (5); (provided that the Parent Borrower may elect to apply all or any portion of the aggregate increase contemplated by clauses (a), (b) and (c) above in any calendar year);

provided, further, cancellation of Indebtedness owing to any Borrower or any Subsidiary from any future, current or former officer, director, employee, manager, consultant or independent contractor (or any permitted transferees thereof) of the Borrowers or any of their Subsidiaries or any direct or indirect parent of the Borrowers, in connection with a repurchase of Equity Interests of the Borrowers or any direct or indirect parent of the Borrowers from such Persons will not be deemed to constitute a Restricted Payment for purposes of this Section 7.05 or any other provisions of this Agreement;

(6) the declaration and payment of dividends or distributions to holders (other than Holdings) of any class or series of Disqualified Stock of the Borrowers or any of their Subsidiaries and any class or series of Preferred Stock of any Subsidiaries issued or Incurred in accordance with the covenant described in Section 7.01;

(7) [reserved];

(8) any Restricted Payments made in connection with the consummation of the Transactions, including any dividends, payments or loans made to the Parent Borrower or any direct or indirect parent of the Parent Borrower to enable it to make any such payments or any future payments to employees of the Parent Borrower, any Subsidiary of the Parent Borrower or any direct or indirect parent of the Parent Borrower under agreements entered into in connection with the Transactions;

(9) the declaration and payment of dividends on the Parent Borrower's common stock (or the payment of dividends to any direct or indirect parent of the Parent Borrower to fund the payment by any direct or indirect parent of the Parent Borrower of dividends on such entity's Equity Interests) of an aggregate amount per annum of (x) up to 6.0% of the cash proceeds net of underwriting fees received by the Parent Borrower from any public offering of common stock or contributed to the Parent Borrower by any direct or indirect parent of the Parent Borrower from any public offering of common stock (the applicable issuing entity, the "IPO Entity"), other than public offerings with respect to the Parent Borrower's Capital Stock registered on Form S-4 or S-8 or successor form thereto and other than any public sale constituting Excluded Contributions*plus* (y) 4.0% of the market capitalization of the Parent Borrower or a direct or indirect parent of the Parent Borrower, as applicable, in each case that is the IPO Entity;

(10) Restricted Payments that are made with Excluded Contributions;

(11) other Restricted Payments in an aggregate amount taken together with all other Restricted Payments made pursuant to this clause (11) not to exceed $25,000,000;

(12) [reserved];

(13) for so long as, for U.S. federal or state income tax purposes, Holdings is treated as a partnership or a disregarded entity treated as wholly owned, directly or indirectly, by an entity treated as a partnership and the Parent Borrower is treated either as a partnership or an entity disregarded from Holdings (or the partnership from which Holdings is disregarded), the Parent Borrower and any Subsidiary of Holdings may pay or make quarterly distributions to Holdings, and Holdings may distribute to each of its direct or indirect members, an aggregate amount equal to the estimated Deemed Tax Due for the relevant taxable period (such distributions by the Parent Borrower and Holdings to their direct or indirect members, collectively, the "Tax Distributions"). For the purpose of this paragraph (13), "Deemed Tax Due" means the product of (x) the aggregate net taxable income of the Parent Borrower for such taxable period (taking into account if applicable, for purposes of determining such net taxable income and net taxable loss any adjustment to the basis of the Parent Borrower's and Holdings' property pursuant to Section 734, 743, or 754 of the Code and any comparable provision of state and local income tax law), reduced by net taxable losses of the Parent Borrower from prior taxable periods to the extent that the losses are of a character (ordinary or capital) that would permit the losses to be deducted by the direct or indirect owners of the Parent Borrower against the current taxable income of the Parent Borrower allocable to such owners and have not previously been taken into account in determining Tax Distributions, and (y) the maximum combined U.S. federal (including pursuant to section 1411 of the Code), state, and local tax rates applicable to any individual or corporation (whichever is highest) resident in any jurisdiction within the United States taking into account any allowed deduction of state and local income taxes for U.S. federal income tax purposes and the character of the income in question; provided that (A) in addition to the foregoing Tax Distributions, following the end of each taxable year of the Parent Borrower and Holdings, the Parent Borrower shall be permitted to distribute to Holdings (and Holdings may distribute to its direct or indirect members) an amount equal to the excess (if any) of (I) the product of the rate described in clause (y) and the final net taxable income of the Parent Borrower (determined as described in clause (x) for such taxable year (such product, the "Actual Tax Liability") over (II) the sum of the quarterly amounts distributed pursuant to this paragraph (13) with respect to such taxable year (and any amounts distributed or permitted to be distributed pursuant to this proviso shall also be Tax Distributions); (B) if the Tax Distributions for a taxable year exceed the Actual Tax Liability for such year, subsequent Tax Distributions shall be reduced dollar-for-dollar by the amount of such excess, and (C) the Tax Distributions made pursuant to this paragraph (13) in respect of any Deemed Tax Due attributable to the income of any Subsidiary of the Parent Borrower may be made only to the extent that such Subsidiary has made cash payments for such purpose to the Parent Borrower or any of its other Subsidiaries;

(14) the declaration and payment of dividends, other distributions or other amounts to, or the making of loans to Holdings or any other direct or indirect parent of the Parent Borrower, in the amount required for such entity to, if applicable:

(a) pay amounts equal to the amounts required for Holdings or any other direct or indirect parent of the Parent Borrower to pay fees and expenses (including Taxes), customary salary, bonus and other benefits payable to, and indemnities provided on behalf of, officers, employees, directors, managers, consultants or independent contractors of Holdings or any other direct or indirect parent of the Parent Borrower, if applicable, and general corporate operating (including, without limitation, expenses related to auditing and other accounting matters) and overhead costs and expenses of the Parent Borrower or any direct or indirect parent of the Parent Borrower, if applicable, in each case to the extent such fees, expenses, salaries, bonuses, benefits and indemnities are attributable to the ownership or operation of the Parent Borrower and its Subsidiaries;

(b) pay, if applicable, amounts equal to amounts required for Holdings or any direct or indirect parent of the Parent Borrower to pay interest and/or principal on Indebtedness the proceeds of which have been contributed to the Parent Borrower (other than as Excluded Equity) and that has been guaranteed by, and is otherwise considered Indebtedness of, the Parent Borrower or any Subsidiary Incurred in accordance with Section 7.01 (except to the extent any such payments have otherwise been made by any such guarantor);

(c) pay fees and expenses incurred by Holdings or any other direct or indirect parent of the Parent Borrower related to (i) the maintenance of such parent entity of its corporate or other entity existence and performance of its obligations under this Agreement and similar obligations under the definitive documentation governing the First Lien Facilities, (ii) any unsuccessful equity or debt offering of such parent entity (or any debt or equity offering from which such parent does not receive any proceeds) and (iii) any equity or debt issuance, incurrence or offering, any disposition or acquisition or any investment transaction by the Parent Borrower or any of its Subsidiaries (or any acquisition of or investment in any business, assets or property that will be contributed to the Borrowers or any of its Subsidiaries as part of the same or a related transaction) permitted by this Agreement;

(d) make payments (i) to the Sponsor pursuant to or contemplated by the respective Management Agreements or (ii) to or on behalf of the Sponsor for any other monitoring, consulting, management, transaction, advisory, financing, underwriting or placement services or in respect of other investment banking activities, termination or similar fees, indemnities, reimbursements and reasonable and documented out-of-pocket fees and expenses of the Sponsor including, without limitation, in connection with acquisitions or divestitures, including in connection with the consummation of the Transactions, which payments are approved in respect of such activities by a majority of the Board of Directors of the Parent Borrower or any direct or indirect parent of the Parent Borrower in good faith;

(e) pay franchise and excise taxes, and other fees, taxes and expenses in connection with any ownership of the Parent Borrower or any of its Subsidiaries or required to maintain their organizational existences;

(f) make payments for the benefit of the Parent Borrower or any of its Subsidiaries to the extent such payments could have been made by the Parent Borrower or any of its Subsidiaries because such payments (x) would not otherwise be Restricted Payments and (y) would be permitted by Section 6.18; and

(g) make Restricted Payments to any direct or indirect parent of the Parent Borrower to finance, or to any direct or indirect parent of the Parent Borrower for the purpose of paying to any other direct or indirect parent of the Parent Borrower to finance, any Investment that, if consummated by the Parent Borrower or any of its Subsidiaries, would be a Permitted Investment; provided that (a) such Restricted Payment is made substantially concurrently with the closing of such Investment and (b) promptly following the closing thereof, such direct or indirect parent of the Borrowers causes (i) all property acquired (whether assets or Equity Interests) to be contributed to the Parent Borrower or any Subsidiary or (ii) the merger, consolidation or

amalgamation (to the extent permitted by Section 7.03) of the Person formed or acquired into the Parent Borrower or any Subsidiary in order to consummate such acquisition or Investment, in each case, in accordance with the requirements of Section 6.12;

(15) (i) repurchases of Equity Interests deemed to occur upon exercise of stock options or warrants if such Equity Interests represent a portion of the exercise price of such options or warrants, (ii) payments made or expected to be made by the Parent Borrower or any Subsidiary in respect of withholding or similar taxes payable or expected to be payable by any future, present or former director, officer, employee, manager, consultant or independent contractor of the Parent Borrower or any direct or indirect parent of the Parent Borrower or any Subsidiary of the Parent Borrower (or their respective Affiliates, estates or immediate family members) in connection with the exercise of stock options or the grant, vesting or delivery of Equity Interests and (iii) loans or advances to officers, directors, employees, managers, consultants and independent contractors of the Parent Borrower or any direct or indirect parent of the Parent Borrower or any Subsidiary of the Parent Borrower in connection with such Person's purchase of Equity Interests of the Parent Borrower or any direct or indirect parent of the Parent Borrower; provided that no cash is actually advanced pursuant to this clause (iii) other than to pay taxes due in connection with such purchase, unless immediately repaid;

(16) purchases of receivables pursuant to a Receivables Repurchase Obligation in connection with a Qualified Receivables Factoring or Qualified Receivables Financing and the payment or distribution of Receivables Fees;

(17) payments or distributions to satisfy dissenters' rights, pursuant to or in connection with a consolidation, merger, amalgamation or transfer of assets that complies with the provisions of this Agreement;

(18) [reserved];

(19) the payment of cash in lieu of the issuance of fractional shares of Equity Interests in connection with any merger, consolidation, amalgamation or other business combination, or in connection with any dividend, distribution or split of or upon exercise, conversion or exchange of Equity Interests, warrants, options or other securities exercisable or convertible into, Equity Interests of the Parent Borrower or any direct or indirect parent of the Parent Borrower;

(20) [reserved];

(21) the making of payments (i) to the Sponsor pursuant to or contemplated by the Management Agreement or (ii) to or on behalf of the Sponsor for any other financial advisory, financing, underwriting or placement services or in respect of other investment banking activities, including, without limitation, in connection with acquisitions or divestitures, including in connection with the consummation of the Transactions, which payments are approved in respect of such activities by a majority of the Board of Directors of the Parent Borrower or any direct or indirect parent of the Parent Borrower in good faith;

(22) [reserved]; and

(23) any payment that is intended to prevent any Junior Financing from being treated as an "applicable high yield discount obligation" within the meaning of Section 163(i)(1) of the Code;

provided, however, that at the time of, and after giving effect to, any Restricted Payment permitted under clause (11), no Event of Default shall have occurred and be continuing or would occur as a consequence thereof. For purposes of clauses (13) and (14) above, taxes shall include all interest and penalties with respect thereto and all additions thereto.

The Parent Borrower will not, and will not permit any of its Subsidiaries to, directly or indirectly, amend, modify or change any term or condition of any Junior Financing Document equal to or greater than the Threshold

Amount in any manner that is, taken as a whole, materially adverse to the interests of the Administrative Agent or the Lenders.

For purposes of this Section 7.05, if any Restricted Payment (or a portion thereof) would be permitted pursuant to one or more provisions described above, the Parent Borrower may divide and classify such Restricted Payment (or a portion thereof) in any manner that complies with this Section 7.05 and may later divide and reclassify any such Restricted Payment so long as the Restricted Payment (as so divided and/or reclassified) would be permitted to be made in reliance on the applicable exception as of the date of such reclassification.

Section 7.06 Burdensome Agreements.

Permit any of its Subsidiaries to, directly or indirectly, create or otherwise cause or suffer to exist or become effective any consensual encumbrance or consensual restriction on the ability of any Subsidiary to:

(a) (i) pay dividends or make any other distributions to the Borrowers or any of their Subsidiaries on its Capital Stock; or (ii) pay any Indebtedness owed to the Borrowers or any of their Subsidiaries;

(b) make loans or advances to the Borrowers or any of their Subsidiaries;

(c) create, incur, assume or suffer to exist Liens on the Collateral of such Person for the benefit of the Lenders with respect to the Facility and the Obligations or under the Loan Documents; or

(d) sell, lease or transfer any of its properties or assets to the Borrowers or any of their Subsidiaries.

However, the preceding restrictions will not apply to encumbrances or restrictions existing under or by reason of:

(1) contractual encumbrances or restrictions of the Borrowers or any of their Subsidiaries in effect on the Closing Date, including pursuant to this Agreement and the other Loan Documents, related Swap Contracts and Indebtedness permitted pursuant to Section 7.01(c);

(2) the definitive documentation governing the First Lien Facilities or the First Lien Facilities Indebtedness and related Guarantees;

(3) applicable law or any applicable rule, regulation or order;

(4) any agreement or other instrument of a Person acquired by or merged, amalgamated or consolidated with or into any Borrower or any Subsidiary that was in existence at the time of such acquisition (or at the time it merges with or into any Borrower or any Subsidiary or assumed in connection with the acquisition of assets from such Person (but, in each case, not created in contemplation thereof)), which encumbrance or restriction is not applicable to any Person, or the properties or assets of any Person, other than the Person, or the property or assets of the Person, so acquired or designated; provided that in connection with a merger, amalgamation or consolidation under this clause (4), if a Person other than such Borrower or such Subsidiary is the successor company with respect to such merger, amalgamation or consolidation, any agreement or instrument of such Person or any Subsidiary of such Person, shall be deemed acquired or assumed, as the case may be, by such Borrower or such Subsidiary, as the case may be, at the time of such merger, amalgamation or consolidation;

(5) customary encumbrances or restrictions contained in contracts or agreements for the sale of assets applicable to such assets pending consummation of such sale, including customary restrictions with respect to a Subsidiary imposed pursuant to an agreement entered into for the sale or disposition of Capital Stock or assets of such Subsidiary;

(6) restrictions on cash or other deposits or net worth imposed by customers under contracts entered into in the ordinary course of business;

(7) customary provisions in operating or other similar agreements, asset sale agreements and stock sale agreements entered into in connection with the entering into of such transaction, which limitation is applicable only to the assets that are the subject of those agreements;

(8) purchase money obligations for property acquired and Capitalized Lease Obligations, to the extent such obligations impose restrictions of the nature discussed in clauses (c) or (d) in the first paragraph of this Section 7.06 on the property so acquired;

(9) customary provisions contained in leases, sub-leases, licenses, sublicenses, contracts and other similar agreements entered into in the ordinary course of business to the extent such obligations impose restrictions of the type described in clauses (c) or (d) in the first paragraph of this Section 7.06 on the property subject to such lease;

(10) any encumbrance or restriction effected in connection with a Qualified Receivables Factoring or Qualified Receivables Financing that, in the good faith determination of the Borrower, are necessary or advisable to effect such Qualified Receivables Factoring or Qualified Receivables Financing, as applicable;

(11) any encumbrance or restriction contained in other Indebtedness, Disqualified Stock or Preferred Stock of any Borrower or any Subsidiary that is incurred subsequent to the Closing Date pursuant to Section 7.01, provided that (i) such encumbrances and restrictions contained in any agreement or instrument will not materially affect the Borrowers' ability to make anticipated principal or interest payments under this Agreement (as determined by the Parent Borrower in good faith) or (ii) such encumbrances and restrictions contained in any agreement or instrument taken as a whole are not materially less favorable to the Lenders than the encumbrances and restrictions contained in this Agreement (as determined by the Parent Borrower in good faith);

(12) any encumbrance or restriction contained in secured Indebtedness otherwise permitted to be incurred pursuant to Sections 7.01 and 7.02 to the extent limiting the right of the debtor to dispose of the assets securing such Indebtedness;

(13) any encumbrance or restriction arising or agreed to in the ordinary course of business, not relating to any Indebtedness, and that do not, individually or in the aggregate, (x) detract from the value of the property or assets of the Borrowers or any Subsidiary in any manner material to the Borrowers or any Subsidiary or (y) materially affect the Borrowers' ability to make future principal or interest payments under this Agreement, in each case, as determined by the Parent Borrower in good faith;

(14) customary provisions in joint venture agreements or arrangements and other similar agreements or arrangements relating solely to the applicable joint venture; and

(15) any encumbrances or restrictions of the type referred to in Section 7.06(a), (b), (c) and (d) imposed by any amendments, modifications, restatements, renewals, increases, supplements, refundings, replacements or refinancings of the contracts, instruments or obligations referred to in clauses (1) through (14) above; provided that such encumbrances and restrictions contained in any such amendment, modification, restatement, renewal, increase, supplement, refunding, replacement or refinancing are, in the good faith judgment of the Parent Borrower, not materially more restrictive, taken as a whole, than the encumbrances and restrictions prior to such amendment, modification, restatement, renewal, increase, supplement, refunding, replacement or refinancing.

For purposes of determining compliance with this Section 7.06, (i) the priority of any Preferred Stock in receiving dividends or liquidating distributions prior to dividends or liquidating distributions being paid on common stock shall not be deemed a restriction on the ability to make distributions on Capital Stock and (ii) the

subordination of loans or advances made to a Borrower or a Subsidiary to other Indebtedness Incurred by such Borrower or any such Subsidiary shall not be deemed a restriction on the ability to make loans or advances.

Section 7.07 Accounting Changes. Make any change in fiscal year; provided, however, that the Parent Borrower or Holdings may, upon written notice to the Administrative Agent, change its fiscal year to any other fiscal year reasonably acceptable to the Administrative Agent, in which case, the Parent Borrower and the Administrative Agent will, and are hereby authorized by the Lenders to, make any amendments to this Agreement that are necessary, in the judgment of the Administrative Agent and the Parent Borrower or Holdings, as applicable, to reflect such change in fiscal year.

Section 7.08 No Layering of Debt. Holdings and the Borrowers will not, and will not permit any Loan Party to, create, incur, assume or permit to exist any Indebtedness secured by a Lien on any property or asset which Lien is (a) contractually subordinated to any Lien created under the First Lien Facilities Documentation and (b) senior to any Lien securing the Initial Loans.

Section 7.09 Holding Company. Holdings shall not conduct, transact or otherwise engage in any material business or operations; provided, that the following shall be permitted in any event: (i) its ownership of the Capital Stock of the Parent Borrower and the Subsidiaries and any Subsidiary of Holdings (that is not the Parent Borrower or a Subsidiary of the Parent Borrower) which is formed solely for purposes of acting as a co-obligor with respect to any Qualified Holding Company Indebtedness and which does not conduct, transact or otherwise engage in any material business or operation, and, in each case, activities incidental thereto; (ii) the entry into, and the performance of its obligations with respect to the Loan Documents (including any Specified Refinancing Debt or any New Facility), the First Lien Facilities Documentation, any Refinancing Notes, any New Incremental Notes, any Junior Financing Document, any Ratio Debt documentation, any documentation relating to any Permitted Refinancing of the foregoing or documentation relating to the Indebtedness otherwise permitted by the last sentence in this Section 7.09 and the Guarantees permitted by clause (v) below; (iii) the consummation of the Transactions; (iv) the performing of activities (including, without limitation, cash management activities) and the entry into documentation with respect thereto, in each case, permitted by this Agreement for Holdings to enter into and perform; (v) the payment of dividends and distributions (and other activities in lieu thereof permitted by this Agreement), the making of contributions to the capital of its Subsidiaries and Guarantees of Indebtedness permitted to be incurred hereunder by the Borrowers or any of the Subsidiaries and the Guarantees of other obligations not constituting Indebtedness; (vi) the maintenance of its legal existence (including the ability to incur fees, costs and expenses relating to such maintenance and performance of activities relating to its officers, directors, managers and employees and those of its Subsidiaries); (vii) the performing of activities in preparation for and consummating any public offering of its common stock or any other issuance or sale of its Capital Stock (other than Disqualified Stock) including converting into another type of legal entity; (viii) the participation in tax, accounting and other administrative matters as a member of the consolidated group of Holdings and the Parent Borrower, including compliance with applicable Laws and legal, tax and accounting matters related thereto and activities relating to its officers, directors, managers and employees; (ix) the holding of any cash and Cash Equivalents (but not operating any property); (x) the entry into and performance of its obligations with respect to contracts and other arrangements, including the providing of indemnification to officers, managers, directors and employees and (xi) any activities incidental to the foregoing. Holdings shall not create, incur, assume or suffer to exist any Lien on any Capital Stock of the Parent Borrower or any Subsidiary (other than Liens pursuant to any Loan Document, the First Lien Facilities Documentation, non-consensual Liens arising solely by operation of Law and Liens pursuant to documentation relating to other secured Indebtedness permitted to be incurred and secured hereunder and any Permitted Liens) and shall not incur any Indebtedness (other than in respect of Disqualified Stock, Qualified Holding Company Indebtedness or Guarantees permitted above and liabilities imposed by Law, including Tax liabilities).

Section 7.10 Restricted Investments. Directly or indirectly make any Restricted Investment.

For purposes of this Section 7.10, if any Investment (or a portion thereof) would be permitted pursuant to one or more of the exceptions contained in the definition of "Permitted Investments," the Parent Borrower may divide and classify such Investment (or a portion thereof) in any manner that complies with such definition and may later divide and reclassify any such Investment so long as the Investment (as so divided and/or reclassified) would be permitted to be made in reliance on the applicable exception as of the date of such reclassification.

ARTICLE VIII.
Events of Default and Remedies

Section 8.01 Events of Default. Any of the following shall constitute an "Event of Default":

(a) Non-Payment. The Parent Borrower or any other Loan Party fails to pay (i) when due and as required to be paid herein, any amount of principal of any Loan, or (ii) within five Business Days after the same becomes due and payable, any interest on any Loan, or (iii) within ten Business Days after the same becomes due and payable, any fee due hereunder, or any other amount payable hereunder or with respect to any other Loan Document; or

(b) Specific Covenants. The Parent Borrower or any other Loan Party fails to perform or observe any term, covenant or agreement contained in any of Sections 6.03(a), 6.05(a) (solely with respect to any Borrower), 6.11 or in any Section of Article VII, or Holdings fails to perform or observe any term, covenant or agreement contained in Section 7.09; or

(c) Other Defaults. Any Loan Party fails to perform or observe any covenant or agreement (other than those specified in Section 8.01(a) or (b) above) contained in any Loan Document on its part to be performed or observed and such failure continues for 30 days after notice thereof by the Administrative Agent to the Parent Borrower; or

(d) Representations and Warranties. Any representation, warranty, certification or statement of fact made or deemed made by or on behalf of the Parent Borrower or any other Loan Party herein, in any other Loan Document, or in any document required to be delivered in connection herewith or therewith shall be incorrect or misleading in any material respect (or in any respect if any such representation or warranty is already qualified by materiality) when made or deemed made and, to the extent capable of being cured, such incorrect representation, warranty, certification or statement of fact shall remain incorrect for a period of thirty (30) days; or

(e) Cross-Default. Any Loan Party or any Subsidiary (A) fails to make any payment beyond the applicable grace period with respect thereto, if any (whether by scheduled maturity, required prepayment, acceleration, demand, or otherwise) in respect of any Indebtedness (other than Indebtedness hereunder and intercompany Indebtedness) having an aggregate outstanding principal amount equal to or greater than the Threshold Amount or (B) fails to observe or perform any other agreement or condition relating to any such Indebtedness, or any other event occurs, the effect of which default or other event is to cause, or to permit the holder or holders of such Indebtedness (or a trustee or agent on behalf of such holder or holders or beneficiary or beneficiaries) after the expiration of any applicable grace or cure period therefor to cause, with the giving of notice if required, such Indebtedness to become due or to be repurchased, prepaid, defeased or redeemed (automatically or otherwise), or an offer to repurchase, prepay, defease or redeem such Indebtedness to be made, in each case, prior to its stated maturity; provided that this clause (e)(B) shall not apply to (x) secured Indebtedness that becomes due as a result of the sale or transfer or other Disposition (including a Casualty Event) of the property or assets securing such Indebtedness permitted hereunder and under the documents providing for such Indebtedness and such Indebtedness is repaid when required under the documents providing for such Indebtedness, (y) events of default, termination events or any other similar event under the documents governing Swap Contracts for so long as such event of default, termination event or other similar event does not result in the occurrence of an early termination date or any acceleration or prepayment of any amounts or other Indebtedness payable thereunder or (z) Indebtedness that upon the happening of any such default or event automatically converts into Equity Interests (other than Disqualified Stock or, in the case of a Subsidiary, Disqualified Stock or Preferred Stock) in accordance with its terms; provided, further, that with respect to the First Lien Facilities or any other first lien indebtedness permitted to be incurred hereunder in accordance with and as required by any similar provision of the First Lien Credit Agreement, in each case, that is secured by a Lien on the Collateral on a senior basis to the Obligations, such failure shall constitute an Event of Default hereunder only if the holders of such Indebtedness have caused the same to become due and payable prior to the scheduled maturity date or if such Indebtedness is not paid at final maturity; or

(f) Insolvency Proceedings, Etc. Any Loan Party or any Subsidiary (other than an Immaterial Subsidiary) institutes or consents to the institution of any proceeding under any Debtor Relief Law, a winding-up, an administration, a dissolution, or a composition or makes an assignment for the benefit of creditors or any other action is commenced (by way of voluntary arrangement, scheme of arrangement or otherwise); or appoints, applies for or consents to the appointment of any receiver, administrator, administrative receiver, trustee, custodian, conservator, liquidator, rehabilitator, judicial manager, provisional liquidator, administrator, receiver and manager, controller, monitor or similar officer for it or for all or any material part of its property; or any receiver, trustee, custodian, conservator, liquidator, rehabilitator, judicial manager, provisional liquidator, administrator, administrative receiver, receiver and manager, controller, monitor or similar officer is appointed without the application or consent of such Person and the appointment continues undischarged or unstayed for 60 days; or any proceeding under any Debtor Relief Law relating to any such Person or to all or substantially all of its property is instituted without the consent of such Person and continues undismissed or unstayed for 60 days, or an order for relief is entered in any such proceeding; or

(g) Inability to Pay Debts; Attachment. (i) Any Loan Party or any Subsidiary (other than any Immaterial Subsidiary) becomes unable or admits in writing its inability or fails generally to pay its debts as they become due or suspends making payments or enters into a moratorium or standstill arrangement in relation to its Indebtedness or is taken to have failed to comply with a statutory demand (or otherwise be presumed to be insolvent by applicable Law) or (ii) any writ or warrant of attachment or execution or similar process is issued, commenced or levied against all or substantially all of the property of any such Person and is not released, vacated or fully bonded within 60 days after its issue, commencement or levy, or any analogous procedure or step is taken in any jurisdiction; or

(h) Judgments. There is entered against any Loan Party or any Subsidiary a final judgment or order for the payment of money in an aggregate amount (as to all such judgments and orders) equal to or greater than the Threshold Amount (to the extent not paid and not covered by (i) independent third-party insurance as to which the insurer has been notified of such judgment or order and does not deny coverage or (ii) an enforceable indemnity to the extent that such Loan Party or Subsidiary shall have made a claim for indemnification and the applicable indemnifying party shall not have disputed such claim) and there is a period of 60 consecutive days during which a stay of enforcement of such judgment, by reason of a pending appeal or otherwise, is not in effect; or

(i) ERISA. (i) One or more ERISA Events occur or there is or arises an Unfunded Pension Liability (taking into account only Plans with positive Unfunded Pension Liability) which ERISA Event or Events or Unfunded Pension Liability or Unfunded Pension Liabilities results or could reasonably be expected to result in liability of any Loan Party in an aggregate amount which would reasonably be expected to result in a Material Adverse Effect, (ii) any Loan Party or any ERISA Affiliate fails to pay when due, after the expiration of any applicable grace period, any installment payment with respect to its withdrawal liability under Section 4201 of ERISA which has resulted or could reasonably be expected to result in liability of any Loan Party in an aggregate amount which would reasonably be expected to result in a Material Adverse Effect or (iii) with respect to a Foreign Plan, a termination, withdrawal, imposition of a Lien or noncompliance with applicable Law or plan terms that would reasonably be expected to result in a Material Adverse Effect; or

(j) Invalidity of Certain Loan Documents. Any material provision of any Collateral Document, any Guaranty, the Intercompany Subordination Agreement and/or any intercreditor agreement (including, for the avoidance of doubt, the First Lien/Second Lien Intercreditor Agreement) required to be entered into pursuant to the terms of this Agreement (in each case, subject to the Perfection Exceptions), at any time after its execution and delivery and for any reason other than as expressly permitted hereunder or thereunder (including as a result of a transaction permitted under Section 7.03 or Section 7.04) or terminating the Aggregate Commitments and satisfaction in full of all the Obligations (other than contingent indemnification obligations as to which no claim has been asserted) ceases to be in full force and effect (except that any such failure to be in full force and effect with respect to the documents referred to in clause (vii) of the definition of "Loan Documents" shall constitute an Event of Default only if the Parent Borrower receives notice thereof and the Parent Borrower fails to remedy the relevant failure in all

material respects within 15 days of receiving said notice); or any Loan Party contests in writing the validity or enforceability of any provision of this Agreement, any Collateral Document, any Guaranty, the Intercompany Subordination Agreement and/or any intercreditor agreement (including, for the avoidance of doubt, the First Lien/Second Lien Intercreditor Agreement) required to be entered into pursuant to the terms of this Agreement; or any Loan Party denies in writing that it has any or further liability or obligation under any Loan Document (other than as a result of repayment in full of the Obligations (other than contingent indemnification obligations as to which no claim has been asserted) and termination of the Aggregate Commitments), or purports in writing to revoke or rescind any Loan Document or the perfected second priority Liens created thereby (except as otherwise expressly provided in this Agreement or the Collateral Documents); or

(k) Change of Control. There occurs any Change of Control.

Section 8.02 Remedies Upon Event of Default. If any Event of Default occurs and is continuing, the Administrative Agent shall, at the request of, or may, with the consent of, the Required Lenders, take any or all of the following actions:

(a) declare the commitment of each Lender to make Loans to be terminated, whereupon such commitments shall be terminated;

(b) declare the unpaid principal amount of all outstanding Loans, all interest accrued and unpaid thereon, and all other amounts owing or payable hereunder or under any other Loan Document to be immediately due and payable, without presentment, demand, protest or other notice of any kind, all of which are hereby expressly waived by the Borrowers;

(c) [reserved]; and

(d) exercise on behalf of itself and the Lenders all rights and remedies available to it and the Lenders under the Loan Documents, under any document evidencing Indebtedness in respect of which the Facility has been designated as "Designated Senior Debt" (or any comparable term) and/or under applicable Law;

provided, however, that upon the occurrence of an actual or deemed entry of an order for relief with respect to the Borrowers under any Debtor Relief Law, the obligation of each Lender to make Loans shall automatically terminate, the unpaid principal amount of all outstanding Loans and all interest and other amounts as aforesaid shall automatically become due and payable, in each case without further act of the Administrative Agent or any Lender.

Section 8.03 [Reserved].

Section 8.04 Application of Funds. After the exercise of remedies provided for in Section 8.02 (or after an actual or deemed entry of an order for relief with respect to the Borrowers under any Debtor Relief Law), any amounts received on account of the Obligations shall, subject to First Lien/Second Lien Intercreditor Agreement and the provisions of Sections 2.17, be applied by the Administrative Agent in the following order:

(a) first, to payment of that portion of the Obligations constituting fees, indemnities, expenses and other amounts (including fees, disbursements and other charges of counsel payable under Section 10.04 and amounts payable under Article III and amounts owing in respect of (x) the preservation of Collateral or the Collateral Agent's security interest in the Collateral or (y) with respect to enforcing the rights of the Secured Parties under the Loan Documents) payable to the Administrative Agent and the Collateral Agent in their respective capacity as such;

(b) second, to payment in full of Unfunded Advances/Participations;

(c) third, to payment of that portion of the Obligations constituting fees, indemnities, expenses and other amounts (other than principal and interest) payable to the Lenders (including fees,

disbursements and other charges of counsel payable under Sections 10.04 and 10.05) arising under the Loan Documents and amounts payable under Article III, ratably among them in proportion to the respective amounts described in this clause (c) held by them;

(d) fourth, to payment of that portion of the Obligations constituting accrued and unpaid interest on the Loans ratably among the Lenders in proportion to the respective amounts described in this clause (d) held by them;

(e) fifth, to payment of that portion of the Obligations constituting unpaid principal of the Loans, ratably among the Lenders in proportion to the respective amounts described in this clause (e) held by them;

(f) sixth, to the payment of all other Obligations of the Loan Parties owing under or in respect of the Loan Documents that are then due and payable to the Administrative Agent and the other Secured Parties, ratably based upon the respective aggregate amounts of all such Obligations then owing to the Administrative Agent and the other Secured Parties; and

(g) last, after all of the Obligations have been paid in full (other than contingent indemnification obligations not yet due and owing), to the Borrowers or as otherwise required by Law or the First Lien/Second Lien Intercreditor Agreement.

It is understood and agreed by each Loan Party and each Secured Party that the Administrative Agent and Collateral Agent shall have no liability for any determinations made by it in this Section 8.04, in each case except to the extent resulting from the gross negligence, bad faith or willful misconduct of the Administrative Agent or the Collateral Agent, as applicable (as determined by a court of competent jurisdiction in a final and non-appealable decision). Each Loan Party and each Secured Party also agrees that the Administrative Agent and the Collateral Agent may (but shall not be required to), at any time and in its sole discretion, and with no liability resulting therefrom, petition a court of competent jurisdiction regarding any application of Collateral in accordance with the requirements hereof, and the Administrative Agent and the Collateral Agent shall be entitled to wait for, and may conclusively rely on, any such determination.

ARTICLE IX.
Administrative Agent and Other Agents

Section 9.01 Appointment and Authorization of Agents.

(a) Each Lender hereby irrevocably appoints Antares to act on its behalf as Administrative Agent hereunder and under the other Loan Documents (subject to the provisions in Section 9.09), and designates and authorizes the Administrative Agent to take such actions on its behalf under the provisions of this Agreement and each other Loan Document and to exercise such powers and perform such duties as are expressly delegated to the Administrative Agent by the terms of this Agreement or any other Loan Document, together with such actions and powers as are reasonably incidental thereto. The Administrative Agent may perform any of its duties through its officers, directors, agents, employees, or affiliates. The provisions of this Article are solely for the benefit of the Administrative Agent and the Lenders, and no Loan Party shall have rights as a third party beneficiary of any of such provisions. Notwithstanding any provision to the contrary contained elsewhere herein or in any other Loan Document no Agent shall have any duties or responsibilities, except those expressly set forth herein, nor shall any Agent have or be deemed to have any fiduciary relationship with any Lender or participant, and no implied covenants, functions, responsibilities, duties, obligations or liabilities shall be read into this Agreement or any other Loan Document or otherwise exist against any Agent. Regardless of whether a Default has occurred and is continuing and without limiting the generality of the foregoing sentence, the use of the term “agent” herein and in the other Loan Documents with reference to any Agent is not intended to connote any fiduciary or other implied (or express) obligations arising under agency doctrine of any applicable Law. Instead, such term is used merely as a matter of market custom, and is intended to create or reflect only an administrative relationship between independent contracting parties. Without limiting the foregoing, each Lender hereby authorizes the Administrative Agent to execute and deliver, and to perform its obligations under, each of the Loan Documents to which the Administrative

Agent is a party, and to exercise all rights, powers and remedies that the Administrative Agent may have under such Loan Documents.

(b) [Reserved].

(c) The Administrative Agent shall also act as the Collateral Agent under the Loan Documents, and each of the Lenders hereby irrevocably appoints and authorizes the Administrative Agent to act as the agent of (and to hold any security interest, charge or other Lien created by the Collateral Documents for and on behalf of or in trust for) such Lender for purposes of acquiring, holding and enforcing any and all Liens on Collateral granted by any of the Loan Parties to secure any of the Secured Obligations, together with such powers and discretion as are reasonably incidental thereto. In this connection, the Administrative Agent as Collateral Agent (and any co-agents, sub-agents and attorneys-in-fact appointed by the Administrative Agent pursuant to Section 9.02 for purposes of holding or enforcing any Lien on the Collateral (or any portion thereof) granted under the Collateral Documents, or for exercising any rights and remedies thereunder at the direction of the Administrative Agent), shall be entitled to the benefits of all provisions of this Article IX (including Section 9.07, as though such co-agents, sub-agents and attorneys-in-fact were the Collateral Agent under the Loan Documents) and Section 10.04 as if set forth in full herein with respect thereto and all references to Administrative Agent in this Article IX shall, where applicable, be read as including a reference to the Collateral Agent. Without limiting the generality of the foregoing, the Lenders hereby expressly authorize the Administrative Agent as Collateral Agent to execute any and all documents (including releases, payoff letters and similar documents) with respect to the Collateral and the rights of the Secured Parties with respect thereto (including any intercreditor agreement), as contemplated by and in accordance with the provisions of this Agreement and the Collateral Documents and acknowledge and agree that any such action by any Agent shall bind the Lenders.

Section 9.02 Delegation of Duties. The Administrative Agent may execute any of its duties and exercise its rights and powers under this Agreement or any other Loan Document (including for purposes of holding or enforcing any Lien on the Collateral (or any portion thereof) granted under the Collateral Documents or of exercising any rights and remedies thereunder) by or through agents, employees or attorneys-in-fact and shall be entitled to advice of counsel and other consultants or experts concerning all matters pertaining to such duties. The Administrative Agent and any such sub agent may perform any and all of its duties and exercise its rights and powers by or through their respective Agent-Related Persons. The Administrative Agent shall not be responsible for the negligence or misconduct of any agent or attorney-in-fact that it selects in the absence of gross negligence or willful misconduct by the Administrative Agent, as determined by a final non-appealable judgment by a court of competent jurisdiction. The exculpatory provisions of this Article IX shall apply to any such sub agent and to the Agent-Related Persons of the Administrative Agent and any such sub agent, and shall apply to their respective activities in connection with the syndication of the credit facilities provided for herein as well as activities as Administrative Agent.

Section 9.03 Liability of Agents.

(a) No Agent-Related Person shall be (i) liable for any action taken or omitted to be taken by any of them under or in connection with this Agreement or any other Loan Document or the transactions contemplated hereby (except for its own gross negligence, bad faith or willful misconduct in connection with its duties expressly set forth herein, to the extent determined in a final, non-appealable judgment by a court of competent jurisdiction), (ii) liable for any action taken or not taken by it (A) with the consent or at the request of the Required Lenders (or such other number or percentage of the Lenders as shall be necessary, or as the Administrative Agent shall believe in good faith shall be necessary, under the circumstances as provided in Sections 10.01 and 8.02) or (B) in the absence of its own gross negligence or willful misconduct as determined by the final, non-appealable judgment of a court of competent jurisdiction, in connection with its duties expressly set forth herein, (iii) responsible in any manner to any Lender or participant for any recital, statement, representation or warranty made by any Loan Party or any officer thereof, contained herein or in any other Loan Document, or in any certificate, report, statement or other document referred to or provided for in, or received by the Administrative Agent under or in connection with, this Agreement or any other Loan Document, (iv) responsible for or have any duty to ascertain or inquire into the validity, effectiveness, genuineness, enforceability or sufficiency of this Agreement or any other Loan Document or any other agreement, instrument or document, or the creation, perfection or priority of any Lien, or security interest created or purported to be created under the Collateral Documents, or for any failure of any Loan Party or any other

party to any Loan Document to perform its obligations hereunder, (v) responsible for or have any duty to ascertain or inquire into the value or the sufficiency of any Collateral or (vi) responsible for or have any duty to ascertain or inquire into the satisfaction of any condition set forth in Article IV or elsewhere herein, other than to confirm receipt of items expressly required to be delivered to the Administrative Agent. No Agent-Related Person shall be under any obligation to any Lender or participant to ascertain or to inquire as to the observance or performance of any of the agreements contained in, or conditions of, this Agreement or any other Loan Document, or to inspect the properties, books or records of any Loan Party or any Affiliate thereof. The Administrative Agent shall not be responsible or have any liability for, or have any duty to ascertain, inquire into monitor or enforce, compliance with the provisions relating to Disqualified Institutions. Without limiting the generality of the foregoing, the Administrative Agent shall not (x) be obligated to ascertain, monitor or inquire as to whether any Lender or participant or prospective Lender or participant is a Disqualified Institution or (y) have any liability with respect to or arising out of any assignment or participant of loans, or disclosure of confidential information, to, or the restriction on any exercise of rights or remedies of, any Disqualified Institution.

(b) The Administrative Agent shall not have any duty to (i) take any discretionary action or exercise any discretionary powers, except discretionary rights and powers expressly contemplated hereby or by the other Loan Documents that such Agent is required to exercise as directed in writing by the Required Lenders (or such other number or percentage of the Lenders as shall be expressly provided for herein or in the other Loan Documents); provided that no Agent shall be required to take any action that, in its opinion or the opinion of its counsel, may expose such Agent to liability or that is contrary to any Loan Document or applicable Law; and (ii) to disclose, except as expressly set forth herein and in the other Loan Documents, and shall not be liable for the failure to disclose, any information relating to the Borrowers or any of their Affiliates that is communicated to or obtained by any Person serving as an Agent or any of its Affiliates in any capacity; provided, further, that that the Administrative Agent may seek clarification or direction from the Required Lenders prior to the exercise of any such instructed action and may refrain from acting until such clarification or direction has been provided. Except as expressly set forth in the Loan Documents, the Administrative Agent shall not have any duty to disclose, and shall not be liable for the failure to disclose, any information relating to Holdings, the Borrowers, any Subsidiary or any Affiliate of any of the foregoing that is communicated to or obtained by the Person serving as Administrative Agent or any of its Affiliates in any capacity. Nothing in this Agreement shall require the Administrative Agent to expend or risk its own funds or otherwise incur any financial liability in the performance of any of its duties hereunder or in the exercise of any of its rights or powers if it shall have reasonable grounds for believing that repayment of such funds or adequate indemnity against such risk or liability is not reasonably assured to it.

(c) Any assignor of a Loan or seller of a participation hereunder shall be entitled to rely conclusively on a representation of the assignee Lender or Participant in the relevant Assignment and Assumption or participation agreement, as applicable, that such assignee or purchaser is not a Disqualified Institution. No Agent shall have any responsibility or liability for monitoring the list or identities of, or enforcing provisions relating to, Disqualified Institutions.

Section 9.04 Reliance by Agents.

(a) Each Agent shall be entitled to rely, and shall be fully protected in relying, upon any writing, communication, signature, resolution, representation, notice, request, consent, certificate, instrument, affidavit, letter, telegram, facsimile, telex or telephone message, electronic mail message, Internet or intranet website posting or other distribution statement or other document or conversation reasonably believed by it to be genuine and correct and to have been signed, sent or made by the proper Person or Persons. Each Agent also may rely upon any statement made to it orally or by telephone and reasonably believed by it to have been made by the proper Person, and shall not incur any liability for relying thereon. In determining compliance with any condition hereunder to the making of a Loan that by its terms must be fulfilled to the satisfaction of a Lender, the Administrative Agent may presume that such condition is satisfactory to such Lender unless the Administrative Agent shall have received notice to the contrary from such Lender prior to the making of such Loan. Each Agent may consult with, and rely upon (and be fully protected in relying upon), advice and statements of legal counsel (including counsel to any Loan Party), independent accountants and other experts selected by such Agent. Each Agent shall be fully justified in failing or refusing to take any action under any Loan Document unless it shall first receive such advice or concurrence of the Required Lenders (or such greater number of Lenders as may be expressly required hereby in any instance) as it deems appropriate and, if it so requests, it shall first be indemnified to its satisfaction by the Lenders

against any and all liability and expense which may be incurred by it by reason of taking or continuing to take any such action. Each Agent shall in all cases be fully protected in acting, or in refraining from acting, under this Agreement or any other Loan Document in accordance with a request or consent of the Required Lenders (or such greater number of Lenders as may be expressly required hereby in any instance) and such request and any action taken or failure to act pursuant thereto shall be binding upon all the Lenders.

(b) For purposes of determining compliance with the conditions specified in Sections 4.01, each Lender that has signed this Agreement shall be deemed to have consented to, approved or accepted or to be satisfied with, each document or other matter required thereunder to be consented to or approved by or acceptable or satisfactory to a Lender unless the Administrative Agent shall have received notice from such Lender prior to the proposed Closing Date, specifying its objection thereto.

Section 9.05 Notice of Default. The Administrative Agent shall not be deemed to have knowledge or notice of the occurrence of any Default, except with respect to defaults in the payment of principal, interest and fees required to be paid to the Administrative Agent for the account of the Lenders, unless the Administrative Agent shall have received written notice from a Lender or the Parent Borrower referring to this Agreement, describing such Default and stating that such notice is a "notice of default." The Administrative Agent will notify the Lenders of its receipt of any such notice. The Administrative Agent shall not be responsible for or have any duty to ascertain or inquire into (i) any statement, warranty or representation made in or in connection with any Loan Document, (ii) the contents of any certificate, report or other document delivered thereunder or in connection therewith, (iii) the performance or observance of any of the covenants, agreements or other terms or conditions set forth in any Loan Document or the occurrence of any Default, (iv) the sufficiency, validity, enforceability, effectiveness or genuineness of any Loan Document or any other agreement, instrument or document, (v) the satisfaction of any condition set forth in Article IV or elsewhere in any Loan Document, other than to confirm receipt of items expressly required to be delivered to the Administrative Agent or satisfaction of any condition that expressly refers to the matters described therein being acceptable or satisfactory to the Administrative Agent, (vi) the creation, perfection or priority of Liens on the Collateral or (vii) compliance by Affiliated Lenders with the terms hereof relating to Affiliated Lenders. The Administrative Agent shall take such action with respect to any Event of Default as may be directed by the Required Lenders in accordance with Article VIII; provided, however, that unless and until the Administrative Agent has received any such direction, the Administrative Agent may (but shall not be obligated to) take such action, or refrain from taking such action, with respect to such Event of Default as it shall deem advisable or in the best interest of the Lenders.

Section 9.06 Credit Decision; Disclosure of Information by Agents. Each Lender acknowledges that no Agent-Related Person has made any representation or warranty to it, and that no act by any Agent hereafter taken, including any consent to and acceptance of any assignment or review of the affairs of any Loan Party or any Affiliate thereof, shall be deemed to constitute any representation or warranty by any Agent-Related Person to any Lender as to any matter, including whether Agent-Related Persons have disclosed material information in their possession. Each Lender represents to each Agent that it has, independently and without reliance upon any Agent-Related Person and based on such documents and information as it has deemed appropriate, made its own appraisal of, and investigation into, the business, prospects, operations, property, financial and other condition and creditworthiness of the Loan Parties and their respective Subsidiaries, and all applicable bank or other regulatory Laws relating to the transactions contemplated hereby, and made its own decision to enter into this Agreement and to extend credit to the Borrowers and the other Loan Parties hereunder. Each Lender also represents that it will, independently and without reliance upon any Agent-Related Person and based on such documents and information as it shall deem appropriate at the time, continue to make its own credit analysis, appraisals and decisions in taking or not taking action under this Agreement and the other Loan Documents, and to make such investigations as it deems necessary to inform itself as to the business, prospects, operations, property, financial and other condition and creditworthiness of the Borrowers and the other Loan Parties. Except for notices, reports and other documents expressly required to be furnished to the Lenders by any Agent herein, such Agent shall not have any duty or responsibility to provide any Lender with any credit or other information concerning the business, prospects, operations, property, financial and other condition or creditworthiness of any of the Loan Parties or any of their respective Affiliates which may come into the possession of any Agent-Related Person.

Section 9.07 Indemnification of Agents. Whether or not the transactions contemplated hereby are consummated, each Lender shall, on a ratable basis based on such Lender's Pro Rata Share of the Facility,

indemnify upon demand each Agent-Related Person (to the extent not reimbursed by or on behalf of any Loan Party and without limiting the obligation of any Loan Party to do so), and hold harmless each Agent-Related Person in each case from and against any and all Indemnified Liabilities incurred by such Agent-Related Person; provided, however, that no Lender shall be liable for any Indemnified Liabilities incurred by an Agent-Related Person to the extent such Indemnified Liabilities are determined in a final, non-appealable judgment by a court of competent jurisdiction to have resulted from such Agent-Related Person's own gross negligence, bad faith or willful misconduct; provided, however, that no action taken in accordance with the directions of the Required Lenders (or such other number or percentage of the Lenders as shall be required by the Loan Documents) shall be deemed to constitute gross negligence, bad faith or willful misconduct for purposes of this Section 9.07. In the case of any investigation, litigation or proceeding giving rise to any Indemnified Liabilities, this Section 9.07 shall apply whether or not any such investigation, litigation or proceeding is brought by any Lender or any other Person. Without limiting the foregoing, each Lender shall reimburse the Administrative Agent upon demand for its Pro Rata Share of any costs or out-of-pocket expenses (including the fees, disbursements and other charges of counsel) incurred by the Administrative Agent in connection with the preparation, execution, delivery, administration, modification, amendment or enforcement (whether through negotiations, legal proceedings or otherwise) of, or legal advice in respect of rights or responsibilities under, this Agreement, any other Loan Document, or any document contemplated by or referred to herein, to the extent that the Administrative Agent is not reimbursed for such expenses by or on behalf of the Borrower; provided that such reimbursement by the Lenders shall not affect the Borrower's continuing reimbursement obligations with respect thereto; provided further, that failure of any Lender to indemnify or reimburse the Administrative Agent shall not relieve any other Lender of its obligation in respect thereof. The undertaking in this Section 9.07 shall survive termination of the Aggregate Commitments, the payment of all other Obligations and the resignation or removal of the Administrative Agent.

Section 9.08 Agents in their Individual Capacities. Any Agent and its Affiliates may make loans to, issue letters of credit for the account of, accept deposits from, acquire Capital Stock in and generally engage in any kind of banking, trust, financial advisory, underwriting or other business with each of the Loan Parties and their respective Affiliates as though it were not an Agent hereunder and without notice to or consent of the Lenders. The Lenders acknowledge that, pursuant to such activities, an Agent or its Affiliates may receive information regarding any Loan Party or its Affiliates (including information that may be subject to confidentiality obligations in favor of such Loan Party or such Affiliate) and acknowledge that such Agent shall be under no obligation to provide such information to them. With respect to its Loans, such Agent shall have the same rights and powers under this Agreement as any other Lender and may exercise such rights and powers as though it were not an Agent, and the terms "Lender" and "Lenders" include such Agent in its individual capacity (unless otherwise expressly indicated or unless the context otherwise requires).

Section 9.09 Successor Agents. The Administrative Agent or Collateral Agent may resign as the Administrative Agent or Collateral Agent, as applicable, upon 30 days' written notice to the Parent Borrower and the Lenders. The Required Lenders may remove the Administrative Agent or Collateral Agent from such role at any time upon 30 days' written notice to the Administrative Agent or Collateral Agent, as applicable, the Parent Borrower and the Lenders. Upon receipt of any such notice of resignation or removal, the Required Lenders shall appoint from among the Lenders a successor agent for the Lenders, which successor agent shall be consented to by the Parent Borrower at all times other than during the existence of an Event of Default under Section 8.01(a), (f), or (g) (which consent of the Parent Borrower shall not be unreasonably withheld or delayed). If no successor agent is appointed prior to the effective date of the resignation or removal of the Administrative Agent or Collateral Agent, as applicable, the Administrative Agent or Collateral Agent may appoint, after consulting with the Lenders and the Parent Borrower, a successor agent. Upon the acceptance of its appointment as successor agent hereunder, the Person acting as such successor agent shall succeed to all the rights, powers and duties of the retiring Administrative Agent or Collateral Agent, as applicable, and the term "Administrative Agent" or "Collateral Agent," as applicable, shall mean such successor administrative agent or such successor collateral agent, as applicable, and the retiring Administrative Agent's or Collateral Agent's appointment, powers and duties as the Administrative Agent or Collateral Agent, as applicable, shall be terminated. After the retiring Administrative Agent's or Collateral Agent's resignation or removal hereunder as the Administrative Agent or Collateral Agent, the provisions of this Article IX and Sections 10.04 and 10.05 shall continue in effect for its benefit as to any actions taken or omitted to be taken by it while it was the Administrative Agent or Collateral Agent under this Agreement. If no successor agent has accepted appointment as the Administrative Agent or Collateral Agent by the date which is 30 days following the retiring Administrative Agent's or Collateral Agent's notice of resignation or removal, the retiring Administrative

Agent's or Collateral Agent's resignation or removal shall nevertheless thereupon become effective and (i) the retiring Administrative Agent or Collateral Agent, as applicable, shall be discharged from its duties and obligations hereunder and under the other Loan Documents (except that in the case of any collateral security held by the Administrative Agent or Collateral Agent on behalf of the Lenders under any of the Loan Documents, the retiring Agent shall continue to hold such collateral security as bailee, trustee or other applicable capacity until such time as a successor of such Agent is appointed), (ii) all payments, communications and determinations provided to be made by, to or through the Administrative Agent shall instead be made by or to each Lender directly, until such time as the Required Lenders appoint a successor Administrative Agent as provided for above in this Section 9.09 and (iii) the Lenders shall perform all of the duties of the Administrative Agent or Collateral Agent, as applicable, hereunder until such time, if any, as the Required Lenders appoint a successor agent as provided for above. Upon the acceptance of any appointment as the Administrative Agent or Collateral Agent hereunder by a successor and upon the execution and filing or recording of such financing statements, or amendments thereto, and such amendments or supplements to the Mortgages, and such other instruments or notices, as may be necessary or desirable, or as the Required Lenders may request, in order to continue the perfection of the Liens granted or purported to be granted by the Collateral Documents, the Administrative Agent or Collateral Agent, as applicable, shall thereupon succeed to and become vested with all the rights, powers, discretion, privileges, and duties of the retiring Administrative Agent or Collateral Agent. Upon the acceptance of any appointment as the Administrative Agent or Collateral Agent hereunder by a successor or upon the expiration of the 30-day period following the retiring Administrative Agent's or Collateral Agent's notice of resignation or removal without a successor agent having been appointed, the retiring Administrative Agent or Collateral Agent, as applicable, shall be discharged from its duties and obligations hereunder and under the other Loan Documents other than as specifically set forth in clause (i) above of this Section 9.09(a) but the provisions of this Article IX and Sections 10.04 and 10.05 shall continue in effect for the benefit of such retiring Agent, its sub-agents and their respective Agent-Related Persons in respect of any actions taken or omitted to be taken by any of them solely in respect of the Loan Documents or Obligations, as applicable, while the retiring Agent was acting as Administrative Agent or Collateral Agent, as applicable.

Section 9.10 Administrative Agent May File Proofs of Claim. In case of the pendency of any receivership, administrative receivership, judicial management, insolvency, liquidation, bankruptcy, reorganization (by way of voluntary arrangement, schemes of arrangement or otherwise), arrangement, adjustment, composition or other judicial proceeding relative to any Loan Party, the Administrative Agent (irrespective of whether the principal of any Loan shall then be due and payable as herein expressed or by declaration or otherwise and irrespective of whether the Administrative Agent shall have made any demand on the Borrowers) shall be entitled and empowered, by intervention in such proceeding or otherwise:

(a) to file and prove a claim for the whole amount of the principal and interest owing and unpaid in respect of the Loans and all other Obligations that are owing and unpaid and to file such other documents as may be necessary or advisable in order to have the claims of the Lenders and the Administrative Agent (including any claim for the reasonable compensation, expenses, disbursements and advances of the Lenders and the Administrative Agent and their respective agents and counsel to the extent provided for herein and all other amounts due the Lenders and the Administrative Agent under Sections 2.09 and 10.04) allowed in such judicial proceeding; and

(b) to collect and receive any monies or other property payable or deliverable on any such claims and to distribute the same;

and any administrator, administrative receiver, custodian, receiver, assignee, trustee, judicial manager, liquidator, sequestrator or other similar official in any such judicial proceeding is hereby authorized by each Lender to make such payments to the Administrative Agent and, in the event that the Administrative Agent shall consent to the making of such payments directly to the Lenders, to pay to the Administrative Agent any amount due for the reasonable compensation, expenses, disbursements and advances of the Agents and their respective agents and counsel, and any other amounts, in each case, due the Administrative Agent under Sections 2.09 and 10.04.

Nothing contained herein shall be deemed to authorize the Administrative Agent to authorize or consent to or accept or adopt on behalf of any Lender any plan of reorganization (by way of voluntary arrangement, schemes of arrangement or otherwise), arrangement, adjustment or composition affecting the Obligations or the rights of any

Lender or to authorize the Administrative Agent to vote in respect of the claim of any Lender in any such proceeding.

The provisions of this Article IX are solely for the benefit of the Administrative Agent, the Lenders, and, except for Sections 9.01, 9.09, 9.10, 9.11, 9.13, and 9.15, none of Holdings, the Borrowers or any Subsidiary, or any of their respective Affiliates, shall have any rights as a third party beneficiary under any such provisions.

Section 9.11 Collateral and Guaranty Matters. Each of the Lenders irrevocably authorizes the Administrative Agent and the Collateral Agent, and each of the Administrative Agent and the Collateral Agent shall to the extent requested by the Parent Borrower or, solely in the case of clause (d) below, to the extent provided for under this Agreement,

(a) release any Lien on any property granted to or held by the Administrative Agent or Collateral Agent under any Loan Document (i) upon termination of the Aggregate Commitments and payment in full of all Obligations (other than contingent indemnification obligations as to which no claim has been asserted, (ii) that is sold, disposed of or distributed or to be sold, disposed of or distributed as part of or in connection with any transaction permitted hereunder or under any other Loan Document, in each case to a Person that is not a Loan Party, (iii) subject to Section 10.01, if approved, authorized or ratified in writing by the Required Lenders, (iv) that constitutes Excluded Property as a result of an occurrence not prohibited hereunder or (v) owned by a Subsidiary Guarantor upon release of such Subsidiary Guarantor from its obligations under its Guaranty pursuant to clause (c) below;

(b) release or subordinate any Lien on any property granted to or held by the Administrative Agent or Collateral Agent under any Loan Document to the holder of any Permitted Lien on such property that is permitted by clauses (1), (4), (5), (6) (only with regard to Section 7.01(d)), (9), (11) (solely with respect to cash deposits), (16), (17) (other than with respect to self-insurance arrangements), (18) (solely to the extent constituting Excluded Property), (21), (23) (solely to the extent relating to a lien of the type allowed pursuant to clause (9) of the definition thereof), (25) (solely to the extent relating to a lien of the type allowed pursuant to clause (6) of the definition of "Permitted Liens" and securing obligations under Indebtedness of the type allowed pursuant to Section 7.01(d)), (26) (solely to the extent the Lien of the Collateral Agent on such property is not, pursuant to such agreements, required or permitted to be senior to or *pari passu* with such Liens), (29) (solely with respect to cash deposits), (34), (39) (only for so long as required to be secured for such letter of intent or investment), (45), (46) and (48) of the definition thereof;

(c) release any Guarantor from its obligations under the applicable Guaranty if in the case of any Subsidiary, such Person ceases to be a Subsidiary or otherwise becomes an Excluded Subsidiary as a result of a transaction or designation permitted hereunder; provided that no such release shall occur if such Guarantor continues to be a guarantor in respect of any Specified Refinancing Debt, any Refinancing Notes, the First Lien Facilities, any New Incremental Notes or, to the extent incurred by a Loan Party (other than Holdings), any other Indebtedness; and

(d) establish intercreditor arrangements as contemplated by this Agreement.

Upon request by the Administrative Agent at any time, the Required Lenders will confirm in writing the Collateral Agent's authority to release or subordinate its interest in particular types or items of property, or to release any Guarantor from its obligations under the Guaranty pursuant to this Section 9.11. In each case as specified in this Section 9.11, the applicable Agent will (and each Lender irrevocably authorizes the applicable Agent to), at the Borrowers' expense, execute and deliver to the applicable Loan Party such documents as such Loan Party may reasonably request to evidence the release or subordination of such item of Collateral from the assignment and security interest granted under the Collateral Documents, or to evidence the release of such Guarantor from its obligations under the Guaranty, in each case in accordance with the terms of the Loan Documents and this Section 9.11. Additionally, upon reasonable request of the Parent Borrower, the Collateral Agent will return possessory Collateral held by it that is released from the security interests created by the Collateral Documents pursuant to this Section 9.11; provided that in each case of this Section 9.11, the Parent Borrower shall have delivered to the Administrative Agent and Collateral Agent a certificate of a Responsible Officer of the Parent Borrower certifying that any such transaction has been consummated in compliance with the Credit Agreement and the other Loan

Documents and that such release is permitted hereby; provided, that in the event that the Collateral Agent loses or misplaces any possessory collateral delivered to the Collateral Agent by the Parent Borrower, upon reasonable request of the Parent Borrower, the Collateral Agent shall provide a loss affidavit to the Parent Borrower, in the form customarily provided by the Collateral Agent in such circumstances.

Section 9.12 Other Agents; Arranger and Managers. None of the Lenders or other Persons identified on the facing page or signature pages of this Agreement as a "syndication agent," "joint lead arranger," or "joint bookrunner" shall have any right, power, obligation, liability, responsibility or duty under this Agreement other than those applicable to all Lenders as such; provided that each Arranger shall be entitled to any express rights given to that Arranger under any Loan Document. Without limiting the foregoing, none of the Lenders or other Persons so identified shall have or be deemed to have any fiduciary relationship with any Lender. Each Lender acknowledges that it has not relied, and will not rely, on any of the Lenders or other Persons so identified in deciding to enter into this Agreement or in taking or not taking action hereunder.

Section 9.13 Affiliates of Administrative Agent.

(a) Each of Antares Holdings LP ("Antares Finance") and any Affiliate of Antares Finance that becomes a Lender (other than the Administrative Agent in its capacity as such) or other Secured Party (each, an "Antares Lender") shall be responsible for all of the following on its own behalf: (A) execution and delivery of the Loan Documents, on its own behalf, and acceptance of delivery thereof on its own behalf from any Loan Party, and (B) approval, execution and delivery, on its own behalf, of any amendment, consent or waiver under any of the foregoing Loan Documents or other agreements related thereto;

(b) the Administrative Agent shall have no authority to do any of the foregoing on behalf of any Antares Lender; and

(c) without limitation of the foregoing, if any Antares Lender consents to any matter requiring execution and delivery by or on behalf of the Required Lenders (as may be specified in Section 10.01, or any other provision of this Agreement or of any other Loan Document), such Antares Lender shall execute and deliver, on its own behalf, such documents or instruments as may be necessary in connection with such matter (and (with respect to Antares Lenders only), Agent shall have no authority to sign, execute or deliver any such document or instrument on behalf of any Antares Lender). If any Antares Lender has not consented to any such matter, but other Lenders constituting Required Lenders have done so, the provisions of this Section 9.13 do not require a separate signature from such Antares Lender.

Section 9.14 Appointment of Supplemental Agents, Incremental Arrangers, Incremental Notes Arrangers and Specified Refinancing Agents

(a) It is the purpose of this Agreement and the other Loan Documents that there shall be no violation of any Law of any jurisdiction denying or restricting the right of banking corporations or associations to transact business as agent or trustee in such jurisdiction. It is recognized that in case of litigation under this Agreement or any of the other Loan Documents, and in particular in case of the enforcement of any of the Loan Documents, or in case the Administrative Agent or the Collateral Agent deems that by reason of any present or future Law of any jurisdiction it may not exercise any of the rights, powers or remedies granted herein or in any of the other Loan Documents or take any other action which may be desirable or necessary in connection therewith, the Administrative Agent and the Collateral Agent are hereby authorized to appoint an additional individual or institution selected by them in their sole discretion as a separate trustee, co-trustee, administrative agent, collateral agent, administrativesub-agent or administrative co-agent, as applicable (any such additional individual or institution being referred to herein individually as a "Supplemental Agent" and collectively as "Supplemental Agents").

(b) In the event that the Administrative Agent or the Collateral Agent appoints a Supplemental Agent with respect to any Collateral, (i) each and every right, power, privilege or duty expressed or intended by this Agreement or any of the other Loan Documents to be exercised by or vested in or conveyed to the Administrative Agent or the Collateral Agent with respect to such Collateral shall be exercisable by and vest in such Supplemental Agent to the extent, and only to the extent, necessary to enable such Supplemental Agent to exercise such rights,

powers and privileges with respect to such Collateral and to perform such duties with respect to such Collateral, and every covenant and obligation contained in the Loan Documents and necessary to the exercise or performance thereof by such Supplemental Agent shall run to and be enforceable by either the Administrative Agent and the Collateral Agent or such Supplemental Agent, and (ii) the provisions of this Article IX and of Sections 10.04 and 10.05 (obligating the Borrowers to pay the Administrative Agent's and the Collateral Agent's expenses and to indemnify the Administrative Agent and the Collateral Agent) that refer to the Administrative Agent and/or the Collateral Agent shall inure to the benefit of such Supplemental Agent and all references therein to the Administrative Agent and/or Collateral Agent shall be deemed to be references to the Administrative Agent and/or Collateral Agent and/or such Supplemental Agent, as the context may require.

(c) Should any instrument in writing from the Borrowers, Holdings or any other Loan Party be required by any Supplemental Agent so appointed by the Administrative Agent or the Collateral Agent for more fully and certainly vesting in and confirming to him or it such rights, powers, privileges and duties, the Borrowers or Holdings, as applicable, shall, or shall cause such Loan Party to, execute, acknowledge and deliver any and all such instruments promptly upon request by the Administrative Agent or the Collateral Agent. In case any Supplemental Agent, or a successor thereto, shall die, become incapable of acting, resign or be removed, all the rights, powers, privileges and duties of such Supplemental Agent, to the extent permitted by Law, shall vest in and be exercised by the Administrative Agent or the Collateral Agent, as applicable, until the appointment of a new Supplemental Agent.

(d) In the event that the Parent Borrower appoints or designates any Incremental Arranger, Incremental Notes Arranger or Specified Refinancing Agent pursuant to Sections 2.14, 2.15 and 2.18, as applicable, (i) each and every right, power, privilege or duty expressed or intended by this Agreement or any of the other Loan Documents to be exercised by or vested in or conveyed to an agent or arranger with respect to New Commitments, New Incremental Notes or Specified Refinancing Debt, as applicable, shall be exercisable by and vest in such Incremental Arranger, Incremental Notes Arranger or Specified Refinancing Agent to the extent, and only to the extent, necessary to enable such Incremental Arranger, Incremental Notes Arranger or Specified Refinancing Agent to exercise such rights, powers and privileges with respect to the New Commitments, New Incremental Notes or Specified Refinancing Debt, as applicable, and to perform such duties with respect to such New Commitments, New Incremental Notes or Specified Refinancing Debt, and every covenant and obligation contained in the Loan Documents and necessary to the exercise or performance thereof by such Incremental Arranger, Incremental Notes Arranger or Specified Refinancing Agent shall run to and be enforceable by either the Administrative Agent or such Incremental Arranger, Incremental Notes Arranger or Specified Refinancing Agent, and (ii) the provisions of this Article IX and of Sections 10.04 and 10.05 (obligating the Borrowers to pay the Administrative Agent's and the Collateral Agent's expenses and to indemnify the Administrative Agent and the Collateral Agent) that refer to the Administrative Agent and/or the Collateral Agent shall inure to the benefit of such Incremental Arranger, Incremental Notes Arranger or Specified Refinancing Agent and all references therein to the Administrative Agent and/or Collateral Agent shall be deemed to be references to the Administrative Agent and/or Collateral Agent and/or such Incremental Arranger, Incremental Notes Arranger or Specified Refinancing Agent, as the context may require. Each Lender hereby irrevocably appoints any Incremental Arranger, Incremental Notes Arranger or Specified Refinancing Agent to act on its behalf hereunder and under the other Loan Documents pursuant to Sections 2.14, 2.15 and 2.18, as applicable, and designates and authorizes such Incremental Arranger, Incremental Notes Arranger or Specified Refinancing Agent to take such actions on its behalf under the provisions of this Agreement and each other Loan Document and to exercise such powers and perform such duties as are expressly delegated to such Incremental Arranger, Incremental Notes Arranger or Specified Refinancing Agent by the terms of this Agreement or any other Loan Document, together with such actions and powers as are reasonably incidental thereto.

Section 9.15 Intercreditor Agreement. The Administrative Agent and the Collateral Agent are authorized by the Lenders and other Secured Parties to, to the extent required by the terms of the Loan Documents, (i) enter into the First Lien/Second Lien Intercreditor Agreement and any other intercreditor agreement contemplated by this Agreement, (ii) enter into any Collateral Document, or (iii) make or consent to any filings or take any other actions in connection therewith (and any amendments, amendments and restatements, restatements or waivers of or supplements to or other modifications to, such agreements in connection with the incurrence by any Loan Party of any Indebtedness of such Loan Party that is permitted to be secured pursuant to Sections 7.01 and 7.02 of this Agreement, in order to permit such Indebtedness to be secured by a valid, perfected lien on the Collateral (with such priority as may be designated by such Loan Party, to the extent such priority is permitted by the Loan Documents)), and the parties hereto acknowledge that any intercreditor agreement, Collateral Document,

consent, filing or other action will be binding upon them. Each Lender and other Secured Party (a) understands, acknowledges and agrees that Liens will be created on Collateral pursuant to the First Lien Facilities Documentation, which Liens shall be subject to the terms and conditions of the First Lien/Second Lien Intercreditor Agreement, (b) hereby agrees that it will be bound by and will take no actions contrary to the provisions of the First Lien/Second Lien Intercreditor Agreement or any other intercreditor agreement (if entered into) and (c) hereby authorizes and instructs the Administrative Agent and the Collateral Agent to enter into the First Lien/Second Lien Intercreditor Agreement and any other intercreditor agreement contemplated by this Agreement or Collateral Document (and any amendments, amendments and restatements, restatements or waivers of or supplements to or other modifications to, such agreements in connection with the incurrence by any Loan Party of any Indebtedness of such Loan Party that is permitted to be secured pursuant to Sections 7.01 and 7.02 of this Agreement, in order to permit such Indebtedness to be secured by a valid, perfected lien on the Collateral (with such priority as may be designated by such Loan Party, to the extent such priority is permitted by the Loan Documents)), and to subject the Liens on the Collateral securing the Obligations to the provisions thereof.

Section 9.16 Withholding Tax. To the extent required by any applicable law, the Administrative Agent may withhold from any payment to any Lender an amount equivalent to any applicable withholding Tax. Without limiting or expanding the provisions of Section 3.01, each Lender shall indemnify the Administrative Agent against, and shall make payable in respect thereof within 30 days after demand therefor, any and all Taxes and any and all related losses, claims, liabilities and expenses (including fees, charges and disbursements of any counsel for the Administrative Agent) incurred by or asserted against the Administrative Agent by the U.S. Internal Revenue Service or any other Governmental Authority as a result of the failure of the Administrative Agent to properly withhold tax from amounts paid to or for the account of any Lender for any reason (including, without limitation, because the appropriate form was not delivered or not property executed, or because such Lender failed to notify the Administrative Agent of a change in circumstance that rendered the exemption from, or reduction of withholding tax ineffective). A certificate as to the amount of such payment or liability delivered to any Lender by the Administrative Agent shall be conclusive absent manifest error. Each Lender hereby authorizes the Administrative Agent to set off and apply any and all amounts at any time owing to such Lender under this Agreement or any other Loan Document against any amount due the Administrative Agent under this paragraph. The agreements in this paragraph shall survive the resignation and/or replacement of the Administrative Agent, any assignment of rights by, or the replacement of, a Lender and the repayment, satisfaction or discharge of all other obligations under any Loan Document.

Section 9.17 Certain ERISA Matters.

(a) Each Lender (x) represents and warrants, as of the date such Person became a Lender party hereto, to, and (y) covenants, from the date such Person became a Lender party hereto to the date such Person ceases being a Lender party hereto, for the benefit of, the Administrative Agent and its respective Affiliates, and not, for the avoidance of doubt, to or for the benefit of the Borrower or any other Loan Party, that at least one of the following is and will be true:

(i) such Lender is not using "plan assets" (within the meaning of the Plan Asset Regulations) of one or more Benefit Plans in connection with the Loans or the Commitments,

(ii) the transaction exemption set forth in one or more PTEs, such as PTE84-14 (a class exemption for certain transactions determined by independent qualified professional asset managers), PTE 95-60 (a class exemption for certain transactions involving insurance company general accounts), PTE 90-1 (a class exemption for certain transactions involving insurance company pooled separate accounts), PTE 91-38 (a class exemption for certain transactions involving bank collective investment funds) or PTE96-23 (a class exemption for certain transactions determined by in-house asset managers), is applicable with respect to such Lender's entrance into, participation in, administration of and performance of the Loans, the Commitments and this Agreement, and the conditions for exemptive relief thereunder are and will continue to be satisfied in connection therewith,

(iii) (A) such Lender is an investment fund managed by a "Qualified Professional Asset Manager" (within the meaning of Part VI of PTE 84-14), (B) such Qualified Professional Asset Manager made the investment decision on behalf of such Lender to enter into, participate in, administer and perform

the Loans, the Commitments and this Agreement, (C) the entrance into, participation in, administration of and performance of the Loans, the Commitments and this Agreement satisfies the requirements of subsections (b) through (g) of Part I of PTE 84-14 and (D) to the best knowledge of such Lender, the requirements of subsection (a) of Part I of PTE 84-14 are satisfied with respect to such Lender's entrance into, participation in, administration of and performance of the Loans, the Commitments and this Agreement, or

(iv) such other representation, warranty and covenant as may be agreed in writing between the Administrative Agent, in its sole discretion, and such Lender.

(b) In addition, unless sub-clause (i) in the immediately preceding clause (a) is true with respect to a Lender or such Lender has not provided another representation, warranty and covenant as provided in sub-clause (iv) in the immediately preceding clause (a), such Lender further (x) represents and warrants, as of the date such Person became a Lender party hereto, to, and (y) covenants, from the date such Person became a Lender party hereto to the date such Person ceases being a Lender party hereto, for the benefit of, the Administrative Agent and its respective Affiliates, and not, for the avoidance of doubt, to or for the benefit of the Borrower or any other Loan Party, that:

(i) none of the Administrative Agent or any of its Affiliates is a fiduciary with respect to the assets of such Lender (including in connection with the reservation or exercise of any rights by the Administrative Agent under this Agreement, any Loan Document or any documents related hereto or thereto),

(ii) the Person making the investment decision on behalf of such Lender with respect to the entrance into, participation in, administration of and performance of the Loans, the Commitments and this Agreement is independent (within the meaning of 29 CFR § 2510.3-21, as amended from time to time) and is a bank, an insurance carrier, an investment adviser, a broker-dealer or other person that holds, or has under management or control, total assets of at least $50 million, in each case as described in 29 CFR § 2510.3-21(c)(1)(i)(A)-(E),

(iii) the Person making the investment decision on behalf of such Lender with respect to the entrance into, participation in, administration of and performance of the Loans, the Commitments and this Agreement is capable of evaluating investment risks independently, both in general and with regard to particular transactions and investment strategies (including in respect of the obligations),

(iv) the Person making the investment decision on behalf of such Lender with respect to the entrance into, participation in, administration of and performance of the Loans, the Commitments and this Agreement is a fiduciary under ERISA or the Code, or both, with respect to the Loans, the Commitments and this Agreement and is responsible for exercising independent judgment in evaluating the transactions hereunder, and

(v) no fee or other compensation is being paid directly to the Administrative Agent or any of its Affiliates for investment advice (as opposed to other services) in connection with the Loans, the Commitments or this Agreement.

(c) The Administrative Agent hereby informs the Lenders that each such Person is not undertaking to provide impartial investment advice, or to give advice in a fiduciary capacity, in connection with the transactions contemplated hereby, and that such Person has a financial interest in the transactions contemplated hereby in that such Person or an Affiliate thereof (i) may receive interest or other payments with respect to the Loans, the Commitments and this Agreement, (ii) may recognize a gain if it extended the Loans or the Commitments for an amount less than the amount being paid for an interest in the Loans or the Commitments by such Lender or (iii) may receive fees or other payments in connection with the transactions contemplated hereby, the Loan Documents or otherwise, including structuring fees, commitment fees, arrangement fees, facility fees, upfront fees, underwriting fees, ticking fees, agency fees, administrative agent or collateral agent fees, utilization fees, minimum usage fees, letter of credit fees, fronting fees, deal-away or alternate transaction fees, amendment fees, processing fees, term out premiums, banker's acceptance fees, breakage or other early termination fees or fees similar to the foregoing.

Section 9.18 Credit Bidding. The Secured Parties hereby irrevocably authorize the Administrative Agent, at the direction of the Required Lenders, to credit bid all or any portion of the Obligations (including by accepting some or all of the Collateral in satisfaction of some or all of the Obligations pursuant to a deed in lieu of foreclosure or otherwise) and in such manner purchase (either directly or through one or more acquisition vehicles) all or any portion of the Collateral (a) at any sale thereof conducted under the provisions of the Bankruptcy Code, including under Sections 363, 1123 or 1129 of the Bankruptcy Code, or any similar laws in any other jurisdictions to which a Loan Party is subject, or (b) at any other sale, foreclosure or acceptance of collateral in lieu of debt conducted by (or with the consent or at the direction of) the Administrative Agent (whether by judicial action or otherwise) in accordance with any applicable law. In connection with any such credit bid and purchase, the Obligations owed to the Secured Parties shall be entitled to be, and shall be, credit bid by the Administrative Agent at the direction of the Required Lenders on a ratable basis (with Obligations with respect to contingent or unliquidated claims receiving contingent interests in the acquired assets on a ratable basis that shall vest upon the liquidation of such claims in an amount proportional to the liquidated portion of the contingent claim amount used in allocating the contingent interests) for the asset or assets so purchased (or for the equity interests or debt instruments of the acquisition vehicle or vehicles that are issued in connection with such purchase). In connection with any such bid, (i) the Administrative Agent shall be authorized to form one or more acquisition vehicles and to assign any successful credit bid to such acquisition vehicle or vehicles, (ii) each of the Secured Parties' ratable interests in the Obligations which were credit bid shall be deemed without any further action under this Agreement to be assigned to such vehicle or vehicles for the purpose of closing such sale, (iii) the Administrative Agent shall be authorized to adopt documents providing for the governance of the acquisition vehicle or vehicles (provided that any actions by the Administrative Agent with respect to such acquisition vehicle or vehicles, including any disposition of the assets or equity interests thereof, shall be governed, directly or indirectly, by, and the governing documents shall provide for, control by the vote of the Required Lenders or their permitted assignees under the terms of this Agreement or the governing documents of the applicable acquisition vehicle or vehicles, as the case may be, irrespective of the termination of this Agreement and without giving effect to the limitations on actions by the Required Lenders contained in Section 10.01 of this Agreement), (iv) the Administrative Agent on behalf of such acquisition vehicle or vehicles shall be authorized to issue to each of the Secured Parties, ratably on account of the relevant Obligations which were credit bid, interests, whether as equity, partnership, limited partnership interests or membership interests, in any such acquisition vehicle and/or debt instruments issued by such acquisition vehicle, all without the need for any Secured Party or acquisition vehicle to take any further action, and (v) to the extent that Obligations that are assigned to an acquisition vehicle are not used to acquire Collateral for any reason (as a result of another bid being higher or better, because the amount of Obligations assigned to the acquisition vehicle exceeds the amount of Obligations credit bid by the acquisition vehicle or otherwise), such Obligations shall automatically be reassigned to the Secured Parties pro rata with their original interest in such Obligations and the equity interests and/or debt instruments issued by any acquisition vehicle on account of such Obligations shall automatically be cancelled, without the need for any Secured Party or any acquisition vehicle to take any further action. Notwithstanding that the ratable portion of the Obligations of each Secured Party are deemed assigned to the acquisition vehicle or vehicles as set forth in clause (ii) above, each Secured Party shall execute such documents and provide such information regarding the Secured Party (and/or any designee of the Secured Party which will receive interests in or debt instruments issued by such acquisition vehicle) as the Administrative Agent may reasonably request in connection with the formation of any acquisition vehicle, the formulation or submission of any credit bid or the consummation of the transactions contemplated by such credit bid.

ARTICLE X.
Miscellaneous

Section 10.01 Amendments, Etc. Except as otherwise expressly set forth in this Agreement or the applicable Loan Document, no amendment or waiver of any provision of this Agreement or any other Loan Document, and no consent to any departure by any Borrower or any other Loan Party therefrom, shall be effective unless in writing signed by the Required Lenders (or by the Administrative Agent at the instruction of the Required Lenders) and the applicable Borrower or Loan Party, as the case may be, and acknowledged by the Administrative Agent to the extent the Administrative Agent is not a Defaulting Lender, and each such amendment, waiver or consent shall be effective only in the specific instance and for the specific purpose for which given; provided, however, that no such amendment, waiver or consent shall:

(a) extend or increase the Commitment of any Lender, or reinstate the Commitment of any Lender after the termination of such Commitment pursuant to Section 8.02, in each case without the written consent of such Lender (it being understood that the waiver of (or amendment to the terms of) any Default or Event of Default, mandatory prepayment or mandatory reduction of the Commitments shall not constitute an extension or increase of any Commitment of any Lender);

(b) postpone any date scheduled for, or reduce the amount of, any payment of principal of, or interest on, any Loan or any fees or other amounts payable hereunder, without the written consent of each Lender directly and adversely affected thereby (and subject to such further requirements as may be applicable thereto under the last two paragraphs of this Section 10.01), it being understood that the waiver of any obligation to pay interest at the Default Rate, or the amendment or waiver of any mandatory prepayment of Loans under the Facility shall not constitute a postponement of any date scheduled for the payment of principal, interest or fees;

(c) reduce the principal of, or the rate of interest specified herein on, or change the currency of, any Loan (it being understood that a waiver of any Default or Event of Default or mandatory prepayment shall not constitute a reduction or forgiveness of principal), or (subject to clause (iii) of the proviso following clause (g) below) any fees or other amounts payable hereunder or under any other Loan Document without the written consent of each Lender directly and adversely affected thereby; provided, however, that only the consent of the Required Lenders shall be necessary to amend the definition of "Default Rate" or to waive any obligation of the Borrowers to pay interest at the Default Rate;

(d) change any provision of Section 8.04 or 10.09 without the written consent of each Lender directly and adversely affected thereby with respect to such change;

(e) change any provision of this Section 10.01 (other than any change to the last two paragraphs of this Section that would otherwise be permitted by this Section 10.01), or the definition of Required Lenders, or any other provision hereof specifying the number or percentage of Lenders or portion of the Loans or Commitments required to amend, waive or otherwise modify any rights hereunder or make any determination or grant any consent hereunder (other than modifications in connection with repurchases of Loans, amendments with respect to the New Facilities and amendments with respect to extensions of maturity, which shall only require the written consent of each Lender directly and adversely affected thereby), without the written consent of each Lender;

(f) other than in a transaction permitted under Section 7.03 or Section 7.04, release all or substantially all of the Liens on the Collateral in any transaction or series of related transactions, without the written consent of each Lender; or

(g) other than in a transaction permitted under Section 7.03 or Section 7.04, release all or substantially all of the aggregate value of the Guaranty, or all or substantially all of the Guarantors, without the written consent of each Lender;

and provided further that (i) [reserved]; (ii) no amendment, waiver or consent shall, unless in writing and signed by the Administrative Agent, the Collateral Agent in their respective capacities as such, in addition to the Parent Borrower and the Lenders required above, affect the rights or duties of, or any fees or other amounts payable to, the Administrative Agent under this Agreement or any other Loan Document; and (iii) Section 10.07(g) may not be amended, waived or otherwise modified without the consent of each Granting Lender all or any part of whose Loans are being funded by an SPC at the time of such amendment, waiver or other modification. Notwithstanding anything to the contrary herein, any amendment, modification, waiver or other action which by its terms requires the consent of all Lenders or each affected Lender may be effected with the consent of the applicable Lenders other than Defaulting Lenders or Affiliate Lenders (other than Debt Fund Affiliates), except that (x) no amendment, waiver or consent relating to Section 10.01(a), (b) or (c) may be effected, in each case without the consent of such Defaulting Lender or Affiliate Lender and (y) any amendment, modification, waiver or other action that by its terms adversely affects any Defaulting Lender or Affiliate Lender in its capacity as a Lender in a manner that differs in any material respect from, and is more adverse to such Defaulting Lender or Affiliate Lender than it is to, other affected Lenders shall require the consent of such Defaulting Lender or Affiliate Lender. Notwithstanding anything to the contrary

herein, any waiver, amendment, modification or consent in respect of this Agreement or any other Loan Document that by its terms affects the rights or duties under this Agreement or any other Loan Document of Lenders holding Loans or Commitments of a particular Tranche (but not the Lenders holding Loans or Commitments of any other Tranche) may be effected by an agreement or agreements in writing entered into by the Parent Borrower and the requisite percentage in interest of the Lenders with respect to such Tranche that would be required to consent thereto under this Section 10.01 if such Lenders were the only Lenders hereunder at the time.

This Section 10.01 shall be subject to any contrary provision of Section 2.14 or Section 2.18. In addition, notwithstanding anything else to the contrary contained in this Section 10.01, (a) amendments and modifications in connection with the transactions provided for by Section 2.14 or Section 2.18 that benefit existing Lenders may be effected without such Lenders' consent, (b) if the Administrative Agent and the Parent Borrower shall have jointly identified an obvious error or any error, ambiguity or omission, defect or inconsistency of a technical nature, in each case, in any provision of the Loan Documents, then the Administrative Agent and the Parent Borrower shall be permitted to amend such provision and (c) the Administrative Agent and the Parent Borrower shall be permitted to amend any provision of any Collateral Document, the Guaranty, or enter into any new agreement or instrument, to be consistent with this Agreement and the other Loan Documents or as required by local law to give effect to any guaranty, or to give effect to or to protect any security interest for the benefit of the Secured Parties, in any property so that the security interests comply with applicable Law, and in each case, such amendments, documents and agreements shall become effective without any further action or consent of any other party to any Loan Document if in the case of amendments contemplated by clause (b) the same is not objected to in writing by the Required Lenders within five Business Days following receipt of notice thereof.

Notwithstanding anything to the contrary herein, in connection with any amendment, modification, waiver or other action requiring the consent or approval of Required Lenders, Lenders that are Debt Fund Affiliates shall not be permitted, in the aggregate, to account for more than 49.9% of the amounts actually included in determining whether the threshold in the definition of "Required Lenders" has been satisfied. The voting power of each Lender that is a Debt Fund Affiliate shall be reduced, pro rata, to the extent necessary in order to comply with the immediately preceding sentence.

Notwithstanding anything to the contrary herein, at any time and from time to time, upon notice to the Administrative Agent (who shall promptly notify the applicable Lenders) specifying in reasonable detail the proposed terms thereof, the Parent Borrower may make one or more loan modification offers to (i) all the Lenders of any Facility that would, if and to the extent accepted by any such Lender, (a) extend the scheduled Maturity Date and any amortization of the Loans and Commitments under such Facility and/or change the Applicable Rate and/or fees payable with respect to the Loans and Commitments under such Facility (in each case solely with respect to the Loans and Commitments of accepting Lenders in respect of which an acceptance is delivered) and (b) treat the Loans and Commitments so modified as a new "Facility" for all purposes under this Agreement; provided that (x) such loan modification offer is made to each Lender under the applicable Facility on the same terms and subject to the same procedures as are applicable to all other Lenders under such Facility (which procedures in any case shall be reasonably satisfactory to the Administrative Agent) and (y) no loan modification shall affect the rights or duties of, or any fees or other amounts payable to, the Administrative Agent, without its prior written consent or (ii) the specified Lenders of any Facility that would, if and to the extent accepted by any such Lender (the "Accepting Lender"), (a) extend the scheduled Maturity Date and any amortization of the Loans and Commitments under such Facility and, if applicable, change the Applicable Rate and/or fees payable with respect to the Loans and Commitments under such Facility (in each case solely with respect to the Loans and Commitments of accepting Lenders in respect of which an acceptance is delivered) and (b) treat the Loans and Commitments so modified as a new "Facility" for all purposes under this Agreement; provided that (w) in no event shall such extended Loans and Commitments (1) have covenants that are more restrictive to the Borrowers than the terms applicable to the non-extended Loans and Commitments of the original Facility from which such Loans and Commitments are extended (the "Non-Extended Loans and Commitments"), (2) have a higher Applicable Rate and/or fees than the Non-Extended Loans and Commitments or (3) receive a greater than ratable share of any optional or mandatory prepayments than such Non-Extended Loans and Commitments, in each case, prior to the final maturity date of such Non-Extended Loans and Commitments applicable at the time of such loan modification, (x) such loan modification offer is made to the Accepting Lenders under the applicable Facility on the same terms and subject to the same procedures as are applicable to all other Accepting Lenders under such Facility (which procedures in any case shall be reasonably satisfactory to the Administrative Agent), (y) if the aggregate principal amount of Loans in respect of

which Lenders shall have accepted the relevant loan modification offer shall exceed the maximum aggregate principal amount of Loans of such Accepting Lenders, as applicable, subject to the loan modification offer, then the Loans of the lenders of the applicable Facility who were not provided with the opportunity to extend their Loans may have their Loans repaid on a non-ratable basis up to such maximum amount based on the respective principal amounts with respect to which the Accepting Lenders have accepted such loan modification offer and (z) no loan modification shall affect the rights or duties of, or any fees or other amounts payable to, the Administrative Agent, without its prior written consent.

In connection with any such loan modification offer, the Parent Borrower and each accepting Lender shall execute and deliver to the Administrative Agent such agreements and other documentation as the Administrative Agent shall reasonably specify to evidence the acceptance of the applicable loan modification offer and the terms and conditions thereof, and this Agreement and the other Loan Documents shall be amended in a writing (which may be executed and delivered by the Parent Borrower and the Administrative Agent and shall be effective only with respect to the applicable Loans and Commitments of Lenders that shall have accepted the relevant loan modification offer (and only with respect to Loans and Commitments as to which any such Lender has accepted the loan modification offer)) to the extent necessary or appropriate, in the judgment of the Administrative Agent, to reflect the existence of, and to give effect to the terms and conditions of, the applicable loan modification (including the addition of such modified Loans and/or Commitments as a "Facility" hereunder). No Lender shall have any obligation whatsoever to accept any loan modification offer, and may reject any such offer in its sole discretion. Notwithstanding the foregoing, no modification referred to above shall become effective unless the Administrative Agent, to the extent reasonably requested by the Administrative Agent, shall have received legal opinions, board resolutions, officers' certificates and/or reaffirmation agreements consistent with those delivered on the Closing Date under Section 4.01 or delivered from time to time pursuant to Section 6.12, Section 6.14 and/or Section 6.16 with respect to Holdings and the Parent Borrower, all material Subsidiary Guarantors and each other Subsidiary Guarantor that is organized in a jurisdiction for which local counsel to the Administrative Agent in such jurisdiction advises that such deliveries are reasonably necessary to preserve the Collateral in such jurisdiction.

Section 10.02 Notices; Electronic Communications.

(a) Except in the case of notices and other communications expressly permitted to be given by telephone (and subject to paragraph (b) below), all notices and other communications provided for herein shall be in writing and shall be delivered by hand or overnight courier service, mailed by certified or registered mail or sent by telecopy, as follows:

(i) if to the Parent Borrower, to it at 8855 Mesa Rim Road, San Diego, CA 92121, Attention of Kevin Herde (Telecopy No. (619) 954-4668);

(ii) if to the Administrative Agent, to Antares Capital LP, c/o Antares Holdings LP, 100 King Street West, Suite 4710, Toronto ON M5X 1E3, Attention: Loan Administration Office;

with a copy to:

Antares Holdings LP, 500 West Monroe Street, Chicago, Illinois 60661, Attn: Maravai Account Officer, Facsimile: (312) 502-6160;

(iii) if to any other Lender, to it at its address (or telecopy number) set forth in its Administrative Questionnaire.

Notices sent by hand or overnight courier service, or mailed by certified or registered mail, shall be deemed to have been given when received; notices sent by facsimile shall be deemed to have been given when sent (except that, if not given during normal business hours for the recipient, shall be deemed to have been given at the opening of business on the next business day for the recipient). Notices delivered through Approved Electronic Platforms, to the extent provided in paragraph (b) below, shall be effective as provided in said paragraph (b).

(b) Notices and other communications to the Lenders hereunder may be delivered or furnished by using Approved Electronic Platforms pursuant to procedures approved by the Administrative Agent; provided that the foregoing shall not apply to notices pursuant to Article II unless otherwise agreed by the Administrative Agent and the applicable Lender. The Administrative Agent or the Parent Borrower may, in its discretion, agree to accept notices and other communications to it hereunder by electronic communications pursuant to procedures approved by it; provided that approval of such procedures may be limited to particular notices or communications.

(c) Unless the Administrative Agent otherwise prescribes, (i) notices and other communications sent to an e-mail address shall be deemed received upon the sender's receipt of an acknowledgement from the intended recipient (such as by the "return receipt requested" function, as available, return e-mail or other written acknowledgement), and (ii) notices or communications posted to an Internet or intranet website shall be deemed received upon the deemed receipt by the intended recipient, at its e-mail address as described in the foregoing clause (i), of notification that such notice or communication is available and identifying the website address therefor; provided that, for both clauses (i) and (ii) above, if such notice, email or other communication is not sent during the normal business hours of the recipient, such notice or communication shall be deemed to have been sent at the opening of business on the next business day for the recipient.

(d) Any party hereto may change its address or telecopy number for notices and other communications hereunder by notice to the other parties hereto.

(e) The Administrative Agent, the Collateral Agent and the Lenders shall be entitled to rely and act upon any notices (including telephonic Committed Loan Notices) purportedly given by or on behalf of the Parent Borrower even if (i) such notices were not made in a manner specified herein, were incomplete or were not preceded or followed by any other form of notice specified herein, or (ii) the terms thereof, as understood by the recipient, varied from any confirmation thereof except to the extent such reliance is deemed to be gross negligence, bad faith or willful misconduct of the Administrative Agent, Collateral Agent or Lender in a final non-appealable judgment of a court of competent jurisdiction. The Borrowers shall indemnify the Administrative Agent, the Collateral Agent, each Lender and the Related Parties of each of them from all losses, costs, expenses and liabilities resulting from the reliance by such Person on each notice purportedly given by or on behalf of the Parent Borrower to the extent required by Section 10.05. All telephonic notices to and other telephonic communications with the Administrative Agent may be recorded by the Administrative Agent, and each of the parties hereto hereby consents to such recording.

Section 10.03 No Waiver; Cumulative Remedies; Enforcement.

(a) No failure by any Lender, the Administrative Agent or the Collateral Agent to exercise, and no delay by any such Person in exercising, any right, remedy, power or privilege hereunder or under any other Loan Document shall operate as a waiver thereof; nor shall any single or partial exercise of any right, remedy, power or privilege hereunder preclude any other or further exercise thereof or the exercise of any other right, remedy, power or privilege. The rights, remedies, powers and privileges provided hereunder and under each other Loan Document, are cumulative and not exclusive of any rights, remedies, powers and privileges provided by Law.

(b) Notwithstanding anything to the contrary contained herein or in any other Loan Document, the authority to enforce rights and remedies hereunder and under the other Loan Documents against the Loan Parties or any of them shall be vested exclusively in, and all actions and proceedings at law in connection with such enforcement shall be instituted and maintained exclusively by, the Administrative Agent or the Collateral Agent in accordance with Section 8.02 for the benefit of all the Lenders; provided, however, that the foregoing shall not prohibit (a) the Administrative Agent or the Collateral Agent from exercising on its own behalf the rights and remedies that inure to its benefit (solely in its capacity as the Administrative Agent or the Collateral Agent) hereunder and under the other Loan Documents or (b) any Lender from exercising setoff rights in accordance with Section 10.09 (subject to the terms of Section 2.13); and provided further, that if at any time there is no Person acting as Administrative Agent hereunder and under the other Loan Documents, then (i) the Required Lenders shall have the rights otherwise ascribed to the Administrative Agent pursuant to Section 8.02 and (ii) in addition to the matters set forth in clause (b) of the preceding proviso and subject to Section 2.13, any Lender may, with the consent of the Required Lenders, enforce any rights and remedies available to it and as authorized by the Required Lenders. In the event of a foreclosure by the Collateral Agent on any of the Collateral pursuant to a public or private sale, the

Administrative Agent, the Collateral Agent or any Lender (or any person nominated by them) may be the purchaser of any or all of such Collateral at any such sale and the Administrative Agent, as agent for and representative of the Lenders (but not any Lender or Lenders in its or their respective individual capacities unless the Required Lenders shall otherwise agree in writing), shall be entitled, for the purpose of bidding and making settlement or payment of the purchase price for all or any portion of the Collateral sold in any such public sale, to use and apply any of the Obligations as a credit on account of the purchase price for any Collateral payable by the Administrative Agent at such sale.

(c) If the Administrative Agent and the Borrowers acting together identify any ambiguity, omission, mistake, typographical error or other defect in any provision of this Agreement or any other Loan Document, then the Administrative Agent and the Borrowers shall be permitted to amend, modify or supplement such provision to cure such ambiguity, omission, mistake, typographical error or other defect, and such amendment shall become effective without any further action or consent of any other party to this Agreement.

Section 10.04 Expenses. The Borrowers agree (a) to pay or reimburse the Administrative Agent and the other Agents for all reasonable and documented out-of-pocket costs and expenses incurred in connection with the preparation, negotiation, syndication and execution of this Agreement and the other Loan Documents (including reasonable expenses incurred in connection with due diligence and travel, courier, reproduction, printing and delivery expenses), and any amendment, waiver, consent or other modification of the provisions hereof and thereof, and the consummation and administration of the transactions contemplated hereby and thereby, including the reasonable fees, disbursements and other charges of counsel (limited to the reasonable and documented fees, disbursements and other charges of one primary counsel to the Agents and, if necessary, one local counsel in each relevant jurisdiction (which may include a single special counsel acting in multiple jurisdictions, in each case, in jurisdictions material to the interests of the Lenders) and special counsel for each relevant specialty), and (b) to pay or reimburse the Administrative Agent, the other Agents and each Lender for all reasonable documented out-of-pocket costs and expenses incurred in connection with the enforcement of any rights or remedies under this Agreement or the other Loan Documents (including all such costs and expenses incurred during any legal proceeding, including any proceeding under any Debtor Relief Law or in connection with any workout or restructuring), including the fees, disbursements and other charges of counsel (limited to the reasonable fees, disbursements and other charges of one counsel to the Administrative Agent, the other Agents and the Lenders taken as a whole, and, if necessary, of one local counsel in each relevant jurisdiction (which may include a single special counsel acting in multiple jurisdictions, in each case, in jurisdictions material to the interests of the Lenders) and of special counsel for each relevant specialty and, in the event of any actual or perceived conflict of interest, one additional counsel in each relevant jurisdiction for each Lender or group of similarly affected Lenders or Agents subject to such conflict after notification to the Parent Borrower). The foregoing costs and expenses shall include all reasonable search, filing, recording, title insurance and appraisal charges and fees, and other out-of-pocket expenses incurred by any Agent. All amounts due under this Section 10.04 shall be paid within 30 days after invoiced or demand therefor (with a reasonably detailed invoice with respect thereto) (except for any such costs and expenses incurred prior to the Closing Date, which shall be paid on the Closing Date to the extent invoiced at least three Business Days prior to the Closing Date). The agreements in this Section 10.04 shall survive the termination of the Aggregate Commitments and repayment of all other Obligations. If any Loan Party fails to pay when due any costs, expenses or other amounts payable by it hereunder or under any Loan Document, such amount may be paid on behalf of such Loan Party by the Administrative Agent after any applicable grace periods have expired, in its sole discretion and the Borrowers shall immediately reimburse the Administrative Agent, as applicable. This Section 10.04 shall not apply with respect to Taxes other than any Taxes arising from any non-Tax cost or expense.

Section 10.05 Indemnification by the Borrower. The Borrowers shall indemnify and hold harmless each Arranger, each Agent-Related Person, each Lender, each of their respective Affiliates and each partner, director, officer, employee, counsel, agent and representative of the foregoing and, in the case of any funds, trustees and advisors and attorneys-in-fact (collectively, the "Indemnitees") from and against (and will reimburse each Indemnitee, as and when incurred, for) any and all liabilities, obligations, losses, damages, penalties, claims, demands, actions, judgments, suits, costs (including settlement costs), disbursements, and reasonable and documented or invoiced out-of-pocket fees and expenses (including the reasonable and documented fees, disbursements and other charges of (i) one counsel to the Indemnitees taken as a whole, (ii) in the case of an actual or perceived conflict of interest, where the Indemnitee affected by such conflict informs the Parent Borrower and thereafter retains its own counsel, of another firm of counsel for each such affected Indemnitee in each relevant

jurisdiction material to the interests of the Lenders, and (iii) if necessary, one local counsel in each jurisdiction material to the interests of the Indemnitees (which may include a single special counsel acting in multiple jurisdictions) and special counsel for each relevant specialty) of any kind or nature whatsoever which may at any time be imposed on, incurred by or asserted or awarded against any such Indemnitee in any way relating to or arising out of or in connection with or by reason of (x) any actual or prospective claim, litigation, investigation or proceeding in any way relating to, arising out of, in connection with or by reason of any of the following, whether based on contract, tort or any other theory (including any investigation of, preparation for, or defense of any pending or threatened claim, investigation, litigation or proceeding): (a) the execution, delivery, enforcement, performance or administration of any Loan Document or any other agreement, letter or instrument delivered in connection with the transactions contemplated thereby or the consummation of the transactions contemplated thereby or (b) any Commitment or Loan or the use or proposed use of the proceeds therefrom; provided that such indemnity shall not, as to any Indemnitee, be available to the extent that such liabilities, obligations, losses, damages, penalties, claims, demands, actions, judgments, suits, costs, disbursements, fees or expenses are determined by a court of competent jurisdiction in a final and non-appealable judgment to have resulted from (A) the bad faith, gross negligence or willful misconduct of such Indemnitee or any of its Affiliates or controlling persons or any of the officers, directors, employees, agents, advisors, or members of any of the foregoing or (B) any dispute that is among Indemnitees (other than any dispute involving claims against the Administrative Agent, any Arranger or any other Agent, in each case in their respective capacities as such) that a court of competent jurisdiction has determined in a final and non-appealable judgment did not involve actions or omissions of the Parent Borrower or its Subsidiaries or any of their respective Affiliates; or (y) any Environmental Liability related in any way to Holdings or any of its Subsidiaries, ((x) and (y), collectively, the "Indemnified Liabilities") in all cases, provided that such indemnity shall not, as to any Indemnitee, be available to the extent that such losses, claims, damages, liabilities or related expenses are determined by a court of competent jurisdiction by final and nonappealable judgment to have resulted from the gross negligence or willful misconduct of such Indemnitee. No Indemnitee shall be liable for any damages arising from the use by others of any information or other materials obtained through the Approved Electronic Platform or other information transmission systems (including electronic telecommunications) in connection with this Agreement unless determined by a court of competent jurisdiction in a final and non-appealable judgment to have resulted from the gross negligence, bad faith or willful misconduct of such Indemnitee, nor shall any Indemnitee or any Loan Party have any liability for any special, punitive, indirect or consequential damages relating to this Agreement or any other Loan Document or arising out of its activities in connection herewith or therewith (whether before or after the Closing Date); provided that such waiver of special, punitive, indirect or consequential damages shall not limit the indemnification obligations of the Loan Parties under this Section 10.05. In the case of an investigation, litigation or other proceeding to which the indemnity in this Section 10.05 applies, such indemnity shall be effective whether or not such investigation, litigation or proceeding is brought by any Loan Party, its directors, shareholders or creditors or an Indemnitee or any other Person, and whether or not any Indemnitee is otherwise a party thereto. Should any investigation, litigation or proceeding be settled, or if there is a judgment in any such investigation, litigation or proceeding, the Borrowers shall indemnify and hold harmless each Indemnitee in the manner set forth above; provided that the Borrowers shall not be liable for any settlement effected without the Parent Borrower's prior written consent (such consent not to be unreasonably withheld, delayed or conditioned). All amounts due under this Section 10.05 shall be payable within 30 days after demand therefor. The agreements in this Section 10.05 shall survive the resignation of the Administrative Agent, the replacement of any Lender, the termination of the Aggregate Commitments and the repayment, satisfaction or discharge of all the other Obligations. This Section 10.05 shall not apply with respect to Taxes other than any Taxes that represent losses, claims, damages, etc. arising from any non-Tax claim.

Section 10.06 Payments Set Aside. To the extent that any payment by or on behalf of the Borrowers is made to any Agent, to any Lender, or any Agent or any Lender exercises its right of setoff, and such payment or the proceeds of such setoff or any part thereof is subsequently invalidated, declared to be fraudulent or preferential, set aside or required (including pursuant to any settlement entered into by such Agent, such Lender in its discretion) to be repaid to a trustee, receiver or any other party, in connection with any proceeding under any Debtor Relief Law or otherwise, then (a) to the extent of such recovery, the obligation or part thereof originally intended to be satisfied shall be revived and continued in full force and effect as if such payment had not been made or such setoff had not occurred, and (b) each Lender severally agrees to pay to the Administrative Agent upon demand its applicable share (without duplication) of any amount so recovered from or repaid by any Agent, plus interest thereon from the date of such demand to the date such payment is made at a rate per annum equal to the NYFRB Rate from time to time in

effect. The obligations of the Lenders under clause (b) of the preceding sentence shall survive the payment in full of the Obligations and the termination of this Agreement.

Section 10.07 Successors and Assigns.

(a) The provisions of this Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns permitted hereby, except that the Borrowers may not assign or otherwise transfer any of its rights or obligations hereunder without the prior written consent of the Administrative Agent and each Lender, and no Lender may assign or otherwise transfer any of its rights or obligations hereunder except (i) to an Eligible Assignee (other than to any Disqualified Institution to the extent the list of Disqualified Institutions has been made available to the Lenders) in accordance with the provisions of Section 10.07(b), (ii) by way of participation in accordance with the provisions of Section 10.07(d), (iii) by way of pledge or assignment of a security interest subject to the restrictions of Section 10.07(f) or (iv) to an SPC in accordance with the provisions of Section 10.07(g). Any other attempted assignment or transfer by any party hereto (other than to any Disqualified Institution) shall be null and void. Nothing in this Agreement, expressed or implied, shall be construed to confer upon any Person (other than the parties hereto, their respective successors and assigns permitted hereby, Participants to the extent provided in Section 10.07(d) and, to the extent expressly contemplated hereby, the Indemnitees) any legal or equitable right, remedy or claim under or by reason of this Agreement.

(b) Any Lender may at any time assign to one or more Eligible Assignees all or a portion of its rights and obligations under this Agreement (including all or a portion of its Commitment(s) and the Loans at the time owing to it); provided that:

(i) (A) in the case of an assignment of the entire remaining amount of the assigning Lender's Commitment under any Facility and the Loans at the time owing to it under such Facility, no minimum amount shall need be assigned, and (B) in any case not described in clause (b)(i)(A) of this Section 10.07, the aggregate amount of the Commitment (which for this purpose includes Loans outstanding thereunder) or, if the applicable Commitment is not then in effect, the outstanding principal balance of the Loans of the assigning Lender subject to each such assignment, determined as of the date the Assignment and Assumption with respect to such assignment is delivered to the Administrative Agent or, if "Trade Date" is specified in the Assignment and Assumption, as of the Trade Date, shall not be less than $500,000 unless each of the Administrative Agent and, so long as no Event of Default under Section 8.01(a), (f) or (g) has occurred and is continuing, the Parent Borrower otherwise consents (such consent not to be unreasonably withheld, conditioned or delayed); provided, however, that concurrent assignments to members of an Assignee Group and concurrent assignments from members of an Assignee Group to a single Eligible Assignee (or to an Eligible Assignee and members of its Assignee Group) will be treated as a single assignment for purposes of determining whether such minimum amount has been met;

(ii) each partial assignment shall be made as an assignment of a proportionate part of all the assigning Lender's rights and obligations under this Agreement with respect to the Loans or the Commitment assigned, except that this clause (ii) shall not prohibit any Lender from assigning all or a portion of its rights and obligations among separate Facilities on a non-pro rata basis;

(iii) no consent shall be required for any assignment except to the extent required by clause (b)(i)(B) of this Section 10.07 and, in addition (A) the consent of the Parent Borrower (such consent not to be unreasonably withheld, conditioned or delayed) shall be required for any assignment unless (1) an Event of Default under Section 8.01(a), (f) or (g) has occurred and is continuing at the time of such assignment, or (2) such assignment is to a Lender, an Affiliate of a Lender or an Approved Fund (other than any Disqualified Institution, to the extent the list of Disqualified Institutions has been made available to the Lenders); provided that (1) the Parent Borrower shall be deemed to have consented to any assignment unless the Parent Borrower objects thereto by written notice to the Administrative Agent within ten Business Days after having received notice thereof and (2) during the 60 day period following the Closing Date, the Parent Borrower shall be deemed to have consented to an assignment to any Lender if such Lender was previously identified and approved in the initial allocations of the Loans and Commitments provided by the Arrangers to the Parent Borrower and (B) the consent of the Administrative Agent (such consent not to be unreasonably withheld or delayed) shall be required for any assignment unless such

assignment is to a Lender, an Affiliate of a Lender or an Approved Fund (provided that in each case the Administrative Agent shall acknowledge any such assignment);

(iv) the parties to each assignment shall execute and deliver to the Administrative Agent an Assignment and Assumption via an electronic settlement system acceptable to the Administrative Agent (or, if previously agreed with the Administrative Agent, manually), together with a processing and recordation fee of $3,500 (except (A) the Administrative Agent, in its sole discretion, may elect to waive such processing and recording fee in the case of any assignment and (B) no such fees shall be payable in connection with assignments by JPMCB in the primary syndication of the Initial Loans). Each Eligible Assignee that is not an existing Lender shall deliver to the Administrative Agent an Administrative Questionnaire;

(v) no such assignment shall be made (A) to any Defaulting Lender or any of its Subsidiaries, or any Person who, upon becoming a Lender hereunder, would constitute a Defaulting Lender or a Subsidiary of a Defaulting Lender, (B) to any natural person, (C) to any Disqualified Institution, to the extent the list of Disqualified Institutions has been made available to the Lenders, (D) to Holdings, the Parent Borrower or any its Subsidiaries except as permitted under clause (j) below or (E) to any Affiliate Lender except as permitted under Section 10.07(i);

(vi) [reserved];

(vii) the assigning Lender shall deliver any Notes or, in lieu thereof, a lost note affidavit and indemnity reasonably acceptable to the Parent Borrower evidencing such Loans to the Parent Borrower or the Administrative Agent; and

(viii) in connection with any assignment of rights and obligations of any Defaulting Lender hereunder, no such assignment shall be effective unless and until, in addition to the other conditions thereto set forth herein, the parties to the assignment shall make such additional payments to the Administrative Agent in an aggregate amount sufficient, upon distribution thereof as appropriate (which may be outright payment, purchases by the assignee of participations or subparticipations, or other compensating actions, including funding, with the consent of the Parent Borrower and the Administrative Agent, the applicable Pro Rata Share of Loans previously requested but not funded by the Defaulting Lender, to each of which the applicable assignee and assignor hereby irrevocably consent), to (x) pay and satisfy in full all payment liabilities then owed by such Defaulting Lender to the Administrative Agent or any Lender hereunder (and interest accrued thereon) and (y) acquire (and fund as appropriate) its full Pro Rata Share of all Loans; provided that notwithstanding the foregoing, in the event that any assignment of rights and obligations of any Defaulting Lender hereunder shall become effective under applicable Law without compliance with the provisions of this clause, then the assignee of such interest shall be deemed to be a Defaulting Lender for all purposes of this Agreement until such compliance occurs.

Subject to acceptance and recording thereof by the Administrative Agent pursuant to Section 10.07(c), from and after the effective date specified in each Assignment and Assumption, the Eligible Assignee thereunder shall be a party to this Agreement and, to the extent of the interest assigned by such Assignment and Assumption, have the rights and obligations of a Lender under this Agreement, and the assigning Lender thereunder shall, to the extent of the interest assigned by such Assignment and Assumption, be released from its obligations under this Agreement (and, in the case of an Assignment and Assumption covering all of the assigning Lender's rights and obligations under this Agreement, such Lender shall cease to be a party hereto but shall continue to be entitled to the benefits of Sections 3.01, 3.04, 3.05, 10.04 and 10.05 with respect to facts and circumstances occurring prior to the effective date of such assignment, and subject to the obligations set forth in Section 10.08). Upon request, and the surrender by the assigning Lender of its Note (or, in lieu thereof, a lost note affidavit and indemnity reasonably acceptable to the Parent Borrower), the Parent Borrower (at its expense) shall execute and deliver a Note to the assignee Lender. Any assignment or transfer by a Lender of rights or obligations under this Agreement (other than any purported assignment or transfer to a Disqualified Institution, to the extent the list of Disqualified Institutions has been made available to the Lenders) that does not comply with this clause (b) shall be treated for purposes of this Agreement as a sale by such Lender of a participation in such rights and obligations in accordance with Section 10.07(d).

(c) The Administrative Agent, acting solely for this purpose as anon-fiduciary agent of the Borrowers (and such agency being solely for tax purposes), shall maintain at the Administrative Agent's Office a copy of each Assignment and Assumption delivered to it and a register in which it shall record the names and addresses of the Lenders, and the Commitments of, and principal amounts (and related interest amounts) of the Loans owing to each Lender pursuant to the terms hereof from time to time (the "Register"). The entries in the Register shall be conclusive, absent manifest error, and the Borrowers, the Agents and the Lenders shall treat each Person whose name is recorded in the Register pursuant to the terms hereof as a Lender hereunder for all purposes of this Agreement, notwithstanding notice to the contrary. In addition, the Administrative Agent shall maintain on the Register information regarding the designation, and revocation of designation, of any Lender as Defaulting Lender. The Register shall be available for inspection by any Borrower, any Agent and any Lender (but only to entries with respect to itself), at any reasonable time and from time to time upon reasonable prior notice. This Section 10.07(c) and Section 2.11 shall be construed so that all Loans are at all times maintained in "registered form" within the meaning of Sections 163(f), 871(h)(2) and 881(c)(2) of the Code and any related Treasury regulations (or any other relevant or successor provisions of the Code or of such Treasury regulations).

(d) Any Lender may at any time, without the consent of, or notice to, the Parent Borrower or the Administrative Agent, sell participations to any Person (other than a natural person, an Affiliate Lender (other than a Debt Fund Affiliate), a Person that the Administrative Agent has identified in a notice to the Lenders as a Defaulting Lender or a Disqualified Institution, to the extent the list of Disqualified Institutions has been made available to the Lenders) (each, a "Participant") in all or a portion of such Lender's rights and/or obligations under this Agreement (including all or a portion of its Commitment and/or the Loans owing to it); provided that (i) such Lender's obligations under this Agreement shall remain unchanged, (ii) such Lender shall remain solely responsible to the other parties hereto for the performance of such obligations and (iii) the Borrowers, the Agents and the other Lenders shall continue to deal solely and directly with such Lender in connection with such Lender's rights and obligations under this Agreement. Any agreement or instrument pursuant to which a Lender sells such a participation shall provide that such Lender shall retain the sole right to enforce this Agreement and the other Loan Documents and to approve any amendment, modification or waiver of any provision of this Agreement or any other Loan Document; provided that such agreement or instrument may provide that such Lender will not, without the consent of the Participant, agree to any amendment, waiver or other modification described in the first proviso to Section 10.01 (in the case of any amendment, waiver or other modification described in clause (a), (b), (c) or (f) of such proviso, that directly and adversely affects such Participant). Subject to Section 10.07(e), the Borrowers agree that each Participant shall be entitled to the benefits of Sections 3.01, 3.04 and 3.05 (subject to the requirements and the limitations of such Sections (it being understood that the documentation required under Section 3.01(g) shall be delivered solely to the participating Lender) and Section 3.08) to the same extent as if it were a Lender and had acquired its interest by assignment pursuant to Section 10.07(b). To the extent permitted by law, each Participant also shall be entitled to the benefits of Section 10.09 as though it were a Lender; provided such Participant agrees to be subject to Section 2.13 as though it were a Lender.

(e) A Participant (i) agrees to be subject to the provisions of Sections 3.08 as if it were an assignee pursuant to Section 10.07(b) and (ii) shall not be entitled to receive any greater payment under Section 3.01, 3.04 or 3.05 than the applicable Lender would have been entitled to receive with respect to the participation sold to such Participant, except to the extent that a Participant's right to a greater payment results from a change in any Law after the Participant becomes a Participant.

(f) Any Lender may at any time pledge or assign a security interest in all or any portion of its rights under this Agreement (including under its Note, if any) (other than to a Disqualified Institution, to the extent the list of Disqualified Institutions has been made available to the Lenders, or a natural person) to secure obligations of such Lender, including any pledge or assignment to secure obligations to a Federal Reserve Bank or any central bank having jurisdiction over such Lender; provided that no such pledge or assignment shall release such Lender from any of its obligations hereunder or substitute any such pledgee or assignee for such Lender as a party hereto.

(g) Notwithstanding anything to the contrary herein, any Lender (a "Granting Lender") may grant to a special purpose funding vehicle identified as such in writing from time to time by the Granting Lender to the Administrative Agent and the Parent Borrower (an " SPC") the option to provide all or any part of any Loan that such Granting Lender would otherwise be obligated to make pursuant to this Agreement; provided that (i) nothing herein shall constitute a commitment by any SPC to fund any Loan, and (ii) if an SPC elects not to exercise such

option or otherwise fails to make all or any part of such Loan, the Granting Lender shall be obligated to make such Loan pursuant to the terms hereof or, if it fails to do so, to make such payment to the Administrative Agent as is required under Section 2.12(b). Each party hereto hereby agrees that an SPC shall be entitled to the benefits of Sections 3.01, 3.04 and 3.05 (subject to the requirements and the limitations of such Sections and Section 3.08); provided that neither the grant to any SPC nor the exercise by any SPC of such option shall increase the costs or expenses or otherwise increase or change the obligations of the Borrowers under this Agreement (including under Section 3.01, 3.04 or 3.05), except to the extent that the SPC's right to a greater payment results from a change in any Law after the grant to the SPC takes place. Each party hereto further agrees that (i) no SPC shall be liable for any indemnity or similar payment obligation under this Agreement for which a Lender would be liable, and (ii) the Granting Lender shall for all purposes, including the approval of any amendment, waiver or other modification of any provision of any Loan Document, remain the Lender of record hereunder. Other than as expressly provided in this Section 10.07(g), (A) such Granting Lender's obligations under this Agreement shall remain unchanged, (B) such Granting Lender shall remain solely responsible to the other parties hereto for the performance of such obligations and (C) the Borrowers, the Agents and the other Lenders shall continue to deal solely and directly with such Granting Lender in connection with such Granting Lender's rights and obligations under this Agreement. The making of a Loan by an SPC hereunder shall utilize the Commitment of the Granting Lender to the same extent, and as if, such Loan were made by such Granting Lender. In furtherance of the foregoing, each party hereto hereby agrees (which agreement shall survive the termination of this Agreement) that, prior to the date that is one year and one day after the payment in full of all outstanding commercial paper or other senior debt of any SPC, it will not, other than in respect of matters unrelated to this Agreement or the transactions contemplated hereby, institute against, or join any other Person in instituting against, such SPC any bankruptcy, reorganization, arrangement, insolvency, or liquidation proceeding under the laws of the United States or any State thereof. Notwithstanding anything to the contrary contained herein, any SPC may (i) with notice to, but without prior consent of the Parent Borrower and the Administrative Agent and with the payment of a processing fee of $3,500, assign all or any portion of its rights hereunder with respect to any Loan to the Granting Lender and (ii) subject to Section 10.08, disclose on a confidential basis any non-public information relating to its funding of Loans to any rating agency, commercial paper dealer or provider of any surety or Guarantee or credit or liquidity enhancement to such SPC.

(h) Notwithstanding anything to the contrary herein, any Lender that is a Fund may create a security interest in all or any portion of the Loans owing to it and the Note, if any, held by it to the trustee for holders of obligations owed, or securities issued, by such Fund as security for such obligations or securities; provided that unless and until such trustee actually becomes a Lender in compliance with the other provisions of this Section 10.07, (i) no such pledge shall release the pledging Lender from any of its obligations under the Loan Documents, and (ii) such trustee shall not be entitled to exercise any of the rights of a Lender under the Loan Documents even though such trustee may have acquired ownership rights with respect to the pledged interest through foreclosure or otherwise.

(i) Notwithstanding anything to the contrary herein, any Lender may assign all or any portion of its Loans, Specified Refinancing Loans and New Loans hereunder to any Other Affiliate (including any Debt Fund Affiliate), but only if:

(i) the assigning Lender and Other Affiliate purchasing such Lender's Loans, Specified Refinancing Loans or New Loans, as applicable, shall execute and deliver to the Administrative Agent an assignment agreement substantially in the form of Exhibit E-2 hereto (an "Affiliate Lender Assignment and Assumption") in lieu of an Assignment and Assumption;

(ii) after giving effect to such assignment, Other Affiliates (other than Debt Fund Affiliates) shall not, in the aggregate, own or hold Loans, Specified Refinancing Loans and New Loans with an aggregate principal amount in excess of 25% of the principal amount of all Loans then outstanding (calculated as of the date of such purchase); and

(iii) such Other Affiliate (other than Debt Fund Affiliates) shall at all times thereafter be subject to the voting restrictions specified in Section 10.01.

(j) Notwithstanding anything to the contrary herein, so long as no Default or Event of Default pursuant to Sections 8.01(a), (f) or (g) exists, any Lender may assign all or any portion of its Loans, Specified Refinancing Loans and New Loans hereunder to Holdings or any of its Subsidiaries, but only if:

(i) (A) such assignment is made pursuant to a Dutch Auction open to all Lenders, Specified Refinancing Loan lenders or New Loan lenders on a pro rata basis or (B) such assignment is made as an open market purchase;

(ii) [reserved]; and

(iii) any such Loans shall be automatically and permanently cancelled immediately upon acquisition thereof by Holdings or any of its Subsidiaries.

In connection with any assignment pursuant to Section 10.07(i) or (j), each Lender acknowledges and agrees that, in connection therewith, (1) the Other Affiliates, Holdings and/or any of its Subsidiaries may have, and later may come into possession of, information regarding the Sponsor, Holdings, any of its Subsidiaries and/or any of their respective Affiliates not known to such Lender and that may be material to a decision by such Lender to participate in such assignment (including material non-public information) ("Excluded Information"), (2) such Lender, independently and, without reliance on the Other Affiliates, Holdings, any of its Subsidiaries, any Agent or any of their respective Affiliates, has made its own analysis and determination to participate in such assignment notwithstanding such Lender's lack of knowledge of the Excluded Information and (3) none of the Other Affiliates, Holdings, any of its Subsidiaries, any Agent or any of their respective Affiliates shall have any liability to such Lender, and such Lender hereby waives and releases, to the extent permitted by law, any claims such Lender may have against Other Affiliates, Holdings, any of its Subsidiaries, any Agent or any of their respective Affiliates, under applicable laws or otherwise, with respect to the nondisclosure of the Excluded Information.

(k) Notwithstanding anything to the contrary herein, (i) Affiliate Lenders (other than Debt Fund Affiliates) shall not have any right to attend (including by telephone) any meeting or discussions (or portion thereof) among the Administrative Agent or any other Lender to which representatives of the Parent Borrower are not then present, (ii) Affiliate Lenders (other than Debt Fund Affiliates) shall not have any right to receive any information or material prepared by the Administrative Agent or any other Lender or any communication by or among the Administrative Agent and one or more other Lenders, except to the extent such information or materials have been made available to the Parent Borrower or its representatives, (iii) [reserved] and (iv) the Sponsor and its Affiliates (other than Debt Fund Affiliates) shall not be entitled to receive advice of counsel to the Agents or other Lenders and shall not challenge any assertion of attorney-client privilege by any Agent or other Lender. Each Borrower and each Affiliate Lender (other than any Debt Fund Affiliates) hereby agrees that if a case under Title 11 of the Bankruptcy Code is commenced against the Borrowers, such Affiliate Lenders, with respect to any plan of reorganization that does not adversely affect any Affiliate Lender in any material respect as compared to other Lenders, shall be deemed to have voted in the same proportion as the Lenders that are not Affiliate Lenders voting on such matter; and each Affiliate Lender (other than any Debt Fund Affiliates) hereby acknowledges, agrees and consents that if, for any reason, its vote to accept or reject any plan pursuant to the Bankruptcy Code is not deemed to have been so voted, then such vote will be "designated" pursuant to Section 1126(e) of the Bankruptcy Code such that the vote is not counted in determining whether the applicable class has accepted or rejected such plan in accordance with Section 1126(c) of the Bankruptcy Code.

(l) [Reserved].

(m) The applicable Lender, acting solely for this purpose as a non-fiduciary agent of the Borrowers (solely for tax purposes), shall maintain a register on which it enters the name and address of (i) each SPC (other than any SPC that is treated as a disregarded entity of the Granting Lender for U.S. federal income tax purposes) that has exercised its option pursuant to Section 10.07(g) and (ii) each Participant, and the amount of each such SPC's and Participant's interest in such Lender's rights and/or obligations under this Agreement complying with the requirements of Sections 163(f), 871(h) and 881(c)(2) of the Code and the United States Treasury Regulations (the "Participant Register"); provided that no Lender shall have any obligation to disclose all or any portion of the Participant Register (including the identity of any Participant or any information relating to a Participant's interest in any commitments, loans, letters of credit or its other obligations under any Loan Document) to any Person except to

the extent that such disclosure is necessary in connection with a Tax audit or other proceeding to establish that such commitment, loan, letter of credit or other obligation is in registered form under Treasury Regulations Section 5f.103-1(c) and Proposed Treasury Regulations Section 1.163-5(b) (or any amended or successor version). The entries in the Participant Register shall be conclusive absent manifest error, and the Borrowers and such Lender shall treat each Person whose name is recorded in the Participant Register as the owner of the applicable rights and/or obligations of such Lender under this Agreement, notwithstanding notice to the contrary.

(n) In the event that a transfer by any of the Secured Parties of its rights and/or obligations under this Agreement (and/or any relevant Loan Document) occurred or was deemed to occur by way of novation, the Borrowers and any other Loan Parties explicitly agree that all securities and guarantees created under any Loan Documents shall be preserved for the benefit of the new Lender and the other Secured Parties.

(o) If any assignment or participation is made to any Disqualified Institution without the Parent Borrower's prior written consent pursuant to this Section 10.07, the Parent Borrower may, at its sole expense and effort, upon notice to the applicable Disqualified Institution and the Administrative Agent, (A) [reserved], (B) in the case of outstanding Loans held by Disqualified Institutions, purchase or prepay such Loan by paying the lowest of (x) the principal amount thereof, (y) the amount that such Disqualified Institution paid to acquire such Loans and (z) the market price of such Loans, in each case plus accrued interest, accrued fees and all other amounts (other than principal amounts) payable to it hereunder and/or (C) require such Disqualified Institution to assign, without recourse (in accordance with and subject to the restrictions contained in this Section 10.07), all of its interest, rights and obligations under this Agreement to one or more Eligible Assignees at the lowest of (x) the principal amount thereof, (y) the amount that such Disqualified Institution paid to acquire such interests, rights and obligations and (z) the market price of such Loans, in each case *plus* accrued interest, accrued fees and all other amounts (other than principal amounts) payable to it hereunder.

Section 10.08 Confidentiality. Each of the Agents and the Lenders agrees to maintain the confidentiality of the Information, except that Information may be disclosed (a) to its Affiliates and to its and its Affiliates' respective partners, directors, officers, employees, trustees, representatives and agents, including accountants, legal counsel and other advisors and service providers on a need-to-know basis (it being understood that the Persons to whom such disclosure is made will be informed of the confidential nature of such Information and instructed to keep such Information confidential in accordance with customary practices); (b) to the extent requested by any regulatory authority having jurisdiction over such Agent, Lender or its respective Affiliates or in connection with any pledge or assignment permitted under clause (f) below; (c) in any legal, judicial, administrative proceeding or other compulsory process or otherwise as required by applicable Laws or regulations or by any subpoena or similar legal process, in each case based upon the reasonable advice of the disclosing Agent's or Lender's legal counsel (in which case the disclosing Agent or Lender, as applicable, agrees (except with respect to any audit or examination conducted by bank accountants or any governmental bank regulatory authority exercising examination or regulatory authority), to the extent not prohibited by applicable Law, to promptly notify the Parent Borrower prior to such disclosure); (d) to any other party to this Agreement; (e) in connection with the exercise of any remedies hereunder or under any other Loan Document or any suit, action or proceeding relating to this Agreement or any other Loan Document or the enforcement of rights hereunder or thereunder; (f) subject to an agreement containing provisions substantially the same (or more restrictive) as those of this Section 10.08, to any Eligible Assignee of or Participant in, or any prospective Eligible Assignee of or Participant in, any of its rights or obligations under this Agreement; provided that no such disclosure shall be made by such Lender or such Agent or any of their respective Affiliates to any such Person that is a Disqualified Institution (but with respect to any Lender and its Affiliates, only to the extent the list of Disqualified Institutions has been made available to such Lender); (g) with the written consent of Holdings; (h) to the extent such Information becomes publicly available other than as a result of a breach of this Section 10.08; (i) to any state, federal or foreign authority or examiner (including the National Association of Insurance Commissioners or any other similar organization) regulating any Agent or Lender or any Affiliate of any Agent or Lender; (j) to any rating agency or the CUSIP Service Bureau or any similar agency when required by it (it being understood that, prior to any such disclosure, such rating agency shall undertake to preserve the confidentiality of any Information relating to the Loan Parties received by it from such Agent or Lender); (k) to any contractual counterparty (or prospective contractual counterparty) in any swap, hedge, or similar agreement or to any such contractual counterparty's (or prospective contractual counterparty's) professional advisor (other than a Disqualified Institution (but with respect to any Lender, only to the extent the list of Disqualified Institutions has been made available to such Lender)); (l) to such party's financing sources on a confidential basis;

and (m) in connection with any pledge or assignment pursuant to Sections 10.07(f) or (j), provided that such pledgee or assignee agrees to abide by the confidentiality provisions of this Section 10.08. In addition, the Agents and the Lenders may disclose the existence of this Agreement and information about this Agreement to market data collectors, similar service providers to the lending industry, and service providers to the Agents and the Lenders in connection with the administration and management of this Agreement, the other Loan Documents, the Commitments, and the Credit Extensions; provided that such Person is advised and agrees to be bound by the provisions of this Section 10.08.

For the purposes of this Section 10.08, "Information" means all information received from any Loan Party or any Subsidiary thereof relating to any Loan Party or any Subsidiary thereof or their respective businesses, other than any such information that is publicly available to any Agent or any Lender prior to disclosure by any Loan Party other than as a result of a breach of this Section 10.08 by such Lender or Agent. Any Person required to maintain the confidentiality of Information as provided in this Section 10.08 shall be considered to have complied with its obligation to do so if such Person has exercised the same degree of care to maintain the confidentiality of such Information as such Person would accord to its own confidential information.

Each Agent and each Lender acknowledges that (i) the Information may include material non-public information concerning Holdings or any of its Subsidiaries, (ii) it has developed compliance procedures regarding the use of material non-public information and (iii) it will handle such material non-public information in accordance with applicable Law, including United States federal and state securities Laws.

EACH LENDER ACKNOWLEDGES THAT INFORMATION AS DEFINED IN THIS SECTION 10.08 FURNISHED TO IT PURSUANT TO THIS AGREEMENT MAY INCLUDE MATERIAL NON-PUBLIC INFORMATION CONCERNING HOLDINGS, THE BORROWERS AND THEIR RELATED PARTIES OR THEIR RESPECTIVE SECURITIES, AND CONFIRMS THAT IT HAS DEVELOPED COMPLIANCE PROCEDURES REGARDING THE USE OF MATERIAL NON-PUBLIC INFORMATION AND THAT IT WILL HANDLE SUCH MATERIAL NON-PUBLIC INFORMATION IN ACCORDANCE WITH THOSE PROCEDURES AND APPLICABLE LAW, INCLUDING FEDERAL AND STATE SECURITIES LAWS.

ALL INFORMATION, INCLUDING REQUESTS FOR WAIVERS AND AMENDMENTS, FURNISHED BY THE BORROWERS OR THE ADMINISTRATIVE AGENT PURSUANT TO, OR IN THE COURSE OF ADMINISTERING, THIS AGREEMENT WILL BE SYNDICATE-LEVEL INFORMATION, WHICH MAY CONTAIN MATERIAL NON-PUBLIC INFORMATION ABOUT HOLDINGS OR ANY OF ITS SUBSIDIARIES OR THEIR RESPECTIVE SECURITIES. ACCORDINGLY, EACH LENDER REPRESENTS TO THE BORROWERS AND THE ADMINISTRATIVE AGENT THAT IT HAS IDENTIFIED IN ITS ADMINISTRATIVE QUESTIONNAIRE A CREDIT CONTACT WHO MAY RECEIVE INFORMATION THAT MAY CONTAIN MATERIAL NON-PUBLIC INFORMATION IN ACCORDANCE WITH ITS COMPLIANCE PROCEDURES AND APPLICABLE LAW.

Section 10.09 Setoff. In addition to any rights and remedies of the Lenders provided by Law, upon the occurrence and during the continuance of any Event of Default, each Secured Party is authorized at any time and from time to time, without prior notice to the Parent Borrower or any other Loan Party, any such notice being waived by Holdings (on its own behalf and on behalf of each Loan Party) to the fullest extent permitted by Law, to set off and apply any and all deposits (general or special, time or demand, provisional or final, in any currency), other than deposits in fiduciary accounts as to which a Loan Party is acting as fiduciary for another Person who is not a Loan Party and other than payroll or trust fund accounts, at any time held by, and other Indebtedness (in any currency) at any time owing by, such Lender to or for the credit or the account of the respective Loan Parties against any and all Obligations owing to such Secured Party hereunder or under any other Loan Document (or other Secured Document (as defined in the Security Agreement)), now or hereafter existing, irrespective of whether or not such Agent or such Lender shall have made demand under this Agreement or any other Loan Document (or other Secured Document (as defined in the Security Agreement)) and although such Obligations may be contingent or unmatured or denominated in a currency different from that of the applicable deposit or Indebtedness or are owed to a branch or office of such Lender different from the branch or office holding such deposit or obligated on such Indebtedness; provided that in the event that any Defaulting Lender shall exercise any such right of setoff, (x) all amounts so set off shall be paid over immediately to the Administrative Agent for further application in accordance with the provisions of Section 2.17 and, pending such payment, shall be segregated by such Defaulting Lender from its other

funds and deemed held in trust for the benefit of the Administrative Agent and the Lenders, and (y) the Defaulting Lender shall provide promptly to the Administrative Agent a statement describing in reasonable detail the Obligations owing to such Defaulting Lender as to which it exercised such right of setoff. Each Secured Party agrees promptly to notify the Parent Borrower and the Administrative Agent after any such set-off and application made by such Secured Party; provided, however, that the failure to give such notice shall not affect the validity of such setoff and application. The rights of the Administrative Agent and each Secured Party under this Section 10.09 are in addition to other rights and remedies (including other rights of setoff) that the Administrative Agent and such Secured Party may have. Notwithstanding anything herein or in any other Loan Document to the contrary, in no event shall the assets of any Controlled Foreign Subsidiary or FSHCO (or other Excluded Property) constitute security for payment of the Obligations of the Borrower, it being understood that (a)(i) the Capital Stock of any Controlled Foreign Subsidiary or FSHCO that is directly owned by a Borrower or a Subsidiary Guarantor does not constitute such an asset, and may be pledged, to the extent set forth in Section 6.12 and (ii) proceeds of Excluded Property shall constitute security for payment of the Obligations of the Borrowers (unless such proceeds would constitute Excluded Property) and (b) the provisions hereof shall not limit, reduce or otherwise diminish in any respect the Borrowers' obligations to make any mandatory prepayment pursuant to Section 2.05(b)(ii).

Section 10.10 Interest Rate Limitation. Notwithstanding anything to the contrary in any Loan Document, the interest paid or agreed to be paid under the Loan Documents shall not exceed the maximum rate of non-usurious interest permitted by applicable Law (the "Maximum Rate"). If any Agent or any Lender shall receive interest in an amount that exceeds the Maximum Rate, the excess interest shall be applied to the principal of the Loans or, if it exceeds such unpaid principal, refunded to the Borrower. In determining whether the interest contracted for, charged, or received by an Agent or a Lender exceeds the Maximum Rate, such Person may, to the extent permitted by applicable Law, (a) characterize any payment that is not principal as an expense, fee, or premium rather than interest, (b) exclude voluntary prepayments and the effects thereof and (c) amortize, prorate, allocate, and spread in equal or unequal parts the total amount of interest throughout the contemplated term of the Obligations hereunder.

Section 10.11 Counterparts. This Agreement and each other Loan Document may be executed in one or more counterparts (and by different parties hereto in different counterparts), each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Delivery by telecopier or other electronic transmission of an executed counterpart of a signature page to this Agreement and each other Loan Document shall be effective as delivery of an original executed counterpart of this Agreement and such other Loan Document. The Agents may also require that any such documents and signatures delivered by telecopier or other electronic transmission be confirmed by a manually-signed original thereof; provided that the failure to request or deliver the same shall not limit the effectiveness of any document or signature delivered by telecopier or other electronic transmission.

Section 10.12 Integration; Effectiveness. This Agreement and the other Loan Documents, and those provisions of the Engagement Letter and the Fee Letter that, by their terms, survive the termination or expiration of the Closing Date, constitute the entire contract among the parties relating to the subject matter hereof and supersede any and all previous agreements and understandings, oral or written, relating to the subject matter hereof. It is expressly agreed and confirmed by the parties hereto that the provisions of the Engagement Letter and the Fee Letter shall survive the execution and delivery of this Agreement, the occurrence of the Closing Date, and shall continue in effect thereafter in accordance with their terms. In the event of any conflict between the provisions of this Agreement and those of any other Loan Document, the provisions of this Agreement shall control; provided that the inclusion of supplemental rights or remedies in favor of the Agents or the Lenders in any other Loan Document shall not be deemed a conflict with this Agreement. Each Loan Document was drafted with the joint participation of the respective parties thereto and shall be construed neither against nor in favor of any party, but rather in accordance with the fair meaning thereof. Except as provided in Section 4.01, this Agreement shall become effective when it shall have been executed by the Administrative Agent and when the Administrative Agent shall have received counterparts hereof that, when taken together, bear the signatures of each of the other parties hereto as of the date hereof.

Section 10.13 Survival of Representations and Warranties. All representations and warranties made hereunder and in any other Loan Document or other document delivered pursuant hereto or thereto or in connection herewith or therewith shall survive the execution and delivery hereof and thereof. Such representations and

warranties have been or will be relied upon by each Agent and each Lender, regardless of any investigation made by any Agent or any Lender or on their behalf and notwithstanding that any Agent or any Lender may have had notice or knowledge of any Default at the time of any Credit Extension, and shall continue in full force and effect as long as any Loan or any other Obligation (other than contingent indemnification or other obligations) hereunder shall remain unpaid or unsatisfied.

Section 10.14 Severability. If any provision of this Agreement or the other Loan Documents is held to be illegal, invalid or unenforceable, (a) the legality, validity and enforceability of the remaining provisions of this Agreement and the other Loan Documents shall not be affected or impaired thereby and (b) the parties shall endeavor in good faith negotiations to replace the illegal, invalid or unenforceable provisions with valid provisions the economic effect of which comes as close as possible to that of the illegal, invalid or unenforceable provisions. The invalidity of a provision in a particular jurisdiction shall not invalidate or render unenforceable such provision in any other jurisdiction. Without limiting the foregoing provisions of this Section 10.14, if and to the extent that the enforceability of any provisions in this Agreement relating to Defaulting Lenders shall be limited by Debtor Relief Laws then such provisions shall be deemed to be in effect only to the extent not so limited.

Section 10.15 Governing Law; Jurisdiction; Etc.

(a) Governing Law. THIS AGREEMENT AND EACH OTHER LOAN DOCUMENT (OTHER THAN WITH RESPECT TO ANY COLLATERAL DOCUMENTS TO THE EXTENT EXPRESSLY PROVIDED OTHERWISE THEREIN) SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAW OF THE STATE OF NEW YORK WITHOUT GIVING EFFECT TO THE CONFLICTS OF LAWS PRINCIPLES THEREOF, BUT INCLUDING SECTION 5-1401 OF THE NEW YORK GENERAL OBLIGATIONS LAW.

(b) Submission to Jurisdiction. EACH PARTY HERETO IRREVOCABLY AND UNCONDITIONALLY SUBMITS, FOR ITSELF AND ITS PROPERTY, TO THE EXCLUSIVE JURISDICTION OF THE COURTS OF THE STATE OF NEW YORK SITTING IN NEW YORK CITY IN THE BOROUGH OF MANHATTAN AND OF THE UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF NEW YORK SITTING IN THE BOROUGH OF MANHATTAN, AND ANY APPELLATE COURT FROM ANY THEREOF, IN ANY ACTION OR PROCEEDING ARISING OUT OF OR RELATING TO THIS AGREEMENT OR ANY OTHER LOAN DOCUMENT (OTHER THAN WITH RESPECT TO ANY COLLATERAL DOCUMENT TO THE EXTENT EXPRESSLY PROVIDED OTHERWISE THEREIN), OR FOR RECOGNITION OR ENFORCEMENT OF ANY JUDGMENT, AND EACH OF THE PARTIES HERETO IRREVOCABLY AND UNCONDITIONALLY AGREES THAT ALL CLAIMS IN RESPECT OF ANY SUCH ACTION OR PROCEEDING MAY BE HEARD AND DETERMINED IN SUCH NEW YORK STATE COURT OR, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, IN SUCH FEDERAL COURT. EACH OF THE PARTIES HERETO AGREES THAT A FINAL JUDGMENT IN ANY SUCH ACTION OR PROCEEDING SHALL BE CONCLUSIVE AND MAY BE ENFORCED IN OTHER JURISDICTIONS BY SUIT ON THE JUDGMENT OR IN ANY OTHER MANNER PROVIDED BY LAW. NOTHING IN THIS AGREEMENT OR IN ANY OTHER LOAN DOCUMENT SHALL AFFECT ANY RIGHT THAT THE ADMINISTRATIVE AGENT, THE COLLATERAL AGENT, ANY LENDER MAY OTHERWISE HAVE TO BRING ANY ACTION OR PROCEEDING RELATING TO THIS AGREEMENT OR ANY OTHER LOAN DOCUMENT OR THE RECOGNITION OR ENFORCEMENT OF ANY JUDGMENT AGAINST ANY LOAN PARTY OR ITS PROPERTIES IN THE COURTS OF ANY JURISDICTION.

(c) Waiver of Venue. EACH PARTY HERETO IRREVOCABLY AND UNCONDITIONALLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY OBJECTION THAT IT MAY NOW OR HEREAFTER HAVE TO THE LAYING OF VENUE OF ANY ACTION OR PROCEEDING ARISING OUT OF OR RELATING TO THIS AGREEMENT OR ANY OTHER LOAN DOCUMENT IN ANY COURT REFERRED TO IN SECTION 10.15(b). EACH OF THE PARTIES HERETO HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, THE DEFENSE OF AN INCONVENIENT FORUM TO THE MAINTENANCE OF SUCH ACTION OR PROCEEDING IN ANY SUCH COURT.

Section 10.16 Service of Process. EACH PARTY HERETO IRREVOCABLY CONSENTS TO SERVICE OF PROCESS IN THE MANNER PROVIDED FOR NOTICES IN SECTION 10.02. NOTHING IN THIS AGREEMENT WILL AFFECT THE RIGHT OF ANY PARTY HERETO TO SERVE PROCESS IN ANY OTHER MANNER PERMITTED BY APPLICABLE LAW.

Section 10.17 Waiver of Right to Trial by Jury. EACH PARTY TO THIS AGREEMENT HEREBY EXPRESSLY WAIVES ANY RIGHT TO TRIAL BY JURY OF ANY CLAIM, DEMAND, ACTION OR CAUSE OF ACTION ARISING UNDER ANY LOAN DOCUMENT OR IN ANY WAY CONNECTED WITH OR RELATED OR INCIDENTAL TO THE DEALINGS OF THE PARTIES HERETO OR ANY OF THEM WITH RESPECT TO ANY LOAN DOCUMENT, OR THE TRANSACTIONS RELATED THERETO, IN EACH CASE WHETHER NOW EXISTING OR HEREAFTER ARISING, AND WHETHER FOUNDED IN CONTRACT OR TORT OR OTHERWISE; AND EACH PARTY HEREBY AGREES AND CONSENTS THAT ANY SUCH CLAIM, DEMAND, ACTION OR CAUSE OF ACTION SHALL BE DECIDED BY COURT TRIAL WITHOUT A JURY, AND THAT ANY PARTY TO THIS AGREEMENT MAY FILE AN ORIGINAL COUNTERPART OR A COPY OF THIS SECTION 10.17 WITH ANY COURT AS WRITTEN EVIDENCE OF THE CONSENT OF THE SIGNATORIES HERETO TO THE WAIVER OF THEIR RIGHT TO TRIAL BY JURY.

Section 10.18 Binding Effect. When this Agreement shall have become effective in accordance with Section 10.12, it shall thereafter shall be binding upon and inure to the benefit of Holdings, the Borrowers, each Agent and each Lender and their respective successors and permitted assigns, except that the Borrowers shall not have the right to assign their rights hereunder or any interest herein without the prior written consent of the Lenders, except as permitted by Section 7.03.

Section 10.19 No Advisory or Fiduciary Responsibility. In connection with all aspects of each transaction contemplated hereby (including in connection with any amendment, waiver or other modification hereof or of any other Loan Document), the Borrowers and Holdings acknowledge and agree, and each of them acknowledge its Subsidiaries' understanding and acknowledge and agree that it has informed their other Affiliates, that: (i) (A) no Secured Party will have any obligations except those obligations expressly set forth herein and no fiduciary, advisory or agency relationship between any of Holdings and its Subsidiaries and any Agent or any Arranger (or their respective Affiliates) is intended to be or has been created in respect of any of the transactions contemplated hereby and by the other Loan Documents, irrespective of whether any Agent or any Arranger (or their respective Affiliates) has advised or is advising Holdings and its Subsidiaries on other matters, (B) the arranging and other services regarding this Agreement provided by the Agents and the Arrangers (or their respective Affiliates) are arm's-length commercial transactions between Holdings and its Subsidiaries, on the one hand, and the Agents and the Arrangers (or their respective Affiliates), on the other hand and no Secured Party is acting as a financial advisor or a fiduciary to, or an agent of the Borrowers or any other person, (C) no Secured Party is advising the Borrowers as to any legal, tax, investment, accounting, regulatory or any other matters in any jurisdiction and the Borrowers shall consult with its own advisors concerning such matters and shall be responsible for making their own independent investigation and appraisal of the transactions contemplated hereby, and the Secured Parties shall have no responsibility or liability to the Borrowers with respect thereto, and (D) the Borrowers and Holdings are capable of evaluating, and understand and accept, the terms, risks and conditions of the transactions contemplated hereby and by the other Loan Documents; (ii) (A) each Agent and Arranger (or their respective Affiliates) is and has been acting solely as a principal and, except as may otherwise be expressly agreed in writing by the relevant parties, has not been, is not, and will not be acting as an advisor, agent or fiduciary for Holdings or the Borrowers or any of their respective Affiliates, or any other Person and (B) neither any Agent nor any Arranger has any obligation to Holdings or any of its Affiliates with respect to the transactions contemplated hereby except those obligations expressly set forth herein and in the other Loan Documents; and (iii) each Secured Party and its Affiliates may be providing debt financing, equity capital or other services (including financial advisory services) to other companies in respect of which the Borrowers may have conflicting interests regarding the transactions described herein and otherwise; that no Secured Party will use confidential information obtained from the Borrowers by virtue of the transactions contemplated by the Loan Documents or its other relationships with the Borrowers in connection with the performance by such Secured Party of services for other companies, and no Secured Party will furnish any such information to other companies and that no Secured Party has any obligation to use in connection with the transactions contemplated by the Loan Documents, or to furnish to the Borrower, confidential information obtained from other companies. The Borrowers agree that they will not assert any claim against any Secured Party based on

an alleged breach of fiduciary duty by such Secured Party in connection with this Agreement or the other Loan Documents and the transactions contemplated hereby.

Section 10.20 Affiliate Activities. The Borrowers and Holdings acknowledge that each Agent and each Arranger (and their respective Affiliates) is a full service securities firm engaged, either directly or through affiliates, in various activities, including securities trading, investment banking and financial advisory, investment management, principal investment, hedging, financing and brokerage activities and financial planning and benefits counseling for both companies and individuals. In the ordinary course of these activities, any of them may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and/or financial instruments (including bank loans) for their own account and for the accounts of customers and may at any time hold long and short positions in such securities and/or instruments. Such investment and other activities may involve securities and instruments of Holdings and its Affiliates, as well as of other entities and persons and their Affiliates which may (i) be involved in transactions arising from or relating to the engagement contemplated hereby and by the other Loan Documents, (ii) be customers or competitors of Holdings and its Affiliates or (iii) have other relationships with Holdings and its Affiliates. In addition, it may provide investment banking, underwriting and financial advisory services to such other entities and persons. It may also co-invest with, make direct investments in, and invest orco-invest client monies in or with funds or other investment vehicles managed by other parties, and such funds or other investment vehicles may trade or make investments in securities of Holdings and its Affiliates or such other entities. The transactions contemplated hereby and by the other Loan Documents may have a direct or indirect impact on the investments, securities or instruments referred to in this clause.

Section 10.21 Electronic Execution of Assignments and Certain Other Documents. The words "execution," "signed," "signature," and words of like import in any Loan Document, any Assignment and Assumption, any Committed Loan Notice or any amendment or other modification hereof or thereof (including waivers and consents) shall be deemed to include Electronic Signatures or the keeping of records in electronic form, each of which shall be of the same legal effect, validity or enforceability as a manually executed signature or the use of a paper-based recordkeeping system, as the case may be, to the extent and as provided for in any applicable Law, including the Federal Electronic Signatures in Global and National Commerce Act, the New York State Electronic Signatures and Records Act, or any other similar state laws based on the Uniform Electronic Transactions Act.

Section 10.22 USA PATRIOT Act. Each Lender that is subject to the PATRIOT Act and the Administrative Agent (for itself and not on behalf of any Lender) hereby notifies the Loan Parties that pursuant to the requirements of the USA PATRIOT Act (Title III of Pub. L. 107-56 (signed into law October 26, 2001, as amended from time to time)) (the "PATRIOT Act"), it is required to obtain, verify and record information that identifies each Loan Party, which information includes the name and address of each Loan Party and other information that will allow such Lender or the Administrative Agent, as applicable, to identify each Loan Party in accordance with the PATRIOT Act. Each Loan Party shall, promptly following a request by the Administrative Agent or any Lender, provide all documentation and other information that the Administrative Agent or such Lender requests in order to comply with its ongoing obligations under applicable "know your customer" and anti-money laundering rules and regulations, including the PATRIOT Act.

Section 10.23 Judgment Currency. If, for the purposes of obtaining judgment in any court, it is necessary to convert a sum due hereunder or any other Loan Document in one currency into another currency, the rate of exchange used shall be that at which in accordance with normal banking procedures the Administrative Agent could purchase the first currency with such other currency on the Business Day preceding that on which final judgment is given. The obligation of the Borrowers in respect of any such sum due from them to the Administrative Agent or the Lenders hereunder or under the other Loan Documents shall, notwithstanding any judgment in a currency (the "Judgment Currency") other than Dollars, be discharged only to the extent that on the Business Day following receipt by the Administrative Agent of any sum adjudged to be so due in the Judgment Currency, the Administrative Agent may in accordance with normal banking procedures purchase Dollars with the Judgment Currency. If the amount of Dollars so purchased is less than the sum originally due to the Administrative Agent from the Borrowers in Dollars, the Borrowers agree, as a separate obligation and notwithstanding any such judgment, to indemnify the Administrative Agent or the Person to whom such obligation was owing against such loss. If the amount of Dollars so purchased is greater than the sum originally due to the Administrative Agent in such currency, the Administrative Agent agrees to return the amount of any excess to the Parent Borrower (or to any other Person who may be entitled thereto under applicable Law).

Section 10.24 Acknowledgement and Consent to Bail-In of EEA Financial Institutions. Notwithstanding anything to the contrary in any Loan Document or in any other agreement, arrangement or understanding among any such parties, each party hereto acknowledges that any liability of any Lender that is an EEA Financial Institution arising under any Loan Document, to the extent such liability is unsecured, may be subject to the write-down and conversion powers of an EEA Resolution Authority and agrees and consents to, and acknowledges and agrees to be bound by:

(a) the application of any Write-Down and Conversion Powers by an EEA Resolution Authority to any such liabilities arising hereunder which may be payable to it by any Lender that is an EEA Financial Institution; and

(b) the effects of any Bail-In Action on any such liability, including, if applicable:

(i) a reduction in full or in part or cancellation of any such liability;

(ii) a conversion of all, or a portion of, such liability into shares or other instruments of ownership in such EEA Financial Institution, its parent undertaking, or a bridge institution that may be issued to it or otherwise conferred on it, and that such shares or other instruments of ownership will be accepted by it in lieu of any rights with respect to any such liability under this Agreement or any other Loan Document; or

(iii) the variation of the terms of such liability in connection with the exercise of the write-down and conversion powers of any EEA Resolution Authority.

Section 10.25 INTERCREDITOR AGREEMENT. NOTWITHSTANDING ANYTHING HEREIN TO THE CONTRARY, THE LIEN AND SECURITY INTEREST GRANTED TO THE COLLATERAL AGENT, FOR THE BENEFIT OF THE SECURED PARTIES, PURSUANT TO THIS AGREEMENT AND THE EXERCISE OF ANY RIGHT OR REMEDY BY THE COLLATERAL AGENT AND THE OTHER SECURED PARTIES HEREUNDER ARE SUBJECT TO THE PROVISIONS OF THE FIRST LIEN/SECOND LIEN INTERCREDITOR AGREEMENT. IN THE EVENT OF ANY CONFLICT BETWEEN THE TERMS OF THE FIRST LIEN/SECOND LIEN INTERCREDITOR AGREEMENT AND THIS AGREEMENT, THE TERMS OF THE FIRST LIEN/SECOND LIEN INTERCREDITOR AGREEMENT SHALL GOVERN AND CONTROL:

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IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed as of the date first written above.

MARAVAI INTERMEDIATE HOLDINGS, LLC,
as Parent Borrower

By: /s/ Kevin Herde
Name: Kevin Herde
Title: Chief Financial Officer

VECTOR LABORATORIES, INC.;
TRILINK BIOTECHNOLOGIES, LLC; and
CYGNUS TECHNOLOGIES, LLC,
each as a Borrower

By: /s/ Kevin Herde
Name: Kevin Herde
Title: Chief Financial Officer

MARAVAI TOPCO HOLDINGS, LLC,
as Holdings

By: /s/ Kevin Herde
Name: Kevin Herde
Title: Chief Financial Officer

ANTARES CAPITAL LP, as Administrative Agent and Collateral Agent

By: /s/ Doug Koch
Name: Doug Koch
Title: Duly Authorized Signatory

[Signature Page to Second Lien Credit Agreement]

JPMORGAN CHASE BANK, N.A., as a Lender

By: /s/ Sean Chudzik, Asc.
Name: Sean Chudzik, Asc.
Title: Authorized Signato

[Signature Page to Second Lien Credit Agreement]

DISTRIBUTION AGREEMENT

This agreement ("Agreement") is made and entered into on January 14, 2019 ("Effective Date") between Cygnus Technologies, with a place of business at 4332 Southport Supply Rd., SE, Southport, NC 28461 USA (referred to herein as "Cygnus"), and BEIJING XMJ SCIENTIFIC CO., LTD, with a place of business at Rm 6C, Block C, Golden Resources Business Center, No.2 Landianchang East Rd, Haidian District, Beijing, China (referred to herein as "Distributor"), each a "Party" and together, the "Parties".

In consideration of the mutual promises contained herein, the Parties agree as follows:

1. DEFINITIONS

For purposes of this Agreement, the following terms shall have the meanings ascribed thereto below:

"Products" shall mean those products listed in Exhibit A attached hereto, as the same may be amended from time to time by mutual written agreement of the Parties.

"Reserved Territories" shall mean (i) the United States of America, which Cygnus has reserved to itself and the countries specified https://www.cygnustechnologies.com/intemational-distributors which comprise the countries in respect of which Cygnus has appointed distributors; and (ii) any other countries in respect of which Cygnus informs the Distributor by written notice that it has appointed or will appoint another distributor or has reserved to itself.

"Territory" shall mean China including Hong Kong.

2. APPOINTMENT

A. Appointment. Cygnus hereby appoints Distributor as its distributor to import market and sell to Cygnus end-user customers (the "Customer" or "Customers") the Products in the Territory and to provide services to such Customers in the Territory, for research, non-diagnostic and non-therapeutic use only in accordance with the provisions set forth in this Agreement. Distributor hereby accepts such appointment.

The nature of the appointment is:

Sole appointment. Cygnus undertakes not to appoint any third party to import, market and distribute the Products in the Territory whether as distributor, agent, reseller, wholesaler, franchise holder or otherwise, but reserves to itself the right to import, market, distribute and sell the Products to customers in the Territory.

Distributor will sell the Products to Customers upon Customers' acceptance of the terms and conditions of use attached hereto as Exhibit C (the "Terms and Conditions"). All

Products must be sold in the form as packaged by Cygnus (with no portion of the package obscured). If Terms and Conditions conflict with the terms and conditions set forth herein, this Agreement shall govern. Distributor shall use diligent efforts to notify Cygnus of conduct by Customers that might violate the Terms and Conditions, but shall have no liability for such Customers conduct; provided, however, that Distributor shall, upon Cygnus's reasonable request, cease all sales to such Customers. Distributor is responsible for notifying the Customers of the US export control regulations described in Section 11.

B. Territorial Limitation. Distributor shall not sell or advertise the Products outside of the Territory UNLESS the Territory is within the European Union or Switzerland, in which case Distributor shall refrain from making active sales of the Products to Customers in the Reserved Territories. For these purposes, active sales shall be understood to mean actively approaching or soliciting customers, including, but not limited to, the following actions:

(a) visits;

(b) direct mail, including the sending of unsolicited emails;

(c) advertising in media, on the internet or other promotions, where such advertising or promotion is specifically targeted at customers in Reserved Territories;

(d) online advertisements addressed to Customers in Reserved Territories and other efforts to be found specifically by users in Reserved Territories, including the use of territory-based banners on third party websites and paying a search engine or online advertisement provider to have advertisements or higher search rankings displayed specifically to users in Reserved Territories; and

(e) advertising or promotion in any form, or translation of Distributor's website into a language other than an official language of any country forming part of the Territory, that Distributor would not reasonably carry out but for the likelihood that it will reach Customers in Reserved Territories.

Distributor shall not establish a sales, support, repair or maintenance facility for the Products outside of the Territory without the prior written consent of Cygnus.

Distributor shall refer to Cygnus all enquiries it receives for the Products for sale or delivery outside the Territory UNLESS the Territory is within the EU or Switzerland, when it shall refer to the Supplier all enquiries it receives for the Products for sale or delivery outside the EU or Switzerland.

C. Conflict of Interest. Distributor shall use its best efforts in the promotion, sale and distribution of the Products, and to maximize sales in the Territory. Distributor will not distribute any competitive product without the written consent of Cygnus, except for products already distributed by the Distributor prior to the Effective Date and as set forth in Exhibit B. Distributor will give Cygnus sixty (60) days' prior written notice to request for Cygnus's consent to sell any new competitive products. Consent shall not be unreasonably withheld if Distributor can reasonably demonstrate that selling such competitive products will not have a negative impact on Distributor's performance under this Agreement.

Where the Territory is within the European Union, the provisions of this Section C shall apply for the term of this Agreement or for the period of five years from the Effective Date (whichever shall be the shorter).

D. Independent Contractor. The relationship of Cygnus and the Distributor established by this Agreement is that of independent contractor and nothing contained in the Agreement shall be construed to:

(i) give either Party the power to direct and control the day-to-day activities of the other; or

(ii) allow Distributor to create or assume any obligations on behalf of Cygnus for any purpose whatsoever.

All sales and other agreements between Distributor and the Customers are Distributor's exclusive responsibility and shall have no effect on Cygnus's obligations under this Agreement. Distributor shall be solely responsible for and shall indemnify and hold Cygnus free and harmless from any and all claims, damages or lawsuits (including attorney's fees) arising out of the acts of Distributor, or its employees or agents.

3. TERMS AND CONDITIONS OF PRODUCTS BY CYGNUS

A. Terms and Conditions. All purchases of the Products by Distributor from Cygnus during the term of the Agreement shall be subject to the terms and conditions of this Agreement, as well as those published by Cygnus and provided to Cygnus's customers along with each customer invoice, including, without limitation, warranties, product inserts, and Cygnus's standard terms and conditions.

B. Prices. The purchase price that Distributor will purchase each Product from Cygnus shall be as specified in Exhibit A ("Purchase Price"). The difference between the Purchase Price and Distributor's sales price to the Customer shall be Distributor's sole remuneration for sale of the Products. List prices are subject to change on an annual basis and wholly at the discretion of Cygnus, and the Purchase Price will be adjusted accordingly based on the applicable discount set forth in Exhibit A; however, based on market circumstances, Cygnus and Distributor may decide to revise prices for specific Products from time to time through mutual written agreement. Price changes shall not affect unfulfilled purchase orders accepted by Cygnus prior to the effective date of the price change. Cygnus will provide Distributor with a minimum of ninety (90) calendar days advance notice of any proposed price increase for the Products. Distributor shall have control over the sales prices for Products to Customers in the Territory. Distributor agrees to share with Cygnus their list prices and the discounts offered for Cygnus products. Distributor agrees to discuss pricing and pricing strategy with Cygnus on an annual basis prior to communicating with their customers.

C. Taxes, Tariffs, and Duties. Except as explicitly provided in Exhibit A, the Purchase Price excludes all taxes, fees, duties, withholdings, levies and other governmental assessments (except for taxes based on Cygnus's income), which shall be paid by Distributor. When Cygnus has the legal obligation to collect such taxes, the appropriate amount shall be added to Distributor's invoice and paid to Cygnus by Distributor. Except where Cygnus is obligated to pay these taxes, Distributor shall pay all taxes, tariffs, and duties and the Purchase Price will be exclusive of these taxes.

D. Orders and Acceptance. All orders for the Products submitted by Distributor shall be initiated by written purchase orders with a requested delivery date. To facilitate Cygnus's production scheduling, Distributor shall attempt to provide Cygnus with the best possible information as to expected ordering dates. No order shall be binding upon Cygnus until accepted by Cygnus in writing, and Cygnus shall have no liability to Distributor with respect to purchase orders that are not accepted. Cygnus will use commercially reasonable effort to accept the purchase orders of Distributor.

Cygnus shall notify Distributor of the acceptance or rejection of an order and of the projected delivery date for accepted orders within ten (10) business days of the receipt of the purchase order.

E. Terms of Purchase Order. Distributor's purchase orders submitted to Cygnus with respect to Products to be purchased hereunder shall be governed by the terms of this Agreement, and nothing contained in any such purchase order shall in any way modify such terms of purchase or add any additional terms or conditions.

F. Payment. Distributor shall make all payments to Cygnus in US dollars. Each accepted order of Products will be separately invoiced and payment shall be net sixty (60) calendar days from the date of shipment. Distributor will make all payments to Cygnus by wire transfer, credit card, or check so long as the check is written and drawn from a bank located in the United States, to:

Bank Wire Transfer Information:

United States Bank Information

First Citizens Bank & Trust
Southport, NC USA
SWIFT Code: FCBTUS33
Routing No. 053100300
Account No. 004531236891

G. Shipping. All Products delivered pursuant to the terms of this Agreement shall be delivered FOB Cygnus shipping point to the address set forth in Distributor's purchase order and title to such Products and risk of loss shall pass to Distributor upon delivery to the carrier. All freight, insurance, and other applicable charges shall be invoiced and paid by Distributor in accordance with Section 3(F) above.

4. WARRANTY TO DISTRIBUTOR'S CUSTOMERS

A. Limited Warranty. Cygnus hereby warrants each Product will meet its then-current specifications, which will be provided with the shipment of each item or upon request from Distributor. Cygnus may change product specifications at any time with thirty (30) calendar days' prior notice. At Cygnus's discretion, Cygnus will either replace free of charge, or refund the Purchase Price for any Product exhibiting non-compliance with specifications for a period ending on the earlier of (a) thirty (30) calendar days from the date of delivery of the Products to the end user or ultimate customer, or (b) ninety (90) calendar days after shipment of the Products by Cygnus to Distributor. This warranty is conditioned upon proper use and storage of a Product in accordance with specifications in the application for which it was intended and is void for any Products that are modified without written approval by Cygnus or that are subjected by Distributor or Customer to unusual physical stress.

CYGNUS MAKES NO OTHER WARRANTIES OR REPRESENTATIONS AS TO PERFORMANCE OF CYGNUS PRODUCTS OR AS TO SERVICE TO DISTRIBUTOR OR TO ANY OTHER PERSON. CYGNUS RESERVES THE RIGHT TO CHANGE THE WARRANTY AND SERVICE POLICY SET FORTH IN SUCH LIMITED WARRANTY, OR OTHERWISE, AT ANY TIME, WITHOUT FURTHER NOTICE AND WITHOUT LIABILITY TO DISTRIBUTOR OR TO ANY OTHER PERSON.

DISTRIBUTOR SHALL USE ITS BEST EFFORTS TO NOTIFY CUSTOMERS PURCHASING PRODUCTS OF THE TERMS OF THIS WARRANTY, AND SHALL NOT MAKE ANY STATEMENTS OR REPRESENTATIONS TO ITS CUSTOMERS THAT ARE INCONSISTENT WITH THIS WARRANTY.

B. No Other Warranty. Except for the express warranty set forth above, Cygnus grants no other warranties, expressed or implied, by statute or otherwise, regarding the Products, their fitness for any purpose, their quality, their merchantability, or otherwise.

C. Limitation of Liability. Cygnus's sole liability under the warranty shall be limited to refund of the Purchase Price or replacement of the Product subject to the warranty, as determined by Cygnus. In no event shall Cygnus be liable for the cost of procurement of substitute goods by Distributor or Customer or for any special, punitive, consequential or incidental damages for breach of warranty or otherwise under this Agreement.

IN NO EVENT WILL CYGNUS BE LIABLE FOR ANY LOST PROFITS OR FOR ANY DIRECT, INDIRECT, INCIDENTAL, CONSEQUENTIAL, PUNITIVE OR OTHER SPECIAL DAMAGES SUFFERED BY DISTRIBUTOR, ITS CUSTOMERS OR OTHERS ARISING OUT OF OR RELATED TO THIS AGREEMENT OR CYGNUS PRODUCTS, OR FOR ANY CAUSES OF ACTION OF ANY KIND (INCLUDING TORT, CONTRACT, NEGLIGENCE, STRICT LIABILITY AND BREACH OF WARRANTY) EVEN IF CYGNUS HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES EXCEPT FOR DAMAGES CAUSED BY CYGNUS'S WILLFUL INTENT OR GROSS NEGLIGENCE.

D. General. Nothing in this Agreement shall limit or exclude Cygnus's liability for any matter in respect of which it would be unlawful for Cygnus to exclude or restrict liability

5. ADDITIONAL OBLIGATIONS OF PARTIES

A. Product Purchases, Customer Records and Customer Complaints. Distributor will keep detailed written records of Customers who have purchased Products, which Products those Customers purchased, how many units of those Products were purchased, when the Products were purchased and for what price the Products were purchased. Such records for the most recent one year period will be provided to Cygnus upon request and upon the expiration or termination of this Agreement. Thirty (30) days prior to the termination or expiration of this Agreement, Distributor will notify each Customer that has purchased Products in the last eighteen (18) months in writing that it will cease to be a Cygnus distributor, and advising such Customer who to contact for future supply and service. Additionally, Distributor will keep detailed written quality and customer complaint logs of sufficient detail to allow Cygnus to evaluate any quality or service issues that may arise with regard to any Product, including without limitation Product lot and/or serial number, specific complaint made by the Customer, date Product was bought by the Customer, Product expiration date, Customer contact information and complaint status. Nothing in this Agreement shall require Cygnus to share confidential information relating to other competing distributors. Cygnus shall not use information relating to Distributor's pricing of products to influence pricing by distributors in other territories, to the extent that this would infringe any law in the Territory.

B. Technical Support. Distributor will provide sufficient and competent in-house and field technical support to guarantee successful use of Products by Customer. Such technical support will include but not be limited to on-site customer consultation upon initial use by Customer as well as on-going trouble-shooting as is necessary for technically complex biological reagents systems as provided by Cygnus. Distributor will send technical support and/or sales representatives to Cygnus's home office in Southport, North Carolina for up to 1 week training per each year at Distributor's cost. Additionally, field technical service may be purchased by Distributor from Cygnus, if available, at Cygnus's then-current rates for such services. Cygnus will provide Distributor with reasonable technical explanations, advice, and product support by phone and e-mail.

C. Sales and Promotion of Products.

(i) **Sales Targets:**

Distributor agrees to use its best efforts to grow sales of the Products in the Territory. Cygnus may from time to time set sales targets and Distributor shall use its best efforts to meet such targets. The 2019 target is USD 6.25 Million.

(ii) **Inventory.** Distributor will maintain at least one place of business in the Territory and will maintain appropriate quantities of inventory of Cygnus Products. Distributor shall not have the right to return any Products, except as set forth in Section 4 above.

(iii) **Covenants.** During the term of this Agreement Distributor will: (a) conduct business in a manner that reflects favorably at all times on Cygnus's Products and the goodwill and reputation of Cygnus; (b) avoid deceptive, misleading or unethical practices that are or might be detrimental to Cygnus, Cygnus Products or the public; (c) not make false or misleading representations with regard to Cygnus or Cygnus Products; (d) not publish or employ, or cooperate in the publication or employment of, any misleading or deceptive advertising material with regard to Cygnus or Cygnus Products; or (e) make no representations, warranties or guarantees to customers or to the trade with respect to the specifications, features or capabilities of Cygnus Products that are inconsistent with the then-current policies or literature distributed by Cygnus from time to time. Distributor acknowledges that its status as an official distributor of Cygnus gives it a credibility in the Territory which will survive termination of this Agreement and that accordingly the covenants in (b)-(e) inclusive above shall also apply for a period of five (5) years after termination or expiration of this Agreement and during such period Distributor will not make any disparaging comments about Cygnus's Products or Cygnus (but for the avoidance of doubt shall not be prevented from selling goods or services which compete with Cygnus's Products or Cygnus),

D. Promotion of the Products. Distributor will use its best commercial efforts, at its own expense to (a) promote the distribution of the Products in the Territory in accordance with

the reasonable terms and policies of Cygnus as announced from time to time; and (b) satisfy those reasonable criteria and policies with respect to Distributor's obligations under this Agreement. Such promotion shall include, but not be limited to, preparing promotional materials in languages appropriate for the Territory, advertising the Products in trade publications within the Territory, participating in appropriate trade shows and Congresses, presenting seminars and workshops to prospective customers, soliciting customer publications, providing positive references to Cygnus Products, and directly soliciting orders from customers for the Products. Distributor shall devote an appropriate amount of time and money on marketing and sales efforts in order to achieve the annual minimum sales targets each year. Distributor will submit annual marketing plan for one (1) year period commencing on January 1st in November of the previous year. The marketing plan would include product promotions and technical service promotions. Cygnus consents to review these plans and revert within 15 business days of this submission if such plans can be implemented. Should Cygnus decide otherwise, Distributor and Cygnus would set aside a time period of 15 days to come to a resolution.

E. Finances and Personnel. Distributor shall devote sufficient financial resources, technically qualified sales personnel, and service personnel to the Products to fulfill its responsibilities under this Agreement. Without limiting the generality of the foregoing, this shall include maintaining at least two (2) qualified sales agents who have appropriate knowledge and expertise for the Products in the Territory, and at least one (1) qualified person to provide technical support for the Products.

F. Materials. Cygnus shall use commercially reasonable efforts to provide Distributor with marketing and technical information concerning the Products as well as reasonable quantities of brochures, catalogs, instructional material, advertising literature, and other Product data, with all such in the English language. Cygnus may at its discretion provide such material as printed copy or electronically. In the event that printed copy is provided, the freight charges for the delivery of such printed materials shall be paid for by Distributor. Should Distributor wish the material to be in a language of its choosing for its Territory, Distributor shall provide a translation, and be liable for the costs of producing the material in that language, and Cygnus shall approve all such material prior to production.

G. Delivery Time. Cygnus shall minimize delivery time as much as possible and reasonably endeavor to fulfill delivery obligations. Cygnus will make reasonable effort to deliver standard Products within ten (10) business days of acceptance of the purchase order. Distributor will make every effort to provide Cygnus with accurate ordering forecasts.

6. TERM AND TERMINATION

A. Term. This Agreement takes effect on the Effective Date and shall continue in force until terminated either (i) at will, by either party giving one hundred and eighty (180) days' notice to the other or (ii) pursuant to the terms below.

B. Termination for Cause.

(i) If either Party materially defaults in the performance of any provision of the Agreement, then the non-defaulting Party may give written notice to the defaulting Party that, if the default is not cured within thirty (30) calendar days of the written notice, the Agreement will be terminated. If the non-defaulting Party gives such notice and default is not cured during the thirty (30) calendar day period, then the Agreement shall automatically terminate at the end of that period.
(ii) Distributor acknowledges and agrees that the performance of its obligations as set forth under Section 5 (C)(i) is material to this Agreement. In the event Distributor fails to meet a sales target for any applicable Term, Cygnus shall have the right to terminate this Agreement pursuant to this section immediately without judicial intervention.
(iii) If Distributor fails to pay any amount due under this Agreement on the due date for payment and remains in default for more than 7 days Cygnus shall have the right to terminate this Agreement pursuant to this section immediately without judicial intervention.
(iv) Cygnus may terminate this Agreement immediately by notice in writing if Distributor is in breach of any of its compliance obligations under Section 10.

C. Termination for Insolvency. This Agreement shall terminate immediately without judicial intervention, without notice, (a) upon the institution by or against either Party of insolvency, receivership or bankruptcy proceedings or any other proceedings in consequence of debt, (b) upon either party making an assignment for the benefit of creditors, or (c) upon dissolution of either company except for dissolution by merger into another company.

D. Effect of Termination. Upon termination of this Agreement, Cygnus shall continue to fulfill, subject to the terms of the above and if so requested by Distributor, all orders accepted by Cygnus prior to the date of termination provided Distributor proves to Cygnus's satisfaction that it has the ability to pay for such products. In such instance, Distributor has the obligation to pay for all Products delivered by Cygnus, even if such delivery occurs after the termination date. Further (and without limitation to Section 5A), upon termination of this Agreement, Distributor must submit to Cygnus within thirty (30) calendar days after the effective date of termination, a list of all customers who have purchased Cygnus Products from Distributor in the past eighteen (18) months, and the Cygnus Products those customers have purchased from Distributor in the Territory.

E. Return of Materials. All trademarks, trade names, patents, copyrights, designs, drawings, formulas or other data, photographs, samples, literature, and sales aids of every kind related to the Products and Services shall remain the property of Cygnus. Within thirty (30) calendar days after the termination of this Agreement, Distributor shall prepare all such items in its possession for shipment as Cygnus may direct, at the expense of Distributor. Distributor shall not make or retain any copies of any confidential items or information or any product literature that may have been entrusted to it. Effective upon termination of the Agreement, Distributor shall cease to use all trademarks, marks and trade names of Cygnus.

F. Limitation on Liability. In the event of termination by either Party in accordance with any of the provisions of this Agreement, neither party shall be liable to the other, because of such termination, for compensation, reimbursement or damages on account of the loss of prospective profits or anticipated sales or on account of expenditures, inventory, investments, leases or commitments in connection with the business or goodwill of Cygnus or Distributor. Termination shall not, however, relieve either party of obligations incurred prior to the termination.

G. Survival of Certain Terms. The provisions of Sections 3E, 3F, 4, 6, 7B, 8, 9, 12 and 13 shall survive the termination of this Agreement for any reason. All other rights and obligations of the parties shall cease upon termination of the Agreement.

7. LIABILITY COVERAGE AND LIMITATIONS

A. Products Liability. Cygnus agrees to carry product liability insurance for its Products in such amounts as Cygnus determines to be reasonable.

B. Claims. Distributor shall, as soon as it becomes aware of a matter which may result in a product liability claim:
(a) give Cygnus written notice of the details of the matter;
(b) give Cygnus access to and allow copies to be taken of any materials, records or documents as Cygnus may require to take action under (c) below;
(c) allow Cygnus the exclusive conduct of any proceedings and take any action that Cygnus requires to defend or resist the matter, including using professional advisers nominated by Cygnus; and
(d) not admit liability or settle the matter without Cygnus's written consent.

8. **PROPRIETARY RIGHTS AND CONFIDENTILITY**

A. Proprietary Rights. Distributor agrees that Cygnus owns all rights, title and interest in the Products in all of Cygnus's patents, trademarks, trade names, inventions, copyrights, know-how, and trade secrets relating to the design, manufacture, operation or service of the Products. The use by Distributor of any of these intellectual property rights is authorized only for the purposes herein set forth, and upon termination of the Agreement for any reason such authorization shall cease.

B. Sale Conveys No Right to Manufacture or Copy. The Products are offered for sale and are sold by Distributor subject in every case to the condition that such sale does not convey any license, expressly or by implication, to manufacture, duplicate or otherwise copy or reproduce any of the Products.

C. Confidentiality. The Parties agree that certain information each receives from the other may be the confidential information of the disclosing Party. "Confidential Information" means any non-public information disclosed by a Party either directly or indirectly to the other Party, in written, oral, visual or electronic form or by inspection of tangible

objects, relating to the Cygnus product technology and any other business matters, including but not limited to software, trade secrets, inventions (whether patentable or not), know-how, algorithms, diagrams, drawings, processes, reagents, research, product or strategic plans or collaborations or partnerships, financial information, business models, and information relating to corporate finance and governance. The receiving Party shall not, either directly or indirectly, disclose or use any Confidential Information of the disclosing Party other than the business contemplated herein without prior written authorization from the disclosing Party. To the extent that it can be established by the receiving Party by competent written evidence, Confidential Information shall not include information that:

(i) was already known to the receiving Party, other than under an obligation of confidentiality, at the time of disclosure;

(ii) was generally available to the public or otherwise part of the public domain at the time of its disclosure to the receiving Party;

(iii) became generally available to the public or otherwise part of the public domain after its disclosure and other than through any act or omission of the receiving Party in breach of this Agreement;

(iv) was subsequently lawfully disclosed to the receiving Party by a third party other than under an obligation of confidentiality;

(v) was independently developed by the receiving Party without reference to or the use of information provided by the disclosing Party; or

If the receiving Party is required by a valid order of a court or other governmental body or otherwise required by law to disclose Confidential Information of the disclosing Party, it shall give the disclosing Party timely written notice of such requirement before disclosing any such information and shall cooperate with the disclosing Party, at the disclosing Party's expense, to seek a protective order, confidential treatment or other appropriate measures requiring, amongst other things, that the information and/or documents so disclosed be used only for the purposes for which the order was issued and parts of the information and/or documents so disclosed be redacted to limit the extent of disclosure.

9. TRADEMARKS AND TRADE NAMES

A. Use. During the term of this Agreement, Distributor shall have the right to indicate to the public that it is an authorized distributor of Cygnus Products and to advertise the Products within the Territory under the trademarks, marks and trade names that Cygnus may adopt from time to time. Distributor shall not alter or remove any Trademark applied to the Product. Except as explicitly provided for herein, nothing herein shall be deemed to grant to Distributor any right, title, license or interest in Cygnus's Trademarks. At no time during or after the term of this Agreement shall Distributor challenge or assist others to

challenge Cygnus's Trademarks or the registration thereof or attempt to register any trademarks, marks or trade name confusingly similar to those of Cygnus.

B. Approval of Representations. Distributor shall respect Cygnus's trademarks and follow the instructions of Cygnus as to the usage of Cygnus's trademarks. If any of Cygnus's trademarks are to be used in conjunction with another trademark on or in relation to the Products, then the Cygnus mark shall be presented equally legibly, equally prominently, and of the same or greater size than the other but nevertheless separated from the other so that each appears to be a mark in its own right, distinct from the other mark.

10. COMPLIANCE WITH LAWS INCLUDING ANTI-CORRUPTION LAWS AND COMPLIANCE WITH POLICIES

A. Distributor shall at its own expense comply with all laws and regulations relating to its activities under this Agreement, as they may change from time to time, and with any conditions binding on it in any applicable licenses, registrations, permits and approvals.

B. Representations, Warranties and Covenants of Distributor. Without limitation to Section 10A, Distributor makes the following representations and warranties to Cygnus, and covenants and agrees as follows:

(i) **Anti-Corruption Representations, Warranties and Covenants of Distributor**. Distributor hereby represents and warrants to Cygnus that Distributor has not, and covenants and agrees that it will not, in connection with the transactions contemplated by the Agreement or in connection with any other business transactions involving Cygnus or its products, make, authorize, promise or offer to make any payment or transfer anything of value, directly or indirectly, to any Government Official (meaning any officer or employee of a government, at any level, or of any government-controlled enterprise or of any public international organization, or any person acting in an official capacity for, or on behalf of, any of the foregoing, or any political party, party official or candidate for public office) or to any other person while knowing or suspecting that all or some portion of the payment or gift will be offered, given or promised to a Government Official for the purpose of influencing official action or securing an improper advantage. It is the intent of the parties that no payments or transfers of value shall be made which have the purpose or effect of public or commercial bribery, or acceptance of or acquiescence in extortion, kickbacks or other unlawful or improper means of obtaining business. This subsection shall not, however, prohibit normal and customary business entertainment or the giving of business mementos of nominal value in connection with Distributor's performance under the Agreement.

(ii) **Distributor Certifications.** Distributor agrees that it will, and will cause each of its directors, officers, employees, agents or other representatives who have any direct involvement with any of the management or operations of the business of Distributor under the Agreement, at the request of Cygnus, and at least annually,

provide Cygnus with a certification in the form hereto attached and incorporated by reference as Exhibit D.

(iii) **Familiarity with Laws.** Distributor represents, warrants and covenants that it and all of its directors, officers and employees who will provide services under this Agreement are familiar with the laws, rules, regulations and restrictions which may apply as well as the representations, warranties and covenants contained therein, and Distributor agrees to take appropriate steps to ensure compliance therewith by any such persons in connection with the activities contemplated by this Agreement.

(iv) **Distributor's Continuing Obligation to Advise.** Distributor agrees that should it learn or have reason to know of: (i) any payment, authorization, offer, or agreement to make a payment to a Government Official for the purpose of obtaining or retaining business or securing any improper advantage for Cygnus under the Agreement or otherwise, or (ii) any other development during the term of the Agreement that in any way makes inaccurate or incomplete the representations, warranties and certifications of Distributor contained in Section 10A hereof at any time during the term of the Agreement, Distributor will immediately advise Cygnus in writing of such knowledge or suspicion and the entire basis known to Distributor therefor.

(v) **No Governmental Ownership of Distributor.** Distributor hereby represents and warrants to Cygnus that no ownership interest, direct or indirect, in Distributor or in the contractual relationship established by the Agreement, is held or controlled by or for the benefit of any Government Official, and that it will obtain Cygnus's prior written consent before permitting a change that would result in a direct or indirect ownership interest in Distributor or in the contractual relationship established by the Agreement being held or controlled by or for the benefit of any Government Official.

(vi) **Cygnus's Right of Investigation.** Distributor will keep accurate books and records in connection with its obligations and services to be performed under this Agreement. Distributor agrees that Cygnus shall have the right, from time to time, upon written notice to Distributor, to conduct an audit of Distributor to verify compliance with the provisions of this section. Distributor agrees to cooperate fully with such investigation, the scope, method, nature and duration of which shall be at the sole reasonable discretion of Cygnus.

(vii) **Termination Right for Non-Compliance with Anti-Corruption Provisions.** In the event that Cygnus believes, in good faith, that Distributor has breached or may be about to breach any of the representations, warranties, covenants or agreements contained in Section 10A of this Agreement or has acted in any way that may subject Cygnus to liability under the anti-corruption laws applicable to it, Cygnus shall have the unilateral right, exercisable immediately upon written notice to

Distributor, to terminate the Agreement, subject to the provisions of 6B(iv) of this Agreement.

(viii) **Disclosure to United States Government**. Distributor agrees that full disclosure of information relating to a possible violation of the anti-corruption representations, warranties or covenants contained in this Section 10A may be made at any time and for any reason to the United States government and its agencies, and to whomsoever Cygnus determines has a legitimate need to know.

C. Without limitation to Sections 10A and 10B above, Distributor shall:

(a) comply with all applicable laws, statutes, regulations, and codes relating to anti-bribery and anti-corruption in the Territory, any country in which goods or services are supplied and in which Cygnus or Distributor are incorporated as well as in the United States (Relevant Requirements);
(b) comply with the Cygnus's anti-bribery, anti-corruption and ethics policies (annexed to this Agreement as part of the Code of Business Conduct and Ethics at Exhibit E) and, in each case as Cygnus may update them from time to time (Relevant Policies).
(c) have and shall maintain in place throughout the term of this agreement its own policies and procedures to ensure compliance with the Relevant Requirements and the Relevant Policies, and will enforce them where appropriate;
(d) promptly report to Cygnus any request or demand for any undue or suspicious financial or other advantage of any kind received by Distributor in connection with the performance of this agreement;
(e) immediately notify Cygnus (in writing) if a public official in the Territory, any country in which goods or services are supplied and in which Cygnus or Distributor are incorporated as well as in the United States becomes an officer or employee of Distributor or acquires a direct or indirect interest in Distributor, and Distributor warrants that it has no such public officials as direct or indirect owners, officers or employees at the date of this Agreement;
(f) within 2 months of the date of this Agreement, and annually thereafter, certify to Cygnus in writing signed by each of its directors, officers, employees, agents or other representatives who have any direct involvement with any of the management or operations of the business of Distributor under the Agreement, in the form set out in Exhibit D. Distributor shall provide such supporting evidence of compliance as Cygnus may reasonably request.

D. Distributor shall ensure that all of its suppliers, agents, subcontractors and other members of its group or affiliates who perform services or provide goods in connection with this Agreement do so only on the basis of a written contract which imposes on and secures from such persons terms equivalent to those imposed on Distributor in this Section 10 (Relevant Terms). Distributor shall be responsible for the observance and performance by such persons of the Relevant Terms, and shall be directly liable to Cygnus for any breach by such persons of any of the Relevant Terms.

E. Distributor shall comply with Cygnus's Code of Business Conduct and Ethics as set out in Exhibit E.

11. UNITED STATES EXPORT CONTROLS

THIS AGREEMENT IS EXPRESSLY MADE SUBJECT TO ANY LAWS, REGULATIONS, OR OTHER RESTRICTIONS ON THE EXPORT FROM THE UNITED STATES OF AMERICA OF THE PRODUCTS OR OF INFORMATION ABOUT SUCH PRODUCTS WHICH MAY BE IMPOSED FROM TIME TO TIME BY THE GOVERNMENT OF THE UNITED STATES OF AMERICA. NEITHER PARTY SHALL EXPORT OR REEXPORT, DIRECTLY OR INDIRECTLY, ANY PRODUCTS OR INFORMATION PERTAINING THERETO TO ANY COUNTRY FOR WHICH THE GOVERNMENT OR ANY AGENCY THEREOF REQUIRES AN EXPORT LICENSE OR OTHER GOVERNMENTAL APPROVAL AT THE TIME OF EXPORT OR REEXPORT WITHOUT FIRST OBTAINING SUCH LICENSE OR APPROVAL.

12. PATENT, COPYRIGHT AND TRADEMARK INDEMNITY

A. Indemnification. Cygnus shall indemnify and hold harmless Distributor from and against all damages incurred by it arising from any legal action made or brought against it by a person or entity other than Cygnus or an affiliate of Cygnus as a result of (a) any negligent or willful act or omission of Cygnus in relation to its obligations under this Agreement; (b) the breach of any provision of this Agreement by Cygnus; or (c) any infringement of intellectual property rights of a third party arising from the activities of Cygnus with regard to the Products.

Distributor shall indemnify and hold harmless Cygnus and its officers, directors and shareholders ("Cygnus Indemnitees") from and against all damages or liabilities incurred by it, her or him arising from any legal action made or brought against any of the Cygnus Indemnitees by a Person other than an affiliate of Distributor as a result of (a) any negligent or willful act or omission of Distributor in relation to its obligations under this Agreement; or (b) the breach of any provision of this Agreement by Distributor ; provided, however, that Distributor shall have the opportunities to be notified regularly regarding such legal action and shall be entitled to consent to settlement of such legal action against Cygnus Indemnitees.

Distributor agrees that Cygnus or its designee has the right to defend, or at its option to settle, any claim, suit or proceeding brought against Cygnus, Distributor or its customer on the issue of infringement or alleged infringement of any third party intellectual property by any Products sold hereunder, or the use thereof, subject to the limitations hereinafter set forth. Cygnus shall have sole control of any such action or settlement negotiations. Cygnus shall have the right to change, modify, or discontinue the sale of any Products that it determines may, or may be deemed to infringe any third party intellectual property rights.

B. Limitation. Notwithstanding the provisions of Subsection 12A. above, Cygnus assumes no liability for (a) infringements covering the use of the Products in any manner other than the intended use of the Products as set forth in Cygnus' printed materials; (b) any trademark infringement involving any marking or branding not applied by Cygnus or involving any marking or branding applied at the request of Distributor; or (c) any liability arising from a modification or servicing of a Product, or any part thereof, unless such modification or servicing was done by Cygnus.

C. Entire Liability. The foregoing provision of this Section 12 states the entire liability and obligations of Cygnus and the exclusive remedy of Distributor and its customers, with respect to any alleged patent or trademark infringement by the Products or any part thereof.

13. GENERAL PROVISIONS

A. Governing Law. This Agreement shall be governed by and construed in accordance with laws of California, United States without giving effect to any of its conflict of law principles or provisions.

B. Arbitration. All disputes between the parties arising out of or relating to this Agreement (other than actions seeking only equitable remedies) shall be settled by binding arbitration; (a) if an action is brought by Distributor, in San Mateo County, California pursuant to the Commercial Arbitration Rules of the American Arbitration Association; or (b) if an action is brought by Cygnus, in Beijing pursuant to the Rules of the China. The arbitrator may award any legal or equitable remedy and may, in his or her own discretion, require one party to pay the costs of the arbitration as well as the arbitrator's fees and expenses, including reasonable attorney's fees, of the other party.

C. Entire Agreement. This Agreement sets forth the entire agreement and understanding of the parties relating to the subject matter herein and merges all prior discussions between them. No modification of or amendment to this Agreement, nor any waiver of any rights under this Agreement, shall be effective unless signed in writing by both parties.

D. Notices. Unless otherwise provided for in this Agreement, any notice required or permitted by this Agreement shall be in writing and shall be sent by prepaid registered or certified mail, return receipt requested, addressed to the other party at the address shown at the beginning of this Agreement or at such other address for which such party gives notice hereunder. Such notice shall be deemed to have been given five (5) business days after deposit in the mail.

E. Force Majeure. Nonperformance of either party shall be excused to the extent that performance is rendered impossible by strike, fire, flood, governmental acts or orders or restrictions, failure of suppliers, or any other reason where failure to perform is beyond the control of and not caused by the negligence of the non-performing party.

F. Non-assignability and Binding Effect. A mutually agreed consideration for Cygnus and Distributor for entering into this Agreement is the reputation, business standing, and goodwill already honored and enjoyed by both parties under their present ownership, and accordingly, both parties agree that their rights and obligations under this Agreement may not be transferred or assigned (except to subsidiary companies) directly or indirectly without the prior written consent of the other party. Subject to the foregoing sentence, this Agreement shall be binding upon and inure to the benefit of the parties hereto, their successors and permitted assigns. Notwithstanding the foregoing, Cygnus shall have the right to assign all of its rights and responsibilities under this Agreement without Distributor's consent to a third party that acquires Cygnus or substantially all of the assets of Cygnus related to this Agreement.

G. Partial Invalidity. If any provision of this Agreement is held to be invalid by a court of competent jurisdiction, then the remaining provisions shall nevertheless remain in full force and effect. The parties agree to renegotiate in good faith any term held invalid and to be bound by the mutually agreed substitute provision.

H. Legal Expenses. The prevailing party in any legal action brought by one party against the other and arising out of this Agreement shall be entitled, in addition to any other rights and remedies it may have, to reimbursement for its expense, including arbitration costs and reasonable attorney's fees.

I. Counterparts. This Agreement shall be executed in two counterparts, each of which shall be deemed an original, each party retaining one copy thereof.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their duly authorized representatives.

CYGNUS TECHNOLOGIES, INC.	BEIJING XMJ SCIENTIFIC CO., LTD
By: /s/ David Weber	By: /s/ Xiaomei Yan (Maggie Yan)
Name: David Weber	Name: Xiaomei Yan (Maggie Yan)
Title: Vice President and Chief Commercial Officer	Title: Managing Director
Date: February 20, 2019	Date: Jan. 14, 2019

LEASE

Basic Lease Information

Date:	January 10, 2020
Landlord:	SHAC INGOLD APARTMENTS LLC, a Delaware limited liability company
Tenant:	VECTOR LABORATORIES, INC., a California corporation
Building (Section 1.1):	The building containing approximately 65,000 rentable square feet, commonly known as 30 Ingold Road, Burlingame, California.
Land (Section 1.1):	The real property legally described on **Exhibit A** attached hereto. The Land consists of approximately 3.20 acres of land.
Existing Improvements (Section 1.1):	The Building and all other improvements on the Land, including, without limitation, the parking structure and other parking areas, drive aisles, sidewalks, loading areas, access roads and landscaping.
Premises (Section 1.1):	The Existing Improvements and the Land. The Premises is approximately outlined on **Exhibit B** attached hereto.
Term; Expiration Date (Section 2.1):	The term of this Lease (the "**Term**") shall be a period commencing on the Commencement Date and ending on the last day of the twenty-third (23rd) full calendar month from and after the Commencement Date (the "**Expiration Date**"), unless the Term is terminated earlier pursuant to the terms of this Lease.
Commencement Date (Section 2.1):	The date on which the "Close of Escrow," as that term is defined in the Purchase Agreement (as defined in Section 15.7 below) occurs. It is intended that "Escrow Holder," as that term is defined in the Purchase Agreement, shall insert the date on which the Close of Escrow occurs as the Date of this Lease hereinabove.
Base Rent (Section 3.1):	One Hundred Thirty Five Thousand Six Hundred Fifty-Two and 18/100 Dollars ($135,652.18) per month for a total lease consideration of Three Million One Hundred Twenty Thousand Dollars ($3,120,000) (the "**Aggregate Rent Consideration**") to be paid to Landlord during the Term.
Permitted Use of the Premises (Section 4.1):	All uses permitted by Legal Requirements (as defined in Section 4.4 below).

Landlord's Address (Section 14.1):	c/o SummerHill Apartment Communities Investments LLC 3000 Executive Parkway, Suite 450 San Ramon, CA 94583 Email: JZeiszler@shapartments.com Attn: Jeff Zeiszler with a copy to: SummerHill Apartment Communities Investments LLC 777 S. California Avenue Palo Alto, CA 94304 Attn: General Counsel
Tenant's Address (Section 14.1):	Vector Laboratories, Inc. 30 Ingold Road Burlingame, California 94010 Attn: John Lai with a copy to: Allen Matkins Leck Gamble Mallory & Natsis LLP Three Embarcadero Center, 12th Floor San Francisco, California 94111-4074 Attn: Lee A. Edlund, Esq.
Landlord's Address for Payment of Rent (Section 3.4):	c/o SummerHill Apartment Communities Investments LLC 3000 Executive Parkway, #450 San Ramon, CA 94583 Attn: Controller
Security Deposit:	An amount equal to the one monthly installment of Base Rent.
Guarantor of Lease (Section 3.10):	Maravai Life Sciences Holdings, LLC, a Delaware limited liability company
Exhibits:	Exhibit A Legal Description of the Land Exhibit B Outline of the Premises Exhibit C List of Approved Contractors Exhibit D Permitted Materials Exhibit E Guaranty of Lease

The foregoing Basic Lease Information is incorporated in and made a part of the Lease to which it is attached. If there is any conflict between the Basic Lease Information and the Lease, the Basic Lease Information shall control.

[CONTINUES ON THE NEXT PAGE]

LEASE

THIS LEASE, made as of the date specified in the Basic Lease Information, by and between the landlord specified in the Basic Lease Information ("**Landlord**"), and the tenant specified in the Basic Lease Information (" **Tenant**").

W I T N E S S E T H:

ARTICLE 1
Premises

1 . 1 Lease of Premises. Landlord hereby leases to Tenant, and Tenant hereby leases from Landlord, for the term and subject to the covenants hereinafter set forth, to all of which Landlord and Tenant hereby agree, the building commonly known as 30 Ingold Road, Burlingame, California (the "**Building**") and all other improvements (together with the Building, collectively, the "**Existing Improvements**") on the land legally described in **Exhibit A** (the "**Land**"), all as specified in the Basic Lease Information (collectively, the "**Premises**"), and as approximately outlined on **Exhibit B** attached hereto. Landlord and Tenant stipulate and agree that, for purposes of this Lease, the Building contains the number of square feet of rentable area specified in the Basic Lease Information and the Land contains the number of acres specified in the Basic Lease Information, and neither the Building nor the Land shall be subject to remeasurement during the Term.

1 . 2 Premises "As Is". Tenant acknowledges that it is presently in possession of the Premises and is fully aware of the condition of the Premises. Landlord shall have no obligation to construct or install any improvements in the Premises or to remodel, renovate, recondition, alter or improve the Premises in any manner, and Tenant shall accept the Premises "as is" and in its existing condition on the Commencement Date. Landlord and Tenant expressly agree that there are and shall be no implied warranties of merchantability, habitability, fitness for a particular purpose, or any other kind arising out of this Lease and there are and shall be no warranties that extend beyond the warranties, if any, expressly set forth in this Lease. For purposes of Section 1938(a) of the California Civil Code, Landlord hereby discloses to Tenant, and Tenant hereby acknowledges, that the Premises have not undergone inspection by a Certified Access Specialist (CASp). As required by Section 1938(e) of the California Civil Code, Landlord hereby states as follows: "A Certified Access Specialist (CASp) can inspect the subject premises and determine whether the subject premises comply with all of the applicable construction-related accessibility standards under state law. Although state law does not require a CASp inspection of the subject premises, the commercial property owner or lessor may not prohibit the lessee or tenant from obtaining a CASp inspection of the subject premises for the occupancy or potential occupancy of the lessee or tenant, if requested by the lessee or tenant. The parties shall mutually agree on the arrangements for the time and manner of the CASp inspection, the payment of the fee for the CASp inspection, and the cost of making any repairs necessary to correct violations of construction-related accessibility standards within the premises." Notwithstanding anything to the contrary contained in this Lease, if Tenant obtains a CASp inspection or if Tenant desires that any improvements, repairs or maintenance recommended in a CASp inspection report be performed, then Tenant shall be responsible for the costs of any improvements, repairs or maintenance to the Premises which are required in any CASp inspection or report or that are desired by Tenant for any reason.

1 . 3 Parking. During the Term, as the sole occupant of the Premises (and the Property), Tenant shall have the exclusive right to use all parking spaces located on the Property.

1.4 Signage. Notwithstanding anything contained in the Lease to the contrary, during the Term, Tenant shall have the right, at Tenant's sole cost and expense, to maintain exterior signage in the locations currently utilized by Tenant at the Premises. Landlord shall not be entitled to install or erect any other signage on the Premises. Upon the termination of this Lease, Tenant may, if it desires, at its sole cost and expense, remove any signage containing Tenant's name or logo in accordance with Section 7.2 below.

1.5 Tangible and Intangible Personal Property . Tenant shall have the right, throughout the Term and at no additional cost, to use any tangible personal property, if any, that was conveyed to Landlord by Tenant prior to or concurrently with the Commencement Date pursuant to the Purchase Agreement (the "**Tangible Property**") and Tenant shall have the right to use such permits and licenses conveyed to Landlord pursuant to the Purchase Agreement that are necessary for the continuing use of the Premises and operation of Tenant's business on the Premises (the "**Intangible Property**" and together with the Tangible Property, the "**Licensed Property**"). Landlord hereby makes no representations or warranties regarding the condition of the Licensed Property, and Tenant accepts the Licensed Property in its currently existing, "AS-IS, WHERE-IS, WITH ALL FAULTS," condition. The Licensed Property specifically excludes all warranties, guaranties, indemnities, licenses, permits, entitlements, governmental approvals and certificates of occupancy obtained by Landlord or necessary for Landlord's development plan or used in connection with Landlord's development plan. Tenant shall continue to use the Licensed Property in connection with the operation, management and maintenance of the Premises. Tenant shall maintain any personal property comprising the Licensed Property in good condition, repair and working order, reasonable wear and tear excepted, and none of such personal property shall be removed from the Premises, unless replaced by unencumbered personal property of equal or greater utility and value. Tenant shall not cause or permit any liens, encumbrances or security interests of any kind or nature to attach to the Licensed Property during the Term. Otherwise, Tenant shall surrender the Licensed Property in its "AS-IS, WHERE-IS, WITH ALL FAULTS," condition upon the expiration or earlier termination of this Lease.

ARTICLE 2
Term

2.1 Term of Lease. The term of this Lease (the "**Term**") shall be the term specified in the Basic Lease Information, which shall commence on the commencement date specified in the Basic Lease Information (the "**Commencement Date**") and, unless sooner terminated as hereinafter provided, shall end on the expiration date specified in the Basic Lease Information (the "**Expiration Date**").

2.2 Holding Over. Tenant has no right to retain possession of the Premises or any part thereof beyond the expiration of the Term or the termination of this Lease. If, without consent by Landlord, Tenant holds possession of the Premises for more than ten (10) days after the expiration or earlier termination of this Lease, then such holding over shall be without Landlord's consent and if Landlord accepts Base Rent after the expiration or earlier termination of this Lease, shall be on the basis of a month-to-month tenancy subject to all of the terms and conditions of this Lease, except that the Base Rent payable during such month-to-month tenancy shall be equal to two hundred percent (200%) of the Base Rent in effect at the expiration of the Term of this Lease, prorated for an partial calendar months. Landlord and Tenant each shall have the right to terminate such month to month tenancy by giving at least thirty (30) days' written notice of termination to the other at any time, in which event such tenancy shall terminate on the termination date set forth in such termination notice. Nothing contained herein shall be construed as consent by Landlord to any holding over by Tenant. Tenant acknowledges that Landlord's development plans require that Tenant and all subtenants vacate the Premises no later than the expiration of the Term or earlier termination of this Lease and that Landlord will be significantly damaged if Tenant or any subtenant fails to timely vacate the Premises. Therefore, if the Term expires and Tenant or any subtenant holds over or otherwise fails to surrender possession of the Premises at the end of the Term in the manner required under this Lease, in addition to all rights and remedies of Landlord provided for in this Lease or at law or equity,

Tenant shall indemnify, protect, defend and hold Landlord entirely free and harmless from and against any and all damages, losses, claims, suits, actions, costs, expenses and liabilities (including without limitation, attorneys' fees and costs) arising from or attributable to Tenant's or subtenant's failure to vacate the Premises when due, including, without limitation, losses due to construction delays, carry costs and other similar damages.

2.3 Tenant's Right to Terminate. Tenant shall have the option to terminate and cancel this Lease at any time during the Term only by doing each of the following: (i) Tenant shall provide Landlord with no less than thirty (30) days prior written notice (the "**Termination Notice**"), which Termination Notice shall specify the effective date of such early termination (the "**Early Termination Date**") and (ii) concurrently with the delivery of the Termination Notice, Tenant shall deliver a payment (the "**Termination Payment**") to Landlord in the aggregate amount of all of the monthly Rent that would be due from Tenant to Landlord each month for the remainder of the Term after the Early Termination Date so that Landlord will have received the Aggregate Rent Consideration. For example, if Tenant delivers the Termination Notice and Tenant has paid Base Rent through the end of the sixth month of the Term, the Termination Payment due to Landlord will be $2,306,087.06 (calculated as the remaining seventeen (17) months of Base Rent to be paid through the end of the Term, multiplied by the Base Rent of One Hundred Thirty Five Thousand Six Hundred Fifty Two and 18/100 Dollars ($135,652.18) per month). As a further example, if Tenant delivers the Termination Notice and Tenant has paid Base Rent through the end of the 20th month of the Term, the Termination Payment due to Landlord will be $406,956.54 (calculated as the remaining three (3) months of Base Rent to be paid through the end of the Term, multiplied by the Base Rent of One Hundred Thirty Five Thousand Six Hundred Fifty Two and 18/100 Dollars ($135,652.18) per month). Following Tenant's delivery of the Termination Notice and the Termination Payment, the Expiration Date of the Lease shall be the Early Termination Date for all purposes of this Lease, and the Term shall expire on the Early Termination Date. On or before the Early Termination Date, Tenant shall surrender the Premises to Landlord in the condition otherwise required hereunder.

ARTICLE 3
Rent

3.1 Base Rent. Commencing on the Commencement Date and continuing thereafter throughout the Term, Tenant shall pay to Landlord monthly base rent as specified in the Basic Lease Information (the "**Base Rent**").

3.2 Landlord's Property Tax Obligation. Commencing on the Commencement Date and continuing thereafter throughout the Term, Landlord shall pay any and all Property Taxes (as defined below) related to the Property. The parties acknowledge and agree that in no event shall Tenant have any obligation to pay (or to reimburse Landlord for) any Property Taxes. As used herein, "**Property Taxes**" shall mean all taxes, assessments, excises, levies, fees and charges (and any tax, assessment, excise, levy, fee or charge levied wholly or partly in lieu thereof or as a substitute therefor or as an addition thereto) of every kind and description, general or special, ordinary or extraordinary, foreseen or unforeseen, secured or unsecured, whether or not now customary or within the contemplation of Landlord and Tenant, that are levied, assessed, charged, confirmed or imposed by any public or government authority on or against, or otherwise with respect to, the Premises or any part thereof or any personal property used in connection with the Premises. Tenant is responsible to pay all taxes levied, assessed, charged, confirmed or imposed on Tenant's tangible or intangible personal property, trade fixtures and equipment.

3.3 Additional Rent. Throughout the Term, Tenant shall pay, as additional rent and in addition to Base Rent, all other amounts of money and charges required to be paid by Tenant under this Lease (including, without limitation, the costs of any Tenant Directed Insurance as defined below), whether or

not such amounts of money or charges are designated "**additional rent**." As used in this Lease, " **rent**" shall mean and include Base Rent and all additional rent payable by Tenant in accordance with this Lease.

3.4 Utility Charges. During the Term, Tenant shall promptly pay directly to the provider, as the same become due, all charges for water, gas, electricity, telephone, sewer service, waste pick up, and any other utilities, materials or services furnished directly to or used by Tenant on or about the Premises during the Term, together with any taxes thereon. If Tenant fails to timely pay any such charges for water, gas, electricity, telephone, sewer service, waste pick-up or any other utility charges, Landlord, in its sole discretion, may pay such amounts directly and include such charges as additional rent.

3.5 Landlord's Insurance Costs. If Landlord obtains any Tenant Directed Insurance (defined below), then within five (5) business days after written demand from Landlord (such demand indicating the amount of the insurance premium and other costs for any insurance obtained in connection therewith), Tenant shall pay as additional rent the full amount of the insurance premium and other costs for any insurance obtained by Landlord as described in Section 8.3 below.

3.6 Rent Payment. Tenant shall pay Base Rent to Landlord, in advance, on or before the first (1st) day of each and every calendar month during the Term without notice, demand, deduction or offset. Base Rent shall be prorated for any partial calendar months during the Term. All other additional rent shall be paid in arrears within thirty (30) days of an invoice together with reasonable supporting documentation. Tenant shall pay all rent to Landlord in lawful money of the United States of America, at the address for the payment of rent specified in the Basic Lease Information, or to such other person or at such other place as Landlord may from time to time designate in writing. For convenience, Tenant may include payment of the estimated amount of additional rent and any other charges, if any, and the Base Rent in one check.

3.7 Late Payment. Tenant acknowledges that the late payment by Tenant of any rent will cause Landlord to incur costs and expenses, the exact amount of which is extremely difficult and impractical to fix. Such costs and expenses will include administration and collection costs and processing and accounting expenses. Therefore, if any rent is not received by Landlord within five (5) business days after the date such payment is due (with respect to regularly scheduled payments such as Base Rent) or within five (5) business days after any additional rent was due, Tenant shall immediately pay to Landlord a late charge equal to five percent (5%) of such delinquent amount; provided, however, that on the first occasion of any late payment by Tenant during any calendar year of the Term, Landlord shall give Tenant notice of such late payment and Tenant shall have a period of five (5) business days thereafter in which to make such payment before any late charge is assessed. If any rent remains delinquent for a period of thirty (30) days after the date such payment was due, then, in addition to such late charge, interest shall accrue on such rent from the thirty-first (31st) day after such payment became due until paid at the lesser of (i) the annual "Bank Prime Loan" rate cited in the Federal Reserve Statistical Release Publication H. 15(519), published weekly (or such other comparable index as Landlord and Tenant shall reasonably agree upon if such rate ceases to be published) plus three (3) percentage points, and (ii) the highest rate permitted by applicable law. Landlord and Tenant agree that such late charge represents a reasonable estimate of such costs and expenses and is fair reimbursement to Landlord. In no event shall such late charge be deemed to grant to Tenant a grace period or extension of time within which to pay any rent or prevent Landlord from exercising any right or enforcing any remedy available to Landlord upon Tenant's failure to pay any rent when due under this Lease. The parties agree that the above referenced late charge is not a penalty or forfeiture but represents a reasonable estimate of the costs and expenses to be incurred by Landlord in connection with the late payment of rent

3.8 No Accord and Satisfaction. No payment by Tenant of an amount less than the full amount of any rent due hereunder shall be deemed to be anything other than a partial payment on account of the earliest due rent, nor shall any endorsement or statement on any check or letter accompanying any such

partial payment be deemed an accord and satisfaction, and Landlord may accept such partial payment without prejudice to Landlord's right to recover the balance due of such rent or to pursue any remedy available under this Lease, at law or in equity. Landlord may accept any partial payment from Tenant without invalidating any default notice required to be given under this Lease (to the extent such default notice is required) and without invalidating any notice required by any law pertaining to recovery of possession of the Premises or enforcement of any remedy after a default by Tenant.

3.9 Security Deposit. Tenant concurrently with the execution of this Lease shall deposit the Security Deposit with Landlord, and will keep on deposit at all times during the Term, and any extensions thereof, the sum set forth in the Basic Lease Information, the receipt of which is hereby acknowledged, as security for the payment by Tenant of all sums herein agreed to be paid and for the faithful performance of all the terms, conditions, and covenants of this Lease. If, at any time during the Term, Tenant shall be in default in the performance of any provision of this Lease (after any applicable notice and cure periods), Landlord shall have the right to use said Security Deposit, or so much thereof as necessary, in payment of any sums in default as aforesaid, in reimbursement of any expense incurred by Landlord, and in payment of any damages incurred by Landlord by reason of Tenant's default. In such event, Tenant shall, on written demand of Landlord, forthwith remit to Landlord a sufficient amount in cash to restore the Security Deposit to its original amount. In the event Security Deposit has not been utilized as aforesaid, the Security Deposit, or as much thereof as has not been utilized for such purposes, shall be refunded to Tenant, without interest, within sixty (60) days after the later of (i) termination of the Lease or (ii) surrender and acceptance of the Premises; provided, however, Landlord may retain the same as security for payment of any Additional Rent attributable to the period prior to such termination until said amounts are calculated and paid in accordance with the provisions hereof. Landlord shall have the right to commingle the Security Deposit with other funds of Landlord. Landlord shall deliver the funds deposited herein by Tenant to the purchaser of Landlord's interest in the Premises in the event such interest shall be sold, and thereupon Landlord shall be discharged from further liability with respect to the Security Deposit. If claims of Landlord exceed the Security Deposit, Tenant shall remain liable for the balance of such claims.

3.10 Guaranty of Lease. The obligations of Tenant under this Lease shall be guaranteed jointly and severally by the entity shown in the Basic Lease Information above ("**Guarantor**"), pursuant to a Guaranty in the form of **Exhibit E** attached hereto (the "**Lease Guaranty**").

3.11 Tenant's Obligation to Pay the Aggregate Rent Consideration. Tenant and Landlord acknowledge that this Lease, the Aggregate Rent Consideration and the Term of this Lease are a part of the bargained for consideration between the parties, that the Purchase Price under the Purchase Agreement (defined in Section 15.7 hereof) was agreed upon in contemplation of and with the agreement of Landlord and Tenant that the full amount of the Aggregate Rent Consideration will be paid from Tenant to Landlord in all circumstances, and that Landlord (as Buyer under the Purchase Agreement) would not have entered into the Purchase Agreement, this Lease nor would Landlord have agreed to the Base Rent to be paid by Tenant pursuant to this Lease, but for Tenant's agreement and obligation to pay the Aggregate Rent Consideration and to fully perform all of its obligations under this Lease. Accordingly, Tenant represents, warrants and agrees that if this Lease terminates, expires or is terminated for any reason on or before the Expiration Date, Tenant shall pay the Termination Payment to Landlord or otherwise pay such amounts as may be necessary so that Landlord receives the Aggregate Rent Consideration. This Section 3.11 shall survive the termination or expiration of the Lease.

ARTICLE 4
Use of the Premises

4.1 Permitted Use. Tenant shall use the Premises for any uses permitted by Legal Requirements. Without limiting the generality of the foregoing, Landlord acknowledges that Tenant

intends to continue occupying and using the Premises in a similar manner to its occupancy and use thereof prior to the Commencement Date, which may include, without limitation, holding events at the Premises (both inside and outside the Building), and that no notice to or approval from Landlord shall be required in connection with the use of the Premises for any lawful purpose. Tenant shall not do or permit to be done in, on or about the Premises, nor bring or keep or permit to be brought or kept therein, anything which is prohibited by or will in any way conflict with any Legal Requirements now in force or which may hereafter be enacted or that will unreasonably interfere with or delay Landlord's proposed entitlements for the redevelopment of the Property. Tenant shall comply with the requirements of all documents recorded in the Official Records of San Mateo County, California, as of the Commencement Date. Tenant shall not use or allow the Premises to be used for any unlawful activity, nor shall Tenant cause or maintain any nuisance in, on or about the Premises or commit any waste in, on or about the Premises.

4.2 Environmental Definitions. As used in this Lease, "**Hazardous Material**" shall mean any substance that is (a) defined under any Environmental Law (as defined below) as a hazardous substance, hazardous waste, hazardous material, pollutant or contaminant, (b) a petroleum hydrocarbon, including crude oil or any fraction or mixture thereof, (c) hazardous, toxic, corrosive, flammable, explosive, infectious, radioactive, carcinogenic or a reproductive toxicant, or (d) otherwise regulated pursuant to any Environmental Law. As used in this Lease, "**Environmental Law**" shall mean all federal, state and local laws, statutes, ordinances, regulations, rules, judicial and administrative orders and decrees, permits, licenses, approvals, authorizations and similar requirements of all federal, state and local governmental agencies or other governmental authorities pertaining to the protection of human health and safety or the environment, now existing or later adopted during the Term of this Lease. As used in this Lease, "**Permitted Activities**" shall mean the lawful activities of Tenant that are part of the ordinary course of Tenant's business. As used in this Lease, "**Permitted Materials**" shall mean Hazardous Materials stored and handled from time to time by Tenant in accordance with Environmental Laws and in the ordinary course of conducting Permitted Activities. Landlord acknowledges that, as of the Effective Date (as defined in the Purchase Agreement), the Permitted Materials include those Hazardous Materials (and in the approximate quantities) described on **Exhibit D** attached hereto.

4.3 Environmental Requirements.

(a) Tenant hereby agrees that: (i) Tenant shall not use, store or otherwise handle, or permit any use, storage or other handling of, any Hazardous Material in, on or about the Premises during the Term, other than Permitted Materials that are used, stored and handled in compliance with all applicable Environmental Laws and good Hazardous Materials handling practices; (ii) Tenant shall obtain and maintain in effect all permits and licenses required pursuant to any Environmental Law for Tenant's activities on the Premises during the Term, and Tenant shall at all times during the Term comply with all applicable Environmental Laws; (iii) Tenant shall not install after the Commencement Date any aboveground or underground storage tank or any subsurface lines for the storage or transfer of any Hazardous Material, except for the lawful discharge of waste to the sanitary sewer, and Tenant shall at all times during the Term store all Hazardous Materials in a manner that protects the Premises and the environment from accidental spills and releases; (iv) Tenant shall not cause or permit to occur during the Term any unauthorized release of any Hazardous Material or any condition of pollution or nuisance on or about the Premises, whether affecting surface water or groundwater, air, the land or the subsurface environment; (v) Tenant shall promptly remove from the Premises any Hazardous Material which is introduced onto the Premises by Tenant after the Commencement Date which is not a Permitted Material and, on or before the date Tenant ceases to occupy the Premises, Tenant shall remove from the Premises all Hazardous Materials and all Permitted Materials introduced by Tenant on the Premises after the Effective Date (as defined in the Purchase Agreement); and (vi) if any unauthorized release of a Hazardous Material to the environment results in any condition of pollution or nuisance occurring on or about or beneath the Premises and the same arises from any act or omission of Tenant or its agents, officers,

employees, contractors, invitees or licensees during the Term, Tenant shall, at Tenant's sole cost and expense, promptly undertake all remedial measures required to clean up and abate or otherwise respond to such unauthorized release, pollution or nuisance in accordance with all applicable Environmental Laws. Landlord and Landlord's representatives shall have the right, but not the obligation, upon reasonable prior notice to Tenant and in accordance with the terms and conditions of Section 4.5 below, to enter the Premises at any reasonable time for the purpose of inspecting the storage, use and handling of any Hazardous Material on the Premises in order to determine Tenant's compliance with the requirements of this Lease and applicable Environmental Law. If Landlord gives written notice to Tenant that Tenant's use, storage or handling of any Hazardous Material on the Premises does not comply with this Lease or applicable Environmental Law, Tenant shall correct any such violation within ten (10) business days after Tenant's receipt of such notice from Landlord.

(b) Tenant shall indemnify and defend Landlord against and hold Landlord harmless from all claims, demands, actions, judgments, liabilities, costs, expenses, losses, damages, penalties, fines and obligations of any nature (including reasonable attorneys' fees and disbursements incurred in the investigation, defense or settlement of claims) (collectively, "**Claims**") that Landlord may incur as a result of, or in connection with, claims arising from the presence, use, storage, transportation, treatment, disposal, release or other handling, on or about or beneath the Premises, of any Hazardous Material introduced or permitted on or about or beneath the Premises by any act or omission of Tenant or its agents, officers, employees, or contractors on or after the Commencement Date. Notwithstanding anything contained in the Lease to the contrary, Tenant's obligations with respect to remediation of Hazardous Materials and to indemnify Landlord for Hazardous Materials at the Premises shall only apply to Hazardous Materials that Landlord proves were first introduced to the Premises following the Commencement Date. Landlord shall indemnify and defend Tenant against and hold Tenant harmless from all Claims that Tenant may incur as a result of, or in connection with, claims arising from the presence, use, storage, transportation, treatment, disposal, release or other handling, on or about or beneath the Premises, of any Hazardous Material introduced on or about or beneath the Premises by any act or omission of Landlord or its agents, officers, employees or contractors on or after the Commencement Date.

(c) The liability of Landlord and Tenant under this Section 4.3 shall survive the termination of this Lease with respect to acts or omissions that occur before such termination.

4.4 Compliance with Legal Requirements.

(a) Tenant shall, at Tenant's sole cost and expense, promptly comply with all laws, ordinances, rules, regulations, orders and other requirements of any government or public authority now in force or which may hereafter be in force, and with all directions and certificates of occupancy issued pursuant to any law by any governmental agency or officer, insofar as any thereof relate to or are required by the condition, use or occupancy of the Premises or the operation, use or maintenance of any personal property, fixtures, machinery, equipment or improvements in the Premises, including, without limitation, the Americans with Disabilities Act (collectively, "**Legal Requirements**"); provided, however, that Tenant shall not be required to perform any structural changes to the Premises or modifications to the building systems and equipment of the Premises unless such changes or modifications are related to or affected or triggered by (i) Tenant's alterations made to the Premises following the Commencement Date, (ii) Tenant's use of the Premises for any purpose, it being acknowledged and agreed that Tenant, at its sole cost and expense, shall be responsible for complying with all laws necessary or that are required in order for Tenant to use and occupy the Premises or (iii) Tenant's particular employees or employment practices.

(b) Tenant shall be responsible, at Tenant's sole cost and expense, for causing the Premises to comply with all Legal Requirements during the Term. Landlord shall have no obligation to perform any improvements, repairs or maintenance or to make any alterations to the Premises to cause the

Premises to comply with any Legal Requirements or to cause the Premises to be suitable for Tenant's use and purposes.

(c) Tenant acknowledges that Landlord intends to develop and construct a multi-unit residential apartment community on the Premises and, accordingly, the Premises will eventually be demolished by Landlord upon the termination of the Lease. Tenant further acknowledges, consents and agrees that Landlord and Landlord's architects, engineers, consultants, vendors and other representatives, together with any prospective buyers or tenants of Landlord, may upon prior reasonable notice to Tenant, conduct studies, test, sampling and investigations at the Premises (including invasive testing sampling) and further that Landlord may conduct construction activity, such as earthwork, demolition and relocation of utilities on the Land (except physical demolition or construction on the Building) provided that such construction activity does not unreasonably interfere with Tenant's use and occupancy of the Premises. Tenant agrees that Landlord shall have no liability to Tenant for any inconvenience, noise, vibrations, dust, temporary road or driveway closures, or temporary loss of utilities that result from such activity by Landlord provided that such construction activity does not unreasonably interfere with Tenant's use and occupancy of the Premises.

4.5 Entry by Landlord. Except as otherwise expressly provided herein below, Landlord shall have the right to enter the Premises at reasonable hours upon at least forty-eight (48) hours advance notice (provided that no advance notice need be given if an emergency (as determined by Landlord in its good faith judgment) necessitates an immediate entry), to (a) inspect the Premises, (b) exhibit the Premises to prospective purchasers, tenants or lenders, (c) post notices of non-responsibility, (d) make any repairs to the Premises, and (e) conduct invasive and non-invasive tests, analysis, investigations and studies of the condition of the Premises provided that such construction activity does not unreasonably interfere with Tenant's use and occupancy of the Premises; provided that, Landlord shall at all times be accompanied by a representative of Tenant during any entry into the Building by Landlord (or so long as Tenant makes a representative available). Tenant waives all claims for damages for any injury or inconvenience to or interference with Tenant's business, any loss of occupancy or quiet enjoyment of the Premises or any other loss occasioned by such entry provided that any such entry (and any work in connection therewith) shall be concluded as promptly as reasonably practicable and so as to cause as little interference to Tenant as reasonably practicable. In any entrance into the Premises pursuant to the provisions of this Section 4.5, Landlord shall comply with Tenant's reasonable security and confidentiality procedures previously detailed by Tenant to Landlord, except to the extent Landlord or its agents reasonably determine that an emergency makes compliance with such procedures impracticable. Notwithstanding anything to the contrary contained in this Section 4.5, Tenant may designate certain areas of the Premises as "Secured Areas" as reasonably required for purposes of securing certain valuable property and confidential information, including, without limitation, as may be required by legal Requirements, and Landlord shall have no right whatsoever to enter such Secured Areas unless accompanied by a representative of Tenant.

ARTICLE 5
Utilities

5.1 Tenant's Responsibilities. Tenant shall pay, directly to the appropriate supplier before delinquency, for all water, gas, heat, light, power, telephone, sewer, refuse disposal and other utilities and services supplied to the Premises, together with all taxes, assessments, surcharges and similar expenses relating to such utilities and services. Tenant, at Tenant's sole cost and expense, shall furnish the Premises with all telephone service, window washing, security service, janitorial, scavenger and disposal services, property management services, and other services required or desired by Tenant for the use of the Premises permitted by this Lease. Tenant shall keep, maintain and replace, as necessary, in good condition and repair, the plumbing system, utility lines and connections and other utility fixtures and equipment serving the Premises, including, without limitation, water, sewer, telephone, electrical and gas connections, to their

respective points of connection with the Premises. Except to the extent otherwise expressly provided in Section 5.2 below, Landlord shall have no obligation whatsoever to provide any property management services or any other services to Tenant under this Lease. If Landlord retains a property manager during the Term, then such property manager shall not have an office on the Premises, and Landlord shall be solely responsible (with no reimbursement from Tenant) for all costs and expenses incurred in connection with Landlord's property manager.

5 . 2 Landlord's Responsibilities. Tenant hereby waives the provisions of California Civil Code Section 1932(1), 1941 and 1942 or any other applicable existing or future Legal Requirement permitting the termination of this Lease due to such interruption, failure or inability. Landlord shall not be in default under this Lease or be liable for any damage or loss directly or indirectly resulting from, nor shall the rent be abated (except as otherwise expressly provided herein below) or a constructive or other eviction be deemed to have occurred by reason of, any interruption of or failure to supply or delay in supplying any such utilities and services or any limitation, curtailment, rationing or restriction on use of water, electricity, gas or any resource or form of energy or other service serving the Premises, whether such results from mandatory restrictions or voluntary compliance with guidelines; provided, however, that Landlord shall, however, use reasonable and diligent efforts to restore or to cause the restoration of the interrupted utility service, if and to the extent that the interruption or failure is caused by or the result of, directly or indirectly, the negligence or willful misconduct of Landlord or Landlord's agents, employees, officers or contractors. Notwithstanding anything contained herein to the contrary, if any interruption in, or failure or inability to provide any utilities to the Premises is caused by or the result of, directly or indirectly, the negligence or willful misconduct of Landlord or Landlord's agents, employees, officers or contractors and continues for three (3) or more consecutive days after Tenant's written notice thereof to Landlord and Landlord fails to restore or commence repairs or work to restore such interruption or failure, then Tenant shall be entitled to an abatement of Base Rent, which abatement shall be based on the extent of Tenant's inability to reasonably use the Premises for Tenant's business. The abatement provisions set forth above shall be inapplicable to any interruption in, or failure or inability to provide any utilities that is caused by (x) damage by fire or other casualty or a taking (it being acknowledged that such situations shall be governed by Articles 11 and 12, respectively), (y) the negligence or willful misconduct of Tenant or Tenant's agents, employees, officers or contractors, or (z) by any act other than the acts of Landlord, it being acknowledged and agreed to by Tenant that Tenant is responsible for causing all utilities to be furnished to the Premises throughout the Term.

ARTICLE 6
Maintenance and Repairs

6 . 1 Obligations of Landlord. Except to the extent that Landlord or its agents, employees or contractors causes any damage to the Premises or as otherwise set forth in Section 6.3 below, Landlord shall have no obligation to maintain or repair the Premises during the Term. Landlord shall, at Landlord's expense, promptly repair any damage to the Premises caused by Landlord or any agent, employee or contractor of Landlord.

6.2 Obligations of Tenant. Tenant shall, at all times during the Term of this Lease and at Tenant's sole cost and expense, maintain the Premises in good order and operating condition, ordinary wear and tear excepted, in order to permit Tenant to operate its then current business activities at the Premises, as reasonably determined by Tenant; provided that (i) Tenant's obligations regarding maintenance of the Premises shall be limited to maintaining the Premises in the same condition as of the Commencement Date, normal and tear excepted, (ii) in no event shall Landlord be required make any capital improvements, repairs or replacements to the Premises (including, without limitation, the structural portions of the Premises or the major building systems of the Premises) during the Term, and (iii) subject to Section 7.2 below, upon Tenant's surrender of the Premises to Landlord on the expiration or earlier termination of the Term, Tenant

shall not be required to repair or replace any portion of the Premises to the extent that the Premises (or any portions thereof) was in the same condition as of the Commencement Date, ordinary wear and tear excepted. Subject to the terms and conditions of Section 8.4 and Article 11 below, Tenant shall, at Tenant's expense, promptly repair any damage to the Premises caused by Tenant or any agent, officer, employee, contractor, licensee or invitee of Tenant.

6 . 3 Capital Repairs and Replacements. Landlord shall have no obligation to make any capital repairs of any kind or nature during the Term. If Tenant determines that any capital repairs are desired or necessary for Tenant's continued lawful use of the Premises, then Tenant may make such repairs or replacements at its sole costs and expense. If Landlord is required by law to make any capital repairs or replacements to the Premises for any reason, then Landlord may terminate this Lease with thirty (30) days prior written notice to Tenant, or Landlord may elect to make such repairs and Tenant shall pay to Landlord the actual costs of such capital repairs and/or reimburse Landlord for the cost of such capital repairs within thirty (30) days after delivery of written demand therefore from Tenant.

ARTICLE 7
Alteration of the Premises

7 . 1 Alterations. Landlord agrees to allow Tenant to make such alterations to the Premises as are in the reasonable opinion of Tenant necessary for the operation of Tenant's business. Landlord shall have no obligation to reimburse Tenant or pay for any alterations approved by Landlord. Tenant will not make any structural alterations to the Premises or any part thereof without first providing to Landlord the architectural plans and specifications relating thereto. All alterations, additions and improvements in or to the Premises to which Landlord consents (or is deemed to have consented) shall be made by Tenant at Tenant's sole cost and expense as follows:

(a) With respect to those alterations requiring Landlord's consent, Tenant shall submit to Landlord, for Landlord's written approval, complete plans and specifications for all work to be done by Tenant. Such plans and specifications shall be prepared by responsible licensed architect(s) and engineer(s) reasonably approved by Landlord (provided that, Landlord hereby approves those architects and engineers, if any, listed on **Exhibit C** attached hereto), shall comply with all Legal Requirements, shall be in a form sufficient to secure the approval of all government authorities with jurisdiction over the Premises, and shall be otherwise satisfactory to Landlord in Landlord's reasonable discretion (provided that, in no event shall Tenant be required to construct improvements to any particular LEED standard, except as may be required by Legal Requirements).

(b) Tenant shall obtain all required permits for the work. Tenant shall engage responsible licensed contractor(s) to perform all work, each of whom shall be subject to Landlord's reasonable approval; provided that, Landlord hereby approves those contractors, if any, listed on **Exhibit C** attached hereto; and further provided that, in no event shall Landlord require Tenant to use union labor. Tenant shall perform all work in accordance with the plans and specifications approved by Landlord (with respect to those alterations requiring Landlord's consent), in a good and workmanlike manner, in full compliance with all applicable Legal Requirements. Tenant shall pay for all work (including the cost of all utilities, permits, fees, taxes, and property and liability insurance premiums in connection therewith) required to make the alterations, additions and improvements. Under no circumstances shall Landlord be liable to Tenant for any damage, loss, cost or expense incurred by Tenant on account of design of any work, construction of any work, or delay in completion of any work.

(c) Tenant shall give written notice to Landlord of the date on which construction of any work will be commenced at least five (5) days prior to such date. Tenant shall keep the Premises free from mechanics', materialmen's and all other liens arising out of any work performed, labor supplied,

materials furnished or other obligations incurred by Tenant. Tenant shall promptly and fully pay and discharge all claims on which any such lien could be based. Tenant shall have the right to contest the amount or validity of any such lien, provided Tenant gives prior written notice of such contest to Landlord, prosecutes such contest by appropriate proceedings in good faith and with diligence, and, upon request by Landlord, furnishes such bond as are sufficient to remove the lien from title to the Premises. Landlord shall have the right to post and keep posted on the Premises any notices that may be provided by law or which Landlord may deem to be proper for the protection of Landlord and the Premises from such liens, and to take any other action Landlord deems necessary to remove or discharge liens or encumbrances at the expense of Tenant.

(d) Landlord shall approve or disapprove of any matter requiring Landlord's approval under this Article 7 no later than ten (10) days following its receipt of Tenant's request for approval. Landlord agrees not to unreasonably condition or object to any matter requiring Landlord's approval under this Article 7. If Landlord disapproves of any matter requiring Landlord's approval under this Article 7, Landlord shall detail with specificity the reason for its objection in such disapproval notice. If Landlord fails to respond to any request for approval under this Article 7 within ten (10) days following Tenant's delivery of a written request for Landlord's approval, then Tenant may provide a second written notice to Landlord, which notice shall state that failure to approve or disapprove such request within five (5) days shall constitute Landlord's consent to the proposed matter. Landlord's failure to approve or disapprove of such matter within five (5) days of Tenant's second request for approval shall be deemed Landlord's approval of such matter. Landlord shall have no right to charge Tenant any coordination, supervision, management or other fees in connection with any alterations performed by Tenant.

7.2 Landlord's Property; Surrender. All alterations, additions, fixtures and improvements, made in or to the Premises by Landlord or Tenant shall become part of the Premises and Landlord's property and, notwithstanding anything contained herein to the contrary, Tenant shall not be required to remove any such alterations, additions, fixtures and improvements, at the expiration or earlier termination of this Lease. All movable furniture, equipment, trade fixtures (whether or not attached to the Premises), signage containing Tenant's name or logo, cameras (whether or not affixed to the interior or exterior of the Premises), computers, office machines and other personal property shall remain the property of Tenant. Upon termination of this Lease, Tenant may, at Tenant's expense, remove any such movable furniture, equipment, trade fixtures, signage, cameras, computers, office machines and other personal property from the Premises that Tenant desires; provided, however, that, notwithstanding anything to the contrary contained in this Lease, upon Tenant's vacation and surrender of the Premises to Landlord, (i) all piping, electrical, and cabling in the Premises relating to such removals will remain in its "as-is" condition, (ii) in no event shall Tenant be obligated to repair or restore any holes, penetrations or other openings in the walls (interior or exterior), floors, ceilings or monuments in connection with, resulting from or caused by the removal of Tenant's movable furniture, equipment, trade fixtures, signage, cameras, computers, office machines and other personal property, (iii) Tenant shall remove and dispose of in accordance with Environmental Law any and all Hazardous Materials brought onto the Property by Tenant after the Effective Date (as defined in the Purchase Agreement); and (iv) Tenant shall terminate or cancel any operating permits, utility service contracts or other service contracts affecting the Premises so that all such contracts and services are terminated on or before the expiration of this Lease. Any moveable furniture, equipment, trade fixtures, signage, cameras, computers, office machines or other personal property that Tenant does not remove from the Premises shall become the personal property of Landlord, which may be disposed of by Landlord in Landlord's sole discretion, and Tenant shall have no obligation to pay for the cost of removal thereof.

ARTICLE 8
Indemnification and Insurance

8.1 Damage or Injury. Landlord shall not be liable to Tenant, and Tenant hereby waives all claims against Landlord, for any damage to or loss or theft of any property or for any bodily or personal injury, illness or death of any person in, on or about the Premises arising at any time and from any cause whatsoever, except to the extent caused by the negligence or willful misconduct of Landlord. Tenant shall indemnify and defend Landlord and Landlord's officers, directors, members, managers, shareholders, agents, employees, lenders, consultants, engineers and assigns (collectively, **"Landlord's Indemnitees")** against and hold Landlord and Landlord's Indemnitees harmless from all Claims arising from or related to Tenant's use of the Premises during the Term or any damage, bodily or personal injury, illness or death of any person occurring (i) within the Building during the Term from any cause whatsoever (except to the extent caused by the negligence or willful misconduct of Landlord, or its agents, contractors, officers, or employees), or (ii) in, on or about any part of the Premises outside the Building to the extent such damage, bodily or personal injury, illness or death is caused by negligence or willful misconduct of Tenant or its agents, contractors, officers, or employees. Landlord shall indemnify and defend Tenant against and hold Tenant harmless from all Claims arising from or related to any damage, bodily or personal injury, illness or death of any person occurring in, on or about any part of the Premises to the extent such damage, bodily or personal injury, illness or death is caused by negligence or willful misconduct of Landlord or its agents, contractors, officers, or employees. This section 8.1 shall survive the termination of this Lease with respect to any damage, bodily or personal injury, illness or death occurring prior to such termination.

8.2 Tenant's Insurance Coverages. Tenant shall, at all times during the Term of this Lease and at Tenant's sole cost and expense, obtain and keep in force the insurance coverages and amounts set forth in this Section 8.2.

(a) Tenant shall maintain commercial general liability insurance, including contractual liability, broad form property damage liability, fire legal liability, premises and completed operations, and medical payments, with limits not less than One Million Dollars ($1,000,000) per occurrence and Two Million Dollars ($2,000,000) general aggregate, insuring against claims for bodily injury, personal injury and property damage arising from the use, occupancy or maintenance of the Premises. Tenant shall maintain business auto liability insurance with limits not less than One Million Dollars ($1,000,000) per accident covering owned, hired and non-owned vehicles used by Tenant. Tenant shall maintain umbrella or excess liability insurance with limits not less than Three Million Dollars ($3,000,000) per occurrence and general aggregate. Tenant shall carry workers' compensation insurance for all of its employees in statutory limits in the state in which the Premises is located. Tenant shall maintain property insurance for all personal property of Tenant in an amount not less than the full replacement cost. Any deductibles selected by Tenant shall be the sole responsibility of Tenant.

(b) Tenant shall maintain "all-risk" (now referred to as special form causes of loss) property insurance covering Tenant's moveable furniture, equipment, trade fixtures, signage, cameras, computers, office machines and other personal property located within the Premises, and any alterations or improvements made by Tenant to the interior of the Premises following the Commencement Date, against loss or damage resulting from fire and other insurable loss. Such insurance shall be in such amounts as Tenant may deem appropriate in its sole and absolute discretion. Tenant shall not be required to carry flood or earthquake or windstorm insurance.

(c) All insurance and all renewals thereof shall be issued by companies with a rating of at least "A-" "VIII" or better in the current edition of Best's Insurance Reports and be licensed to do and doing business in the state in which the Premises is located. Any policy required to be maintained hereunder by Tenant may be maintained under a so-called "blanket policy", insuring other parties and other locations,

so long as the amount of insurance to be provided hereunder is not thereby diminished. Tenant shall endeavor to issue a certificate of insurance that expressly provides that the policy shall not be canceled or materially altered without ten (10) days' prior written notice to Landlord. All liability insurance (except workers' compensation – employers liability) shall include Landlord and any other parties designated by Landlord (including any investment manager, asset manager or property manager) as an additional insured under "blanket endorsement", shall be primary and noncontributing with any insurance which may be carried by Landlord, shall, subject to policy terms, conditions and exclusions, afford coverage for claims for bodily injury and/or property damage based on any act, omission, event or condition that occurred or arose (or the onset of which occurred or arose) during the policy period, and Landlord, although included as an additional insured, shall nevertheless be entitled to seek recovery under the policy for any loss, injury or damage to Landlord. Tenant shall deliver certificates of insurance, acceptable to Landlord, to Landlord at least ten (10) days before expiration of each policy. If Tenant fails to insure or fails to furnish any such insurance certificate, and such failure continues for ten (10) days following written notice from Landlord, then Landlord shall have the right to effect such insurance for the benefit of Tenant, and Tenant shall pay to Landlord on written demand, as additional rent, all premiums paid by Landlord.

8.3 Landlord's Insurance Coverages.

(a) Tenant may request in writing that Landlord obtain property insurance, commercial generally liability insurance or such other insurance coverages as Tenant may reasonably request to Landlord. Landlord shall review any such written request from Tenant and, within ten (10) business days of such request, Landlord shall, in Landlord's reasonable discretion, consent to the obtaining of such insurance requested or shall discuss and confer with Tenant to attempt to come to an agreement on the type and amount of insurance to be procured by Landlord, and if Landlord and Tenant come to an agreement with respect to such insurance, Landlord shall promptly and in good faith procure such insurance **("Tenant Directed Insurance").** Tenant shall pay in advance as additional rent any premiums, deductibles or other cost of any Tenant Directed Insurance in accordance with the procedures set forth in Section 3.5.

(b) Except for any Tenant Directed Insurance obtained by Landlord as set forth above, Landlord may, but is not required to, carry property insurance or any other insurance. Landlord shall provide Tenant with written notice of any insurance it obtains in connection with the Property. If Tenant does not request that Landlord carry property insurance or any other insurance and Landlord elects to do so, or if Tenant requests that Landlord carry the Tenant Directed Insurance and Landlord thereafter elects to carry insurance in excess of the Tenant Directed Insurance (any such insurance or excess insurance is referred to herein as **"Landlord Elected Insurance"):** (i) Landlord will carry such Landlord Elected Insurance at its own expense, (ii) it will have the sole right to all proceeds and benefits of the Landlord Elected Insurance; and (iii) it will not be required to add Tenant as an additional insured on the Landlord Elected Insurance.

(c) Notwithstanding any of the foregoing in Sections 8.3(a) and (b) above, whether or not Landlord obtains the Tenant Directed Insurance or the Landlord Elected Insurance, for purposes of Section 8.4 below Landlord shall be deemed to carry "all-risk" (now referred to as special form causes of loss) property insurance covering the Premises (including any additions, alterations or improvements thereto, except those alterations or improvements made by Tenant to the interior of the Premises following the Commencement Date) against loss or damage resulting from fire and other insurable loss (the **"Building Insurance").** Such Building Insurance shall be deemed to be on a one hundred percent (100%) replacement cost basis (exclusive of costs for excavation, foundations and footings).

8.4 Subrogation. Each party hereto hereby releases the other respective party and the respective partners, shareholders, agents, employees, officers, directors and authorized representatives of such released party, from any claims such releasing party may have for damage to the Premises or any of

such releasing party's fixtures, personal property, improvements and alterations in or about the Premises that is caused by or results from risks insured against under any fire and extended coverage insurance policies actually carried by such releasing party or deemed to be carried by such releasing party; provided, however, that such waiver shall be limited to the extent of the net insurance proceeds payable by the relevant insurance company with respect to such loss or damage (or in the case of deemed coverage, the net proceeds that would have been payable). For purposes of this Section 8.4, Landlord and Tenant shall be deemed to be carrying any of the insurance policies that they are required to carry pursuant to this Article 8 but do not actually carry, and Tenant's property insurance shall be deemed to be on a one hundred percent (100%) replacement cost basis with respect to the personal property, alterations and improvements required to be covered by such property insurance. Each party hereto shall cause each such fire and extended coverage insurance policy obtained by it to provide that the insurance company waives all rights of recovery by way of subrogation against the other respective party and the other released parties in connection with any matter covered by such policy.

ARTICLE 9
Assignment or Sublease

9.1 Prohibition. Tenant shall not, without the prior written consent of Landlord (which consent shall not be unreasonably withheld, conditioned or delayed), assign this Lease or any interest herein, sublease the Premises or any part thereof, permit the use or occupancy of the Premises by any person or entity other than Tenant, or pledge, mortgage or hypothecate this Lease or any interest herein. If any subtenant, transferee or assignee is obligated to pay any amount in excess of the Rent required to be paid hereunder by Tenant, however such amounts may be characterized, including, without limitation, key rent or bonus rent (hereafter "Excess Rent"), Landlord shall be entitled to receive one hundred percent (100%) of such Excess Rent.

9.2 Landlord's Consent. If Tenant wishes to obtain Landlord's consent to any assignment of this Lease or sublease of all or any part of the Premises, Tenant shall give written notice to Landlord identifying the intended assignee or subtenant by name and address and specifying the terms of the intended assignment or sublease. Tenant shall give Landlord such additional information concerning the intended assignee or subtenant (including complete financial statements and a business history) or the intended assignment or sublease (including true copies thereof) as Landlord requests. Landlord shall approve or disapprove of any such assignment or subletting within thirty (30) days of Tenant's request for consent. If Landlord fails in writing, within thirty (30) days following Tenant's delivery of a written request for Landlord's consent, to approve or disapprove any proposed assignment or sublease, then Tenant may provide a second written notice to Landlord, which notice shall state that Landlord's failure to approve or disapprove such request within ten (10) days shall constitute Landlord's consent to the proposed assignment or sublease. Landlord's failure to approve or disapprove of any assignment or subletting within ten (10) days of Tenant's second request for consent shall be deemed Landlord's approval of the assignment or subletting. If Landlord disapproves any assignment or subletting, Landlord shall provide Tenant written notice with the reasons for such disapproval.

9.3 Documentation. No permitted assignment or subletting by Tenant shall be effective until there has been delivered to Landlord a fully executed counterpart of the assignment or sublease. Tenant agrees that the instrument by which any assignment or sublease to which Landlord consents is accomplished shall expressly provide that the assignee or subtenant will perform all of the covenants to be performed by Tenant under this Lease (in the case of a sublease, only insofar as such covenants relate to the portion of the Premises subject to such sublease) as and when performance is due after the effective date of the assignment or sublease.

9.4 Tenant Not Released. No assignment or sublease whatsoever shall release Tenant from Tenant's obligations and liabilities under this Lease or alter the primary liability of Tenant to pay all rent and to perform all obligations to be paid and performed by Tenant. No assignment or sublease shall amend or modify this Lease in any respect, and every assignment and sublease shall be subject and subordinate to this Lease. The acceptance of rent by Landlord from any other person or entity shall not be deemed to be a waiver by Landlord of any provision of this Lease. Consent to one assignment or sublease shall not be deemed consent to any subsequent assignment or sublease. Except in connection with a transfer described in Section 9.5 below, Tenant shall pay to Landlord all reasonable direct costs and shall reimburse Landlord for all reasonable expenses incurred by Landlord in connection with any assignment or sublease requested by Tenant, such cost shall be no less than One Thousand Five Hundred Dollars ($1,500) and shall not exceed Five Thousand Dollars ($5,000) in connection with any one transfer. If any assignee, subtenant or successor of Tenant defaults in the performance of any obligation to be performed by Tenant under this Lease, Landlord may proceed directly against Tenant without the necessity of exhausting remedies against such assignee, subtenant or successor. Landlord may consent to subsequent assignments or subleases or amendments or modifications to this Lease with assignees, subtenants or successors of Tenant, without notifying Tenant or any successor of Tenant and without obtaining any consent thereto from Tenant or any successor of Tenant, and such action shall not release Tenant from liability under this Lease.

9.5 Permitted Transfers. Notwithstanding anything to the contrary in Sections 9.1 or 9.2 above, but subject to Sections 9.3 and 9.4 above, Tenant may assign this Lease or sublet the Premises or any portion thereof, without Landlord's consent, to (a) any affiliate of Tenant or Tenant's parent (or one or more of the constituent owners of Tenant or Tenant's parent), (b) any partnership, corporation or other entity which controls, is controlled by, or is under common control with Tenant or Tenant's parent, (c) any partnership, corporation or other entity resulting from a merger or consolidation with Tenant or Tenant's parent, or (d) any person or entity which acquires all or substantially all the assets of Tenant as a going concern (including by means of a purchase of all or substantially all of Tenant's stock) provided that (i) Landlord receives at least ten (10) business days' prior written notice of the assignment or subletting (or, if such disclosure is prohibited by Legal Requirements or any confidentiality agreement to which Tenant is legally bound, Landlord receives written notice within five (5) days following such assignment or subletting), together with evidence that the requirements of this Section 9.5 have been met, (ii) the transferee assumes (in the event of an assignment) in writing all of Tenant's obligations under this Lease, or agrees (in the event of a sublease) that such subtenant will, at Landlord's election, attorn directly to Landlord in the event that this Lease is terminated for any reason, (iii) in the case of an assignment by means of a purchase of all or substantially all of Tenant's stock, the essential purpose of such assignment is to transfer an active, ongoing business with substantial assets in addition to this Lease, and in the case of an assignment (by any means), or a sublease, the transaction is for legitimate business purposes unrelated to this Lease and the transaction is not a subterfuge by Tenant to avoid it obligations under this Lease or the restrictions on assignment and subletting contained herein, and (iv) Maravai Life Sciences Holdings, LLC, a Delaware limited liability company, shall remain liable as Guarantor under the Guaranty unless and until a replacement guarantor is agreed upon by the parties.

9.6 Subordination. All subleases shall be subordinate in all respects to this Lease. If this Lease terminates for any reason or expires, all subleases shall automatically terminate and expire concurrently with this Lease and Landlord may immediately proceed to evict Tenant and any subtenants after the expiration or earlier termination of this Lease. This Lease does not provide non-disturbance or recognition rights as to any sublease or any subtenant. Landlord may in its sole discretion, accept any cure of any Tenant default under this Lease by any subtenant, but Landlord is under no obligation to accept any such cure.

ARTICLE 10
Events of Default and Remedies

10.1 Default by Tenant. The occurrence of any one or more of the following events **("Event of Default")** shall constitute a breach of this Lease by Tenant:

(a) Tenant fails to pay Base Rent or any additional rent or other amount of money or charge payable by Tenant hereunder as and when such Base Rent or additional rent or amount or charge becomes due and payable and such failure continues for more than five (5) business days from the date such sums are due, provided, however, that on one (1) occasion during any calendar year of the Term, Landlord shall give Tenant notice of such late payment and Tenant shall have a period of five (5) business days thereafter in which to make such payment before such failure to pay constitutes an Event of Default (provided that, if such failure to pay is not cured within such five (5) business day period, Landlord may exercise all remedies described in this Lease with respect thereto; or

(b) Except for any monetary default described in Section 10.1(a) above or any unpermitted transfer or sublet described in Section 10.1(f) below, Tenant fails to perform or observe any other agreement, covenant or condition of this Lease to be performed or observed by Tenant as and when performance or observance is due and such failure continues for more than thirty (30) days after Landlord gives written notice thereof to Tenant; provided, however, that if, by the nature of such agreement, covenant or condition, such failure cannot reasonably be cured within such period of thirty (30) days, an Event of Default shall not exist as long as Tenant commences with due diligence and dispatch the curing of such failure within such period of thirty (30) days and, having so commenced, thereafter prosecutes with diligence and dispatch and completes the curing of such failure within a reasonable time; or

(c) Tenant or Guarantor (i) is generally not paying their debts as they become due, (ii) files, or consents by answer or otherwise to the filing against either of them of, a petition for relief or reorganization or arrangement or any other petition in bankruptcy or liquidation or to take advantage of any bankruptcy or insolvency law of any jurisdiction, (iii) makes an assignment for the benefit of creditors, (iv) consents to the appointment of a custodian, receiver, trustee or other officer with similar powers of Tenant or Guarantor or of any substantial part of Tenant's or Guarantor's property, or (v) takes action for the purpose of any of the foregoing;

(d) A court or governmental authority of competent jurisdiction enters an order appointing, without consent by Tenant or Guarantor, a custodian, receiver, trustee or other officer with similar powers with respect to Tenant or Guarantor or with respect to any substantial part of Tenant's or Guarantor's property, or constituting an order for relief or approving a petition for relief or reorganization or any other petition in bankruptcy or for liquidation or to take advantage of any bankruptcy or insolvency law of any jurisdiction, or ordering the dissolution, winding-up or liquidation of Tenant or Guarantor, or if any such petition is filed against Tenant or Guarantor and such petition is not dismissed within sixty (60) days;

(e) Tenant vacates or abandons the Premises for a period of thirty (30) consecutive days or more;

(f) This Lease or the estate of Tenant hereunder shall be transferred, sublet, assigned to or shall pass to or devolve under any other person or party except as expressly provided in this Lease; or

(g) Any default occurs under the Lease Guaranty.

10.2 Remedies Upon Default.

(a) Landlord shall have the remedy described in California Civil Code Section 1951.2. If an Event of Default occurs, Landlord at any time thereafter shall have the right to give a written termination notice to Tenant and on the date specified in such notice, Tenant's right to possession shall terminate and this Lease shall terminate. Upon such termination, Landlord shall have the right to recover from Tenant:

(i) The worth at the time of award of all unpaid rent which had been earned at the time of termination;

(ii) The worth at the time of award of the amount by which all unpaid rent which would have been earned after termination until the time of award exceeds the amount of such rental loss that Tenant proves could have been reasonably avoided;

(iii) The worth at the time of award of the amount by which all unpaid rent for the balance of the Lease Term after the time of award exceeds the amount of such rental loss that Tenant proves could be reasonably avoided; and

(iv) All other amounts necessary to compensate Landlord for all the detriment proximately caused by Tenant's failure to perform its obligations under this Lease or which in the ordinary course of things would be likely to result therefrom.

(v) The Termination Payment that would have been due if Tenant had elected to terminate this Lease as provided in Section 2.3 above so that Landlord receives the Aggregate Rent Consideration.

(vi) The "worth at the time of award" of the amounts referred to in clauses (i) and (ii) above shall be computed by allowing interest at ten percent (10%) per annum. The "worth at the time of award" of the amount referred to in clause (iii) above shall be computed by discounting such amount at the discount rate of the Federal Reserve Bank of San Francisco at the time of award plus one percent (1%).

(b) Landlord shall have the remedy described in California Civil Code Section 1951.4 (lessor may continue lease in effect after lessee's breach and abandonment and recover rent as it becomes due, if lessee has the right to sublet or assign, subject only to reasonable limitations). Accordingly, even though Tenant has breached this Lease and an Event of Default has occurred, this Lease shall continue in effect for so long as Landlord does not terminate Tenant's right to possession, and Landlord shall have the right to enforce all its rights and remedies under this Lease, including the right to recover all rent as it becomes due under this Lease. Acts of maintenance or preservation or efforts to relet the Premises or the appointment of a receiver upon initiative of Landlord to protect Landlord's interest under this Lease shall not constitute a termination of Tenant's right to possession unless written notice of termination is given by Landlord to Tenant.

(c) The parties acknowledge and agree that Landlord would not have entered into this Lease, except for Tenant's agreement to pay the Aggregate Rent Consideration throughout the Term, therefore, notwithstanding anything contrary in this Lease, Landlord and Tenant agree that Landlord shall have no obligation to re-let the premises or otherwise mitigate the damages suffered by Landlord upon the occurrence of a breach or an Event of Default by Tenant. Tenant hereby waives any right that it may have to require Landlord to mitigate damages upon the occurrence of a breach or an Event of Default by Tenant. Tenant represents, warrants and agrees that it will pay the Termination Payment as provided in Section 2.3

above if this Lease is terminated after the Commencement Date due to a breach or the occurrence of an Event of Default by Tenant that results in or causes the termination of this Lease by Landlord or Tenant. Tenant further acknowledges and agrees that the application or enforcement of California Civil Code Section 1951.2 shall not operate to limit, reduce or otherwise prohibit the full payment of the Aggregate Rent Consideration to Landlord.

(d) The remedies provided for in this Lease are in addition to all other remedies available to Landlord at law or in equity by statute or otherwise. Tenant hereby waives, for Tenant and for all those claiming under Tenant, any and all rights now or hereafter existing to redeem by order or judgment of any court or by any legal process or writ, Tenant's right of occupancy of the Premises after any termination of this Lease.

10.3 Landlord's Right to Cure Defaults. All agreements to be performed by Tenant under this Lease shall be at Tenant's sole cost and expense and without any abatement of rent. If Tenant fails to pay any sum of money required to be paid by Tenant hereunder or fails to perform any other act on Tenant's part to be performed hereunder, Landlord shall have the right, without waiving or releasing Tenant from any obligations of Tenant, but shall not be obligated, to make any such payment or to perform any such other act on behalf of Tenant in accordance with this Lease; provided, however, that unless in Landlord's good faith judgment earlier payment or performance is required by reason of emergency, or to preclude jeopardy to the health, safety or quiet enjoyment of the Premises by its tenants or occupants or further damage or loss to Landlord or the Premises, or to cure a violation of any Legal Requirement, then Landlord shall provide Tenant with not less than ten (10) days prior written notice that Landlord will make such payment or perform such obligation on Tenant's behalf if the same is not paid or performed by Tenant prior to the expiration of such ten (10) day period. All sums so paid by Landlord and all necessary incidental costs shall be deemed additional rent hereunder and shall be payable by Tenant to Landlord on demand, together with interest on all such sums from the date of expenditure by Landlord to the date of repayment by Tenant at the Interest Rate. Landlord shall have, in addition to all other rights and remedies of Landlord, the same rights and remedies in the event of the nonpayment of such sums plus interest by Tenant as in the case of default by Tenant in the payment of rent.

10.4 Landlord Default. If Landlord defaults under this Lease, Tenant shall give written notice to Landlord specifying such default with particularity, and Landlord shall have thirty (30) days after receipt of such notice within which to cure such default; provided, however, that if such default cannot reasonably be cured within such period of thirty (30) days, a default by Landlord shall not exist as long as Landlord commences with due diligence and dispatch the curing of such default within such period of thirty (30) days and, having so commenced, thereafter prosecutes with diligence and dispatch and completes the curing of such default within a reasonable time. If Landlord fails to perform any of its material obligations hereunder within the time period provided in the preceding sentence, and Tenant's ability to use and occupy the Premises is materially impaired as a result thereof, Tenant may, but shall not be obliged to, and without waiving any default of Landlord or releasing Landlord from any obligations to Tenant hereunder, give Landlord a second written notice regarding the subject default. If Landlord fails to cure or commence the curing of such default within ten (10) business days after receipt of said second notice expressly stating Tenant's intention to exercise its rights under this Section 10.4, then Tenant shall have all rights and remedies available to it at law and in equity.

ARTICLE 11
Damage or Destruction

11.1 Restoration. Landlord shall not be obligated to repair or replace any portion of the Premises if the Premises, or any part thereof, is damaged by fire or other casualty during the Term of this Lease. Landlord shall not be obligated to repair any damage to, or to make any replacement of, any moveable

furniture, equipment, trade fixtures, signage, cameras, computers, office machines or any alterations or improvements made by Tenant to the interior or exterior of the Premises following the Commencement Date.

11.2 Termination of Lease. If the Premises, or any part thereof, is damaged by fire or other casualty during the Term of this Lease, then Landlord shall have the right, at Landlord's option, to give written notice to Tenant within sixty (60) days after the date of the occurrence of such damage of Landlord's intention to terminate this Lease effective as of the date that is sixty (60) days after Tenant's receipt of such notice. In the event Landlord elects to terminate this Lease, Tenant shall have the right, within thirty (30) days after receipt of such notice, to give written notice to Landlord of Tenant's election to either (i) complete and pay the cost of repair of such damage (except that Tenant shall have the right to use any available proceeds from insurance carried by Landlord or Tenant to complete such restoration work), in which event this Lease shall continue in full force and effect, and Tenant shall make such repairs as soon as reasonably possible or (ii) confirm in writing that that the Lease shall terminate and Tenant shall pay the Termination Payment as provided in Section 2.3 above.

11.3 Waivers. The provisions of this Article 11, constitute an express agreement between Landlord and Tenant with respect to any and all damage to, or destruction of, all or any part of the Premises, and any statute or regulation of the State of California, including, without limitation, Sections 1932(2) and 1933(4) of the California Civil Code, with respect to any rights or obligations concerning damage or destruction in the absence of an express agreement between the parties, and any other statute or regulation, now or hereafter in effect, shall have no application to this Lease or any damage or destruction to all or any part of the Premises.

11.4 Insurance Proceeds Upon Casualty. Any available insurance proceeds shall be used to pay the cost of restoration of the Premises to the extent Tenant elects to commence restoration work pursuant to section 11.2 above. If Tenant does not elect to commence restoration work, then any available insurance shall be assigned and/or delivered to Landlord; provided, that in the event any proceeds are received from any Tenant Directed Insurance policy, such proceeds shall be applied to the Aggregate Rent Consideration and reduce, on a dollar for dollar basis, any subsequent Termination Payment owed by Tenant to Landlord. If insurance proceeds, together with any related deductible, are insufficient to complete the restoration, then Tenant shall pay all costs necessary to complete any restoration work Tenant elects to complete. Notwithstanding anything to the contrary above or elsewhere in this Lease, the disbursement of insurance proceeds shall be subject to the rights of any mortgagees, lienholders or any other party with a security interest in the Premises, as set forth in their respective encumbrances and as permitted by law, to (a) retain all our any portion of the insurance proceeds for themselves to the extent that their security interest in the Premises is impaired, or (b) control the disbursement of any such insurance proceeds.

ARTICLE 12
Eminent Domain

12.1 Condemnation. Landlord shall have the right to terminate this Lease if any material part of the Premises is taken by exercise of the power of eminent domain during the Term. Tenant shall have the right to terminate this Lease if any part of the Premises is taken by exercise of the power of eminent domain during the Term. In each such case, Landlord or Tenant shall exercise such termination right by giving written notice to the other within thirty (30) days after the date of such taking. If either Landlord or Tenant exercises such right to terminate this Lease in accordance with this Section 12.1, this Lease shall terminate as of the date of such taking and Tenant shall pay the Termination Payment to Landlord upon the date of such taking in accordance with Section 2.3. If neither Landlord nor Tenant exercises such right to terminate this Lease in accordance with this Section 12.1, this Lease shall terminate as to the portion of the Premises so taken as of the date of such taking and shall remain in full force and effect as to the portion of

the Premises not so taken, and Base Rent shall be reduced as of such date in the proportion that the area of the Premises so taken bears to the total area of the Premises. If all of the Premises is taken by exercise of the power of eminent domain during the Term of this Lease, this Lease shall terminate as of the date of such taking and Tenant shall pay the Termination Payment to Landlord upon the date of termination in accordance with Section 2.3.

12.2 Award. If all or any part of the Premises is taken by exercise of the power of eminent domain, all awards, compensation, damages, income, rent and interest payable in connection with such taking shall, except as expressly set forth in this Section 12.2, be paid to and become the property of Landlord, and Tenant hereby assigns to Landlord all of the foregoing. Without limiting the generality of the foregoing, Tenant shall have no claim against Landlord or the entity exercising the power of eminent domain for the value of the leasehold estate created by this Lease or any unexpired Term. Tenant shall have the right to claim and receive directly from the entity exercising the power of eminent domain only the share of any award determined to be owing to Tenant for the taking of improvements owned and installed by Tenant and used by Tenant in the conduct of Tenant's business in the portion of the Premises so taken, for the taking of Tenant's movable furniture, equipment, trade fixtures and personal property, for loss of goodwill, for interference with or interruption of Tenant's business, or for removal and relocation expenses.

12.3 Temporary Use. Notwithstanding Sections 12.1 and 12.2 hereof to the contrary, if the use of all or any part of the Premises is taken by exercise of the power of eminent domain during the Term on a temporary basis for a period less than the Term remaining after such taking, this Lease shall continue in full force and effect, Tenant shall continue to pay all of the rent and to perform all of the covenants of Tenant in accordance with this Lease, to the extent reasonably practicable under the circumstances, and the condemnation proceeds in respect of such temporary taking shall be paid to Tenant.

12.4 Definition of Taking. As used herein, a "taking" means the acquisition of all or part of the Premises for a public use by exercise of the power of eminent domain or voluntary conveyance in lieu thereof and the taking shall be considered to occur as of the earlier of the date on which possession of the Premises (or part so taken) by the entity exercising the power of eminent domain is authorized as stated in an order for possession or the date on which title to the Premises (or part so taken) vests in the entity exercising the power of eminent domain.

ARTICLE 13
Subordination and Sale

13.1 Subordination, Non-Disturbance and Attornment. Tenant agrees to subordinate this Lease and all of the rights of Tenant hereunder to the lien of any mortgage or mortgages now or hereafter placed on the Premises provided, and only if, the mortgagee named in any such mortgage agrees in writing to recognize this Lease in the event of foreclosure of such mortgage or sale under such trust deed so long as Tenant is not in default under this Lease beyond any applicable periods for notice and cure. In the event Landlord now or hereafter has a lender, mortgagee, lienholder or lessor who owns a leasehold interest in the Premises or the land thereunder (each, a **"Superior Interest Holder"**), Landlord agrees to obtain from such Superior Interest Holder (and Tenant agrees to execute) a subordination, non-disturbance and attornment agreement (an **"SNDA"**), in recordable form, in such Superior Interest Holder's standard form with such modifications as reasonably requested by Tenant that are reasonably agreed to by Landlord and Superior Interest Holder, and which SNDA provides that this Lease shall be subject and subordinate at all times to the lien of such Superior Interest Holder provided that in the event of a foreclosure of any such lien or of any other action or proceeding for the enforcement thereof, or of any sale thereunder (a) this Lease shall not be terminated or extinguished, nor shall the rights and possession of Tenant hereunder be disturbed, if no Event of Default then exists under this Lease, (b) Tenant shall attorn to the person who acquires

Landlord's interest hereunder through any such foreclosure sale or other action, and (c) the party that succeeds to Landlord's interest in the Premises shall be bound by the terms of this Lease. Contemporaneously with execution and delivery of this Lease, Landlord, Tenant and Landlord's lender shall execute and deliver an SNDA, which SNDA Tenant may record in the Official Records of the County of San Mateo, California.

13.2 Sale of the Premises. If the original Landlord hereunder, or any successor owner of the Premises, sells or conveys the Premises, all liabilities and obligations on the part of the original Landlord, or such successor owner, under this Lease accruing after such sale or conveyance shall terminate and the original Landlord, or such successor owner, shall automatically be released from all liabilities accruing from and after the date of such transfer, and thereupon all such liabilities and obligations accruing after the date of such transfer shall be binding upon the new owner. Tenant agrees to attorn to such new owner. However, notwithstanding any such transfer, conveyance or assignment, the transferor remains entitled to the benefits of Tenant's releases and indemnity and insurance obligations (and similar obligations) under this Lease with respect to matters arising or accruing during the transferor's period of ownership.

13.3 Estoppel Certificate. At any time and from time to time, Tenant shall, within twenty (20) days after written request by Landlord, execute, acknowledge and deliver to Landlord a certificate certifying: (a) that this Lease is unmodified and in full force and effect (or, if there have been modifications, that this Lease is in full force and effect as modified, and stating the date and nature of each modification); (b) the Commencement Date and the Expiration Date determined in accordance with Article 2 hereof and the date, if any, to which all rent and other sums payable hereunder have been paid; (c) that no notice has been received by Tenant of any default by Tenant hereunder which has not been cured, except as to defaults specified in such certificate; (d) that Landlord is not in default under this Lease, except as to defaults specified in such certificate; (e) the status of any rent payments, additional rent or security deposits; (f) such other matters as may be reasonably requested by Landlord or any actual or prospective purchaser or mortgage lender. Any such certificate may be relied upon by Landlord and any actual or prospective purchaser or mortgage lender of the Premises or any part thereof.

ARTICLE 14
Notices

14.1 Method. All requests, approvals, consents, notices and other communications given by Landlord or Tenant under this Lease shall be properly given only if made in writing and either mailed by certified mail, postage prepaid, return receipt requested, or delivered by hand (including messenger or nationally recognized delivery or air express service, which regularly maintains records of items delivered) or delivered by email and addressed as follows: to Landlord at the address of Landlord specified in the Basic Lease Information, or at such other place as Landlord may from time to time designate in a written notice to Tenant; and to Tenant at the address of Tenant specified in the Basic Lease Information, or at such other place as Tenant may from time to time designate in a written notice to Landlord. Such requests, approvals, consents, notices and other communications shall be effective on the date of delivery at the address of the receiving party by 5:00 pm California time. Notices delivered by email shall be effective the day sent, so long as a courtesy notice is sent by one of the other methods within one (1) business day thereafter. If any such request, approval, consent, notice or other communication cannot be delivered because the receiving party changed its address and did not previously give notice of such change to the sending party or because the receiving party refuses to accept such request, approval, consent, notice or other communication, such request, approval, consent, notice or other communication shall be effective on the date delivery is attempted. Any request, approval, consent, notice or other communication under this Lease may be given on behalf of a party by the attorney for such party.

ARTICLE 15
Miscellaneous

15.1 General. The words "Landlord" and "Tenant" as used herein shall include the plural as well as the singular. The words "include," "includes" and "including" shall be deemed to be followed by the phrase "without limitation." If there is more than one Tenant, the obligations hereunder imposed upon Tenant shall be joint and several. Time is of the essence of this Lease and each and all of its provisions. This Lease shall benefit and bind Landlord and Tenant and the permitted personal representatives, heirs, successors and assigns of Landlord and Tenant. If any provision of this Lease is determined to be illegal or unenforceable, such determination shall not affect any other provision of this Lease and all such other provisions shall remain in full force and effect. Tenant shall not record this Lease or any memorandum or short form of it. This Lease shall be governed by and construed in accordance with the laws of the state in which the Premises is located.

15.2 Force Majeure. In the event that either party hereto shall be delayed or hindered or prevented from the performance required hereunder by reason of strikes, lockouts, labor troubles, failure of power, riots, insurrection, war, terrorism, acts of nature, rain delays or other weather incidents, inability to obtain materials or other reason of like nature not the fault of the party delayed in performing work or doing acts, such party shall be excused for the period of delay (other than an obligation for the payment of Base Rent, additional rent or other money). The period for the performance of any such act shall then be extended for the period of such delay.

15.3 No Waiver. The waiver by Landlord or Tenant of any breach of any covenant in this Lease shall not be deemed to be a waiver of any subsequent breach of the same or any other covenant in this Lease, nor shall any custom or practice which may grow up between Landlord and Tenant in the administration of this Lease be construed to waive or to lessen the right of Landlord or Tenant to insist upon the performance by Landlord or Tenant in strict accordance with this Lease. The subsequent acceptance of rent hereunder by Landlord or the payment of rent by Tenant shall not waive any preceding breach by Tenant of any covenant in this Lease, nor cure any Event of Default, nor waive any forfeiture of this Lease or unlawful detainer action, other than the failure of Tenant to pay the particular rent so accepted, regardless of Landlord's or Tenant's knowledge of such preceding breach at the time of acceptance or payment of such rent.

15.4 Attorneys' Fees. If there is any legal action or proceeding between Landlord and Tenant to enforce this Lease or to protect or establish any right or remedy under this Lease, the unsuccessful party to such action or proceeding shall pay to the prevailing party all costs and expenses, including reasonable attorneys' fees and disbursements, incurred by such prevailing party in such action or proceeding and in any appeal in connection therewith. If such prevailing party recovers a judgment in any such action, proceeding or appeal, such costs, expenses and attorneys' fees and disbursements shall be included in and as a part of such judgment.

15.5 Brokers. Landlord and Tenant each represents and warrants to the other that (a) such party has negotiated this Lease directly with Matt Squires and Ted Jacobs of Cushman & Wakefield **("Broker"),** who represents Tenant in connection with this Lease, and (b) such party has not authorized or employed, or acted by implication to authorize or to employ, any other real estate broker or salesperson to act for such party in connection with this Lease. Each party shall be responsible for payment of any real estate broker (including Broker) as further provided in the Purchase Agreement. Except for the Broker, each party represents to the other that it has not dealt with any broker, agent, or finder for which a commission or fee is payable with respect to the Property or this Lease. Each party shall hold the other harmless from and indemnify and defend the other against any and all Claims by any real estate broker or salesperson for a

commission, finder's fee or other compensation alleged to be owing on account of any dealings with such real estate broker or salesperson occurring by, thorough or under the indemnifying party.

15.6 Governing Law; Waivers of Jury Trial and Certain Damages . This Lease shall be governed by the laws of the state in which the Premises is located. To the maximum extent permitted by Legal Requirements, Landlord and Tenant each hereby expressly, irrevocably, fully and forever releases, waives and relinquishes any and all right to trial by jury and any and all right to receive punitive, exemplary and consequential damages from the other (or any past, present or future board member, trustee, director, officer, employee, agent, representative, or advisor of the other) in any claim, demand, action, suit, proceeding or cause of action in which Landlord and Tenant are parties, which in any way (directly or indirectly) arises out of, results from or relates to any of the following, in each case whether now existing or hereafter arising and whether based on contract or tort or any other legal basis: this Lease; any past, present or future act, omission, conduct or activity with respect to this Lease; any transaction, event or occurrence contemplated by this Lease; the performance of any obligation or the exercise of any right under this Lease; or the enforcement of this Lease. Landlord and Tenant reserve the right to recover actual or compensatory damages, with interest, attorneys' fees, costs and expenses as provided in this Lease, for any breach of this Lease, and providing further that, it being acknowledged and understood by Tenant that Landlord may suffer irreparable harm, in the event of a holdover beyond the Term or upon the breach by Tenant of the agreements regarding Hazardous Materials contained in Section 4.3, in either such event Landlord also reserves the right to recover indirect damages. Notwithstanding anything to the contrary contained in this Lease, Landlord's liability under this Lease shall be limited to its interest in the Building.

15.7 Entire Agreement. There are no oral agreements between Landlord and Tenant affecting this Lease, and this Lease supersedes and cancels any and all previous negotiations, arrangements, brochures, offers, agreements and understandings, oral or written, if any, between Landlord and Tenant or displayed by Landlord to Tenant with respect to the subject matter of this Lease or the Premises (except with respect to those express obligations and indemnities which expressly survived the closing as described in the Purchase Agreement). There are no commitments, representations or assurances between Landlord and Tenant or between any real estate broker and Tenant other than those expressly set forth in this Lease and all reliance with respect to any commitments, representations or assurances is solely upon commitments, representations and assurances expressly set forth in this Lease. This Lease may not be amended or modified in any respect whatsoever except by an agreement in writing signed by Landlord and Tenant. The **"Purchase Agreement"** means that certain Agreement of Purchase and Sale and Joint Escrow Instructions dated as of September 27, 2019, entered into by and between SummerHill Apartment Communities Investments LLC, a California limited liability company (as Buyer) and Tenant (as Seller), as amended by that certain First Amendment to Purchase and Sale Agreement dated as of December 9, 2019.

15.8 No Partnership. It is expressly understood that Landlord and Tenant are not partners, and Landlord has no right, title, or interest in and to the business of Tenant, and Landlord has no right to represent or bind Tenant in any respect except as expressly provided herein, and that nothing herein contained shall be deemed, held, or construed as making Landlord a partner or associate of Tenant, or as rendering Landlord liable for any debts, liabilities, or obligations incurred by Tenant, it being expressly understood that the relationship between the parties hereto is, and shall at all times remain, that of landlord and tenant.

[SIGNATURES APPEAR ON THE FOLLOWING PAGE]

IN WITNESS WHEREOF, Landlord and Tenant have executed this Lease as of the date specified in the Basic Lease Information.

LANDLORD:

SHAC INGOLD APARTMENTS LLC,
a Delaware limited liability company

By: SummerHill Apartment Communities,
a California corporation, its manager

By: /s/ Douglas L. McDonald
Name: Douglas L. McDonald
Its: COO

By: /s/ Joshua Taylor
Name: Joshua Taylor
Its: Assistant Secretary

TENANT:

VECTOR LABORATORIES, INC.,
a California corporation

By _____
Name _____
Title _____

IN WITNESS WHEREOF, Landlord and Tenant have executed this Lease as of the date specified in the Basic Lease Information.

LANDLORD:

SHAC INGOLD APARTMENTS LLC,
a Delaware limited liability company

By: SummerHill Apartment Communities,
a California corporation, its manager

By:_____
Name:_____
Its:_____

By:_____
Name:_____
Its:_____

TENANT:

VECTOR LABORATORIES, INC.,
a California corporation

By /s/ John Lai

Name John Lai

Title Authorized Signatory

Exhibit 10.17

FIFTH AMENDMENT TO DEED OF LEASE

THIS FIFTH AMENDMENT TO DEED OF LEASE (this "Amendment") is made as of this 23rd day of September, 2019, (the "Effective Date"), by and between QUANTICO BUILDINGS, LLC, a Delaware limited liability company ("Landlord"), and GLEN RESEARCH CORPORATION, a Virginia corporation ("Tenant").

WITNESSETH:

WHEREAS, TransDulles Center, Inc., a Virginia corporation ("Original Landlord") and Tenant entered into that certain Deed of Lease dated June 25, 1997, as amended by that certain First Amendment to Deed of Lease undated in August 1997 (the "Original Lease"); and

WHEREAS, Original Landlord assigned all of its interest in the Original Lease to Winkler-Southern Towers Limited Partnership, a Virginia limited partnership ("Winkler"), who subsequently entered into that certain Second Amendment to Deed of Lease dated January 17, 2004, with Tenant (the "Second Amendment"); and

WHEREAS, Winkler heretofore assigned all of its interest in the Original Lease, as amended by the Second Amendment, to Landlord; and Landlord and Tenant heretofore entered into that certain Third Amendment to Deed of Lease dated September 16, 2009 (the "Third Amendment"), as further amended by that certain Fourth Amendment to Deed of Lease dated August 26, 2014 (the "Fourth Amendment"; the Original Lease, the Second Amendment, the Third Amendment and the Fourth Amendment being referred to herein as the "Lease"), pursuant to which Tenant leases approximately 21,526 rentable square feet of space (the "Premises"), being Suite 100 in the building (the "Building") located at 22825 Davis Drive, Sterling, Virginia 20164, within that complex known as TransDulles Centre (the "Park"), which space is more particularly described in the Lease; and

WHEREAS, the Lease will expire by its terms on April 30, 2020, and Landlord and Tenant desire to amend the Lease to, among other things, extend the Term of the Lease upon the terms and conditions set forth herein.

NOW, THEREFORE, for and in consideration of Ten and No/100 Dollars ($10.00) and other good and valuable consideration paid by Landlord and Tenant 10 one another, the receipt and sufficiency of which are hereby acknowledged, Landlord and Tenant hereby agree to amend the Lease as follows:

1. Incorporation of Recitals and Definitions. The above recitals are hereby incorporated into this Amendment as if fully set forth herein. All capitalized terms used herein but undefined shall have the meaning set forth in the Lease.

2. Lease Term. Section 2(a) of the Lease, as amended, is hereby modified to provide that the current Term of the Lease is extended for a period of five (5) years (the "Fifth Amendment Extension Term"), commencing on May 1, 2020 (the "Extension Date") and ending at 11:59 p.m. on April 30, 2025 (the "Expiration Date").

3. Base Rent. Section 3(a) of the Lease, as amended, is hereby modified to provide that, commencing as of the Extension Date and continuing through and including the Expiration Date, Tenant shall pay Base Rent to Landlord, without deduction, offset or abatement, and in accordance with all of the terms and conditions set forth in the Lease, in monthly rental installments, as follows:

Period	Period Base Rent	Monthly Base Rent
5/01/2020 – 4/30/2021	$268,213.92	$22,351.16
5/01/2021 – 4/30/2022	$276,260.40	$23,021.70
5/01/2022 – 4/30/2023	$284,548.20	$23,712.35
5/01/2023 – 4/30/2024	$293,084.64	$24,423.72
5/01/2024 – 4/30/2025	$301,877.16	$25,156.43

4. Indemnity and Insurance: Waiver of Subrogation. Sections 20 and 21 of the Lease are hereby defeted in their entirety and replaced with the following:

20. INDEMNITY AND INSURANCE.

(a) Release. All of Tenant's trade fixtures, merchandise, inventory, special fire protection equipment, telecommunication and computer equipment, supplemental air conditioning equipment, kitchen equipment and all other personal property in or about the Premises, the Building or the Common areas, which is deemed to include (the trade fixtures, merchandise, inventory and personal property of others located in or about the Premises or Common areas at the invitation, direction or acquiencence (express or implied) of Tenant (all of which property shall be referred to herein, collectively, as, "Tenant's Property") shall be and remain at Tenant's sole risk. Landlord shall nor be liable to Tenant or to any other person for, and Tenant hereby releases Landlord (and its affiliates, properly managers and mortgages) from (a) any and all liability for theft or damage to Tenant's Property, and (b) any and all liability for any injury to Tenant or its employees, agents, contractors, guests and invitees in or about the Premises, the Building or the Common areas, except to the extent caused directly by the negligence or willful misconduct of Landlord, its agents, employees or contractors. Nothing contained in this Section 20(a) shall limit (or be deemed to limit) the waivers contained in Section 21 below. In the event of any conflict between the provisions of Section 21 below and this Section 20(a), the provisions of Section 21 shall prevail. This Section 20(a) shall survive the expiration or earlier termination of this Lease.

(b) Indemnification by Tenant. Tenant shall protect, defend, indemnify and hold Landlord, its agents, employees and contractors of all tiers harmless from and against any and all claims, damages, demands, penalties, costs, liabilities, losses, and expenses (including reasonable attorneys' fees and expenses at the trial and appellate levels) to the extent (a) arising out of or relating to any act, omission, negligence, or willful misconduct of Tenant or Tenant's agents, employees, contractors, customers or invitees in or about the Premises, the Building or the Common areas, (b) arising out of or relating to any of Tenant's Property, or (c) arising out of any other act or occurrence within the Premises, in all such cases except to the extent caused directly by the negligence or willful misconduct of Landlord, its agents, employees or contractors. Nothing contained in this Section 20(b) shall limit (or be deemed to limit) the waivers contained in Section 21 below. In the event of any conflict between the provisions of Section 21 below and this Section 20(b), the provisions of Section 21 shall prevail. This Section 20(b) shall survive the expiration or earlier termination of this Lease.

(c) Indemnification by Landlord. Landlord shall protect, defend, indemnity and hold Tenant, its agents, employees and contractors of all tiers harmless from and against any and all claims, damages, demands, penalties, costs, liabilities, losses and expenses (including reasonable attorney's fees and expenses or the trial and appellate levels) to the extent arising out of or relating to any act, omission, negligence or willful misconduct of Landlord or Landlord's agents, employees or contractors (excluding liabilities from which Landlord has been specifically released by the terms of this Lease). Nothing contained in this Section 20(c) shall limit (or be

deemed to limit) the waivers contained in Section 21 below. In the event of any conflict between the provisions of Section 21 below and this Section 20(c), the provisions of Section 21 shall prevail. This Section 20(c) shall survive the expiration or earlier termination of this Lease.

(d) Tenant's Insurance.

(i) During the Term of the Lease (and any period of early entry or occupancy or holding over by Tenant, if applicable). Tenant shall maintain the following types of insurance, in the amounts specified below:

(A) Liability Insurance. Commercial General Liability Insurance, ISO Form CG 00 01, or its equivalent, covering Tenant's use of the Premises against claims for bodily injury or death or property damage, which insurance shall be primary and non-contributory and shall provide coverage on an occurrence basis with a per occurrence limit of not less than $3,000,000.00 for each policy year, which limit may be satisfied by any combination of primary and excess or umbrella per occurrence policies.

(B) Property Insurance. Special Form Insurance in the amount of the full replacement cost of Tenant's Property (including, without limitation, alterations or additions performed by Tenant pursuant hereto), which insurance shall waive coinsurance limitations.

(C) Worker's Compensation Insurance. Worker's Compensation insurance in amounts required by applicable law; provided, if there is no statutory requirement for Tenant, Tenant shall still obtain Worker's Compensation Insurance coverage.

(D) Business Interruption Insurance. Business Interruption Insurance with limits not less than an amount equal to two (2) years rent hereunder.

(E) Automobile Insurance. Comprehensive Automobile Liability Insurance insuring bodily injury and property damage arising from all owned, non-owned and hired vehicles used exclusively for company purposes if any, with minimum limits of liability of $1,000,000 combined single limit, per accident.

(ii) All insurance required to be carried by Tenant hereunder shall (A) be issued by one or more insurance companies reasonably acceptable to Landlord, licensed to do business in the State in which the Premises is located and having an AM Best's rating of A IX or better, and (B) provide that said insurer shall endeavor to provide thirty (30) days prior notice if coverage is materially charged, canceled or permitted to lapse. In addition, Tenant shall name (1) Landlord, (2) Duke Realty Limited Partnership, (3) Landlord's managing agent, and (4) any mortgagee requested by Landlord, as additional insureds under its commercial general liability, excess and umbrella policies (but only to the extent of the limits required hereunder). On or before the Commencement Date (or the date of any earlier entry or occupancy by Tenant), and thereafter, within thirty (30) days prior to the expiration of each such policy. Tenant shall furnish Landlord with certificates of insurance in the form of ACORD 25 (or other evidence of insurance reasonably acceptable to Landlord), evidencing all required coverages, and that with the exception of Workers Compensation insurance, such insurance is primary and non-contributory Upon Tenant's receipt of a request from Landlord, Tenant shall provide Landlord with copies of all insurance policies, including all endorsements, evidencing the coverages required hereunder. If Tenant fails to carry such insurance and furnish Landlord with such certificates of insurance or

copies of insurance policies (if applicable). Landlord may obtain such insurance on Tenant's behalf and Tenant shall reimburse Landlord upon demand for the cost thereof as Additional Rent Landlord reserves the right from time to time to require Tenant to obtain higher minimum amounts or different types of insurance if it becomes customary for other landlords of similar buildings in the area to require similar sized tenants in similar industries to carry insurance of such higher minimum amounts or of such different types.

(e) Landlord's Insurance. During the Term of the Lease, Landlord shall maintain the following types of insurance, in the amounts specified below (the cost of which shall be included in Operating Expenses):

(i) Liability Insurance. Commercial General Liability Insurance, ISO Form CG 00 01, or its equivalent, covering the Common areas against claims for bodily injury or death and property damage, which insurance shall be primary and non-contributory and shall provide coverage on an occurrence basis with a per occurrence limit of not less than $3,000,000.00, which limit may be satisfied by any combination of primary and excess or umbrella per occurrence policies.

(ii) Property Insurance. Special Form Insurance in the amount of the full replacement cost of the Building, excluding Tenant's Property and any other items required to be insured by Tenant pursuant to Section 20(d)(i)(B) above.

21. WAIVER OF SUBROGATION. Notwithstanding anything contained in this Lease to the contrary, Landlord (and its affiliates, property managers and mortgagees) and Tenant (and its affiliates) hereby waive any rights each may have against the other on account of any loss of or damage to their respective property, the Premises, its contents, or other portions of the Building or Common areas arising from any risk which is required to be insured against by Sections 20(d)(i)(B), 20(d)(i)(C) and 20(e)(ii) above. The special form property insurance policies and worker's compensation insurance policies maintained by Landlord and Tenant as provided in this Lease shall include an endorsement containing an express waiver of any rights of subrogation by the insurance company against Landlord and Tenant, as applicable.

5. Landlord Addresses. Section 29 of the Lease is hereby modified to provide that all notices, requests, approvals, and other communications required or permitted for Landlord shall be delivered to the following addresses:

Landlord:	Quantico Buildings, LLC c/o Duke Realty Corporation Attn: Washington D.C. Market, V.P. Leasing/Development 2900 South Quincy Road, Suite 310 Arlington, VA 22206
With Payments to.	Quantico Buildings, LLC c/o Duke Realty Corporation 75 Remittance Drive, Suite 1347 Chicago, IL 60675-1347

6. Option to Extend.

(a) Previous Options. Tenant's previous options to extend the Term of the Lease, including but not limited to the option set forth in Paragraph 7 of the Third Amendment, are hereby deleted in their entirety and shall be of no further force or effect.

(b) Grant and Exercise of Option. Provided that (i) no Event of Default has occurred and is then continuing, (ii) the creditworthiness of Tenant has not materially declined relative to its creditworthiness as of the date hereof, and (iii) Tenant originally named herein or a Related Entity remains in possession of and has been continuously operating in the entire Premises throughout the Term of the Lease, Tenant shall have one (1) option to extend the Term of the Lease for one (1) additional period of five (5) years (the "Extension Term"). The Extension Term shall be upon the same terms and conditions contained in the Lease except (x) Tenant shall not have any further option to extend, (y) any improvement allowances or other concessions applicable to the Premises under the Lease shall not apply to the Extension Term, and (z) the Base Rent shall be adjusted as set forth herein ("Rent Adjustment"). Tenant shall exercise such option by delivering to Landlord, no later than two hundred seventy (270) days prior to the expiration of the current Term of the Lease, notice of Tenant's desire to extend the Term of the Lease. Tenant's failure to properly exercise such option shall be deemed a waiver of such option. If Tenant properly exercises its option to extend. Landlord and Tenant shall execute an amendment to the Lease prepared by Landlord (or, at Landlord's option, a new lease on the form then in use for the Building prepared by Landlord) reflecting the terms and conditions of the Extension Term within thirty (30) days after Tenant's exercise of its option to extend.

(c) Rent Adjustment. The Base Rent for the Extension Term shall be an amount equal to one hundred three percent (103%) of the Base Rent for the period immediately preceding the applicable Extension Term for the first twelve (12) months of the applicable Extension Term, with an increase of three percent (3%) for each successive twelve (12) month period of the Extension Term. The monthly installments of Base Rent shall be an amount equal to one-twelfth (1/12) of the Base Rent for each year of the Extension Term and shall be paid at the same time and in the same manner as provided in this Lease.

7. Right of First Offer. Tenant's right of first offer set forth in Paragraph 8 of the Third Amendment is hereby deleted in its entirety and shall be of no further force or effect/

8. Construction of Extension Improvements.

(a) Landlord's Obligations. Tenant accepts the Premises for the Term of the Lease, as extended hereby, in "**AS IS**" condition, without representation or warranty by Landlord of any kind and with the understanding that Landlord shall have no responsibility with respect to any alterations or improvements except to construct and install within the Premises, in a good and workmanlike manner, the Extension Improvements (as hereinafter defined), in accordance with subsection (b) below.

(b) Extension Allowance. Tenant shall have the right, to be exercised (if at all) between September 1, 2019 and December 31, 2020, to request in writing that Landlord construct and install various leasehold improvements within the Premises (the "Extension Improvements"). If Tenant fails to exercise such right as aforesaid and hereinafter provided, Tenant shall be deemed to have waived its rights pursuant to this Section 8. In the event Tenant exercises such right as aforesaid, the Extension Improvements shall be approved by Landlord and performed in accordance with the Alterations provisions defined in Section 14(b) - (d) of the Lease, except as otherwise expressly set forth herein. Provided the Extension Improvements requested by Tenant are reasonably acceptable to Landlord. Landlord, and not contractors or subcontractors selected by Tenant shall construct and install the Extension Improvements with reasonable speed and diligence. If the cost to construct and install the Extension Improvements exceeds

One Hundred Seven Thousand Six Hundred Thirty and No/100 Dollars ($107,630.00) (the "Extension Allowance"), Tenant shall deliver such excess to Landlord within thirty (30) days following substantial completion of the Extension Improvements and Landlord's written demand thereof. Tenant at Tenant's option, shall have the right to apply up to Fifty-Three Thousand Eight Hundred Fifteen and No/100 ($53,815.00) of the Extension Allowance against the cost of Tenant's furnishings, fixtures and equipment for use at the Premises. Any portion of the Extension Allowance remaining as of December 31, 2020 shall be the property of Landlord. Tenant agrees that the construction and installation of the Extension Improvements at the Premises shall be performed by a subsidiary or affiliate of Landlord, that such subsidiary or affiliate shall receive a fee as Landlord's general contractor in the amount of five and one-half percent (5.5%) of the total soft and hard costs to construct and install the Extension Improvements, and that such fee shall be applied against the Extension Allowance. It is hereby agreed that the scope of possible Extension Improvements attached as **Exhibit B** hereto, and made a part hereof are reasonable and approved by Landlord; provided, however, that Tenant acknowledges and agrees that the prices contained in said scope are merely estimates, and Landlord shall reprice the scope at such time as Tenant exercises its right to have Landlord construct and install the Extension Improvements.

(c) Cooperation. Tenant acknowledges and agrees that it will use reasonable efforts to cooperate with Landlord in connection with Landlord's construction and installation of the Extension Improvements and Landlord's entry into the Leased Premises pursuant thereto. Notwithstanding the foregoing, while constructing and installing the Extension Improvements, Landlord shall use reasonable efforts not to interfere with Tenant's business operations at the Leased Premises.

(d) Letter of Understanding. Promptly following substantial completion of the Extension Improvements. Tenant shall execute Landlord's Letter of Understanding in substantially the form attached hereto as **Exhibit A** and made a part hereof, acknowledging Tenant's acceptance of the Extension Improvements.

9. Ratification. Except as otherwise expressly modified by the terms of this Amendment, the Lease remains unchanged and shall continue in full force and effect. All terms, covenants, and conditions of the Lease not expressly modified herein are hereby confirmed and ratified and remain in full force and effect and, as further amended hereby, constitute valid and binding obligations of Tenant enforceable according to the terms thereof. In case of conflict between the Lease and this Amendment, the terms of this Amendment shall control.

10. Tenant's Representations and Warranties. The undersigned represents and warrants to Landlord that (i) Tenant is duly organized, validly existing and in good standing in accordance with the laws of the state under which it was organized and if such state is not the state in which the Premises are located, that it is authorized to do business in such state; (ii) all action necessary to authorize the execution of this Amendment has been taken by Tenant; and (iii) the individual executing and delivering this Amendment on behalf of Tenant has been authorized to do so, and such execution and delivery shall bind Tenant. Tenant, at Landlord's request, shall provide Landlord with evidence of such authority.

11. Entire Agreement. Tenant acknowledges that neither Landlord nor any broker, agent, or employee of Landlord has made any representation or promise with respect to the Premises, the Building or the land on which the Building is situated except as expressly set forth herein, and no right is being acquired by Tenant except as expressly set forth herein. The Lease (as amended by this Amendment) contains the entire agreement of the parties and supersedes all prior agreements, negotiations, letters of intent, proposals, representations, warranties and discussions between the parties. The Lease (as amended by this Amendment) may not be changed in any manner, except by an instrument in writing signed by both parties hereto.

12. Binding Effect. All of the covenants contained in this Amendment, including, but not limited to, all covenants of the Lease as modified hereby, shall be binding upon and shall inure to the benefit of the parties hereto and their respective heirs, legal representatives and permitted successors and assigns.

13. Examination of Amendment. Submission of this instrument for examination or signature to Tenant does not constitute a reservation or option, and it is not effective until execution by and delivery to both Landlord and Tenant.

14. Effectiveness. The submission of this Amendment shall not constitute an offer, and this Amendment shall not be effective and binding unless and until fully executed and delivered by each of the parties hereto.

15. Counterparts. This Amendment may be executed in multiple counterparts, each of which shall be an original, but all of which shall constitute one and the same Amendment.

16. Headings. Headings are used for convenience only and shall not be considered when construing the Lease or this Amendment.

17. Broker. Landlord and Tenant each represents and warrants to the other that, except for Colliers International DC LLC representing Tenant, whose commission shall be paid by Landlord pursuant to a separate agreement, neither party has engaged or had any conversations or negotiations with any broker, finder or other third party concerning the matters set forth in this Amendment who would be entitled to any commission or fee based on the execution of this Amendment. Landlord and Tenant each hereby indemnifies the other against and from any claims for any brokerage commissions and all costs, expenses and liabilities in connection therewith, including, without limitation, reasonable attorneys' fees and expenses, for any breach of the foregoing. The foregoing indemnification shall survive the termination of the Lease for any reason.

[SIGNATURES FOLLOW ON NEXT PAGE]

IN WITNESS WHEREOF, the undersigned have caused this Amendment to be executed under seal and delivered as of the day and year first above written.

LANDLORD:

QUANTICO BUILDINGS, LLC, a Delaware limited liability company

By: Quantico Real Estate LLC, a Delaware limited liability company, its sole member

By: Duke Realty Limited Partnership, an Indiana limited partnership, its administrator

By: Duke Realty Corporation, an Indiana corporation, its sole general partner

By: /s/ [ILLEGIBLE]
Name: [ILLEGIBLE]
Title: SVP

GLEN RESEARCH CORPORATION, a Virginia corporation

By: /s/ Kevin M. Herde
Name: Kevin M. Herde
Title: CFO

Attest: /s/ Carl Hull
Name: Carl Hull
Title: CEO

FOURTH AMENDMENT TO DEED OF LEASE

THIS FOURTH AMENDMENT TO DEED OF LEASE (this "Amendment") is made as of this26 day of August 2014, (the "Effective Date"), by and between QUANTICO BUILDINGS, LLC, a Delaware limited liability company ("Landlord"), and GLEN RESEARCH CORPORATION, a Virginia corporation ("Tenant").

WITNESSETH:

WHEREAS, TransDulles Center, Inc., a Virginia corporation ("Original Landlord") and Tenant entered into that certain Deed of Lease dated June 25, 1997, as amended by that certain First Amendment to Deed of Lease undated in August 1997 (the "Original Lease"); and

WHEREAS, Original Landlord assigned all of its interest in the Original Lease to Winkler-Southern Towers Limited Partnership, a Virginia limited partnership ("Winkler"), who subsequently entered into that certain Second Amendment to Deed of Lease dated January 27, 2004, with Tenant (the "Second Amendment"); and

WHEREAS, Winkler heretofore assigned all of its interest in the Original Lease, as amended by the Second Amendment, to Landlord and Tenant heretofore entered into that certain Third Amendment to Deed of Lease dated September 16, 2009 (the "Third Amendment", the Third Amendment together with the Original Lease and the Second Amendment, being referred to herein as the "Lease"); pursuant to the Lease, Tenant leases approximately 21.526 rentable square feet of space (the "Premises"), being Suite 100 in the building (the "Building") located at 22825 Davis Drive, Sterling, Virginia 20164, within that complex known as TransDulles Centre (the "Park"), which space is more particularly described in the Lease; and

WHEREAS, the Lease will expire by its terms on February 28, 2015, and Landlord and Tenant desire to amend the Lease to, among other things, extend the Term of the Lease upon the terms and conditions set forth herein.

NOW, THEREFORE, for and in consideration of Ten and No/100 Dollars ($10.00) and other good and valuable consideration paid by Landlord and Tenant to one another, the receipt and sufficiency of which are hereby acknowledged, Landlord and Tenant hereby agree to amend the Lease as follows:

1. Incorporation of Recitals and Definitions. The above recitals are hereby incorporated into this Amendment as if fully set forth herein. All capitalized terms used herein but undefined shall have the meaning set forth in the Lease.

2. Lease Term. Section 2(a) of the Lease, as amended, is hereby modified to provide that the current Term of the Lease is extended for a period of five (5) years and two (2) months (the "Fourth Amendment Extension Term"), commencing on March 1, 2015 (the "Extension Date") and ending at 11:59 p.m. on April 30, 2020 (the "Expiration Date").

3. Base Rent. Section 3(a) of the Lease, as amended, is hereby modified to provide that, commencing as of the Extension Date and continuing through and including the Expiration Date, Tenant shall pay Base Rent to Landlord, without deduction, offset or abatement, and in accordance with all of the terms and conditions set forth in the Lease, in monthly rental installments, as follows:

Period	Period Base Rent	Monthly Base Rent
3/1/2015 — 3/31/2015	$ 0.00	$ 0.00

4/1/2015 — 12/31/2015	$ 173,553.39	$19,283.71
1/1/2016 — 1 /31/2016	$ 0.00	$ 0.00
2/1/2016 — 2/29/2016	$ 19,283.71	$19,283.71
3/1/2016 — 2/28/2017	$ 238,346.64	$19,862.22
3/1/2017 — 2/28/2018	$ 245,497.08	$20,458.09
3/1/2018 — 2/28/2019	$ 252,861.96	$21,071.83
3/1/2019 — 2/29/2020	$ 260,447.76	$21,703.98
3/1/2020 — 4/30/2020	$ 44,710.20	$22,355.10

4. Option to Extend. Paragraph 7 of the Third Amendment is unaffected hereby and shall remain in full force and effect during the Fourth Amendment Extension Term.

5. Construction of Extension Improvements.

(a) Landlord's Obligations. Promptly following the Effective Date, Landlord shall, at Landlord's sole cost and expense, construct and install certain leasehold improvements within the Premises based on the scope of work attached hereto as Exhibit A and made a part hereof (the "Extension Improvements"). Tenant acknowledges and agrees that, except as expressly set forth, herein, Tenant is accepting possession of the Premises for the extension term in "AS-IS" condition and except as expressly provided herein, there are no additional months of free rent, moving allowances, tenant improvement allowances or other financial concessions applicable to the Fourth Amendment Extension Term.

(b) Cooperation. Tenant acknowledges and agrees that it will use reasonable efforts to cooperate with Landlord in connection with Landlord's construction and installation of the Extension Improvements and Landlord's entry into the Premises pursuant thereto notwithstanding the foregoing, while constructing and installing the Extension Improvements, Landlord shall use reasonable efforts not to interfere, with Tenant's business, operations at the Premises.

(c) Letter of Understanding. Promptly following Landlord's substantial completion of the Extension improvements, Tenant shall execute Landlord's Letter of Understanding in substantially the form attached hereto Exhibit B and made a part hereof, acknowledging among other things, that Tenant has accepted the Extension Improvements.

6. Ratification. Except as otherwise expressly modified by the terms of this Amendment, the Lease remains unchanged and shall continue in full force and effect. All terms, covenants, and conditions of the Lease not expressly modified herein are hereby confirmed and ratified and remain in full force and effect and, as further amended hereby, constitute valid and binding obligations of Tenant enforceable according to the terms thereof. In case of conflict between the Lease and this Amendment, the terms of this Amendment shall control.

7. Tenant's Representations and Warranties. The undersigned represents and warrants to Landlord that (i) Tenant is duly organized, validly existing and in good standing in accordance with the laws of the state under which it was organized and if such state is not the state in which the Premises are located, that it is authorized to do business in such state; (ii) all action necessary to authorize the execution of this Amendment has been taken by Tenant; and (iii) the individual executing and delivering this Amendment on behalf of Tenant has been authorized to do so, and such execution and delivery shall bind Tenant. Tenant, at Landlord's request, shall provide Landlord with evidence of such authority.

8. Entire Agreement. Tenant acknowledges that neither Landlord nor any broker, agent, or employee of Landlord has made any representation or promise with respect to the Premises, the Building or the land on which the Building is situated expect as expressly set forth herein, and no right is being acquired

by Tenant except as expressly set forth herein. The Lease (as amended by this Amendment) contains the entire agreement of the parties and supersedes all prior agreements, negotiations, letters of intent, proposals, representations, warranties and discussions between the parties. The Lease (as amended by this Amendment) may not be changed in any manner, except by an instrument in writing signed by both parties hereto.

9. Binding Effect. All of the covenants contained in this Amendment, including, but not limited to, all covenants of the Lease as modified hereby, shall be binding upon and shall inure to the benefit of the parties hereto and their respective heirs, legal representatives and permitted successors and assigns.

10. Examination of Amendment. Submission of this instrument for examination or signature to Tenant does not constitute a reservation or option, and it is not effective until execution by and delivery to both Landlord and Tenant.

11. Effectiveness. The submission of this Amendment shall not constitute an offer, and this Amendment shall not be effective and binding unless and until fully executed and delivered by each of the parties hereto.

12. Counterparts. This Amendment may be executed in multiple counterparts, each of which shall be an Original, but all of which shall constitute one and the same Amendment.

13. Headings. Headings are used for convenience only and shall not be considered when construing the Lease or this Amendment.

14. Broker. Landlord and Tenant each represents and warrants to the other that, except for Serten Advisors, LLC representing Tenant, whose commission shall be paid by Landlord pursuant to a separate agreement, neither party has engaged or had any conversation, or negotiations with any broker, finder or other third party concerning the matters set forth in this Amendment who would be entitled to any commission or fee based on the execution of this Amendment. Landlord and Tenant each hereby indemnifies the other against and from any claims for any brokerage commission and all costs, expenses and liabilities in connection therewith, including, without limitation, reasonable attorneys' fees and expenses, for any breach of the foregoing. The foregoing indemnification shall survive the termination of the Lease for any reason.

[SIGNATURES FOLLOW ON NEXT PAGE]

IN WITNESS WHEREOF, the undersigned have caused this Amendment to be executed under seal and delivered as of the day and year first above written.

LANDLORD:

QUANTICO BUILDINGS, LLC, a Delaware limited liability company

By: Quantico Real Estate LLC, a Delaware limited liability company, its sole member

By: Duke Realty Limited Partnership, an Indiana limited partnership, its administrator

By: Duke Realty Corporation, an Indiana corporation, its sole general partner

By: [ILLEGIBLE]
Name: [ILLEGIBLE]
Title: SVP

TENANT:

GLEN RESEARCH CORPORATION, a Virginia corporation

By: [ILLEGIBLE]
Name: [ILLEGIBLE]
Title: PRESIDENT

Attest: [ILLEGIBLE]
Name: [ILLEGIBLE]
Title: Quality Compliance Manager

THIRD AMENDMENT TO DEED OF LEASE

THIS THIRD AMENDMENT TO DEED OF LEASE (this "Amendment") is made as of this 16th day of September, 2009, with an effective date of September 1, 2009 (the "Effective Date"), by and between QUANTICO BUILDINGS, LLC, a Delaware limited liability company ("Landlord"), and GLEN RESEARCH CORPORATION, a Virginia corporation ("Tenant").

WITNESSETH:

WHEREAS, TransDulles Center, Inc., a Virginia corporation ("Original Landlord"), as predecessor in interest to Winkler-Southern Towers Limited Partnership, a Virginia limited partnership ("Winkler"), as predecessor in interest to Landlord, and Tenant entered into that certain Deed of Lease dated June 25, 1997, as amended by that certain First Amendment to Deed of Lease undated in August 1997, and as further amended by that certain Second Amendment to Deed of Lease, (the "Second Amendment") dated January 27, 2004 (as so amended, the "Lease"), pursuant to which Tenant leases approximately 21,526 rentable square feet of space (the "Premises"), being suite 100 in the building (the "Building") located at 22825 Davis Drive, Sterling, Virginia 20164, within that complex known as TransDulles Centre (the "Park"), which space is more particularly described in the Lease; and

WHEREAS, Quantico Buildings, LLC, which succeeded to the interest of Winkler, which succeeded to the interest of Original Landlord, is the Landlord under the Lease with respect to the Premises; and

WHEREAS, the Lease will expire by its terms on December 31, 2009, and Landlord and Tenant desire to enter into this Amendment in order to amend the Lease and extend the Term of the Lease, upon the terms and conditions set forth herein.

NOW, THEREFORE, for and in consideration of Ten and No/100 Dollars ($10.00) and other good and valuable consideration paid by Landlord and Tenant to one another, the receipt and sufficiency of which are hereby acknowledged, Landlord and Tenant hereby agree to amend the Lease as follows:

1. Incorporation of Recitals and Definitions. The above recitals are hereby incorporated into this Amendment as if fully set forth herein. All capitalized terms used herein but undefined shall have the meaning set forth in the Lease.

2. Lease Term. Section 2(a) of the Lease, as amended by the Second Amendment, is hereby modified to provide that the current Term of the Lease is extended for a period of five (5) years and two (2) months, commencing on January 1, 2010, and ending at 11:59 p.m. on February 28, 2015 (the "Expiration Date").

3. Base Rent.

(a) Section 3(a) of the Lease, as amended by the Second Amendment, is hereby modified to provide that, commencing as of September 1, 2009, and continuing through and including the Expiration Date, Tenant shall pay Base Rent to Landlord, without deduction, offset or abatement, and in accordance with all of the terms and conditions set forth in the Lease, in monthly rental installments, as follows:

Period	Period Base Rent	Monthly Base Rent
9/1/2009 – 12/31/2009	$73,547.16 *	$18,386.79
1/1/2010 – 1/31/2010	$ 0.00 *	$ 0.00

2/1/2010 – 8/31/2010	$128,707.53 *	$18,386.79
9/1/2010 – 12/31/2010	$ 75,569.72 *	$18,892.43
1/1/2011 – 1/31/2011	$ 0.00 *	$ 0.00
2/1/2011 – 8/31/2011	$132,247.01 *	$18,892.43
9/1/2011 – 8/31/2012	$232,943.64	$19,411.97
9/1/2012 – 8/31/2013	$239,349.60	$19,945.80
9/1/2013 – 8/31/2014	$245,931.72	$20,494.31
9/1/2014 – 2/28/2015	$126,347.40 *	$21,057.90

* The amount shown is the actual Base Rent due and payable for the period; the per annum amount for the 12-month period of 9/1/2009 – 8/31/2010 is $220,641.48, and the per annum amount for the 12-month period of 9/1/2010 – 8/31/2011 is $226,709.16. The final period of 9/1/2014 – 2/28/2015 is only six (6) months.

(b) Section 3(c) of the Lease is hereby deleted in its entirety and is of no further force or effect.

4. Landlord Addresses. Section 29 of the Lease is hereby modified to provide that all notices, requests, approvals, and other communications required or permitted for Landlord shall be delivered to the following addresses:

Landlord:	Quantico Buildings, LLC c/o Duke Realty Corporation Attn.: V.P., Asset Mgmt. & Customer Service 4900 Seminary Road, Suite 900 Alexandria, VA 22311
With Payments to:	Quantico Buildings, LLC c/o Duke Realty Corporation 75 Remittance Drive, Suite 1347 Chicago, IL 60675-1347

5. Maintenance and Repairs. The following new Section 14(e) is hereby inserted into the Lease immediately after Section 14(d):

"(e) Commencing as of the Effective Date and for the remainder of the Term of the Lease, Landlord, as its expense, shall be responsible for the maintenance and repair of the four (4) heating, ventilation and air-conditioning units located on the rooftop of the Building and the twenty-eight (28) VAV boxes serving the Premises (the "HVAC" Equipment"), in accordance with manufacturer recommendations and customary maintenance contract specifications, including all repairs and/or replacements thereto if necessary. In the event that (i) Landlord fails to inspect the HVAC Equipment within twenty-four (24) hours after notice from Tenant to Landlord that the HVAC Equipment is not operating at a reasonable level of performance for the Premises as configured and used on the Effective Date, or (ii) following such inspection, Landlord fails to cure or commence to cure any required repair to the HVAC Equipment within forty-eight (48) hours after such inspection of the HVAC Equipment, Tenant may undertake all reasonable action to cure Landlord's failure to cure any required repair to the HVAC Equipment. If Tenant elects to perform such repair to the HVAC Equipment, Tenant shall, prior to commencement of said work, provide to Landlord a specific description of the work to be performed by Tenant and the name of Tenant's contractor. Any materials used shall be of equal or better quality than currently exists in the Building, and Tenant's contractor shall be adequately insured and of good reputation.

Landlord agrees to reimburse Tenant on demand for all reasonable, third party out-of-pocket expenses incurred by Tenant in connection therewith, provided that Tenant delivers to Landlord adequate bills or other supporting evidence substantiating said cost. In the event that any component of the HVAC Equipment fails to operate at a reasonable level of performance for the Premises as configured and used on the Effective Date more than three (3) times in any twelve (12) consecutive month period, then Tenant shall have the right, at Tenant's expense, to have a qualified HVAC engineer, licensed to do business in Virginia, inspect the HVAC Equipment and provide recommendations to Landlord for correction. In the event that such recommendation is to replace any component of the HVAC Equipment, then the Landlord may or may not make such replacement; provided, however, that (i) Landlord shall use commercially reasonable efforts to repair such component of HVAC Equipment such that it operates as intended by the manufacturer, and (ii) if such component of the HVAC Equipment is not replaced and such failure occurs again within a six (6) month period, then Landlord shall replace the required components of the HVAC Equipment with new parts of similar or better quality to the original HVAC Equipment.

6. Tenant Improvements.

(a) Landlord's Obligations. Tenant is accepting possession of the Premises for the Term of the Lease as extended hereby in "**AS IS**" condition without representation or warranty by Landlord of any kind except as otherwise expressly set forth in the Lease, and with the understanding that Landlord shall have no responsibility with respect to the construction of any interior improvements within the Premises, except to perform certain work (the "Tenant Improvements"), in a good and workmanlike manner, and in accordance with all applicable laws, ordinances, regulations and building codes and the terms of this Paragraph 6. Except as expressly provided in this Amendment, no free rent, moving allowances, tenant improvement allowances or other financial concessions contained in the Lease shall apply to the Term of the Lease as extended hereby. Landlord shall use commercially reasonable speed and diligence to Substantially Complete (as defined below) the Tenant Improvements on or before January 15, 2010, subject to Tenant Delay (as defined below).

(b) Construction Drawings. Promptly following the date hereof, Landlord shall prepare and submit to Tenant, at Landlord's expense, a set of construction drawings (the "CD's") covering all work to be performed by Landlord in constructing and installing the Tenant Improvement, which shall be based on the scope of work attached as **Exhibit A** hereto (the "Scope of Work") and the space plan attached as **Exhibit B** hereto (the "Space Plan"). Tenant shall have ten (10) days after receipt of the CD's in which to review the CD's and to give to Landlord written notice of Tenant's approval of the CD's or its requested changes to the CD's. Any changes to the CD's requested by Tenant shall not materially alter the exterior appearance or basic nature of the Building or the Building systems. If Tenant fails to approve or request changes to the CD's within ten (10) days after its receipt thereof, Tenant shall be deemed to have approved the CDs, and the same shall thereupon be final. If Tenant requests any changes to the CD's, Landlord shall provide Tenant with a breakdown of the cost of said changes, including the cost, if any, to revise the CD's. Tenant shall have ten (10) days to approve or disapprove the changes and associated costs. If Tenant approves the changes and associated costs, Landlord shall make said changes and shall, within ten (10) days of its receipt of such request, submit the revised portion of the CD's to Tenant. Within five (5) days of receipt Tenant shall either approve the CD's and the revised portion thereof or advise of any final comments to the revised portions. Notwithstanding anything set forth in this Amendment to the contrary, such approved changes and costs shall be deemed a Change Order (as defined below) and Tenant shall pay to Landlord the cost of such approved changes in accordance with (d) below. Tenant may not thereafter disapprove the revised portions of the CD's unless Landlord has unreasonably failed to incorporate reasonable comments of Tenant and, subject to the foregoing, the CD's, as modified by said revisions, shall be deemed to be final upon the submission of said revisions to Tenant.

Tenant shall at all times in its review of the CD's, and of any revisions thereto, act reasonably and in good faith. Without limiting the foregoing, Tenant agrees to confirm Tenant's consent to the CD's as finalized pursuant to this subparagraph (b) in writing within five (5) days following Landlord's written request therefor. Landlord shall be responsible for submitting the final CD's to the applicable governmental authority for a building permit, if required, and, in the event that said authority requires any changes to the CD's as a result of Tenant's changes to the Scope of Work and the Space Plan, Tenant shall be responsible for the increased costs.

(c) Schedule. Landlord shall provide Tenant with a proposed schedule for the completion of the Tenant Improvements and shall notify Tenant of any material changes to said schedule. Landlord and Tenant acknowledge and agree that (i) Tenant shall be conducting business within the Premises during Landlord's completion of the Tenant Improvements, (ii) Tenant will use reasonable efforts to cooperate with Landlord in connection with its completion of the Tenant Improvements, and (iii) except for Landlord's gross negligence or willful misconduct, Landlord will have no liability for its entry into the Premises pursuant thereto. Notwithstanding the foregoing, while completing the Tenant Improvements, Landlord shall use reasonable efforts not to interfere with Tenant's business operations at the Premises, and shall perform work on the Tenant Improvements after normal business hours unless otherwise agreed by Tenant.

(d) Change Orders. After the CD's have been finalized pursuant to subparagraph (b) above, Tenant shall have the right to request changes to the CD's at any time following the date hereof by way of written change order (each, a "Change Order", and collectively, "Change Orders"). Provided such Change Order is reasonably acceptable to Landlord, Landlord shall prepare and submit promptly to Tenant a memorandum setting forth the impact on cost and schedule resulting from said Change Order (the "Change Order Memorandum of Agreement"). Said cost shall include a fee equal to ten percent (10%) payable to Landlord (or its subsidiary or affiliate) as general contractor, and any applicable architectural and engineering fees. Tenant shall, within five (5) days following Tenant's receipt of the Change Order Memorandum of Agreement, either (a) execute and return the Change Order Memorandum of Agreement to Landlord, or (b) retract its request for the Change Order. If the cost to construct the Tenant Improvements will increase as a result of a Change Order, as set forth in the Change Order Memorandum of Agreement (an "Increase"), Tenant shall pay to Landlord (or Landlord's designee), (i) fifty percent (50%) of such Increase within ten (10) days following execution of the Change Order Memorandum of Agreement, and (ii) the remaining fifty percent (50%) of such Increase within ten (10) days following Substantial Completion of the Tenant Improvements. Landlord shall not be obligated to commence any work set forth in a Change Order until such time as tenant has delivered to Landlord the Change Order Memorandum of Agreement executed by Tenant and, if applicable, Tenant has paid Landlord for said Change Order in accordance with the terms outline above.

(e) Definitions. For purposes of this Amendment, (i) "Substantial Completion" (or any grammatical variation thereof) shall mean completion of construction of the Tenant Improvements, subject only to punchlist items (the completion of which does not materially affect Tenant's use and occupancy of the Leased Premises) to be identified by Landlord and Tenant in a joint inspection of the Leased premises, and (ii) "Tenant Delay" shall mean any delay in the completion of the Tenant Improvements attributable to Tenant, including, without limitation, (A) Tenants's failure to meet any time deadlines specified herein, (B) Change Orders, (C) the performance of any other work in the Leased Premises by any person, firm or corporation employed by or on behalf of Tenant, or any failure to complete or delay in completion of such work, or (D) any other act or omission of Tenant that actually causes a delay.

7. Option to Extend.

(a) Paragraph 8 of the Second Amendment is hereby deleted in its entirety and is of no further force or effect.

(b) Provided that (i) no Event of Default has occurred and is then continuing, (ii) the creditworthiness of Tenant has not materially declined relative to its creditworthiness as of the date hereof, and (iii) Tenant originally named herein (or a Related Entity, as defined in Section 12(f) of the Lease) remains in possession of the Premises, Tenant shall have one (1) option to extend the Term of the Lease for one (1) additional period of five (5) years (the "Extension Term"). The Extension Term shall be upon the same terms and conditions contained in the Lease, except (x) Tenant shall not have any further option to extend, (y) any improvement allowances or other concessions applicable to the Premises under this Lease shall not apply to the Extension Term, and (z) the Base Rent shall be adjusted as sets forth herein ("Rent Adjustment"). Tenant shall exercise such option by delivering to Landlord, no later than two hundred seventy (270) days prior to the expiration of the Term of the Lease, written notice of Tenant's desire to extend the Term of the Lease. Tenant's failure to properly exercise such option shall be deemed a waiver of such option. If Tenant properly exercised its option to extend, Landlord, shall notify Tenant of the Rent Adjustment no later than two hundred ten (210) days prior to the commencement of Landlord a written objection thereto within ten (10) business days after receipt thereof. If Tenant properly exercise its option to extend, Landlord shall provide and Tenant shall execute an amendment to this Lease reflecting the terms and conditions of the Extension Term within thirty (30) days after Tenant's acceptance (or deemed acceptance) of the Rent Adjustment.

(c) The Base Rent as adjusted for the Extension Term shall be an amount equal to the Base Rent (plus any improvement allowances or other concessions) then being paid by tenants under leases signed in the immediately preceding six (6) month period for space in the Building or other similar buildings within five (5) miles of the Building, of comparable size and quality and with similar or equivalent improvements as are found in the Building (taking into consideration concessions such as rental waivers, abatement, improvement allowances and lease assumptions granted to such tenants if not included in Landlord's calculation of the Rent Adjustment), provided, however, that if Tenant delivers to Landlord a written objection to Landlord's proposed Rent Adjustment within thirty (30) days after Tenant's receipt of Landlord's proposed Rent Adjustment, and the parties cannot agree on a Base Rent for the Extension Term within thirty (30) days after Tenant's written objection, then Tenant may retract its exercise of its option to extend, or Tenant may choose arbitration to determine the Rent Adjustment. If Tenant chooses arbitration, Tenant shall give Landlord written notice of its desire to seek arbitration within five (5) days after expiration of such thirty (30) day period ("Arbitration Notice"). Within Ten (10) days after Tenant provides Landlord with its Arbitration Notice, the parties shall each appoint an appraiser to determine the Base Rent as adjusted for the Extension Term for the Leased Premises. Each appraiser so selected shall be an MAI appraiser having at least ten (10) years prior experience in the appraisal of comparable space in the metropolitan area in which the Leased Premises are located, and with a working knowledge of current rental rates and practices. If the two appraisers cannot agree upon the Base Rent as adjusted for the Extension Term for the Leased Premises within twenty (20) days after their appointment, then, within ten (10) days after the expiration of such twenty (20) day period, the two appraisers shall select a third appraiser meeting the above criteria. Once the third appraiser has been selected as provided for above, then such third appraiser shall, within ten (10) days after appointment, make its determinations of the Base Rent as adjusted for the Extension Term. The average of the two closest determination of the Base Rent as adjusted for the Extension Term shall be used as the Base Rent for the applicable Extension Term and shall be binding on both Landlord and Tenant. Landlord and Tenant shall each bear the cost of its appraiser and shall share the cost of the third. If Tenant fails to provide the Arbitration Notice as provided above, then Tenant's exercise of its option to extend shall be

deemed retracted. The monthly rental installments shall be an amount equal to one-twelfth (1/12) of the Base Rent as adjusted for the Extension Term and shall be paid at the same time and in the same manner as provided in the Lease.

8. Right of First Offer.

(a) Landlord and Tenant acknowledge and agree that the expansion option set forth inParagraph 7 of the Second Amendment has expired by its terms and is of no further force or effect. Accordingly, said Paragraph 7 of the Second Amendment is hereby deleted in its entirety.

(b) Provided that (i) no Event of Default has occurred and is then continuing, (ii) the creditworthiness of Tenant has not materially declined relative to its creditworthiness as of the date hereof, and (iii) Tenant originally named herein (or a Related Entity, as defined in Section 12(f) of the Lease) remains in possession of the Premises, and subject to Landlord's right to renew or extend the lease term of any other tenant (including the Replacement Tenant, as defined below) with respect to the portion of the Offer Space (as defined herein) now or hereafter leased by such other tenant, Landlord shall, before entering into a lease with a third party for that space in the Building located contiguous to the Premises, known as Suite 120 and consisting 7,904 rentable square feet, as shown on **Exhibit C** attached hereto (the "Offer Space"), notify Tenant in writing of the availability of the Offer Space for leasing and setting forth the terms and conditions upon which Landlord is willing to lease the Offer Space to Tenant ("Landlord's Notice"). Tenant shall have seven (7) business days from its receipt of Landlord's Notice to deliver to Landlord a written notice agreeing to lease the Offer Space on the terms and conditions contained in Landlord's Notice ("Tenant's Acceptance"). In the event that Tenant declines to exercise its right of first offer or Tenant fails to deliver Tenant's Acceptance to Landlord within said seven (7)-business day period, such failure shall be conclusively deemed a rejection of the Offer Space and a waiver by Tenant of this right of first offer, whereupon, except as provided in subsection (e) below, Tenant shall be deemed to have waived its rights with respect to the Offer Space and Landlord shall be free to lease the Offer Space to a third party. Tenant acknowledges and agrees that Landlord has previously notified Tenant of a pending transaction that would terminate the lease with the tenant currently occupying the Offer Space and that Landlord currently is negotiating with a replacement tenant to lease the Offer Space ("Replacement Tenant"). Tenant has informed Landlord that; as of the date hereof, Tenant has declined to lease the Offer Space.

(c) The Base Rent for the Offer Space shall be an amount equal to the Base Rent (plus ay improvement allowances or other concessions) then being quoted to prospective tenants for space in the vicinity of comparable size and quality and with similar or equivalent improvements as are found in the Building. The term for the Offer Space shall be co-terminous with the then-current term (the "Current Term") for the then-existing Premises (the "Existing Premises"); provided, however, that the minimum term for the Offer Space shall be three (3) years and the Current Term for the Existing Premises shall be extended as provided above, the Base Rent for such period added to the Current Term shall be the same rental rate per square foot (including periodic escalations) then in effect for the Offer Space.

(d) If Tenant properly exercises its right of first offer, Landlord and Tenant shall enter into an amendment to the Lease adding the Offer Space to the Premises upon the Terms and conditions set forth herein and making such other modifications to the Lease as are appropriate under the circumstances. If Tenant shall fail to enter into such amendment within ten (10) days following Tenant's Acceptance and receipt of such amendment to the Lease, then Landlord may terminate this right of first offer by notifying Tenant in writing, in which event Tenant shall have no further rights with respect to the Offer Space and Landlord shall be free to lease the Offer Space to a third party.

(e) In the event that (i) Tenant declines the offer set forth in Landlord's Notice or fails to exercise its right of first offer, and (ii) within the ninety (90) day period following Tenant's receipt of Landlord's Notice, Landlord receives an arms-length offer to lease the Offer Space that Landlord is willing to accept from a bona fide third party on monetary terms that are ten percent (10%) or more favorable than the monetary terms in Landlord's Notice, then Landlord shall be required to present to Tenant a modified Landlord's Notice matching such terms, pursuant to this right of first offer, in the same manner that the original Landlord's Notice was submitted to Tenant, and Tenant shall have the same rights and obligations thereafter (with the exception of this subparagraph (e)) with respect to the Offer Space; provided, however, that (A) the seven (7) business day period referenced in subparagraph (b) shall be revised to five (5) business days, and (B) the ten (10) day period referenced in subparagraph (d) above shall be revised to seven (7) days.

9. Ratification. Except as otherwise expressly modified by the terms of this Amendment, the Lease remains unchanged and shall continue in full force and effect. All terms, covenants, and conditions of the Lease not expressly modified herein are hereby confirmed and ratified and remain in full force and effect, and, as further amended hereby, constitute valid and binding obligations of Tenant enforceable according to the terms thereof. In case of conflict between the Lease and this Amendment, the terms of this Amendment shall control.

10. Tenant's Representations and Warranties. The undersigned represents and warrants to Landlord that (i) Tenant is duly organized, validly existing and in good standing in accordance with the laws of the state under which it was organized and if such state is not the state in which the Premises are located, that it is authorized to do business in such state; (ii) all action necessary to authorize the execution of this Amendment has been taken by Tenant; and (iii) the individual executing and delivering this Amendment on behalf of Tenant has been authorized to do so, and such execution and delivery shall bind Tenant. Tenant, at Landlord's request, shall provide Landlord with evidence of such authority.

11. Entire Agreement. Tenant acknowledges that neither Landlord nor any broker, agent, or employee of Landlord has made any representation or promise with respect to the Premises, the Building or the land on which the Building is situated except as expressly set forth herein, and no right is being acquired by Tenant except as expressly set forth herein. The Lease (as amended by this Amendment) contains the entire agreement of the parties and supersedes all prior agreements, negotiations, letters of intent, proposals, representations, warranties and discussions between the parties. The Lease (as amended by this Amendment) may not be changed in any manner, except by an instrument in writing signed by both parties hereto.

12. Binding Effect. All of the covenants contained in this Amendment, including, but not limited to, all covenants of the Lease as modified hereby, shall be binding upon and shall inure to the benefit of the parties hereto and their respective heirs, legal representatives and permitted successors and assigns.

13. Examination of Amendment. Submission of this instrument for examination or signature to Tenant does not constitute a reservation or option, and it is not effective until execution by and delivery to both Landlord and Tenant.

14. Effectiveness. The submission of this Amendment shall not constitute an offer, and this Amendment shall not be effective and binding unless and until fully executed and delivered by each of the parties hereto.

15. Counterparts. This Amendment may be executed in multiple counterparts, each of which shall be an original, but all of which shall constitute one and the same Amendment.

16. Headings. Headings are used for convenience only and shall not be considered when construing the Lease or this Amendment.

17. Brokers. Except for Studley (Virginia), Inc. (used in the Commonwealth of Virginia by Studley, Inc., a New York corporation) ("Broker"), representing Tenant, whose commission shall be paid by Landlord, Landlord and Tenant each represents and warrants to the other that neither party has engaged or had any conversation or negotiations with any broker, finder or other third party concerning the matters set forth in this Amendment who would be entitled to any commission or fee based on the execution of this Amendment. Landlord and Tenant each hereby indemnifies the other against and from any claims for any brokerage commissions and all costs, expenses and liabilities in connection therewith, including, without limitation, reasonable attorneys' fees and expenses actually incurred, for any breach of the foregoing. The foregoing indemnification shall survive the termination of the Lease for any reason. Further, Tenant represents and warrants to Landlord that Broker has not discussed this Amendment or the subject matter thereof with any other real estate broker, agent or salesperson, so as to create any legal right in any such broker, agent or salesperson to claim a real estate commission or similar fee with respect to this Amendment and other transactions contemplated by this Amendment. Tenant hereby indemnifies Landlord against, and agrees to hold, save, and defend Landlord harmless from, any liability or claim (and all expenses, including attorneys' fees, actually incurred in defending any such claim or enforcing this indemnity) for a real estate brokerage commission or similar fee or compensation arising out of or in any way connected with any claim of agency or cooperative relationship with the indemnitor and relating to this Amendment, other than the compensation to Broker.

[SIGNATURES FOLLOW ON NEXT PAGE]

IN WITNESS WHEREOF, the undersigned have caused this Amendment to be executed under seal and delivered as of the day and year first above written.

LANDLORD:

QUANTICO BUILDINGS, LLC, a Delaware limited liability company

By: Quantico Real Estate LLC, a Delaware limited liability company, its sole member

By: Duke Realty Limited Partnership, an Indiana limited partnership, its administrator

By: Duke Realty Corporation, an Indiana corporation, its sole general partner

By: /s/ Peter S. Scholz
Peter S. Scholz
Senior Vice President
D.C. Operations

TENANT:

GLEN RESEARCH CORPORATlON, a Virginia corporation

By: /s/ HUGH MACKIE
Name: HUGH MACKIE
Title: PRESIDENT

Attest: /s/ CAROL HAMILTON
Name: CAROL HAMILTON
Title: ADMIN. SUPPORT

SECOND AMENDMENT TO DEED OF LEASE

THIS SECOND AMENDMENT TO DEED OF LEASE (the "Amendment") is entered into as of January 27, 2004, by and between Winkler-Southern Towers Limited Partnership (hereinafter referred to as "Landlord"), a Virginia limited partnership as successor in interest to TransDulles Center, Inc. ("TCI"), and Glen Research Corporation, a Virginia corporation (hereinafter referred to as "Tenant"). This Amendment shall be effective as of January 1, 2004 (the "Effective Date").

R E C I T A L S :

A. TCI, as landlord, and Tenant, as tenant, entered into that certain Deed of Lease (the "Initial Lease"), dated June 25, 1997, with respect to certain premises containing approximately Twenty-One Thousand Five HundredTwenty-Six (21,526) rentable square feet located at 22825 Davis Drive, Sterling, Virginia 20164 (the "Building"), which Building, also referred to as TransDulles Centre Building 8, is located on a parcel of land within the office and warehouse park known as TransDulles Centre (the "Centre").

B. The Initial Lease was amended by that certain First Amendment to Deed of Lease dated August__, 1997 between TCI and Tenant (the "First Amendment"). The Initial Lease, as amended by the First Amendment, is herein referred to as the "Lease".

C. Landlord succeeded to TCI's interest in the Lease and is the current Landlord under the Lease.

D. Landlord and Tenant desire to amend certain terms and conditions of the Lease as hereinafter set forth.

W I T N E S S E T H :

NOW, THEREFORE, in consideration of the foregoing recitals, Landlord and Tenant, intending to be legally bound, do hereby agree, and amend the Lease, as follows:

1. Defined Terms. Unless otherwise defined herein, all capitalized terms used in this Amendment shall have the same meaning ascribed to such terms in the Lease.

2. Term. Notwithstanding anything to the contrary in the Lease, the Term of the Lease is hereby extended to, and shall expire on, December 31, 2009. The twelve (12)-month period commencing on the Effective Date, and each successive twelve (12)-month period thereafter during the Term of the Lease (as such Term may be extended pursuant to the terms of this Amendment), shall each be a "Lease Year".

3. Base Rent. The Rent Schedule attached to the First Amendment as a new Amended Exhibit C is hereby deleted in its entirety, and the new Second Amendment Revised Rent Schedule attached to this Amendment as Exhibit "A" and made a part hereof is substituted therefor. All references in the Lease, as amended hereby, to Exhibit C, Rent Schedule shall be deemed to refer to the Second Amendment Revised Rent Schedule attached to this Amendment as Exhibit "A". In the event of any inconsistencies between the operation of Section 3(c) of the Lease, and the provisions of the Second Amendment Revised Rent Schedule attached to this Amendment as Exhibit "A", the provisions of the Second Amendment Revised Rent Schedule shall control.

4. Security Deposit. At any time after December 31, 2005 (the "Deposit Date"), Tenant may send a written notice to Landlord expressly requesting that Landlord reduce the amount of the Security Deposit from Twenty Thousand and 00/100 Dollars ($20,000.00) to Ten Thousand and 00/100 Dollars ($10,000.000). IF Tenant's notice is sent to Landlord after the Deposit Date, the amount of the Security Deposit shall be so reduced within ten

(10) days if no Event of Default exists on the date Landlord receives Tenant's notice, and no event has occurred or a condition exists on the date Landlord receives Tenant's notice which with the giving of notice or the passage of time, or both, would constitute a monetary Event of Default under the Lease (provided, however, that if the event which has occurred or the condition which exists on the date Landlord receives Tenant's notice, which with the giving of notice or the passage of time, or both, would constitute a monetary Event of Default under the Lease, is timely cured by Tenant within the cure period specified in the Lease then Tenant's rights hereunder shall be reinstated as if said event or condition never existed except for any delay associated with Tenant's cure). The reduced Security Deposit, if any, shall be subject to all other provisions of the Lease concerning the Security Deposit (including, without limitation, Section 10 thereof). If the Security Deposit is held by Landlord in the form of cash and the Security Deposit is to be reduced in accordance with the preceding provisions of this Section 4, then Landlord shall pay the Ten Thousand and 00/100 Dollars ($10,000.00) reduction amount to Tenant by check or wire transfer. If the Security Deposit is held by Landlord in the form of a letter of credit and the Security Deposit is to be reduced in accordance with the preceding provisions of this Section 4, Landlord shall provide written notice to Tenant that Tenant is entitled to reduce the letter of credit to the amount of Ten Thousand and 00/100 Dollars ($10,000.00) and the Security Deposit shall be reduced only by Tenant delivering to Landlord a binding and enforceable amendment to the letter of credit then held by Landlord reducing the amount that may be drawn thereunder to Ten Thousand and 00/100 Dollars ($10,000.00). Landlord has no obligation whatsoever to reduce the Security Deposit unless Tenant sends such notice to Landlord after the Deposit Date and all the provisions, conditions and requirements of this Section 4 are fully satisfied.

5. Tenant Improvement Allowance (a)(i) Effective upon the Effective Date, Landlord shall make available to Tenant an allowance (the "Tenant Improvement Allowance") to renovate and remodel the interior of the Premises (collectively, the "Tenant Improvements") in the amount of One Hundred Sixty-One Thousand Four Hundred Forty-Five and 00100 Dollars ($161,445.00) (the "Tenant Work Allowance"); subject, however, to the provisions of this Section 5. The Tenant Improvement Allowance proceeds may be used only for the following items paid by Tenant: (A) hard and soft costs to remodel and renovate the Premises (incurred before or after the date of this Amendment); (B) soft costs associated with planning, permitting and managing such renovation and remodeling (incurred before or after the date of this Amendment; (C) Tenant's costs for security installations and related equipment (incurred before or after the date of this Amendment); and (D) telecom and data cabling (incurred before or after the date of this Amendment).

(ii) If the aggregate amount of Tenant Improvement Allowance proceeds requested by Tenant between the Effective Date and December 31, 2004 is less than One Hundred Sixty-One Thousand Four Hundred Forty-Five and 00100 Dollars ($161,445.00), then the difference between such two amounts shall be applied by Landlord as a credit to the next due monthly installments of Base Rent until such difference is reduced to zero.

(b)(i) If Landlord manages the renovation and remodeling of the Premises or is otherwise involved to a greater degree than the review of Tenant's plans and specifications, Landlord shall charge Tenant (and Landlord may reduce the Tenant Improvement Allowance by) as a construction management fee an amount equal to four percent (4%) of the total direct and indirect hard and soft costs incurred in remodeling or renovating the Premises (including, without limitation, material and labor, contractor's profit and contractor's general overhead and all other items identified at Sections 5(a)(i)(A)-(D) above). If Landlord is not entitled to a fee as set forth in the immediately preceding sentence, Tenant nonetheless shall pay to Landlord, within ten (10) days of Landlord's demand therefor, all costs and expenses incurred by Landlord to review plans and specifications received from Tenant and to inspect such work (without regard to the provisions of Exhibit E to the Lease).

(ii) Subject to Landlord's prior written approval of (A) Tenant's plans and specifications, (B) Tenant's contractor and (C) Tenant's architect (in each case not to be unreasonably withheld or delayed), Tenant may use its own contractors to remodel the Premises. Among other things, in such instance, Tenant and Tenant's contractors shall be solely responsible for obtaining all necessary governmental permits and approvals.

(c) Except as otherwise provided in this Section 5, Tenant Improvement Allowance proceeds shall

be disbursed and available to Tenant subject to the terms and conditions set forth in Section 2 of Exhibit E of the Lease (which include, among other things, the delivery of lien waivers as a condition to each payment of any Tenant Improvement Allowance proceeds) and the delivery to Landlord of such other documentation as Landlord may reasonably) request. For purposes of this Section 5, all references in such Exhibit E to the Tenant Work Allowance shall mean the Tenant Improvement Allowance, and the total aggregate amount available and payable to Tenant on account of the Tenant Improvement Allowance and the Tenant Improvements is One Hundred Sixty-One Thousand Four Hundred Forty-Five and 00100 Dollars ($161,445.00). For purposes of this Section 5, all references in such Exhibit E to the Tenant Work shall mean the Tenant Improvements. For purposes of illustration only, this Section 5 does not constitute Landlord's consent to or approval of any particular work, improvements, alterations, renovations, remodeling or the like, and Tenant may not perform (or allow to be performed) any work to the Premises contemplated by this Section 5 without complying with all the provisions of the Lease as to Landlord's approval of such work or the performance thereof; including, without limitation, the provisions of Section 8, Section 14(b) and Exhibit E of the Lease. In addition, all Tenant Work and the performance thereof shall comply with such reasonable rules and regulations as Landlord, and its representatives, may make.

6. Antenna/Satellite. (a) Tenant shall be permitted, at Tenant's sole expense, to install on the roof of the Building, maintain and use a single antenna or a single satellite dish for the purpose of transmitting and receiving communication signals (the "Antenna"), provided that all of the following conditions shall be satisfied at all times (each of which Tenant agrees to satisfy, perform and comply with if Tenant elects to place an Antenna on the roof of the Building):

(i) Tenant shall give Landlord thirty (30) day's advance written notice of the date Tenant intends to install the Antenna.

(ii) The design, construction, screening, size, style, material, location, adequacy and method of installation of the Antenna shall be subject to Landlord's prior Written approval (not to be unreasonably withheld or delayed).

(iii) Tenant's installation, maintenance and removal of the Antenna shall be subject to the supervision of Landlord or Landlord's contractor (roof or otherwise). Tenant agrees to reimburse Landlord, upon demand, for all actual out-of-pocket third party costs and expenses incurred by Landlord in connection with Landlord's review of the Antenna's design, construction and location and the supervision of its installment or removal.

(iv) At Tenant's sole cost and expense, Tenant shall obtain all permits, approvals and licenses necessary for the installation, use and maintenance of the Antenna and Tenant shall comply with all laws, rules, codes, regulations, requirements and the like applicable to the installation, use and maintenance of the Antenna.

(v) Any and all utility costs related to the installation and operation of the Antenna shall be the sole responsibility of Tenant.

(vi) Tenant's installation of the Antenna shall be performed in a manner so as not to adversely affect or vitiate any warranty or guaranty applicable to the roof of the Building.

(vii) Tenant shall be responsible for the payment of any and all additional real estate or personal property taxes assessed against the Building and/or Property and any increases in Landlord's insurance premiums resulting from the installation or use of the Antenna on the basis of reasonable documentation provided to Tenant.

(viii) The Antenna shall be operated and maintained in such a manner as will not interfere with the operations, electronic transmissions or electronic receptions of any other tenant in the Building (provided,

however, that if the Antenna is causing interference with another antenna, satellite dish or the like installed subsequent to the installation of the Antenna, Tenant shall reasonably cooperate with Landlord (at Landlord's expense) in relocating the Antenna so as to prevent such interference (provided same does not already affect the functionality of the Antenna).

(ix) Tenant shall not permit any person or entity, other than Tenant, to make any direct or indirect use of the Antenna.

(b)(i) Tenant shall remove the Antenna upon the expiration or sooner termination of the term of the Lease. The cost of such removal shall be the sole expense of Tenant. Tenant agrees to return the Building to its original condition upon removal of the Antenna, reasonable wear and tear excepted. If, during the Term of the Lease, as amended hereby, it is necessary to replace or repair the roof, Tenant shall temporarily relocate the Antenna.

(ii) Tenant shall repair, at Tenant's sole expense, any damage to the Building or Property resulting from the installation, operation, use, maintenance or removal of the Antenna.

(iii) Other than willful misconduct by Landlord, Landlord's agents, employees or contractors, Tenant agrees to, and shall, indemnify, defend and hold harmless Landlord from and against any and all losses, damages, liabilities, obligations, claims, demands, costs and expenses whatsoever caused by or resulting from the installation, maintenance, operation, use or removal of the Antenna.

(iv) Tenant agrees that it shall, at its own expense, cause its employees and contractors performing any work on or about the roof of the Building to comply with all applicable laws, codes, rules, regulations and other legal requirements regarding safety, a safe workplace and the like (including, without limitation, and all, if any, OSHA requirements) and all policies of insurance maintained by Landlord (provided said insurance requirements have been provided to Tenant) or Tenant. Tenant, on its own behalf and on behalf of its agents, employees and contractors, assumes (and irrevocably and unconditionally waives all claims against Landlord arising out of or relating to) all risks associated with the presence, installation, maintenance, operation, use and removal of the Antenna. Without in any way limiting or modifying any of Landlord's rights or remedies, Tenant shall cause its contractors (and all other persons performing work on the roof) to execute and deliver a release similar to the provisions of the immediately preceding sentence to Landlord before performing any work on or about the Building, and no work may commence unless such release is delivered to Landlord.

(c) Landlord makes no representation or warranty of any kind whatsoever as to the suitability of the roof of the Building for the installation of the Antenna, the quality of the transmissions or receptions of any Antenna (or the ability of any Antenna to send or receive information or otherwise operate), or the cost of installation, operation, use, maintenance or removal the Antenna.

Tenant's obligations and liabilities under this Section 6 shall survive the expiration or sooner termination of the Lease, as amended hereby.

7. Expansion Option. (a) Section 31 of the Lease is hereby deleted in its entirety.

(b)(i) Tenant shall have the right and option, subject to the following provisions of this Section 7, one time only to elect to lease all of the Expansion Space (as defined below). The "Expansion Space" is the portion of the Building located adjacent to the Premises, as described on Exhibit "B" attached hereto and made a part hereof.

(ii) (A) If, at any time prior to December 31, 2005, Landlord receives a bona fide written offer to lease all of the Expansion Space that Landlord desires to accept or if Landlord is prepared to submit an offer on terms acceptable to Landlord, then Landlord shall promptly notify Tenant in writing and forward to Tenant a

copy of the applicable terms so acceptable to Landlord (including the date on which the Expansion Space could be available for occupancy by Tenant) (such notice is hereinafter referred to as the "Landlord's Notice"). Within ten (10) days after Tenant's receipt of the Landlord's Notice, Tenant shall have the right and option to lease the Expansion Space (or the entirety of the space identified in the Landlord's Notice) at the rent and in accordance with all other provisions of the Landlord's Notice (except that Tenant's right to use the Expansion Space shall expire on the date the Term of the Lease with respect to the Premises expires, without regard to the terms of the Landlord's Notice, and the amount and value of concessions provided by Landlord to Tenant may be less than those set forth in the Landlord's Notice under the terms outlined in Section 7 (B) below) if, and only if: the Lease, as amended hereby, is then in full force and effect; no material adverse change in Tenant's financial condition has occurred since the Lease was first executed which, in Landlord's sole but reasonable discretion, would impair Tenant's ability to perform any of its obligations under the Lease, as amended hereby; during the one (1)-year period preceding the date on which Tenant otherwise could exercise the option to expand, Tenant has not committed two (2) or more monetary defaults as to which Landlord has issued a notice in accordance with the provisions of Paragraph 17 of the Lease; during the one (1)-year period preceding the date on which Tenant otherwise could exercise the option to expand, Tenant has not committed two (2) or more non-monetary defaults as to which Landlord has issued a notice in accordance with the provisions of Paragraph 17 of the Lease; and no Event of Default shall be existing at the time of Tenant's receipt of the Landlord's Notice (and at such time no event has occurred at the time of exercise, which with the passage of time or the giving of notice, or both, could be deemed an Event of Default or breach by Tenant under the Lease, as amended hereby provided, however, that if the event which has occurred or the condition which exists on the date Landlord receives Tenant's notice, which with the giving of notice or the passage of time, or both, could be deemed an Event of Default or breach by Tenant under the Lease, is timely cured by Tenant within the cure period specified in the Lease then Tenant's rights hereunder shall be reinstated as if said event or condition never existed except for any delay associated with Tenant's cure). Tenant shall exercise such option only by delivery of written notice of such election to Landlord within such 10-day period. If Tenant fails to give Landlord written notice of Tenant's election to lease all the Expansion Space within the above-referenced 10-day period, Tenant's rights under this Section 7 shall automatically terminate and be null and void. TIME IS OF THE ESSENCE of this Section 7.

(B) Notwithstanding anything to the contrary in Section 7(b)(ii)(A) above, if the initial term of the lease transaction referred to in the Landlord's Notice would expire after December 31, 2009, and the lease transaction referred to in the Landlord's Notice includes rent abatement, a tenant improvement allowance or other concessions, allowances or benefits), then all such abatement, allowances, concessions and benefits provided Tenant under the Lease, as amended hereby, with respect to the Expansion Space shall be reduced so that the net effective base rent payable by Tenant with respect to the period ending December 31, 2009 equals the net effective base rent (the base rent after factoring in all concessions) that would be paid by such third party with respect to the same period. In no event shall the Base Rent and Additional Rent per square foot with respect to the Expansion Space be less than the Base Rent and Additional Rent per square foot (for the correlating time periods as they may occur) for the Premises under the Second Amendment Revised Rent Schedule attached hereto as Exhibit "A".

(c) If Tenant exercises its option to lease the Expansion Space, Landlord shall deliver the Expansion Space to Tenant in its "AS-IS, WHERE-IS" condition on the date the Expansion Space is delivered to Tenant; except that the Landlord shall perform or provide any tenant improvement work or allowance so as to ready the Expansion Space for the initial occupancy by Tenant as may be set forth in the Landlord's Notice.

(d) If Tenant exercises its option to expand the Premises pursuant to this Section 7, the Premises shall be expanded to include the Expansion Space, and, among other things, Tenant's obligation to pay Base Rent and Additional Rent with respect to the Expansion Space, shall commence on the date Landlord delivers possession of the Expansion Space to Tenant; however Landlord shall not deliver possession of the Expansion Premises to Tenant prior to the availability date set forth in the Landlord's Notice and Tenant shall have a minimum of thirty (30) days' prior written notice of the date Landlord intends to deliver possession.

(e) If any prior tenant or occupant of all or any of the Expansion Space holds over or otherwise

refuses to surrender or vacate such space by the availability date set forth in Landlord's notice, Landlord shall not be liable to Tenant, and the date on which Tenant's obligations for Base Rent and Additional Rent with respect to the Expansion Space shall be delayed until possession of such space is available.

(f) Upon Tenant's exercise of its option to lease the Expansion Space, Landlord and Tenant shall commence negotiation of an appropriate amendment to this Lease to, among other things: add the Expansion Space to the Premises; adjust Tenant's pro rata share for purposes of Paragraphs 3(e) and 11 of the Lease; and set forth Tenant's obligations with respect to Base Rent and Additional Rent with respect to the Expansion Space. Landlord and Tenant shall work diligently to execute such amendment within fourteen (14) days after Tenant's exercise of its option; however; failure to execute any such amendment shall not affect the enforceability, validity, or effectiveness of this Lease, the exercise of Tenant's option or any of Tenant's obligations or liabilities with respect to the Expansion Space.

(g) Notwithstanding anything to the contrary in this Section 7, Tenant's right of first refusal shall not apply to and Landlord shall not be obligated to offer to Tenant any space that is subject to an expiring lease if the tenant then occupying such space renews its lease of such space pursuant to a right to do so in such tenant's lease or pursuant to the mutual agreement of such tenant and Landlord.

(h) Tenant's rights under this Section 7 may not be assigned to any person or entity that is not the Tenant under the Lease, as amended hereby, and no portion of the Expansion Space may be used by any person or entity that is not the Tenant under the Lease, as amended hereby.

8. Term Renewal Option.

(a) (i) Section 6 of the Lease is hereby deleted in its entirety.

(ii) Tenant shall have the option to extend the Term for one additional term of three (3) years (the "Renewal Term") upon all the same terms, covenants and conditions of this Lease (including, but not limited to, the payment of additional rent, but excluding such things as the performance of any additional work by Landlord or the payment of any additional sum by Landlord to or for the benefit of Tenant [such as an additional Tenant Work Allowance or an additional Tenant Improvement Allowance]), except that the annual Base Rent payable by Tenant with respect to each Lease Year during the Renewal Term shall be the amount determined pursuant to Section 8(c) below. Upon the extension of the Term for the Renewal Term, no further or other Renewal Term shall remain or be available and in no event whatsoever may the Term be extended for more than a total of three (3) years pursuant to this Section 8.

(b) The option to so extend the Term pursuant to this Section 8 (the "Option") shall be effective only if: the Lease, as amended hereby, is then in full force and effect; no material adverse change in Tenant's financial condition has occurred since the Lease was first executed which in Landlord's sole, but reasonable, discretion would impair Tenant's ability to perform any of its obligations under the Lease, as amended hereby; during the one (1)-year period preceding the date on which Tenant otherwise could exercise the Option, Tenant has not committed two (2) or more monetary defaults as to which Landlord has issued a notice in accordance with the provisions of Paragraph 17 of the Lease and during the one (1)-year period preceding the date on which Tenant otherwise could exercise the Option, Tenant has not committed two (2) or more non-monetary defaults as to which Landlord has issued a notice in accordance with the provisions of Paragraph 17 of the Lease and no Event of Default shall be existing on the commencement date of the Renewal Term (and at such time no event has occurred at the time of exercise, which with the passage of time or the giving of notice, or both, could be deemed an Event of Default or breach by Tenant under the Lease, as amended hereby provided, however, that if the event which has occurred or the condition which exists on the commencement date of the Renewal Term, which with the giving of notice or the passage of time, or both, could be deemed an Event of Default or breach by Tenant under the Lease, is timely cured by Tenant within the cure period specified in the Lease then Tenant's rights hereunder shall be reinstated as if said event or condition never existed except for any delay associated with Tenant's cure). To be effective, the Option must be exercised by written notice to Landlord given not less than nine (9) months, and not more than twelve (12) months, prior to the expiration of the current Term; TIME BEING OF THE ESSENCE. The Option shall be exercised by Tenant sending written notice (the

"Tenant's Notice") to Landlord within the aforesaid time period and, upon (i) giving of such notice and (ii) satisfaction of all conditions to the effectiveness of such Option, the Term of this Lease shall be extended for the Renewal Term without any further instrument, lease or agreement; provided, however, that Tenant and Landlord agree that prior to the commencement of the Renewal Term Landlord shall produce, and Landlord and Tenant shall execute, an addendum, in form and substance reasonably satisfactory to Landlord and Tenant, amending this Lease to set forth the extension of the Term and the annual Base Rent payable thereunder. Failure to execute any such amendment or addendum shall not affect the enforceability, validity, or effectiveness of this Lease.

(c) If Tenant exercise its option to extend the Term for the Renewal Term within the period set forth above, Landlord shall send Landlord's determination *of* annual Base Rent for each Lease Year during the Renewal Term (the "Landlord's Determination") to Tenant within thirty (30) days after Landlord's receipt of the Tenant's Notice. Landlord's determination of the annual Base Rent for the Renewal Term shall include improvement allowances, commissions, free rent, other lease concessions, rate escalations, operating costs and taxes. The annual Base Rent for the first lease year of the Renewal Term shall equal ninety-five percent (95%) of Fair Market Rent (as defined below), "Fair Market Rent" means the total rent, taking into consideration all factors enumerated in the preceding sentence, being charged to similar tenants for similar space in other single-story buildings in the Route 28 North corridor submarket. The parties shall negotiate in good faith and shall have thirty (30) days after Tenant's receipt of such determination in which to agree on such annual Base Rent. If during such thirty (30) day period the parties agree on the amount of such annual Base Rent payable during each lease year of such Renewal Term, then they shall promptly execute an amendment to the Lease stating the annual Base Rent so agreed upon and evidencing other renewal terms. If during such thirty (30) day period the parties are unable, for any reason whatsoever, to agree on such annual Base Rent, then within five (5) business days thereafter (i) Tenant shall have the right in its sole discretion, by written notice to Landlord, to void Tenant's exercise of its right of renewal and the Lease shall expire at the end of the Lease Term (i.e., December 31, 2009); or (ii) provide irrevocable written notice to Landlord of its desire to determine the Fair Market Rent in accordance with the terms contained in this Section 8(c) and the parties shall each appoint a real estate appraiser or agent (an "appraiser'') who shall be licensed in the Commonwealth of Virginia and who specializes in the field of commercial real estate leasing, has at least ten (10) years of experience and is recognized within the field as being reputable and ethical. If Tenant fails to timely terminate its exercise of its right of renewal as provided in Subpart (i) of the immediately preceding sentence and fails to timely provide written notice to Landlord of its desire to determine the Fair Market Rent as provided in Subpart (ii) of the immediately preceding sentence, Tenant shall be deemed to have terminated its right to renew. If Tenant timely provides written notice to Landlord in accordance with the terms of the second (2nd) immediately preceding sentence, such two individuals shall each determine within ten (10) business days after their appointment such Fair Market Rent. If such two appraisers agree on such Fair Market Rent, then the annual Base Rent for the first lease year of the Renewal Term shall equal ninety-five percent (95%) of such Fair Market Rent. If such two appraisers do not agree on such Fair Market Rent, but the difference (the "Appraisal Difference") between the Fair Market Rent determinations between each such appraiser does not exceed five percent (5%) of the lower of the two (2) values, then the then the Annual Base Rent for the first lease year of the Renewal Term shall equal ninety-five percent (95%) of the average of such two values. lf such individuals do not agree on such Fair Market Rent within such ten (10) business day period, and the Appraisal Difference exceeds five percent (5%) of the lower of the two (2) values, then *the* two individuals shall, within five (5) additional days, render separate written reports of their determinations and together appoint a third similarly qualified individual. The third individual shall within fifteen (15) days after his or her appointment make a determination of such Fair Market Rent. The annual Base Rent applicable during the first lease year of such Renewal Term shall equal ninety-five percent (95%) of the average *of* the *two* closest determinations of the three (3) individuals respective determinations. Upon the determination of the annual Base Rent forthe Renewal Term in accordance with the terms of this provision, regardless of whether such annual Base Rent was determined by two or three appraisers pursuant to the terms hereof or the minimum amounts specified herein, such annual Base Rent for the Renewal Term shall be final and conclusive as to the amount of such annual Base Rent for the Renewal Term. Landlord and Tenant shall each bear the cost of its appraiser and shall share equally the cost of the third appraiser. Upon determination of the Annual Base Rent pursuant to this provision, the parties shall promptly execute an amendment to the Lease stating the Annual Base Rent and other applicable renewal terms and the Lease shall

continue in full force and effect.

All rights granted to Tenant under this Section may be exercised by any Permitted Transferee who succeeds as Tenant hereunder the Lease or any other assignee.

9. Hazardous Materials. The phrase "(including, without limitation, chlorinated solvents") is hereby added to the end of the second sentence of Paragraph 5(b) of the Lease.

10. Lender's Consent. Landlord and Tenant each acknowledge and agree that this Amendment is subject to Landlord obtaining the unconditional written consent of Landlord's lender to the execution of this Amendment, and that if such consent shall not be obtained in writing by Landlord, with written evidence provided to Tenant by the tenth (10th) business day after this Amendment is signed by Tenant and delivered to Landlord, then either party may terminate this Amendment by sending written notice of termination to the other until such time that Landlord receives such written consent from Landlord's lender and provides written evidence thereof to Tenant. Upon any termination of this Amendment pursuant to this Amendment. Landlord's delivery to Tenant of a fully executed Amendment shall constitute written evidence to Tenant that Landlord has received the lenders written consent hereto.

11. Severability. If any provision of this Amendment is held to be invalid or unenforceable, the same shall not affect the validity or enforceability of any of the other provisions of this Amendment, which shall continue in full force and effect, as if the invalid or unenforceable provision had been deleted.

12. Interpretation. If any provision of this Amendment conflicts with any provision of the Lease, the provisions of this Amendment shall be controlling.

13. Entire Agreement. The Lease, as amended by this Amendment, constitutes the entire agreement between the Landlord and Tenant with respect to the subject matter hereof, superseding all, if any, prior verbal discussions or agreements between Landlord and Tenant. The Lease, as amended by this Amendment, may be further amended only in writing signed by both the Landlord and Tenant.

14. Full Force and Effect. Expect as expressly modified by the terms of this Amendment, all terms and conditions of the Lease shall continue in full force and effect, and shall bind the parties hereto, and their respective successors and assigns. As expressly modified by this Amendment, the Lease constitutes the valid and legally binding obligation of Tenant, fully enforceable against Tenant in accordance with its terms. This Amendment shall become effective only upon is execution and delivery by Landlord and Tenant.

15. Tenant Representations. Tenant hereby ratifies, confirms and affirms the Lease, as amended hereby, and hereby represents and warrants that, as of the date this Amendment is executed by Tenant, (i) neither the Tenant nor the Landlord is in default or breach of the Lease, as amended hereby, nor has any event occurred, which with the passage of time or the giving of notice, or both, could be deemed an event of default or breach by Landlord or Tenant under the Lease, as amended hereby, and (ii) Tenant has no right or claim against any rent or other amounts now or hereafter payable by Tenant under the Lease, as amended hereby, and has no defenses or offsets otherwise with respect to the Lease, as amended hereby, or any of Tenant's obligations or liabilities under the Lease, as amended hereby.

16. Counterparts. This Amendment may be executed in counterparts, each of which counterparts shall be an original, but all of which counterparts shall constitute one and the same agreement.

17. Brokerage Commissions. Tenant and Landlord warrant and represent to the other that they have not had any dealings with any realtor, broker or agent in connection with the negotiation of this Amendment except for Julien J. Studley, Inc. as representative of Tenant (whose commission shall be paid by Landlord pursuant to the terms of a separate written agreement between Landlord and Julien J. Studley, Inc.)

and The Mark Winkler Company as the representative of Landlord (whose commission shall be paid by Landlord pursuant to the terms of a separate written agreement between Landlord and The Mark Winkler Company. Tenant and Landlord each agrees to indemnify and hold the other harmless against any claims for brokerage or other commissions arising by reason of a breach by the breaching party of this representation and warranty.

IN WITNESS WHEREOF, this Amendment has been executed and sealed by Landlord and Tenant as of the day and year first written above.

Witness/Attest:

LANDLORD:

Winkler-Southern Towers Limited Partnership, a Virginia limited partnership

By: Winkler-TDC LLC, its sole general partner

[ILLEGIBLE]

By:[ILLEGIBLE](Seal)

Its:_____

Date: 2/4/04

TENANT:

Glen Research Corporation

[ILLEGIBLE]

By:[ILLEGIBLE](Seal)

Its: President

Date: 1/21/04

FIRST AMENDMENT TO DEED OF LEASE

This First Amendment to Deed of Lease (this "First Amendment") is made this _____ day of August, 1997 by and between TransDulles Center, Inc., a Virginia corporation, or assigns (hereinafter referred to as "Landlord"), and Glen Research Corporation, a Virginia corporation, (hereinafter referred to as "Tenant").

W I T N E S S E T H:

WHEREAS, Landlord and Tenant are parties to that certain Deed of Lease dated June 25, 1997 (the "Lease"), pursuant to which Landlord let unto Tenant certain Premises consisting of approximately 21,526 rentable square feet in a building located on a parcel of land commonly known as 22825 Davis Drive, Sterling, Virginia, and

WHEREAS, the Lease provided that payments of Rent would commence on October 1, 1997, and

WHEREAS, Tenant has requested, and Landlord has agreed, to postpone the date that Rent commences to be due from October 1, 1997 to November 1, 1997, in consideration of the payment by Tenant of supplemental rent in the amount of One Thousand Fifty Five Dollars ($1,055.00) per month for each month of the first Lease Year of the Term ("Supplemental Rent")

NOW THEREFORE, in consideration of the premises, the sum of ten dollars ($10.00), the receipt and sufficiency of which is hereby acknowledged, and the mutual covenants contained herein, the parties, intending to be legally bound agree as follows:

1. The foregoing recitals are hereby incorporated herein.

2. Paragraph 2(a) of the Lease is hereby deleted in its entirely, and the following Paragraph 2(a) is substituted therefor

(a) The initial term of this Lease shall be for a period (hereafter referred to as "Term"), commencing upon execution of the Lease and expiring October 31, 2004. The obligation for the payment of Rent shall commence on the "Commencement Date," which shall be November 1, 1997. The initial twelve (12) month period after the Commencement Date and each successive twelve (12) month period thereafter during the initial Term and any renewal periods shall be hereinafter referred to as a "Lease Year," The Term shall also include any properly exercised renewal of the term of this Lease as provided in Paragraph 6 below.

3. The Rent Schedule attached to the Lease as Exhibit C is hereby deleted in its entirety, and a new Amended Exhibit C, attached hereto, is substituted therefor All references in the Lease to Exhibit C, Rent Schedule shall be deemed to refer to the attached Amended Exhibit C, Amended Rent Schedule.

4. Capitalized terms appearing in this First Amendment which are not defined herein shall have the same meaning as ascribed to them in the Lease.

5. This First Amendment contains the entire agreement of the parties relative to the subject matter hereof. There have been no representations or agreements made or relied upon by either party which are not expressly set forth herein. Except as expressly modified herein, the Lease remains in full force and effect.

IN WITNESS WHEREOF, the parties have executed this First Amendment as of the date first set forth above.

ATTEST:

LANDLORD: TRANSDULLES CENTER, INC

By: _____ (Seal)

Name: DOUGLAS LAWRENCE

Title: Vice President

ATTEST:

TENANT: GLEN RESEARCH CORPORATION

By: _____ (Seal)

Name: HUGH MACKIE

Title: President

ORIGINAL

DEED OF LEASE

THIS DEED OF LEASE, (hereinafter referred to as "Lease"), is made this 25th day of June 1997, by and between TransDulles Center, Inc., a Virginia corporation, or assigns (hereinafter referred to as "Landlord") and Glen Research Corporation., a Virginia corporation, (hereinafter referred to as "Tenant").

WITNESSETH:

WHEREAS, Landlord and Tenant desire to create a leasehold estate in favor of Tenant in the Premises (as hereinafter defined).

NOW, THEREFORE, in consideration of the Premises, and of the covenants and agreements herein contained, the parties hereto agree as follows:

1. PREMISES. Effective as of the Commencement Date, Landlord shall lease unto Tenant and Tenant shall lease from Landlord approximately 21,526 rentable square feet as outlined in Exhibit A ("Premises"), for a building of approximately 57,600 square feet ("Building"), which Building is located on a parcel of land commonly known as 22825 Davis Drive Sterling, Virginia, Tax Map No. 81-F-16-57A ("Property") as shown on Exhibit A. The parties stipulate that for all purposes under this Lease, the size of the Premises shall be deemed to be 21,526 square feet.

Landlord has completed construction of the "Building Shell" as described in Exhibit B hereto. Tenant has inspected the Building Shell and the Premises, and accepts the same in "AS IS" condition as of the date of execution of this Lease.

2. COMMENCEMENT DATE AND LEASE TERM.

(a) The initial term of this Lease shall be for a period of seven (7) years (hereafter referred to as "Term"), commencing on the "Commencement Date." The Commencement Date shall be the earlier of (i) the date Tenant commences beneficial use of the Premises, determined as set forth herein below, or (ii) October 1, 1997. Notwithstanding any other provision of this Lease, should Landlord fail to timely review the Tenant Plans as provided in the Work Letter attached hereto as Exhibit E (the "Work Letter")(such failure referred to as "Landlord Delay"), or should Tenant be delayed as a result of earthquake; war; riots; or strikes (delay from such enumerated causes, and no other cause, whether or not such cause may be similar to such enumerated causes, being referred to as "Force Majeure Delay"), and should Tenant not commence beneficial use of the Premises until a date subsequent to October 1, 1997 solely as a result of such Landlord Delay, or as a result of Force Majeure Delay, the Commencement Date shall be postponed from October 1, 1997 by the number of days after October 1, 1997 equal to the number of days of such Landlord Delay or Force Majeure Delay, but only to the extent that Tenant was actually delayed in commencing beneficial use of the Premises solely as a result of such Landlord Delay or Force Majeure Delay; under no circumstances shall the Commencement Date be postponed to the extent that any delay in Tenant's commencing the beneficial use of the Premises beyond October 1, 1997 is attributable in whole or in part to any cause other than Landlord Delay or Force Majeure Delay. The initial twelve (12) month period after the Commencement Date and each successive twelve (12) month period thereafter during the initial Term and any renewal periods shall be hereinafter referred to as a "Lease Year." If the Commencement Date is not the first day of a month, then the Term shall be the period set forth above plus the partial month in which the Commencement Date occurs. The Term shall also include any properly exercised renewal of the term of this Lease as provided in Paragraph 6 below.

(b) Notwithstanding the provisions of paragraph 2(a) above, provided that (i) this Lease is in full force and effect, and (ii) Tenant shall not, within the two (2) year period preceding the first day on which Tenant may issue a Notice of Termination in accordance with the provisions of this Paragraph 2(b), have either (x) committed more than two monetary defaults as to which Landlord has issued a notice in accordance with the provisions of Paragraph 17 hereof, or (y) committed more than two non-monetary defaults as to which Landlord issued a notice in accordance with the provisions of paragraph 17 hereof, Tenant shall have the option to terminate this Lease as of the last day of the fifth (5th) Lease Year (the "Termination Date"). To exercise such option, Tenant shall provide Landlord with written notice (the "Notice of Termination") of its exercise of such option at least Two Hundred Seventy (270) days, but no more than Three Hundred Sixty (360) days, prior to the Termination Date, time being of the essence, which Notice of Termination must be accompanied by payment to Landlord of a termination fee in the amount of Two Hundred Thirteen Thousand Seven Hundred Eighteen Dollars ($213,718.00). If between the date of issuance of the Notice of Termination and the Termination Date, Tenant shall have committed or suffered an Event of Default under this Lease , or should Tenant fail to vacate the Premises by the Termination Date, time being of the essence, Landlord may, at its sole option, (i) nullify the election to terminate in which event the Lease shall remain in full force and effect, subject to its terms, or (ii) without further notice declare an Event of Default under this Lease, and in addition to retaining the Termination Fee, Landlord may exercise all other rights and remedies for an Event of Default as hereinafter provided, or (iii) deem Tenant to be holding over in accordance with the provisions of paragraph 18 hereinbelow. The option granted hereunder is personal to Tenant, and may not be exercised by any transferee or assignee of Tenant other than an "Affiliate" as defined in Paragraph 12(f) hereof; the option is exercisable only as to the entirety of the Premises, and not as to a portion thereof.

3. RENT. As rent for the Premises (all of which is hereinafter referred to collectively as "Rent'), Tenant shall pay to Landlord all of the following:

(a) Base Rent. Subject to escalation pursuant to Paragraph 3(c) below Tenant shall pay, without offset, demand or counterclaim, as base rent (hereafter referred to as the "Base Rent") for each Lease Year the sums identified on the attached Exhibit C, Rent Schedule. The monthly installments shall be payable in advance on the first day of each and every month during the said Term at the office of TransDulles Center, Inc., c/o The Mark Winkler Company, 4900 Seminary Road, Suite 900, Alexandria, Virginia 22311, or at such other place as Landlord may hereafter designate in writing. Rent checks are to be made payable to TransDulles Center, Inc., or such other person, firm or corporation as Landlord may

hereafter designate in writing, except that the first such installment, in the amount of Fifteen Thousand Nine Hundred Sixty Five Dollars and twelve cents ($15,965.12) shall be due on or before the Commencement Date.

(b) Intentionally Omitted.

(c) Rent Escalations. At the beginning of the second Lease Year and at the beginning of each Lease Year thereafter, throughout the Term, the Base Rent then in effect shall be increased by three percent (3%) of the previous Lease Year's Base Rent, it being the intent hereof that all increases set forth herein shall be compounded.

(d) Intentionally Omitted.

(e) Tax on Lease. Tenant's pro rata share of any federal, state or local tax (including gross receipts tax) assessment, levy or other charge (other than any income tax or real property tax) (hereinafter collectively referred to as "Tax") if now or hereafter directly or indirectly upon (a) Landlord with respect to this Lease or the value thereof, (b) Tenant's use or occupancy of the Premises, or (c) the Base Rent or any other sum payable under this Lease, payment of such Tax shall be paid by Tenant as Additional Rent. Landlord estimates said amount to be one cent ($0.01) per rentable square foot for the first Lease Year.

Landlord shall annually notify Tenant of the amount which Landlord estimates will be the Tax for each tax year within thirty (30) days of receipt by Landlord of a bill for gross receipts tax from Loudoun County, and Tenant shall pay such amount in equal monthly installments in advance on or before the first day of each of the twelve (12) months after the date of such notice. Landlord shall annually submit to Tenant a statement showing Tenant's pro rata share of the actual Tax for the current tax year, the amount thereof theretofore paid by Tenant, and the amount of the resulting balance due thereon or overpayment thereof. Such balance due shall be paid by Tenant, without interest, within thirty (30) days after the date of such statement. Official tax bills rendered by the taxing authority shall be presumptive evidence of the actual amount of Tax. Tenant shall have the right to audit Landlord's records pertaining to such Tax in accordance with paragraph 11 below.

(f) Tenant does hereby take and hold the Premises at the Rent hereinabove specifically reserved and payable as aforesaid, and upon and subject to the terms and conditions herein contained.

(g) Late Payment. If Tenant fails to pay any installment of Rent on or before the first (1st) day of the calendar month when such installment becomes due and payable, and, if on more than one occasion during each twelve (12) month period of the Term Tenant fails to pay such installment within five (5) calendar days after the date Landlord presents notice, then on such second and subsequent occasion during each twelve (12) month period of the Term, Tenant shall pay to Landlord a late charge of five per cent (5%) of the amount of such installment, and, in addition, any unpaid installment shall bear interest at that rate per annum which is two per cent (2%) greater than the "prime rate" then in effect at Morgan Guaranty Trust Company of New York, New York, New York (hereinafter the "Interest Rate"), from the date such installment became due and payable to the date of payment by Tenant' provided, however, that nothing herein contained shall be construed or implemented in such a manner as to allow Landlord to charge or receive interest in excess of the maximum legal rate then allowed by law. Such late charge and interest shall constitute Additional Rent hereunder and shall be due and payable with the next monthly installment of Rent. Nothing in this paragraph shall be deemed to be in derogation of Landlord's rights under Paragraph 17.

(h) Additional Rent. With respect to this Lease, Additional Rent shall mean any and all monetary obligations for which Tenant is responsible under the terms, covenants and conditions of this Lease, including but not limited to, Base Rent escalations, taxes, late fees, interest payments, and Operating Costs.

(i) Tenant's Proportionate Share. Landlord and Tenant agree that Tenant's "pro rata share" for purposes of Paragraphs 3(e) and 11 shall be thirty seven and thirty seven one hundredths percent (37.37%), the approximate and agreed upon ratio that the area of the Premises bears to the total rentable area of the Building.

4. INTENTIONALLY OMITTED.

5. USE OF PREMISES.

(a) Tenant may occupy and use the Premises for the preparation of materials used in DNA research, and for research and development and general office and warehousing purposes associated with such preparation, and for no other purpose without the consent of Landlord, subject, however, to the terms and provisions of any covenants, easements, conditions or restrictions which affect the use of the Premises. Tenant shall not permit any unlawful occupation, business or trade to be conducted on any of the Premises or any use to be made thereof contrary to applicable laws or regulations. Tenant shall not use or occupy or permit any of the Premises to be used or occupied, nor do or permit anything to be done in or on any of the Premises, in a manner which would (i) violate any certificate of occupancy affecting any of the Premises, (ii) make void or voidable any insurance then in force with respect to any of the Premises, (iii) make it difficult or impossible to obtain fire or other insurance which is required hereunder, or cause the cost of maintaining such insurance to increase, (iv) cause structural damage to the Building, or (v) constitute a public or private nuisance or waste.

(b) As part of its obligation to comply with laws and other requirements under Paragraph 5(a) of this Lease, Tenant shall not (either with or without negligence) generate, use, store, or cause or permit the escape, disposal or release of any Hazardous Materials in or about the Building or the Property or the Premises, except in strict accordance with applicable laws. Hazardous Materials shall mean (a) "hazardous wastes", as defined by the Resource Conservation

and Recovery Act of 1976, as amended from time to time, (b)"hazardous substances", as defined by the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended from time to time, (c)"toxic substances", as defined by the Toxic Substances Control Act, as amended from time to time, (d) "hazardous materials", as defined by the Hazardous Materials Transportation Act, as amended from time to time, (e) any applicable state or local laws and the regulations adopted under these acts, as amended from time to time, (f) oil or other petroleum products whether refined or unrefined, (g) any highly combustible substance and (h) any substance whose presence in Landlord's reasonable judgment could be detrimental to the Building or the Property or the Premises or hazardous to health or the environment. If any lender or governmental agency shall ever require testing to ascertain whether or not here has been any release of Hazardous Materials, then the reasonable costs thereof shall be reimbursed by Tenant to Landlord upon demand as additional charges if such requirement applies to the Premises. In addition, Tenant shall execute affidavits, representations and the like from time to time at Landlord's request concerning Tenant's best knowledge and belief regarding the presence of Hazardous Materials in the Premises. In all events, Tenant shall indemnify and hold Landlord harmless of and from any and all costs and expenses of any nature arising from the release of Hazardous Materials in the Premises occurring while Tenant is in possession, or elsewhere on the Property and any adjacent real estate owned by Landlord, if caused by Tenant or persons acting under Tenant. The within covenants shall survive the expiration or earlier termination of the Lease.

(c) If Tenant fails to comply with any applicable law or regulation or if Landlord reasonably believes the violation of any law or regulation is threatened, Landlord shall have the right (but not the obligation) following thirty (30) days written notice to Tenant unless Tenant commences to act during or prior to such period, and diligently pursues the cure of such failure to comply (unless such failure or threatened failure causes imminent threat to life or property in which case no notice is required), to act in place of Tenant and to take such action as it may deem necessary or desirable to ensure compliance or to mitigate, abate or correct the violation or threatened violation. All reasonable costs of any kind whatsoever incurred by Landlord in connection therewith, including consultants' and reasonable attorneys' fees, shall be payable on demand, shall bear interest at the default rate until paid, and shall constitute additional rent.

(d) Tenant shall indemnify, defend and hold Landlord harmless from and against any and all claims, losses, damages, liabilities, cost and expenses, including attorneys' fees, arising from Tenant's failure to comply with all applicable laws and regulations. The foregoing provisions shall survive the expiration or earlier termination of this Lease.

6. OPTION TO EXTEND TERM.

(a) Renewal Period. Provided that (i) this Lease is then in full force and effect, and (ii) no material adverse change in Tenant's financial condition has occurred, and (iii) Tenant shall not, within the two (2) year period preceding the first day on which Tenant may issue a Notice of Renewal in accordance with the provisions of this Paragraph 6, have either (x) committed more than two monetary defaults as to which Landlord has issued a notice in accordance with the provisions of Paragraph 17 hereof, or (y) committed more than two non-monetary defaults as to which Landlord issued a notice in accordance with the provisions of Paragraph 17 hereof, and (iv) Tenant shall not then be in default, and shall not default in the performance of any of its obligations under this Lease at any time between the date of issuance of the Notice of Renewal contemplated by Paragraph 6(b) below and the expiration of the initial lease Term, Tenant shall have the option to renew this Lease for one (1) additional three (3) year term, with the Base Rent in such renewal period, being equal to the previous year's Base Rent, increased by five per cent (5%).

(b) Notice Required. Tenant shall give Landlord written notice of its intent to exercise its option to extend the Lease Term ("Notice of Renewal") at Least Two Hundred Forty (240) days, but no more than Three Hundred Sixty (360) days, prior to the end of the initial Term, time being of the essence. Should Landlord fail to receive a Notice of Renewal within the aforementioned notice period, time being of the essence, then Tenant's renewal option shall expire without action by either party and Landlord shall not need to advise Tenant in writing of Tenant's neglect in reference to the notice period.

7. INTENTIONALLY OMITTED.

8. TENANT IMPROVEMENTS.

The respective rights and obligations of the parties with respect to the design and construction of the Tenant Work are set forth in the Work Letter attached hereto as Exhibit E hereto.

9. INTENTIONALLY OMITTED.

10. SECURITY DEPOSIT.

(a) Contemporaneously with the execution of this Lease, the sum of Seventy Five Thousand Dollars ($75,000.00) shall be delivered to Landlord as a Security Deposit (the "Security Deposit") pursuant to this Lease, as security for the payment and performance by Tenant of all Tenant's obligations, covenants, conditions and agreements under this Lease. The Security Deposit may, at Tenant's election, be posted either in cash, or in the form of a letter of credit ("Letter of Credit") in accordance with the provisions of paragraph 10 (b) below. If the Security Deposit is in the form of cash, it shall bear interest at Crestar Bank's passbook rate in effect as of the date of execution of this Lease, which interest shall be added to and shall become part of the Security Deposit, subject to disposition as provided herein. Upon the expiration of the Term hereof, or any extension or renewal thereof, Landlord shall, if Tenant is not in default, return such Security Deposit to Tenant, less such portion thereof as Landlord shall have appropriated as provided herein to make good any default by Tenant with respect to Tenant's obligations within sixty (60) days after such expiration. If Tenant shall default in the performance of any of its obligations under this Lease, Landlord shall have the right, but not the obligation, to apply the

portion of the Security Deposit reasonably required to remedy such default, in which event Tenant shall promptly deposit with Landlord the amount necessary to restore the Security Deposit to its original amount. In the case of a non-monetary default, Landlord may exercise such right only after providing Tenant with notice of default and opportunity to cure to the extent and in the manner required under other provisions of this Lease. The Security Deposit shall not be deemed liquidated damages, and Landlord's application of said Security Deposit to reduce its damages shall not preclude recovery from Tenant of any additional damages incurred by Landlord. If the Landlord sells or transfers its interest in the Building, Landlord shall transfer the Security Deposit, and, provided that Landlord has, in fact, done so, the Landlord shall be released from all liability to Tenant for the return of such Security Deposit.

(b) Any Letter of Credit tendered as and for the Security Deposit shall be (i) unconditional; (ii) irrevocable; (iii) issued by a financial institution reasonably approved by Landlord in Landlord's reasonable discretion; (iv) in a form permitting partial and multiple drawings; (v) for either multiple terms of one (I) year each in duration, renewed at least sixty (60) days prior to the expiration thereof, the entire term extending until the date which is ninety (90) days after the expiration of the Lease Term, as such Lease Term may be extended pursuant to the provisions of the Lease, or at Tenant's option for a single term extending until the date which is ninety (90) days after the expiration of the Lease Term, as such Lease Term may be extended pursuant to the provisions of the Lease; and (vi) be in a form and substance acceptable to the Landlord, in its reasonable discretion. Tenant shall provide Landlord with a replacement Letter of Credit at least sixty (60) days prior to the expiration of the immediately preceding Letter of Credit. If a partial drawing occurs under the Letter of Credit, the Tenant shall, upon demand but not more than five (5) days after such partial drawing, cause the financial institution to reissue the Letter of Credit in the amount then currently required under the terms of this Lease. Notwithstanding the foregoing, the Landlord shall be entitled to draw down on the Letter of Credit, without any notice, at any time on or after the earlier of (i) the occurrence of an Event of Default by Tenant under this Lease; or (ii) the thirtieth (30th) day preceding the expiration date of the Letter of Credit in the event Tenant is required to and fails to timely replace the Letter of Credit. Landlord shall provide Tenant with written notice of any draws made on the Letter of Credit.

(c) Subject to the conditions set forth below, the Security Deposit shall be reduced (i) at the end of the twenty-fourth full calendar month of the Lease Term to Sixty Thousand Dollars ($60,000.00); (ii) at the end of the forty-eighth full calendar month of the Lease Term to Forty Thousand Dollars ($40,000.00); and (iii) at the end of the sixtieth (60th) full calendar month of the Lease Term to Twenty Thousand ($20,000.00), where it shall remain for the balance of the Lease Term, as such Lease Term may be extended pursuant to the provisions of this Lease. If the Security Deposit is in the form of a Letter of Credit, the Letter of Credit may be replaced by a new Letter of Credit or cash in the amount of the reduced Security Deposit; however, any replacement Letter of Credit shall otherwise be in accordance Paragraph 10 (b) hereof. No reduction of the Security Deposit as provided herein shall occur unless as of the date set forth for each reduction: (x) this Lease shall be in full force and effect, (y) there shall have been no material adverse change in Tenant's financial condition between the date of execution of this Lease and the date set forth for such reduction, and (z) Tenant shall not have committed more than two monetary defaults as to which Landlord has issued a notice in accordance with the provisions of Paragraph 17 hereof, nor committed more than two non-monetary defaults as to which Landlord has issued a notice in accordance with the provisions of Paragraph 17 hereof, in the two year period preceding the scheduled reduction. Should the Security Deposit not be reduced as a result of Tenant's failure to satisfy the conditions set forth in (z) above, but should all such conditions be satisfied as of the next scheduled reduction in the Security Deposit as provided herein, the Security Deposit shall then be reduced to the amount set forth in accordance with the schedule, despite the fact that there was no interim reduction. By way of example, should the Security Deposit not be reduced at the end of the twenty-fourth full calendar month of the Lease Term due to Tenant's failure to satisfy the conditions set forth in (z) above, the Security Deposit shall remain at Seventy Five Thousand Dollars ($75,000.00) between the twenty-fourth and forty-eighth full calendar months of the Term; provided Tenant satisfies the conditions set forth in (z) above between the twenty-fourth and forty-eighth full calendar months of the Lease Term, and should the conditions set forth in (x) and (y) above both be satisfied, at the end of the forty eighth full calendar month, the Security Deposit shall be reduced to Forty Thousand Dollars ($40,000.00).

11. OPERATING COSTS. Tenant shall pay as Additional Rent its pro rata share of Operating Costs of the Building and Property. The projected preliminary estimated calendar year 1997 Operating Costs for the Premises are $1.45 per rentable square foot of the Premises. This amount shall be adjusted on an annual basis in accordance with the procedures outlined below.

(a) Definition. As used herein, the term 'Operating Costs" means (except as specifically excluded below) the actual costs incurred in owning, operating and maintaining the Building and Property during each year of the Lease Term. Such operation and maintenance costs shall include, by way of example rather than of limitation, (i) real property, county, and other similar taxes or assessments, including but not limited to any special assessments, levied against any or all of the Building and Property; (ii) charges or fees for, and taxes on, the furnishing of water, sewer service, gas, fuel, electricity or other utility services to the Premises and common areas of the Building and Property; (iii) costs of providing trash removal service, landscaping service, snow removal service, and of maintaining grounds, common areas of the Building and adjacent parking and mechanical systems of the Building; (iv) all other reasonable costs of maintaining, repairing or replacing any or all of the Building, except (a) costs for repairs, maintenance and replacements required due to defective materials, installations or workmanship at the time of initial construction of the Building and Property and expenses incurred in connection with the enforcement of any warranty rights in connection therewith, or (b) costs to repair the roof, foundation, interior load bearing partitions, exterior walls and window systems, except to the extent any such structural repair is required due to Tenant's negligence or willful misconduct; (v) charges or fees for any necessary governmental permits; (vi) customary and reasonable management fees under a management agreement (not to exceed four per cent (4%) of gross rents collected in respect of the Building), and related overhead and expenses; (vii) premiums for hazard, liability, workmen's compensation or similar insurance upon any or all of the Building and Property as maintained by Landlord under Paragraph 20; (viii) costs arising under service contracts with independent contractors for servicing, maintenance and repair of building equipment and systems; and (ix) the cost of any other items which, under generally accepted accounting principles consistently applied

from year to year with respect to the Building and Property, constitute operating or maintenance costs attributable to any or all of the Premises. If the Building is less than ninety five per cent (95%) occupied, Operating Costs shall include all additional costs and expenses of operation, maintenance which Landlord determines that it would have paid or incurred if the Building had been ninety five per cent (95%) occupied. Landlord and its agents reserve the right to enter onto the Premises at reasonable times upon reasonable notice from Landlord or its agent and accompanied by a representative of Tenant, excepting emergency, for the specific purpose of managing and maintaining the Premises. Landlord agrees that it shall make no profit from its collection of Operating Costs.

(b) Notwithstanding anything to the contrary herein, Operating Costs shall not include (i) any costs (including payments of principal and interest under any mortgage and any ground rental payments) associated with the initial construction of the Building, (ii) costs of development of the Property or the Premises, (iii) costs of painting or decorating areas of the Building other than common and public areas, and exterior elements (iv) brokerage commissions, legal fees, construction costs and concessions or inducements to any tenant in connection with leasing premises in the Building, and advertising expenses in connection with the leasing of the Building, (v) legal fees relating to tenant leases, financings of the Building, and zoning and land-use issues and violations by Landlord under tenant leases, (vi) salaries and other compensation paid to officers or executives of Landlord or any partner, principal or owner of the entity comprising Landlord, (vii) fees or charges paid to any party affiliated with Landlord on account of the provision by such entity of goods or services constituting Operating Costs of the Building to the extent such fees or charges exceed the fees or charges that would have been incurred to an independent entity in an arm's length transaction, (viii) any expenses reimbursable by any tenant of the Building, insurance company or condemning authority, or actually reimbursed by any other source, (ix) charges for heating and air conditioning service furnished to other tenants of the Building during other than normal business hours as determined by Landlord, (x) advertising and marketing costs, (xi) Landlord's income taxes, (xii) repairs or other work occasioned by fire or other casualty of an insurable nature, but only to the extent of any recovery actually received by Landlord, (xiii) costs of any capital improvements made to the Building or the Premises (except to the extent that such improvements are either: (x) in the nature of repairs which under generally accepted accounting principles should be classified as capital improvements, (y) for the purpose of reducing Operating Costs, or (z) which are required under any governmental law or regulation that was not applicable to the Project as of the Date of Lease (which are not a result of the nature of Tenant's specific use of the Premises, which capital improvements shall be the responsibility of Tenant), in which cases the cost of such improvements which shall be amortized on a straight-line oasis over the improvement's useful life, not to exceed the useful life of the Building, together with interest on the unamortized balance of such cost at the Interest Rate, or such higher rate as may have been paid by Landlord on funds borrowed for the purposes of constructing such capital improvements), and (xiv) costs arising from Landlord's civic activities or charitable or political contributions, all of which costs are the responsibility of the Landlord except where agreed to otherwise by the parties in writing.

(c) In order to provide for current payments, a statement of Landlord's estimate of expenses as initially set forth in Paragraph 11 (a) above, together with the amount of Tenant's Additional Monthly Rent resulting therefrom, shall be submitted by Landlord to Tenant prior to the beginning of each calendar year or part thereof during the Term. Tenant shall pay monthly, one-twelfth (1/12th) of Tenant's pro rata share of Landlord's estimate of Operating Costs. Further, from time to time during any calendar year, Landlord may submit to Tenant a revised statement of Landlord's estimate of Tenant's pro rata share of any Operating Costs and within thirty (30) days after delivery of such statement (including any statement delivered after the expiration or termination of this Lease), Tenant shall pay to Landlord, as Additional Monthly Rent an amount equal to one-twelfth (1/12th) of the revised amount so estimated. After the end of each fiscal year, Landlord will, as soon as practical, but in no event later than twelve (12) months after the end of each fiscal year, submit to Tenant a statement of the actual expenses, incurred for Operating Costs for the preceding fiscal year. Such statement shall also indicate the amount of Tenant's excess payment or underpayment based on the Landlord's estimate. Notwithstanding any other provision of this Lease, Tenant shall not be responsible for the payment of any Operating Expenses which are not reflected in a statement of actual expenses issued to Tenant within twelve (12) months of the end of the fiscal year in which such expenses were incurred.

If Additional Rent paid by Tenant during the preceding calendar year shall be in excess of, or less than its share of the actual expenses incurred by Landlord for Operating Costs for that year, Landlord and Tenant agree to make the appropriate adjustment following the submission of Landlord's statement by Tenant paying any Additional Rent due with the installment of rent due for the month following submission of Landlord's statement, or Tenant deducting its excess payment from the installment of rent for such month.

During the final year of the Lease Term if Tenant overpays its portion of Operating Costs, said over payment amount shall be returned by Landlord within thirty (30) days of termination provided no event of default has occurred or is occurring.

Within sixty (60) days after the receipt of Landlord's statement showing actual figures for the year, Tenant shall have the right to request copies of a statement of "Operating Costs of the Building" prepared by the Landlord on an accrual basis, in accordance with a method of accounting consistently applied from year to year, which shall be supplied to the Tenant within a reasonable time after Tenant's written request, but no such request shall extend the time for payment as set forth in the preceding Paragraph. Unless Tenant asserts specific error(s) within thirty (30) days after Landlord has complied with Tenant's request, the statement submitted by Landlord shall be deemed to be correct. Provided Tenant timely asserts such specific errors, and is current in its obligations to Landlord for the payment of all sums due to Landlord as Rent under this Lease, and there is no existing Event of Default under the Lease, Tenant shall have the right, exercisable no more than once per Lease Year, to cause Landlord's books and records showing Taxes and Operating Expenses for the prior Lease Year to be examined by a Certified Public Accountant, engaged by Tenant, upon no less than

thirty (30) days prior written notice and during normal business hours at any time within one hundred and eighty (180) days following the expiration of the prior Lease Year. No such Certified Public Accountant may be engaged on a contingent fee basis. Such examination shall, at Landlord's option, occur at the offices of the Landlord's management agent, and shall not take more than thirty (30) days to complete. Any information obtained by Tenant from such examination will be treated as confidential unless and until such information has been publicly disclosed by Landlord; provided, however, that nothing herein contained shall limit or impair the right or obligation of Tenant to disclose such information when required to do so by law or to appropriate regulatory authorities having jurisdiction over its affairs, or to use the same in connection with the enforcement of the terms and conditions of the Lease. As a condition of such examination, Landlord may require any party reviewing or having access to Landlord's records to execute and deliver to Landlord a confidentiality agreement substantially in the form attached hereto as Exhibit D. In the event that such examination reveals that Operating Expenses or Taxes for any Lease Year have been overstated, Landlord shall afford a credit to Tenant against the next monthly payments of estimated Operating Costs due as contemplated by this Paragraph 12(c) for any overpayments previously made by Tenant; similarly, if such examination reveals that Operating Expenses or Taxes for any Lease Year have been understated, Tenant shall pay to Landlord, within thirty (30) days of completion of such examination, the amount by which Operating Expenses have been understated. If such examination reveals that Operating Expenses for any Lease Year have been overstated by ten percent (10%) or more, Landlord shall reimburse Tenant for the reasonable costs of such examination within thirty (30) days of presentation of a proper invoice therefor.

11.1 COSTS OF OPERATING THE PREMISES. In addition to the Rent and Additional Rent provided elsewhere herein, Tenant shall be responsible for making direct payment of all costs incurred in operating the Premises to the parties providing service to the Premises, including without limitation, gas, electricity and telephone service, as well as trash removal and janitorial services. Costs of water and sewer service shall be included as a component of Operating Expenses, to be borne by Tenant as provided in Paragraph 10 above. Tenant shall at all times maintain the Premises in a neat and clean manner, and shall place all trash in its dumpster. Tenant shall, at its sole cost and expense, arrange for the placement of a dumpster for the disposal of Tenant's trash in a location designated by Landlord, which location shall be in the general vicinity of Tenant's loading dock; Tenant shall not place a dumpster in any location other than as designated by Landlord; no additional rent shall be charged to Tenant for the placement of such dumpster.

12. ASSIGNMENT AND SUBLETTING.

(a) Tenant shall not assign this Lease or any of Tenant's rights or obligations hereunder, or sublet or permit anyone to occupy the Premises or any part thereof, without (i) the prior written consent of Landlord, which consent shall not be unreasonably withheld, conditioned or delayed No assignment or transfer of this Lease may be effected by operation of law or otherwise without Landlord's prior written consent. Any assignment, subletting or occupancy, Landlord's consent thereto or Landlord's collection or acceptance of rent from any assignee, subtenant or occupant, shall not be construed as a waiver or release of Tenant from liability hereunder (if being understood that Tenant shall at all times remain primarily liable as a principal and not as a guarantor or a surety) and shall not be construed as relieving Tenant or any assignee, subtenant or occupant from the obligation of obtaining Landlord's prior written consent' to any subsequent assignment, subletting or occupancy. Tenant assigns to Landlord any sum due from any assignee, subtenant or occupancy of Tenant as security for Tenant's performance of its obligations pursuant to this Lease. Tenant authorizes each such assignee, subtenant or occupant to pay such sum directly to Landlord if such assignee, subtenant or occupant receives written notice from Landlord specifying that such rent shall be paid directly to Landlord. Landlord's collection of such rent shall not be construed as an acceptance of such assignee, subtenant or occupant as a tenant nor a waiver of any default hereunder by Tenant. All restrictions and obligations imposed pursuant to this Lease on Tenant or the use and occupancy of the Premises shall be deemed to extend to any subtenant, assignee or occupant of Tenant, and Tenant shall cause such persons to comply with all such restrictions and obligations. Tenant shall not mortgage or hypothecate this Lease without Landlord's written consent, which consent may be granted or withheld in Landlord's sole and absolute discretion. Tenant shall pay the expenses (including attorney's fees and hourly fees for Landlord's employees and agents) incurred by Landlord in connection with reviewing Tenant's request for Landlord to give its consent to any assignment, subletting, occupancy or mortgage, and Landlord's receipt of reimbursement for such expenses from Tenant (not to exceed five hundred dollars ($500.00)) shall be a condition to Landlord providing its consent to such assignment, subletting, occupancy or mortgage.

(b) lf Tenant is a partnership, then any dissolution of Tenant or a withdrawal or change, whether voluntary, involuntary, or by operation of law, of partners owning a controlling interest in Tenant shall be deemed a voluntary assignment of this Lease. If Tenant is a Corporation or a partnership with a corporate general partner, then any dissolution, merger, consolidation or other reorganization of Tenant (or such corporate general partner), or any sale or transfer of a controlling interest of its capital stock, shall be deemed a voluntary assignment of this Lease. Whether Tenant is a partnership, corporation or any other type of entity, then at the option of Landlord, a sale of all or substantially all of its assets or a change in its name shall also be deemed a voluntary assignment of this Lease.

(c) If Tenant wants to assign, sublet or otherwise transfer all or part of the Premises or this Lease, then Tenant shall give Landlord written notice ("Tenant's Request Notice") of the identity of the proposed assignee or subtenant and its business, all terms of the proposed assignment or subletting, the commencement date of the proposed assignment or subletting (the "Proposed Sublease Commencement Date"), the area proposed to be assigned or sublet (the "Proposed Sublet Space") and such other information as Landlord may reasonably request. Tenant shall also transmit therewith the most recent financial statement or other evidence of financial responsibility of such assignee or subtenant and a certification executed by Tenant and such proposed assignee or subtenant stating whether any premium or other consideration is being paid for the proposed assignment or sublease.

(d) If Tenant proposes to assign this Lease, Landlord may, at its option, upon written notice to Tenant given within thirty (30) days after its receipt of Tenant's notice of proposed assignment, together with all other necessary

information, elect to recapture the Premises and terminate this Lease. If Tenant proposes to sublease all or part of the Premises for the remainder of the Term, or for a portion of the Term ending within the last twelve (12) months thereof, Landlord may, at its option upon written notice to Tenant given within thirty (30) days after its receipt of Tenant's notice of proposed subletting, together with all other necessary information, elect to recapture such portion of the Premises as Tenant proposes to sublease and upon such election by Landlord, this Lease shall terminate as to the portion of the Premises recaptured. If a portion of the Premises is recaptured, the Rent payable under this Lease, and, if the area recaptured constitutes more than fifty percent (50%) of the Rentable Square Feet of the Premises prior to such recapture, the Security Deposit, shall be proportionately reduced based on the square footage of the Rentable Square Feet retained by Tenant and the square footage of the Rentable Square Feet leased by Tenant immediately prior to such recapture and termination, and Landlord and Tenant shall thereupon execute an amendment to this Lease in accordance therewith. Landlord may thereafter, without limitation, lease the recaptured portion of the Premises to the proposed assignee or subtenant without liability to Tenant. Upon any such termination, Landlord and Tenant shall have no further obligations or liabilities to each other under this Lease with respect to the recaptured portion of the Premises, except with respect to obligations or liabilities which accrue or have accrued hereunder as of the date of such termination (in the same manner as if the date of such termination were the date originally fixed for the expiration of the Term hereof). No reduction in the Security Deposit as a result of the recapture of an area of the Premises shall occur until sixty (60) days following the recovery by Landlord of possession of the portion of the Premises recaptured, and prior to any such reduction, Landlord shall have the right to deduct from the Security Deposit the amount the damages, if any, sustained by Landlord as a result of the failure to Tenant to deliver possession of the portion of the Premises recaptured in the condition required by Paragraph 26 of this Lease, as if the date of recapture were the date of the expiration of the Lease Term.

(e) If any sublease, assignment or other transfer (whether by operation of law or otherwise) provides that the subtenant, assignee or other transferee (or any affiliate thereof) is to pay any amount in excess of the rent and other charges due under this Lease, then, whether such excess be in the form of an increased rental, lump sum payment, payment for the sale or lease of fixtures or other leasehold improvements or any other form (and if the applicable space does not constitute the entire Premises, the amount and existence of such excess shall be determined on a pro rata basis), Tenant shall pay to Landlord fifty percent (50%) of any such excess upon such terms as shall be specified by Landlord and in no event later than ten (10) days after Tenant's receipt thereof. Tenant shall in all events diligently pursue the collection of all amounts owed by any subtenant, assignee or other transferee. Landlord shall have the right to inspect and audit Tenant's books and records relating to any sublease, assignment or other transfer. Any sublease, assignment or other transfer shall be effective on forms supplied or approved by Landlord.

(f) Notwithstanding anything in this Paragraph 12 to the contrary, provided (i) this Lease shall be in full force and effect, and (ii) Tenant shall not, within the two (2) year period preceding the preceding the assignment or subletting contemplated hereby, have either (x) committed more than two monetary defaults as to which Landlord has issued a notice in accordance with the provisions of Paragraph 17 hereof, or (y) committed more than two non-monetary defaults as to which Landlord issued a notice in accordance with the provisions of Paragraph 17 hereof, Tenant may, without Landlord's consent, but after providing written notice to Landlord, assign this Lease or sublet all or any portion of the Premises to any Related Entity (as hereinafter defined) provided that (u) in the event of an assignment, such Related Entity assumes in full all of Tenant's obligations under this Lease; (v) Landlord is provided with a counterpart of the fully executed agreement of assignment or sublease; (w) Tenant remains liable under the terms of this Lease; (x) such Related Entity is not a governmental entity or agency; (y) such Related Entity's use of the Premises is the substantially the same as that of Tenant, or is otherwise consistent with the provisions of Paragraph 5(a) hereof; and (z) such Related Entity does not require additional services other than those agreed to be provided by Landlord under the terms of this Lease. "Related Entity" shall be defined as any parent company, subsidiary, affiliate or related corporate entity of Tenant, which controls, is controlled by, or is under common control with Tenant, or which acquires substantially all of the assets of Tenant, and which Related Entity has a net worth equal to or greater than that of Tenant as of the date of the execution of this Lease.

13. CASUALTY DAMAGE. In the event of damage or destruction of the Premises by fire or any other casualty, this Lease shall not be terminated, but the Premises shall be promptly and fully repaired or restored, as the case may be, to substantially the same condition as existed prior to such fire or other casualty, by Landlord at its own cost and expense in an amount not to exceed the amount of insurance proceeds available. Due allowance, however, shall be given for reasonable time required for adjustment and settlement of insurance claims, and for such other delays as may result from government restrictions, and controls on construction, if any, and for strikes, national emergencies and other conditions beyond the control of Landlord. It is agreed that in any of the aforesaid events, this Lease shall continue in full force and effect, but if the condition is such so as to make the entire Premises untenantable for practical use for Tenant's purposes, then the Rent which Tenant is obligated to pay hereunder shall abate as of the date of the occurrence until the Premises have been fully and completely restored by Landlord. Any unpaid or prepaid Rent for the month in which said condition occurs shall be prorated. If the Premises are partially damaged or destroyed but the Tenant can still make practical use of the balance of the Premises; then during the period that Tenant is deprived of the use of the damaged portion of said Premises, Tenant shall be required to pay Rent covering only that part of the Premises that it is able to occupy, based on that portion of total rent which the amount of square foot area remaining that can be occupied bears to the total square foot area of all the Premises covered by this Lease. In the event that twenty five per cent (25%) or more of the Premises are damaged or destroyed by fire or other casualty so as to be untenantable for practical use for Tenant's purposes and it shall require more than one hundred eighty (180) days for Landlord to substantially complete restoration of same as reasonably concurred on by Tenant, then either party hereto upon written notice delivered within thirty (30) days of the fire or other casualty to the other party may terminate this Lease, in which case the Rent shall be apportioned and paid to the date of said fire or other casualty. Subject to the foregoing, no compensation, or claim, or diminution of Rent will be allowed or paid, by Landlord, by reason of consequential damages, inconvenience, annoyance, or injury to business, arising from the necessity of repairing the Premises or any portion of the Building of which they are a part, however the necessity may occur.

14. MAINTENANCE AND REPAIRS:

(a) Subject to Tenant's responsibilities set forth in Paragraph 14 (d), Landlord shall keep the Building and all machinery, equipment and fixtures attached to, or used in connection with the operation of the Building, including all electrical, heating, mechanical, sanitary, sprinkler, utility, power, plumbing, cleaning, refrigeration, ventilating, air conditioning and elevator systems and equipment (excluding, however, lines, improvements, systems and machinery for water, gas, steam and electricity owned and maintained by any public utility company or governmental agency or body and excluding also any of Tenant's property) in good order and repair, consistent with similar properties in the Sterling, Virginia area. Landlord reserves the right of access to the Premises for the purposes of such operation, cleaning, maintenance, safety, security and repairs, and agrees that it shall use reasonable efforts (except in the case of emergency) to provide reasonable advance notice to Tenant of its intent to enter the Premises for such purposes. The cost for maintaining the Building and Premises in good order and repair as contemplated by this paragraph 14 (a) shall be an Operating Cost for purposes of paragraph 11 hereof. There shall be no abatement in rents due and payable hereunder and no liability on the part of Landlord by reason of any inconvenience, annoyance or disruption arising from Landlord's making reasonable repairs, additions or improvements to the Building or Premises in accordance with its obligations hereunder. Notwithstanding the above, if, pursuant to this Lease, Landlord performs any work or interrupts any service that Landlord is required to supply, Landlord agrees to cooperate with the reasonable requests of Tenant to perform such work, or to schedule such service interruption, as the case may be, in a manner designed to minimize, to the extent practicable, any interference with Tenant's business, provided Tenant's requests do not increase the cost to Landlord of performing such work (unless Tenant agrees in writing prior to the commencement of such work to reimburse Landlord for any such additional costs). Notwithstanding the foregoing, if Landlord's performance of its work in the demised premises, or interruption of services, as the case may be, during regular business hours results in a material interruption in Tenant's business operations in a material portion of the Premises and requires Tenant to cease its business operations in the affected portion of the Premises for more than five (5) consecutive business days, then unless Landlord performs such work or interrupts such service at other than regular business hours without charge to Tenant, the Rent shall be abated pro rata based on the area so affected for each business day in excess of five (5) consecutive business days that such cessation shall continue. Except to the extent expressly permitted by this Lease, Tenant will not do or permit anything to be done in the Premises or the Building of which they form a part or bring or keep anything therein which shall in any way increase the rate of fire or other insurance for said Building, or on the property kept therein, or obstruct, or interfere with the rights of other tenants, or in any way injure or annoy them, or those having business with them, or conflict with them or conflict with the fire laws or regulations, or with any insurance policy upon said Building or any part thereof, or with any statutes, rules or regulations enacted or established by the appropriate governmental authority. If any increase in the rate of fire insurance or other insurance is stated by any insurance company or by any insurance rate bureau due to any activity or equipment of Tenant, such statement shall be conclusive evidence that the increase in such rate is caused by such activity or equipment, and Tenant shall be liable for such increase and shall reimburse Landlord therefor upon demand, and any such sum shall be considered additional rent payable hereunder. Landlord shall use commercially reasonable efforts to notify Tenant of any such increase in rates occurring as a result of Tenant's activities, in order that Tenant might consider modifying or discontinuing such activities so as to avoid, reduce, or reverse such increase.

In the event Landlord elects to make substantial improvements or additions to the Building, Property or Premises, such improvements or additions shall not adversely affect Tenant's use of or access to the Premises unless Landlord has obtained the prior written consent of Tenant, which consent shall not be unreasonably withheld, to make such improvements or additions which affect Tenant's Premises in an adverse manner. Landlord shall be free to make improvements or additions to the Building, Property or Premises which do not have an adverse effect on Tenant's use of or access to the Premises.

(b) After substantial completion of Building or Premises, except as hereinafter expressly set forth Tenant will not make any alterations, installments, changes, replacements, additions or improvements, collectively "Alterations", in or to the Premises or any part thereof, without the prior written consent of Landlord, not to be unreasonably withheld or delayed. If Landlord affords its consent to such Alterations, Landlord shall elect, at the time it affords its consent, whether Tenant shall be required to remove such Alterations and restore the Premises to their original condition upon the expiration of the Term, and said written consent shall include Landlord's election. It is expressly understood that all Alterations shall be performed in a good and workmanlike manner and shall conform to all rules and regulations established from time to time by any applicable underwriter's association and conform to all requirements of local, state and federal governments. All Alterations shall be made at Tenant's sole expense, by contractors, or subcontractors reasonably approved by Landlord, and only after (i) Tenant has obtained all necessary permits from governmental authorities and (ii) Tenant has submitted complete plans and specifications to Landlord with respect to the Alterations and Landlord has approved them, which approval shall not be unreasonably withheld, conditioned or delayed. If any mechanic's lien is filed against the Premises or the Building for work or materials furnished to Tenant, the lien shall be discharged or bonded off by Tenant, solely at Tenant's expense, within thirty (30) days after Tenant receives notice thereof. Tenant shall indemnify and hold harmless Landlord from any and all expenses (including attorney's fees), liens and claims or damage to persons, property, or the Building which may arise from the making of any Alterations. Tenant will deliver to Landlord a complete set of "as-built" plans showing the approved Alterations. Notwithstanding anything contained herein, ordinary and typical office decorations, painting and carpeting shall not be included within the definition of "Alterations" which require Landlord's prior approval.

It is also expressly understood that all Alterations upon the Premises (whether with or without Landlord's consent), shall at the election of Landlord, as provided in the written consent required herein above, remain upon the Premises and be surrendered with the Premises at the expiration of this Lease without disturbance, molestation or injury. Notwithstanding the foregoing, provided (i) this Lease is in full force and effect, and (ii) that Tenant shall not then be in default in the performance of any obligation under this Lease, Tenant shall have the right to remove, prior to the expiration

or termination of this Lease, all movable furniture, fixtures or equipment installed in the Premises solely at Tenant's expense. Should Landlord elect that alterations, installments, changes, replacements, additions to or improvements made by Tenant are not to remain on the Premises, Tenant hereby agrees that within five (5) days following the expiration of the term of this Lease, Landlord shall have the right to cause same to be removed at Tenant's sole cost and expense. Tenant hereby agrees to reimburse Landlord for the reasonable cost of such removal together with the cost of restoring the Premises to its original condition.

(c) Tenant shall not install any other equipment of any kind or nature whatsoever which will or may necessitate any changes, replacements or additions to the water supply system, sewer system, the components of the Building Shell as identified in Exhibit B hereto or the electrical system of the Premises without the prior written consent of the Landlord, which consent shall not be unreasonably withheld or delayed. In the event that Tenant wishes to install machinery or mechanical equipment which may cause noise or vibration to be transmitted to the structure of the Building or any space therein, such machinery shall be installed and maintained by Tenant, at Tenant's expense, on vibration eliminators or other devices sufficient to eliminate such noise and vibration. Tenant may, at its expense, install and remove additional equipment and machinery used or useful in Tenant's business, which equipment and machinery shall remain the property of Tenant and shall not become part of the real estate, provided that such installation shall not reduce the value of the Premises or its usefulness. Any equipment of Tenant not removed by Tenant within ten (10) days after the expiration or earlier termination of this Lease shall be considered abandoned by Tenant and may be appropriated, sold, destroyed or otherwise disposed of by Landlord without first giving notice thereof and without obligation to account therefor. Notwithstanding any other provision of this Lease, Tenant may not install any equipment which emits electromagnetic, microwave, ultrasonic, laser, or other radiation at levels which Landlord reasonably determines causes a risk to persons or property, or interferes with telecommunications transmissions or computer use.

(d) Subject to Landlord's obligations to maintain and repair the Premises in accordance with this Paragraph 14, Tenant agrees that it will take good care of the Premises and the fixtures therein and will, at the expiration or other termination of the term hereof, surrender and deliver up the same in like good order and conditions as the same now is or shall be at the commencement of the Term hereof, ordinary wear and tear excepted. Without limiting the generality of the foregoing, Tenant shall promptly make all repairs to the Premises or to any part of the Building, to the extent such repairs are not covered by insurance and if such repairs are necessitated by any act or omission of Tenant, any subtenant, assignee or concessionaire of Tenant, any of its respective agents or employees, or by the failure of Tenant to perform any of its obligations under this Lease.

15. PARKING AND LOADING AREAS.

(a) During the Term of this Lease, and any renewal thereof, Tenant shall have, without charge, the right to utilize thirty one (31) vehicle parking spaces in the Building's parking facilities on a nonexclusive basis with other tenants of the Building, upon such non-financial terms and conditions as may from time to time be established by Landlord. Landlord reserves the right in its absolute discretion to determine whether the parking facilities are becoming crowded and to allocate and assign parking spaces among Tenant and the other tenants, provided that Tenant shall at all times have a right to use its pro rata share of parking spaces within the parking facilities, including the right to a pro rata number of reserved parking spaces, if any. It is understood and agreed that Landlord assumes no responsibility, and shall not be held liable, unless caused by Landlord's negligence, for any damage or loss to any automobiles parked in the parking facilities or to any personal property located therein, or for any injury sustained by any person in or about the parking facilities.

(b) During the Term of this Lease, and any renewal thereof, Tenant shall have, without charge, the right to utilize the paved areas adjacent to the Premises which have been designed and constructed for use as loading docks to serve the Premises and to provide access to the drive in door in the Premises. Landlord shall not be liable to Tenant as a result of any inability of Tenant to access such docks or drive in door due to the parking of vehicles in the vicinity of such loading docks and drive in area, or otherwise. Tenant may, at its sole expense, and subject to the reasonable approval of Landlord as to size, design, color, content and location, post signs on the exterior of the Premises to attempt to restrict parking in the vicinity of such loading docks and drive in area.

16. SIGNAGE. Tenant shall be entitled to install, at its sole expense, one (1) building mounted exterior sign on the side of the Building which faces in the direction of Davis Drive, providing identification of Tenant at Tenant's expense, subject to Landlord's reasonable approval as to location, design, color, lighting, and specifications, and to applicable Loudoun County regulations.

17. EVENT OF DEFAULT.

(a) Definition. As used in the provisions of this Lease, each of the following events shall constitute, and is hereinafter referred to as, an "Event of Default":

(i) If Tenant (1) fails to pay Rent, Additional Rent or any other sum which Tenant is obligated to pay by any provision of this Lease, when and as it is due and payable hereunder and without demand therefor, or (2) in any material respect violates any of the terms, conditions or covenants set forth in the provisions of this Lease; or

(ii) If Tenant (1) applies for or consents to the appointment of a receiver, trustee or liquidator of Tenant or of all or a substantial part of its assets, (2) files a voluntary petition in bankruptcy or admits in writing its inability to pay its debts as they come due, (3) makes an assignment for the benefit of its creditors, (4) files a petition or an answer seeking a reorganization or an arrangement with creditors, or seeks to take advantage of any insolvency law, (5)

performs any other act of bankruptcy, or (6) files an answer admitting the material allegations of a reorganization insolvency proceeding.

(iii) If an order of relief or other order, judgement or decree is entered by any court of competent jurisdiction adjudicating Tenant as insolvent, or otherwise entitled to the protection of or subject to any bankruptcy statute, approving a petition seeking such a reorganization, or appointing a receiver, trustee or liquidator of Tenant or otherwise commence with respect to Tenant or any of its assets any proceeding under any bankruptcy, reorganization, arrangement, insolvency, readjustment, receivership or similar law, and if such order, judgement, decree or proceeding continues unstayed for more than sixty (60) consecutive days after the expiration of any stay thereof.

(b) Notice to Tenant, Grace Period. Anything contained in the provisions of this Paragraph to the contrary, notwithstanding, upon the occurrence of an Event of Default Tenant shall not be deemed to be in default, and Landlord shall not exercise any right or remedy which it holds under any provision of this Lease or under applicable law unless and until;

(i) Landlord has given written notice thereof to Tenant, and

(ii) Tenant has failed, (I) if such Event of Default consists of the failure to pay money, within five (5) calendar days after the date Landlord presents notice to pay all of such money, together with interest thereon and any late payment charge which may be due hereunder of five per cent (5%) levied on all monies due to Landlord as of the Notice of Default in accordance with Paragraph 3(g), or (2) if such Event of Default consists of something other than the failure to pay money, within fifteen (15) business days thereafter to commence actively, diligently and in good faith to proceed to cure such Event of Default and to continue to do so until it is fully cured; provided however, if Tenant commences to cure such default during such fifteen (15) day period, and such default cannot be cured within such period despite diligent effort, Tenant shall be afforded such additional time as may reasonably required to affect a cure provided that Tenant continues to diligently pursue such cure.

(iii) No such notice shall be required, and Tenant shall be entitled to no such grace period, more than twice with respect to monetary default during each twelve (12) month period of the Term, or (2) if Tenant has substantially terminated or is in the process of substantially terminating its continuous occupancy and use of the Premises for the purpose set forth in the provisions of Paragraph 5, or (3) if any Event of Default enumerated in the provisions of Paragraphs, 17(a)(ii) or 17(a)(iii) has occurred.

(c) Landlord's Rights upon Event of Default. Upon the occurrence of an Event of Default, Landlord, at its option, may terminate this Lease or pursue any and all other remedies available to it under the laws of the Commonwealth of Virginia, including, by way of example rather than of limitation, the rights to

(i) re-enter and repossess the Premises, with lawful force, and any and all improvements thereon and additions thereto;

(ii) immediately recover an amount equal to the present value (as of the date of Tenant's default) of the Base Rent and Additional Rent which would have become due through the date on which the Lease Term would have expired but for Tenant's default, which damages shall be payable to Landlord in a lump sum on demand. For purposes of this Section, present value shall be computed by discounting at a rate equal to one (1) whole per cent point above the "prime rate" then in effect at Morgan Guaranty Trust Company of New York, and collect such balance in any manner not inconsistent with applicable low; and/or

(iii) relet any or all of the Premises for Tenant's account for any or all of the remainder of the Lease Term, or pay to Landlord, any deficiency in the Rent and any other sum which Tenant is obligated to pay resulting, with respect to such remainder, from such reletting, as well as the out-of-pocket cost to Landlord of any reasonable fees relating to reletting of the Premises including but not limited to construction costs, brokerage fees, reasonable attorney's fees or of any repairs or other action (including those taken in exercising Landlord's rights under any provision of this Lease) taken by Landlord on account of such Event of Default.

(d) Right of Landlord to Cure Tenant's Default. If Tenant defaults in the performance of any of its obligations under this Lease, then Landlord shall have the right (but not the duty) to perform such obligation, and Tenant shall reimburse Landlord for any costs and expenses thereby incurred, together with interest thereon at that rate per annum which is two per cent (2%) greater than the "prime rate" then in effect at Morgan Guaranty Trust Company of New York, from the date such costs and expenses are incurred by Landlord to the date of payment thereof by Tenant; provided, however, that nothing herein contained shall be construed or implemented in such a manner as to allow Landlord to charge or receive interest in excess of the maximum legal rate then allowed by law. Such payment and interest shall constitute Additional Rent hereunder, which shall be due and payable with the next monthly installment of Rent; but the making of such payment or the taking of such action by Landlord shall not operate to cure such default or to stop Landlord from the pursuit of any remedy to which Landlord would otherwise be entitled.

(e) Lien on Personal Property. As security for all of Tenant's obligations under this Lease, Tenant hereby grants to Landlord a Uniform Commercial Code Security interest in all of Tenant's tangible and intangible personal property now or hereafter located upon the Premises. Landlord may enforce its security interest pursuant to any applicable law then in effect. Tenant shall, within five (5) days after request, execute any document, including financing statements, required by Landlord to perfect the security interest herein provided. The security interest provided herein shall be in addition to, and not in lieu of, any common law or statutory Landlord lieu provided under applicable law, and Landlord's

rights and remedies provided in this section shall be in addition to, and not in lieu of, any other rights and remedies available to Landlord pursuant to the terms of this Lease or pursuant to applicable law. Provided, however, that Landlord's lien (i) shall be subordinate to any purchase money financing for the acquisition of such items as good, wares, equipment, fixtures and furniture used in the ordinary course of business, or to any blanket lien on Tenant's assets granted by Tenant to secure Tenant's obligations for credit extended to Tenant by an institutional lender, and (ii) shall be waived with respect to items leased by Tenant under bona fide lenses; Landlord shall execute such documents as Tenant may reasonably request to confirm the subordination and/or waiver of its security interest as provided herein.

(f) No Waiver. If Landlord institutes legal proceedings against Tenant as to any matter under this Lease and a compromise or settlement is made, Landlord shall not be deemed to have waived any rights under this Lease except as explicitly set forth in a written agreement signed by Landlord evidencing such compromise or settlement. No waiver by Landlord of any breach of any covenant, condition, or agreement in this Lease shall operate as a waiver of such covenant or condition itself or of any subsequent breach thereof. No payment by Tenant or receipt by Landlord of a lesser amount than the monthly installments of Rent herein stipulated shall be deemed to be other than a payment on account, nor shall any endorsement or statement on any check or letter accompanying a check for payment of Rent be deemed an accord and satisfaction, and Landlord may accept such check prepayment without prejudice to Landlord's right to recover the balance of such Rent or to pursue any other remedy provided in the Lease. No re-entry by Landlord, and no acceptance by Landlord of keys from Tenant, shall be considered an acceptance of a surrender of the Lease.

18. HOLDING OVER. Tenant acknowledges that it is extremely important that Landlord have substantial advance notice of the date on which Tenant will vacate the Premises, because Landlord will (a) require an extension period to locate a replacement tenant, and (b) plan its entire leasing and renovation program for the Building in reliance on its lease expiration dates. Tenant also acknowledges that if Tenant fails to surrender the Premises at the expiration or earlier termination of the Lease Term, then it will be conclusively presumed that the value to Tenant of remaining in possession, and the loss that will be suffered by Landlord as a result thereof, far exceed the Base Rent and Additional Rent that would have been payable had the Lease Term continued during such holdover period. Therefore, if Tenant (or anyone claiming through Tenant) does not immediately surrender the Premises or any portion thereof upon the expiration or earlier termination of the Lease Term, then the rent shall be increased to equal One Hundred Fifty per cent (150%) of the Base Rent, plus Additional Rent and other sums that would have been payable pursuant to the provisions of this Lease if the Lease Term had continued such holdover period. Such rent shall be computed by Landlord on a monthly basis and shall be payable on the first day of such holdover period and the first day of each calendar month thereafter during such holdover period until the Premises have been vacated. Notwithstanding any other provision of this Lease, Landlord's acceptance of such rent shall not in any manner adversely affect Landlord's other rights and remedies, including Landlord's right to evict Tenant and to recover all damages. Any holdover shall be deemed to be a tenancy-at-sufferance and not a tenancy-at-will or tenancy from month-to-month; provided, however, that Landlord may, in addition to its other remedies, elect, in its sole discretion, to treat such holdover as the creation of a month-to-month tenancy with Tenant. In no event shall any holdover be deemed a permitted extension or renewal of the Lease Term, and nothing contained herein shall be construed to constitute Landlord's consent to any holdover or to give Tenant any right with respect thereto. Except as otherwise specifically provided in this Article, all terms of this Lease shall remain in full force and effect during the holdover period.

19. LANDLORD'S RIGHT OF ENTRY. Landlord and its agents shall be entitled to enter the Premises at any reasonable time, using commercially reasonable efforts to afford no less than twenty four (24) hours prior notice, and to coordinate such entry so as to be accompanied by a representative of Tenant, except in emergency,

(a) To inspect the Premises;

(b) To exhibit the Premises to any existing or prospective purchaser or mortgagee thereof or, during the last nine (9) months of the Term, any prospective tenant thereof;

(c) To make any reasonable and necessary alteration, improvement or repair to the Premises; or

(d) For any other reasonable purpose relating to the operation or maintenance of the Premises; provided, that Landlord shall (i) give Tenant reasonable prior notice of its intention to enter the Premises, except in the case of emergency, and (ii) use reasonable efforts to avoid thereby interfering any more than is reasonably necessary with Tenant's use and enjoyment thereof.

20. LIABILITY, TENANT'S INDEMNITY, INSURANCE.

(a) Landlord shall not be liable for, and Tenant shall indemnify and hold Landlord harmless from and against, any injury, loss or damage of whatever nature to any persons or property arising within the Premises unless caused by the willful or gross negligent act or omission of Landlord, its agents, employees or contractors. Commencing with the date on which the Premises are made available to Tenant and continuing thereafter throughout the Lease Term, Tenant shall maintain, at its sole expense, (i) general comprehensive public liability insurance, including bodily injury, property damage or other loss, insuring Tenant, Landlord, Landlord's Lender, Landlord's Ground Lessor and Landlord's appointed agent with respect to the Premises and their appurtenances, in a company or companies reasonably satisfactory to Landlord, in an amount not less than Three Million Dollars ($3,000,000), (ii) all-risk property and casualty insurance, including theft, written at replacement cost value and with replacement cost endorsement, covering all of Tenant's personal property in the Premises, and (iii) if, and to the extent required by law, worker's compensation or similar insurance offering statutory coverage and containing statutory limits. Such policies shall be maintained in companies and in form reasonably acceptable to Landlord and will be written as primary policy coverage and not contributing with, or in excess of, any coverage Landlord shall carry. On or before the Commencement Date, Tenant shall deliver to Landlord certificates issued by the insurance

company or companies certifying that insurance in at least the amount set forth above, naming Landlord, Landlord's lender and Ground Lessor as an additional insured, is in full force and effect for one (1) year, and provide for at least thirty (30) days written notice to Landlord.

In addition, Tenant shall require any contractor retained by it to perform any Alteration to carry and maintain at Tenant's or such contractor's expense (and furnish the policy, policies or certificates thereof to Landlord, Landlord's lender and Ground Lessor) during such times as contractor is working in the Premises, (i) comprehensive general liability insurance policy, including, but not limited to, contractor's liability coverage, contractual liability coverage, complete operations coverage, broad form property damage endorsement and contractor's protective liability coverage, to afford protection with limits per person and for each occurrence, of not less than One Million ($1,000,000), combined single limit, with respect to personal injury and death and property damage, such insurance to provide for no deductible, to name Landlord, Landlord's lender and Ground Lessor as additional insureds and (ii) worker's compensation insurance or similar insurance in form and amounts as required by law.

Landlord shall maintain insurance coverage for the Building, the cost of such insurance shall be an Operating Cost for purposes of paragraph 11 hereof, in such amounts and with such carriers as shall be reasonable and necessary from time to time including (a) fire insurance, with standard extended coverage endorsement including demolition costs, increased costs of construction, and contingent liability from changes in building codes on the Premises, in an amount not less than the full replacement value from time to time of the Premises; (b) flood insurance in an amount Landlord may from time to time reasonably require, if the Premises are located in an area designated as "flood prone" pursuant to the national Flood Insurance Act of 1968 and the Flood Disaster Protection Act; (c) difference-in-conditions coverage (including flood and earthquake to the extent available) to the extent not covered under (a) and (b) above, in an amount Landlord from time to time may reasonably require; (d) rental value insurance in an amount equal to one (1) year gross rent; (e) steam boiler and machinery breakdown direct damage insurance and third-party liability coverage (if applicable and if not covered under the comprehensive general liability policy), with full comprehensive coverage on a repair and replacement cost basis, for all boilers and machinery which form a part of the Premises, including business interruption insurance in connection therewith in accordance with (d) above; and (f) such other insurance as Landlord may require against such other insurable hazards which at the time are customary and prudent under the circumstances.

(b) All damages to the Premises or the Building of which they are a part, caused by Tenant, or the agents, servants, employees and invitees of Tenant, will be repaired by Landlord at the expense of Tenant, to the extent not covered by insurance proceeds, with the right on the part of Landlord to elect in its discretion to regard the same as Additional Rent, in which event such cost or charge shall become Additional Rent payable with the installment of Rent next becoming due or thereafter falling due under the terms of this Lease. This provision shall be construed as an additional remedy granted to Landlord and not in limitation of any other rights and remedies which Landlord has or may have in said circumstances.

(c) All personal property of Tenant in the Premises or in the Building of which the Premises is a part shall be at the sole risk of Tenant. Landlord shall not be liable for any accident to or damage to the property of Tenant resulting from the use or operation of the heating, cooling, electrical or plumbing apparatus or any other cause whatsoever. Landlord shall not be liable in damages, nor shall this Lease be affected, for conditions arising or resulting, and which may affect the Building of which the Premises is a part, due to construction on contiguous premises unless such construction renders the Premises untenantable or practical use for Tenant's purposes.

(d) Landlord assumes no liability or responsibility whatsoever to the conduct and operations of the business to be conducted in the Premises. Landlord shall not be liable for any accident to or injury to any person or persons or property in or about the Premises which are caused by the conduct and operation of said business or by virtue of equipment or property of Tenant in said Premises.

(e) Except to the extent caused by the gross negligence or willful misconduct of Landlord, its agents or employees, Landlord shall have no liability to Tenant, its employees, agents, invitees, licensees, customers, clients, family members or guests for any damage, compensation or claim arising from the necessity of repairing any portion of the Premises or the Building, any interruption in the use of the Premises, accident or damage resulting from the use or operation (by Landlord, Tenant or any other person) of heating, cooling, electrical or plumbing equipment or apparatus, or from untenantability of the Premises resulting from fire or other casualty subject to Paragraph 13, or from any robbery, theft, mysterious disappearance and/or any other casualty, or from any leakage in any part or portion of the Premises or the Building, or from water, rain or snow that may leak into or flow from any part of the Premises, or from drains, pipes or plumbing work in the Building, or from any other cause whatsoever. Any goods, property or personal effects, stored or placed by Tenant in or about the Premises shall be at the risk of Tenant, and Landlord shall not in any manner be held responsible therefor. The employees of Landlord are prohibited from receiving any packages or other articles delivered to the Premises for Tenant, and if any such employee receives any such package or article, at the request of Tenant, such employee shall be the agent of Tenant for such purposes and not of Landlord.

21. WAIVER OF SUBROGATION. If either party hereto is paid any proceeds under any policy of insurance naming such party as an insured (or would be paid such proceeds if it had maintained all of the insurance coverages it is required under this Lease to maintain), on account of any loss, damage or liability, then such party hereby releases the other party hereto, to and only to the extent of the amount of such proceeds, from any and all liability for such loss, damage or liability, notwithstanding that such loss, damage or liability, may arise out of the negligent act or omission of the other party, its agents or employees, provided, that such release shall be effective only with respect to loss or damage occurring during such time as the appropriate policy of insurance of the releasing party provides that such release shall not impair the effectiveness of such policy or the insured's ability to recover thereunder. Each party hereto shall use reasonable efforts to

have a clause to such effect included in its said policies, and shall promptly notify the other in writing if such clause cannot be included in any such policy, in which event neither party hereto shall be required to have its said insurance policies contain such a clause and to the provisions of this Paragraph shall be of no further force or effect.

22. EMINENT DOMAIN.

(a) If any or all of the Premises are taken by the exercise of any power of eminent domain or are conveyed to or at the direction of any governmental entity under a threat of any such taking (each of which is hereinafter referred to as a 'Condemnation"), Landlord, subject to subparagraph (c) below shall be entitled to collect from the condemning authority thereunder the entire amount of any award made in any such proceeding or as consideration for such deed, without deduction therefrom for any leasehold or other estate held by Tenant by virtue of this Lease.

(b) Tenant, subject to subparagraph (c) below hereby (i) assigns to Landlord all of Tenant's right, title and interest, if any, in and to any such award, (ii) waives any right which it may otherwise have in connection with such Condemnation, against Landlord or such condemning authority, to any payment for (a) the value of the then unexpired portion of the Term, (b) leasehold damages (except the unamortized portion of any improvements paid for by Tenant and title to which is retained by Tenant, provided such amount does not diminish and/or delay any award or payment which Landlord would otherwise receive as a result of such condemnation), and (c) any damage to or diminution of the value of Tenant's leasehold interest hereunder or any portion of the Premises not covered by such Condemnation; and (iii) agrees to execute any and all further documents which may be required in order to facilitate the Landlord's collection of any and all such awards.

(c) Notwithstanding the foregoing provisions of this Paragraph, Tenant may seek a separate award pursuant to Section 25-46.21: 1 of the Code of Virginia, as amended, so long as such separate award in no way diminishes and/or delays any award or payment which Landlord would otherwise receive as a result of such Condemnation.

23. EFFECT OF CONDEMNATION.

(a) If (i) all of the Premises or parking lot, are covered by a Condemnation, or (ii) if any part of the Premises is covered by a Condemnation and the remainder thereof is insufficient for the reasonable operation therein of Tenant's business, or (iii) any of the Building is covered by a Condemnation and, in Landlord's reasonable opinion, reasonably concurred in by Tenant, it would be impractical to restore the remainder thereof, then, in any such event, the Term shall terminate on the date upon which possession of so much of the Premises as is covered by such Condemnation is taken by the condemning authority thereunder, and all Rent (including, by way of example rather than of limitation, any Operating Costs payable pursuant to the provisions of Paragraph 11), taxes, and other charges payable hereunder shall be prorated and paid to such date.

(b) If there is a Condemnation and the Term does not terminate pursuant to the foregoing provisions of this Paragraph, the operation and effect of this Lease shall be unaffected by such Condemnation, except that the Base Monthly Rent payable under the provisions of Paragraph 3 shall be reduced in proportion to the square footage, if any, of the Premises covered by such Condemnation; to the extent that the Condemnation covers a portion of the parking lot, the Base Monthly rent shall be reduced in an amount equal to the loss of value which Tenant can establish results from such Condemnation.

(c) If there is a Condemnation, Landlord shall have no liability to Tenant on account of any (i) interruption of Tenant's business upon the Premises, (ii) diminution in Tenant's ability to use the Premises, or (iii) other injury or damage sustained by Tenant as a result of such Condemnation.

(d) Except for any separate award to Tenant under the provisions of Paragraph 23, Landlord shall be entitled to conduct any such condemnation proceeding and any settlement thereof free of interference from Tenant, and Tenant hereby waives any right which it might otherwise have to participate therein.

24. MECHANIC'S AND MATERIALMEN'S LIENS. Excluding labor or materials provided in connection with the construction of the Building by Landlord, Tenant shall bond, remove or have removed any mechanic's, materialmen's or other lien filed or claimed against any or all of the Premises, by reason of labor or materials provided for or at the request of Tenant of any of its contractors or subcontractors within thirty (30) days of notice of filing said lien.

25. QUIET ENJOYMENT. Landlord hereby covenants that Tenant, on paying the Rent and performing the covenants set forth herein, shall without interference from Landlord peaceably and quietly hold and enjoy, throughout the Term, (i) the Premises, and (ii) such rights as Tenant may hold hereunder with respect to the Premises.

26. SURRENDER.

(a) Upon the expiration or earlier termination of the Term, Tenant shall surrender the Premises to Landlord in good order, cleanliness and repair, ordinary wear and tear excepted.

(b) Subject to Paragraph 14(c) hereof, any and all improvements, repairs, alterations and all other property attached to, used in connection with or otherwise installed upon the Premises (i) shall, immediately upon the completion of the installation thereof, be and become Landlord's property without payment therefor by Landlord, and (ii) shall be surrendered to Landlord upon the expiration or earlier termination of the Term, except that any machinery, equipment or trade fixtures installed by Tenant and used in the conduct of Tenant's trade or business (rather than to service

the Premises) shall remain Tenant's property and shall be removed by Tenant within five (5) days after the expiration or earlier termination of the Term, and Tenant shall promptly and thereafter fully restore any of the Premises or the Building damaged by such installation or removal thereof.

27. SUBORDINATION. This Lease is subject and subordinate to all ground or underlying leases and to all mortgages and/or deeds of trust which may now or hereafter affect such leases or the real property of which the Premises form a part, and to all renewals, modifications, consolidations, re-castings, replacements and extensions thereof. If a written subordination agreement consistent with the foregoing shall be required by any such mortgagee or ground lessor, Tenant agrees to execute the same within fifteen (15) days of Landlord's request. At the option of any landlord under any ground or underlying lease to which this Lease is now or may hereafter become subject to or subordinate, Tenant agrees that neither the cancellation nor termination of such ground or underlying lease shall by operation of law or otherwise, result in cancellation or termination of this Lease or the obligations of Tenant hereunder, and Tenant covenants and agrees to attorn to such landlord or any successor to Landlord's interest in such ground or underlying lease and in that event, this Lease shall continue as a direct lease between Tenant herein and such Landlord or its successor; and, in any case, such Landlord or successor under such ground or underlying lease shall not be bound by this Lease or any amendment or modification of this Lease unless, prior to the termination of such ground or underlying lease, a copy of this Lease or amendment or modification thereof, as the case may be, shall have been delivered to such landlord or successor, and approved thereby. Landlord agrees to use commercially reasonable efforts to obtain a reasonably acceptable subordination, non-disturbance and attornment agreement from any future ground lessor, or any future holder of a mortgage or deed of trust to which this Lease is subordinate.

28. ESTOPPEL CERTIFICATE. Landlord and Tenant agree from time to time, upon not less than fifteen (15) days' prior written notice by the other party, to execute, acknowledge and deliver to such party or to any existing or prospective owner or mortgagee of the Building or land upon which such Building has been built, or any interest in either, a statement in writing (i) certifying that this Lease is unmodified and in full force and effect (or if there have been modifications, stating the modifications and that the Lease is in full force and effect as modified), (ii) stating the dates to which the Rent and any other charges hereunder have been paid by Tenant, (iii) stating whether or not, to the knowledge of such party, the other party is in default in the performance of any covenant, agreement or condition contained in this Lease, and if so, specifying each such default of which such party may have knowledge, (iv) stating that Tenant shall give notice to any mortgagee prior to seeking to terminate the Lease by reason of any act or omission of Landlord until such mortgagee has reasonable time, at its option, to remedy such act or omission, and (v) stating the address to which notices to Tenant, or Landlord, as the case may be, should be sent. Any such statement may be relied upon by any existing or prospective owner or mortgagee of the Building or aforesaid land or any interest in either or any assignee of any such person.

29. NOTICES. Any notice, demand, consent, approval request or other communication or document to be provided hereunder to a party hereto, shall be in writing and shall be deemed to have been provided after being sent by certified or registered mail, return receipt requested, in the United States mail or by personal delivery or commercial courier, against receipt. Any and all notices or other communications to Landlord and Tenant shall be given as follows:

Landlord: TransDulles Center, Inc.
c/o The Mark Winkler Company
4900 Seminary Road, Suite 900
Alexandria, Virginia 22311
Attn: Michael D. Lynch, President

Copy to: TransDulles Center, Inc.
c/o J.P. Morgan Investment Management, Inc.
522 Fifth Avenue at 44th Street
New York, New York 10036

Tenant: Glen Research Corporation
Attn: Margaret Mackie

Address Prior to Occupancy:
44901 Falcon Place, Suite 113
Sterling, Virginia 20166

Address Following Occupancy:
22825 Davis Drive
Sterling, Virginia 20164

Either party may hereafter designate a new address for notice purposes, by giving notice as provided hereunder.

30. GENERAL.

(a) Complete Understanding. This Lease, including without limitation, all Exhibits represents the complete understanding between the parties hereto as to the subject matter hereof, and supersedes all prior negotiations, representations, warranties, statements or agreements, either written or oral, between the parties hereto as to the same.

(b) Amendment. This Lease may be amended by and only by an instrument executed and delivered by each party hereto.

(c) Applicable Law. This Lease shall be given effect and construed by application of the laws of the Commonwealth of Virginia.

(d) Time of Essence. Time shall be of the essence of this Lease.

(e) Headings. The headings of the Paragraphs and subparagraphs hereof are provided herein for and only for convenience or reference, and shall not be considered in construing their contents.

(f) Exhibits. Each writing or plat referred to herein as being attached hereto as an exhibit or otherwise designated herein as an exhibit hereto is hereby made a part hereof.

(g) Severability. No determination by any court, governmental body or otherwise that any provision of !his Lease or any amendment hereof is invalid or unenforceable in any instance shall affect the validity of enforceability of (a) any other provision thereof, or (b) such provision in any circumstance not controlled by such determination. Each such provision shall be valid and enforceable to the fullest extent allowed by, and shall be construed wherever possible as being consistent with, applicable law.

(h) Definition of "Landlord". As used herein, the term "Landlord" means the entity hereinabove named as such, and its successors and assigns.

(i) Definition of "Tenant". As used herein, the term "Tenant" means the entity hereinabove named as such, and its successors and assigns. If Tenant's successor or assign is at any time is one or more individuals, the term "Tenant" shall include the heirs and personal representatives of such individual(s). Whenever two or more parties constitute Tenant, all such parties shall be jointly and severally liable for the performance of Tenant's obligations hereunder.

(j) It is agreed that all rights, remedies and liabilities herein given to or imposed upon either of the parties hereto, shall extend to their respective heirs, executors, administrators, successors and assigns.

(k) Landlord warrants that it is the ground Lessee of the Premises and has the full right and authority to make this Lease. Landlord hereby releases the Premises to Tenant in accordance with the provision of this Lease. Tenant hereby accepts this Lease.

(l) Force Majeure. In the event that Landlord or Tenant shall be delayed, or hindered, or prevented from the performance of any act required hereunder (except for the payment of monies), by reason of government restrictions, scarcity of labor or materials, or for other reasons beyond its reasonable control, the performance of such act shall be excused for the period of delay and the period for the performance of any such act shall be extended for a period equivalent to the period of such delay.

(m) Recordation. The parties agree to execute a short form of this Lease, which may, at Landlord's sole option, he recorded among the land records of the jurisdiction where the Premises are located. The expense thereof shall be borne by Landlord.

(n) Tenant's Corporate Authority. Tenant hereby warrants and represents that each individual executing this Lease on behalf of Tenant is duly authorized to execute and deliver this Lease and that Tenant is a duly organized corporation under the laws of the State of its incorporation, is qualified to do business in the Commonwealth of Virginia, and has the power and authority to enter into this Lease, and that all corporate action requisite to authorize Tenant to enter into this Lease has been duly taken.

(o) Commission. Landlord and Tenant warrant that they have not had any dealings with any realtor, broker or agent in connection with the negotiation of this Lease, except for Julien J. Studley, Inc. and The Mark Winkler Company ("Brokers') whose commission shall be paid for by Landlord pursuant to the terms of a separate agreement between Landlord and the Brokers. Should any claim for a commission be established by any other broker or agent, the parties hereby expressly agree to hold one another harmless with respect thereto to the extent that one or the other is shown to have been responsible for the creation of such claim.

(p) No Representations By Landlord. Tenant acknowledges that neither Landlord or any broker, agent or employee of Landlord has made any representations or promises with respect to the Premises or the Building except as herein expressly set forth, and no rights, privileges, assessments or licenses are acquired by Tenant except as herein expressly provided.

(q) Authority of Landlord. Landlord hereby represents and warrants that it is a limited partnership duly organized and in good standing under the laws of the Commonwealth of Virginia, that each individual or entity executing this Lease on behalf of Landlord is authorized to do so, and that all action necessary to authorize Landlord to enter into this Lease has been duly taken.

(r) Third-Party Consents. Landlord hereby represents and warrants that (i) the execution and delivery of this Lease by Landlord, and the performance of Landlord's obligations hereunder, do not conflict with or result in any breach under the terms of Landlord's partnership agreement or any agreement to which Landlord is a party or by which Landlord or the Premises is bound and (ii) all consents of any third parties, including without limitation any ground lessor or mortgagee of the Premises, required in connection with the execution and delivery of this lease have been obtained by Landlord, and Landlord shall furnish evidence of such consents.

(s) Litigation. The prevailing party shall recover all reasonable attorney's fees and costs incurred by or on behalf of such prevailing party if (a) either party institutes litigation for a breach of the terms and conditions of this Lease, (b) either party institutes litigation for possession of the Premises, (c) either party is made party to litigation instituted by a third party relating to Premises. Such attorney's fees and costs may be levied against the party whose conduct necessitated the use of an attorney whether or not litigation is prosecuted to judgement.

(t) Assignment by Landlord. Landlord may freely assign its interest hereunder. The term " Landlord" as used herein shall be deemed to be related only to a person or entity during the time of his or its ownership of Landlord's interest in this Lease.

(u) LANDLORD, TENANT AND ANY GUARNATORS WAIVE TRIAL BY JURY IN ANY ACTION, CLAIM OR COUNTERCLAIM BROUGHT IN CONNECTION WITH LANDLORD-TENANT RELATIONSHIP, TENANT'S USE OR OCCUPANCY OF THE PREMISES OR ANY CLAIM OF INJURY OR DAMAGE. Tenant consents to service of process and any pleading relating to any such action at the Premises; provided, however, that nothing herein shall be construed as requiring such service at the Premises. Landlord, Tenant and all Guarantors waive any objection to the venue of any action filed in any court filed in any court situated in the jurisdiction in which the Building is located and waive any right under the doctrine of forum non conveniens or otherwise to transfer any such action filed in any such court to any other court.

31. RIGHT OF OFFER.

(a) Provided that (i) this Lease is in full force and effect, and (ii) no material adverse change in Tenant's financial condition has occurred, and (iii) that Tenant shall not, within the two (2) year period preceding the preceding the assignment or subletting contemplated hereby, have either (x) committed more than two monetary defaults as to which Landlord has issued a notice in accordance with the provisions of Paragraph 17 hereof, or (y) committed more than two non-monetary defaults as to which Landlord issued a notice in accordance with the provisions of Paragraph 17 hereof, and (iv) Tenant shall not be in default in the performance of any obligation under this Lease at any time between the date Tenant exercises its Right of Offer (as hereinafter defined) at the time of any notice herein contemplated, or at the commencement date (as set forth in paragraph 31 (b)(iv) below) for the Right of Offer Space (as hereinafter defined) is delivered to Tenant, Tenant shall have the right (the "Right to Offer") during the term of the Lease to lease any space located in the Building (the "Right of Offer Space"), which becomes or Landlord receive notice will become vacant after such space has been initially let following the completion of construction of the Building, subject to any existing rights of any other tenant in any lease, and/or any option , right of extension or right of expansion heretofore granted (or hereafter granted to any present or future tenant of the Building, but only with respect to space in the Building actually occupied by such Tenant), including the rights granted to Martha Child Interiors , Inc. Landlord shall notify Tenant in writing if such Right of Offer Space is or will become available. Tenant shall then have a period often (10) business days after receipt of such notice, time being of the essence, in which to elect in writing either to lease the Right of Offer Space described in Landlord's notice or refuse to lease the same. The Rent for the Right of Offer Space shall be equal to the then prevailing Market Rate as determined by Landlord based upon current similar transactions for space available of similar size in buildings of comparable age, location and quality in the Sterling, Virginia area, but in no event less than the terms set forth in this Lease, subject to increase as provided herein. Tenant's Right of Offer shall be exercised only with respect to all of such Right of Offer Space offered, and not to any portion thereof. Failure of Tenant to timely respond shall automatically and conclusively be deemed refusal to lease such Right of Offer Space, and Tenant shall thereafter have no further Right of Offer with respect to such space.

(b) If Tenant exercises its Right of Offer, Tenant shall, within thirty (30) days after Tenant delivers to Landlord notice of the exercise of such option, enter into a written agreement with Landlord modifying and supplementing this Lease as follows:

(i) The Right of Offer Space shall be added to the definition of Premises under the Lease.

(ii) The Lease term with respect to such Right of Offer Space shall be coterminous with the Lease term with respect to the initial Premises.

(iii) The monthly Rent under the Lease for the Right of Offer Space shall be increased by an amount equal to the product obtained by multiplying (I) the number of square feet of net rentable area in the Right of Offer Space times (2) the rent determined in accordance with paragraph 3l(a) above. Additionally, Tenant's pro rata share of Operating Costs shall be increased by the amount of the Operating Costs allocable to the Right of Offer Space (i.e. in the same manner as Tenant shall be responsible for Operating Costs allocable to the original Premises under this Lease).

(iv) The commencement date for the Right of Offer Space shall be a date after Landlord's receipt of notice of Tenant's election to lease the Right of Offer Space which is the earlier of either (y) sixty (60) days after the prior tenant of the Right of Offer Space vacates such space, or (z) the date Tenant actually occupies the same for the conduct of business.

(v) All other terms and conditions contained in this Lease shall apply to the Right of Offer Space as a result of Tenant's election hereunder.

(c) Landlord shall not be liable for the failure to give possession of the Right of Offer Space to Tenant by reason of the unauthorized holding over or retention of possession of any other tenant or occupants thereof, nor shall such failure impair the validity of this Lease nor extend the term thereof; provided, however, in no event shall Tenant be obligated to pay Rent for such Right of Offer Space until Landlord delivers Tenant possession of such space.

(d) This Right of Offer shall terminate three hundred and sixty-five (365) days prior to the expiration of the initial Term of this Lease.

(e) This Right of Offer is personal to Tenant. Upon any assignment or subletting of the Premises, the rights afforded to Tenant under this Paragraph 31 shall automatically terminate.

IN WITNESS WHEREOF, each party hereto has executed and ensealed this Lease, or has caused it to be executed and ensealed on its behalf by its duly authorized representatives, the day and year first above written.

ATTEST:

LANDLORD: TRANSDULLES CENTER, INC.

ILLEGIBLE

By: ILLEGIBLE (Seal)
Name: ILLEGIBLE
Title: VICE PRESIDENT

ATTEST:

TENANT: GLEN RESEARCH CORPORATION.

ILLEGIBLE

By: /s/ Hugh Mackie (Seal)
Name: HUGH MACKIE
Title: PRESIDENT

THIRD AMENDMENT TO LEASE AGREEMENT

This **THIRD AMENDMENT TO LEASE AGREEMENT** ("**Amendment**") is entered into as of September 2, 2020 ("**Effective Date**"), by and between **WATERIDGE PROPERTY OWNER, LP**, a Delaware limited partnership ("**Landlord**"), and **TRILINK BIOTECHNOLOGIES, LLC**, a Delaware limited liability company ("**Tenant**"), with reference to the facts set forth in the Recitals below.

RECITALS

A. Landlord (as successor-in-interest to 10770 Wateridge Investors LLC, a California limited liability company) and Tenant are parties to that certain Lease Agreement dated July 17, 2018, as amended by that certain First Amendment to Lease Agreement dated May 15, 2019, and that certain Second Amendment to Lease Agreement dated October 1, 2019 (collectively, "**Lease**"), for certain premises commonly referred to as Suite number 100 ("**Existing Premises**") on the first (1st) and second (2nd) floors of the building located at 10770 Wateridge Circle, San Diego, California 92121 ("**Building**"), as more specifically described in the Lease. Except as otherwise defined herein, all capitalized terms used herein shall have the meanings ascribed to them in the Lease.

B. Landlord and Tenant have agreed to make certain modifications to the Lease as more fully provided below.

AMENDMENT

NOW, THEREFORE, in consideration of the Recitals above, the mutual covenants and conditions below, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

1. Premises.

a. Expansion Premises. Effective as of the Expansion Commencement Date (as defined below), Tenant shall lease approximately 16,283 Rentable Square Feet of additional space located within Suite 110 on the first (1st) floor of the Building ("**Expansion Premises**"). The Expansion Premises are depicted as Suite 110 on **Exhibit "A"** attached hereto and incorporated herein by this reference. The lease term for the Expansion Premises **("Expansion Term")** shall begin on the Expansion Commencement Date and expire on the Expiration Date. Tenant's lease of the Expansion Premises shall be on all of the same terms and conditions as the Lease, except as specifically provided in this Amendment. As used herein, the "**Expansion Commencement Date**" shall be the earlier to occur of (i) the date upon which Tenant first commences to conduct business in the Expansion Premises, and (ii) the date upon which the Expansion Improvements are Substantially Complete pursuant to the terms and conditions of, and as that term is defined in, the Expansion Work Letter attached to this Amendment as **Exhibit "B"** ("**Expansion Work Letter**"), which date is currently estimated to be March 15, 2021 ("**Estimated Expansion Commencement Date**").

b. Existing Premises. Notwithstanding any provision of the Lease to the contrary, Landlord and Tenant hereby stipulate and agree that, as of the Expansion Commencement Date, (a) the Existing Premises shall be deemed to contain 101,693 Rentable Square Feet (reduced from 102,575 as a result of recalculation of common area space), and (b) the Building shall be deemed to contain 183,565 Rentable Square Feet. The Existing Premises are depicted as Suites 100 and 200 on **Exhibit "A"** attached hereto and incorporated herein by this reference.

c . Total Premises. Notwithstanding any provision of the Lease to the contrary, beginning on the Expansion Commencement Date (a) the "**Premises**" shall mean the Existing Premises and the Expansion Premises collectively, and (b) the Premises shall consist of a total of 117,976 Rentable Square Feet.

2 . Delivery of Expansion Premises. Landlord will endeavor to tender possession of the Expansion Premises to Tenant with the Expansion Improvements Substantially Complete on or before the Estimated Expansion Commencement Date; provided, that if the date on which Landlord actually tenders possession of the Expansion Premises to Tenant in such condition does not occur on or before the Estimated Expansion Commencement Date, this Amendment shall not be void or voidable, the Expansion Term shall not be extended, and Landlord shall not be liable to Tenant for any loss or damage resulting therefrom; provided further that Landlord shall use commercially reasonable efforts to tender to Tenant delivery of possession of the Expansion Premises in such condition as soon as reasonably possible after the Estimated Expansion Commencement Date. Notwithstanding the foregoing, Tenant's obligation to pay Basic Rent, Operating Expenses and Real Property Taxes shall not begin until the actual Expansion Commencement Date. If Landlord is unable to deliver possession of the Expansion Premises to Tenant with the Expansion Improvements Substantially Complete on or before the date which is thirty (30) days after the Estimated Expansion Commencement Date **("Outside Expansion Delivery Date")**, which Outside Expansion Delivery Date shall be extended on a day-for-day basis for any delay caused by an event of Force Majeure, a Tenant Delay (as that term is defined in the Expansion Work Letter) or similar matters beyond the reasonable control of Landlord, Tenant shall be entitled to receive an abatement of the Basic Rent attributable to the Expansion Premises on a day-for-day basis for each day between the Outside Expansion Delivery Date and the actual date on which possession of the Expansion Premises is delivered to Tenant with the Expansion Improvements Substantially Complete **("Actual Expansion Delivery Date")**, to be applied as a credit toward the Basic Rent next due and payable for the Expansion Premises (for example, if the Outside Expansion Delivery Date is April 15, 2021, and the Actual Expansion Delivery Date is April 20, 2021, then Tenant shall receive a credit toward Basic Rent in an amount equal to four (4) days of the Basic Rent attributable to the Expansion Premises). The remedy set forth in this Section 2 shall be Tenant's sole and exclusive remedy at law or equity for the matters described herein.

3 . Early Access. The terms and conditions of Section 41.1 of the Lease shall apply to the Expansion Premises except as follows: (a) the reference in the first sentence to "sixty (60) days" shall be replaced with "four (4) weeks", (b) all references to the "Commencement Date" shall mean the Expansion Commencement Date, and (c) all references to the "Premises" shall mean the Expansion Premises.

4 . Basic Rent. Beginning on the Expansion Commencement Date, the Basic Rent payable by Tenant for the entire Premises shall be pursuant to the following schedule:

Period of Term	**Basic Rent per RSF per Month**	**Monthly Installments of Basic Rent**	**Annual Basic Rent**
Expansion Commencement Date – October 31, 2022*	$3.74	$441,230.24	$5,294,762.88
November 1, 2022 – October 31, 2023	$4.09	$482,521.84	$5,790,262.08
November 1, 2023 – October 31, 2024	$4.21	$496,678.96	$5,960,147.52
November 1, 2024 – October 31, 2025	$4.34	$512,015.84	$6,144,190.08
November 1, 2025 – October 31, 2026	$4.47	$527,352.72	$6,328,232.64

November 1, 2026 – October 31, 2027	$4.60	$542,689.60	$6,512,275.20
November 1, 2027 – October 31, 2028	$4.74	$559,206.24	$6,710,474.88
November 1, 2028 – October 31, 2029	$4.88	$575,722.88	$6,908,674.56
November 1, 2029 – May 31, 2030	$5.03	$593,419.28	$4,153,934.96

*Provided that Tenant is not in default under the Lease beyond any applicable notice and cure period, the monthly installments of Basic Rent for the Expansion Premises shall be abated by fifty percent (50%) for months two (2) through nine (9) of the Expansion Term (i.e., the total Basic Rent payable during such months shall be $410,781.03 per month). Tenant shall continue to pay the Basic Rent for the Existing Premises and all Additional Rent during such abatement period. The monthly installments of Basic Rent and estimated Additional Rent for the Expansion Premises for the first (1st) full month of the Expansion Term shall be paid by Tenant to Landlord concurrently with Tenant's execution and delivery of this Amendment. Prior to the Expansion Commencement Date, Tenant shall continue to pay Basic Rent and Additional Rent for the Existing Premises pursuant to the Lease.

5. Expansion Improvement Allowance. Landlord shall provide Tenant with a tenant improvement allowance of up to One Hundred Sixty-Five and 00/100 Dollars ($165.00) per Rentable Square Foot of the Expansion Premises (i.e., up to $2,686,695.00) ("**Expansion Improvement Allowance**") to be used toward construction of the Expansion Improvements in the Expansion Premises pursuant to the Expansion Work Letter.

6. Tenant's Percentage. Effective as of the Expansion Commencement Date, Tenant's Percentage, pursuant to Section 1.13 of the Lease, shall be 64.27%.

7. Security Deposit. The Security Deposit (as provided in Sections 1.14 and 7.1 of the Lease) shall remain at $571,018.41 (the amount currently held by Landlord) pursuant to Section 7.1 of the Lease.

8. Tenant's Vehicle Parking Spaces. Effective as of the Expansion Commencement Date, Tenant's Vehicle Parking Spaces shall mean three hundred fifty-four (354) unreserved parking spaces.

9. Option Terms. For clarification and the avoidance of doubt, the Options set forth in Section 3.2 of the Lease shall apply to the entire Premises (i.e., the Existing Premises and the Expansion Premises), and not to any portion thereof.

10. Termination Option. Notwithstanding any provision of the Lease to the contrary, the Termination Option set forth in Section 41.7 of the Lease shall apply to the entire Premises (inclusive of the Expansion Premises); provided, however, that for purposes of calculating the Termination Fee, the "Tenant Improvement Allowance" shall include the Expansion Improvement Allowance, and the "Basic Rent" shall mean the Basic Rent payable for the entire Premises. The revised amount of the Termination Fee (as calculated pursuant to the Lease, as modified by the immediately preceding sentence) shall be specified in the Expansion Commencement Letter (as defined below).

11. Right of First Refusal. For clarification and the avoidance of doubt, the ROFR set forth in Section 41.6 of the Lease has expired and is of no further force or effect.

12. Expansion Commencement Letter. The Expansion Commencement Date and the revised Termination Fee, among other things, shall be specified in a Memorandum of Lease Terms, which shall be

in the form of **Exhibit "C"** ("**Expansion Commencement Letter**"), attached hereto and incorporated herein by this reference, and shall be executed by Tenant as soon as practicable after Landlord's completion and delivery thereof to Tenant.

13. Condition of Expansion Premises. Except as expressly provided in this Amendment and the Expansion Work Letter, Tenant hereby accepts the Expansion Premises and all other portions of the Premises in their "as is" condition and acknowledges that Landlord shall not be obligated to provide or pay for any improvement work or services related to the improvement of the Expansion Premises or any other portion of the Premises. Tenant also acknowledges that Landlord has made no representation or warranty regarding the condition of the Expansion Premises or any other portion of the Premises. For purposes of Section 1938 of the California Civil Code, Landlord hereby discloses to Tenant that the Premises (including the Expansion Premises) have not as of the Effective Date been inspected by a Certified Access Specialist (CASp), as that term is defined in California Civil Code Section 55.52. In accordance with subsection (e) of Section 1938 of the California Civil Code, Tenant is further notified as follows:

> A Certified Access Specialist (CASp) can inspect the subject premises and determine whether the subject premises comply with all of the applicable construction-related accessibility standards under state law. Although state law does not require a CASp inspection of the subject premises, the commercial property owner or lessor may not prohibit the lessee or tenant from obtaining a CASp inspection of the subject premises for the occupancy or potential occupancy of the lessee or tenant, if requested by the lessee or tenant. The parties shall mutually agree on the arrangements for the time and manner of the CASp inspection, the payment of the fee for the CASp inspection, and the cost of making any repairs necessary to correct violations of construction-related accessibility standards within the premises.

14. Brokers. Tenant warrants that it has had no dealings with any real estate broker, finder or agent in connection with the negotiation of this Amendment except for Cushman & Wakefield (Ted Jacobs), representing Tenant, and Jones Lang LaSalle (Chad Urie, Tim Olson and Grant Schoneman), representing Landlord, and that it knows of no other real estate broker, finder or agent who is or might be entitled to a commission in connection with this Amendment. Tenant shall be solely responsible for the payment of any fee due to any other broker, finder, agent or other party claiming under Tenant, and shall hold Landlord free and harmless against any liability in respect thereto, including attorneys' fees and costs incurred by Landlord in connection therewith.

15. Defined Terms. Unless otherwise specifically defined in this Amendment, terms with initial capital letters in this Amendment shall have the same meaning as such terms have in the Lease.

16. No Construction Against Party Drafting Amendment . Landlord and Tenant acknowledge and agree that each of them, and their respective professional advisors, have reviewed this Amendment and that the provisions of this Amendment shall not be construed against either party. The rule of construction that ambiguities are to be construed against the party drafting the agreement shall not apply to the interpretation of this Amendment and is waived.

17. Counterpart Execution. This Amendment may be executed in multiple counterparts, each of which when so executed and delivered shall be deemed to be an original and all of which together shall constitute one instrument.

18. Continued Effect. Except as specifically modified by this Amendment, all of the terms, conditions and provisions of the Lease shall remain in full force and effect.

IN WITNESS WHEREOF, the parties have executed this Amendment as of the Effective Date.

LANDLORD:

WATERIDGE PROPERTY OWNER, LP,
a Delaware limited partnership

By: HSRE-BPI I GP, LLC
a Delaware limited liability company,
its general partner

By: /s/ Barrett Lowell
Name: Barrett Lowell
Title: Authorized Signatory

TENANT:

TRILINK BIOTECHNOLOGIES, LLC,
a Delaware limited liability company

By: /s/ Kevin M. Herde
Name: Kevin M. Herde
Its: CFO

ACKNOWLEDGMENT OF GUARANTOR

The undersigned, as Guarantor under that certain Lease Guaranty dated July 17, 2018, does hereby acknowledge and agree that the provisions of said Lease Guaranty shall remain in full force and effect as to the obligations of Tenant under the Lease, as amended herein, including, without limitation, with respect to the Expansion Premises. The undersigned Guarantor acknowledges that Landlord would not have executed this Amendment without this acknowledgment and agreement on the part of the undersigned Guarantor.

GUARANTOR:

MARAVAI LIFE SCIENCES, INC.,
a Delaware corporation

By: /s/ Kevin M. Herde
Name: Kevin M. Herde
Title: CFO

SECOND AMENDMENT TO LEASE AGREEMENT

This **SECOND AMENDMENT TO LEASE AGREEMENT** ("**Amendment**") is entered into as of October 1, 2019 ("**Effective Date**"), by and between **10770 WATERIDGE INVESTORS LLC,** a California limited liability company ("**Landlord**"), and **TRILINK BIOTECHNOLOGIES**, **LLC**, a Delaware limited liability company ("**Tenant**"), with reference to the facts set forth in the Recitals below.

RECITALS

A. Landlord and Tenant are parties to that certain Lease Agreement dated July 17, 2018, as amended by that certain First Amendment to Lease Agreement dated May 15, 2019 (collectively, "**Lease**"), for certain premises commonly referred to as Suite number 100 ("**Premises**") of the building located at 10770 Wateridge Circle, San Diego, California 92121 ("**Building**"), as more specifically described in the Lease. Except as otherwise defined herein, all capitalized terms used herein shall have the meanings ascribed to them in the Lease.

B. Landlord and Tenant have agreed to make certain modifications to the Lease including, among other things, confirmation of the actual Rentable Square Feet of the Premises, as more fully provided below.

AMENDMENT

NOW, THEREFORE, in consideration of the Recitals above, the mutual covenants and conditions below, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

1. Rentable Area of Premises and Building. Landlord and Tenant hereby stipulate and agree that, pursuant to Section 2.2.1 of the Lease, the Premises and Building have been remeasured and, as of the Effective Date, (a) the Premises shall be deemed to contain 102,574 Rentable Square Feet, and (b) the Building shall be deemed to contain 183,240 Rentable Square Feet.

2. Rent. Section 1.12 of the Lease is hereby replaced with and superseded by the following:

Months of Initial Term	Basic Rent per Rentable Square Foot ($/mo)	Monthly Installments of Basic Rent ($/mo)	Annual Basic Rent ($/yr)
1-36*	$3.74	$383,626.76	$4,603,521.12
37-48	$4.09	$419,527.66	$5,034,331.92
49-60	$4.21	$432,113.49	$5,185,361.88
61-72	$4.34	$445,076.89	$5,340,922.68
73-84	$4.47	$458,429.20	$5,501,150.40
85-96	$4.60	$472,182.08	$5,666,184.96
97-108	$4.74	$486,347.54	$5,836,170.48
109-120	$4.88	$500,937.97	$6,011,255.64
121-127	$5.03	$515,966.11	$6,191,593.32

*Provided that Tenant is not in default under the Lease beyond any applicable notice and cure period, monthly installments of Basic Rent shall be abated by fifty percent (50%) for months two (2) through fifteen (15) of the Initial Term (such that the Basic Rent payable during such months is at a rate of $1.87 per Rentable Square Foot per month) pursuant to the terms and conditions of Section 5.1 of the Lease.

3. Tenant's Percentage. Notwithstanding any provision of the Lease to the contrary, Tenant's Percentage, pursuant to Section 1.13 of the Lease, shall be 55.98%.

4 . Security Deposit. Notwithstanding any provision of the Lease to the contrary, the Security Deposit (as provided in Sections 1.14 and 7.1 of the Lease) shall remain at $571,018.41 (amount currently held by Landlord) pursuant to Section 7.1 of the Lease.

5. Tenant's Vehicle Parking Spaces. As of the Effective Date, Tenant's Vehicle Parking Spaces shall mean three hundred eight (308) unreserved parking spaces.

6 . Defined Terms. Unless otherwise specifically defined in this Amendment, terms with initial capital letters in this Amendment shall have the same meaning as such terms have in the Lease.

7 . No Construction Against Party Drafting Amendment . Landlord and Tenant acknowledge and agree that each of them, and their respective professional advisors, have reviewed this Amendment and that the provisions of this Amendment shall not be construed against either party. The rule of construction that ambiguities are to be construed against the party drafting the agreement shall not apply to the interpretation of this Amendment and is waived.

8 . Counterpart Execution. This Amendment may be executed in multiple counterparts, each of which when so executed and delivered shall be deemed to be an original and all of which together shall constitute one instrument.

9 . Continued Effect. Except as specifically modified by this Amendment, all of the terms, conditions and provisions of the Lease shall remain in full force and effect.

[*signatures on following page*]

IN WITNESS WHEREOF, the parties have executed this Amendment as of the Effective Date.

LANDLORD:

10770 WATERIDGE INVESTORS LLC,
a California limited liability company

By: SRE SD4, LLC,
a Delaware limited liability company,
its sole member

By: SB 10770 Wateridge Investors LLC,
a California limited liability company
its manager

By: /s/ Steven Bollert

Name: Steven Bollert

Its: Manager

TENANT:

TRILINK BIOTECHNOLOGIES, LLC,
a Delaware limited liability company

By: /s/ Eric Tardif

Name: Eric Tardif

Its: President

FIRST AMENDMENT TO LEASE AGREEMENT

This **FIRST AMENDMENT TO LEASE AGREEMENT** ("**Amendment**") is entered into as of May 15, 2019 ("**Effective Date**"), by and between **10770 WATERIDGE INVESTORS LLC,** a California limited liability company ("**Landlord**"), and **TRILINK BIOTECHNOLOGIES, LLC,** a Delaware limited liability company ("**Tenant**"), with reference to the facts set forth in the Recitals below.

RECITALS

A. Landlord and Tenant are parties to that certain Lease Agreement dated July 17, 2018, ("**Lease**"), for certain premises consisting commonly referred to as Suite number 100 ("**Premises**") of the building located at 10770 Wateridge Circle, San Diego, California 92121 ("**Building**"), as more specifically described in the Lease. Except as otherwise defined herein, all capitalized terms used herein shall have the meanings ascribed to them in the Lease.

B. Landlord and Tenant have agreed to make certain modifications to the Lease including, among other things, confirmation of the actual Rentable Square Feet of the Premises, as more fully provided below.

AMENDMENT

NOW, THEREFORE, in consideration of the Recitals above, the mutual covenants and conditions below, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

1. Rentable Area of Premises. Landlord and Tenant hereby stipulate and agree that, pursuant to Section 2.2.1 of the Lease, the Premises have been remeasured and as of the Effective Date shall be deemed to contain 102,260 Rentable Square Feet.

2. Rent. Section 1.12 of the Lease is hereby replaced with and superseded by the following:

Months of Initial Term	Basic Rent per Rentable Square Foot ($/mo)	Monthly Installments of Basic Rent ($/mo)	Annual Basic Rent ($/yr)
1-36*	$3.74	$382,452.40	$4,589,428.80
37-48	$4.09	$418,243.40	$5,018,920.80
49-60	$4.21	$430,790.70	$5,169,488.42
61-72	$4.34	$443,714.42	$5,324,573.08
73-84	$4.47	$457,025.86	$5,484,310.27
85-96	$4.60	$470,736.63	$5,648,839.58
97-108	$4.74	$484,858.73	$5,818,304.76
109-120	$4.88	$499,404.49	$5,992,853.91
121-127	$5.03	$514,386.63	$6,172,639.52

*Provided that Tenant is not in default under this Lease beyond any applicable notice and cure period, monthly installments of Basic Rent shall be abated by fifty percent (50%) for months two (2) through fifteen (15) of the Initial Term (such that the Basic Rent payable during such months is at a rate of $1.87 per Rentable Square Foot per month) pursuant to the terms and conditions of Section 5.1 below.

3. Tenant's Percentage. Notwithstanding any provision of the Lease to the contrary, the term Tenant's Percentage pursuant to Section 1.13 of the Lease shall mean 55.8%.

4. Security Deposit. Notwithstanding any provision of the Lease to the contrary, the Security Deposit (as provided in Sections 1.14 and 7.1 of the Lease) shall remain at $571,018.41 (amount currently held by Landlord) pursuant to Section 7.1 of the Lease.

5. Tenant's Vehicle Parking Spaces. As of the Effective Date, Tenant's Vehicle Parking Spaces shall mean three hundred eight (308) unreserved parking spaces.

6. Defined Terms. Unless otherwise specifically defined in this Amendment, terms with initial capital letters in this Amendment shall have the same meaning as such terms have in the Lease.

7. No Construction Against Party Drafting Amendment. Landlord and Tenant acknowledge and agree that each of them, and their respective professional advisors, have reviewed this Amendment and that the provisions of this Amendment shall not be construed against either party. The rule of construction that ambiguities are to be construed against the party drafting the agreement shall not apply to the interpretation of this Amendment and is waived.

8. Counterpart Execution. This Amendment may be executed in multiple counterparts, each of which when so executed and delivered shall be deemed to be an original and all of which together shall constitute one instrument.

9. Continued Effect. Except as specifically modified by this Amendment, all of the terms, conditions and provisions of the Lease shall remain in full force and effect.

[*signatures on following page*]

IN WITNESS WHEREOF, the parties have executed this Amendment as of the Effective Date.

LANDLORD:

10770 WATERIDGE INVESTORS LLC,
a California limited liability company

By: SRE SD4, LLC,
a Delaware limited liability company,
its sole member

By: SB 10770 Wateridge Investors LLC,
a California limited liability company
its manager

By: /s/ Steven Bollert

Name: Steven Bollert

Its: Manager

TENANT:

TRILINK BIOTECHNOLOGIES, LLC,
a Delaware limited liability company

By: /s/ Eric Tardif

Name: Eric Tardif

Its: President Maravai LifeSciences

LEASE AGREEMENT

BETWEEN

10770 WATERIDGE INVESTORS LLC,
a California limited liability company

(LANDLORD)

AND

TRILINK BIOTECHNOLOGIES, LLC,
a Delaware limited liability company

(TENANT)

July 13, 2018

10770 WATERIDGE CIRCLE
SAN DIEGO, CALIFORNIA

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LEASE AGREEMENT

THIS LEASE AGREEMENT (this "Lease") is made as of July ___, 2018 ("Effective Date")' by and between 10770 WATERIDGE INVESTORS LLC, a California limited liability company (" Landlord"), and TRILINK BIOTECHNOLOGIES, LLC, a Delaware limited liability company ("Tenant").

ARTICLE 1

TERMS AND DEFINITIONS

For the purposes of this Lease, the following terms shall have the following definitions and meanings:

1.1 Landlord: 10770 Wateridge Investors LLC, a California limited liability company

1.2 Landlord's Address:

10770 Wateridge Investors LLC
c/o Bioscience Properties, Inc.
4180 La Jolla Village Drive, Suite 210
San Diego, CA 92037
Attention: Steve Bollert

1.3 Tenant: Trilink Biotechnologies, LLC, a Delaware limited liability company

1.4 Tenant's Address:

Prior to the Commencement Date:

Trilink Biotechnologies, LLC
9955 Mesa Rim Road
San Diego, CA 92121
Attn: _____

As of the Commencement Date:

Trilink Biotechnologies, LLC
10770 Wateridge Circle, Suite 100
San Diego, CA 92121
Attn: _____

1.5 Building: That certain two (2)-story building located at 10770 Wateridge Circle, San Diego, California 92121.

1.6 Premises: Approximately 100,000 rentable square feet of area ("Rentable Square Feet"), subject to final determination in accordance with Section 2.2 below, in Suite number 100 in the Building.

1.7 Initial Term: One hundred twenty-seven (127) months.

1.8 Tenant's Vehicle Parking Spaces: Three (3) unreserved parking spaces per one thousand (1,000) Rentable Square Feet of the Premises within the Parking Area (defined in Article 33 below) at no additional charge during the Initial Term, subject to the terms and conditions of Article 33 below. By way of example, if the Premises is determined, pursuant to Section 2.2, to be 100,000 Rentable Square Feet, then Tenant's Vehicle Parking Spaces shall be three hundred (300) unreserved parking spaces. Tenant shall have the right to mark up to forty-five (45) of Tenant's Vehicle Parking Spaces as reserved for use by Tenant and/or Tenant's Parking Invitees (defined in Article 33 below) in a location reasonably approved by Landlord.

1.9 Tenant Improvement Allowance: (i) Up to One Hundred Seventy-Five Dollars ($175.00) per Rentable Square Foot of the Premises ("Initial Allowance"), plus (ii) at Tenant's election and subject to repayment as provided herein, an additional amount of up to Ten Dollars ($10.00) per Rentable Square Foot of the Premises ("Additional Allowance"), to be contributed by Landlord toward the cost of constructing the Tenant Improvements

pursuant to the Work Letter Agreement described in Section 2.1 below. The Initial Allowance and the Additional Allowance shall be collectively referred to herein as the "Tenant Improvement Allowance." If Tenant elects to use the Additional Allowance or a portion thereof, such amount shall be amortized over the Initial Term at an annual percentage rate of eight and a half percent (8.5%) and payable by Tenant as a component of Basic Rent. Tenant shall notify Landlord of its election to use the Additional Allowance prior to commencement of construction of the Tenant Improvements.

1.10 Commencement Date: The earlier to occur of (i) the date upon which Tenant first commences to conduct business in the Premises, and (ii) the date on which the Landlord Work and Tenant Improvements are Substantially Complete pursuant to the terms and conditions of, and as that term is defined in, the Work Letter Agreement.

1.11 Estimated Commencement Date: The date set forth in the mutually approved Work Schedule (as that term is defined in the Work Letter Agreement) as the estimated date of Substantial Completion of the Landlord Work and Tenant Improvements (anticipated to be approximately fourteen (14) months after the Effective Date).

1.12 Basic Rent (subject to adjustment in accordance with Section 2.2):

Months of Initial Term	Basic Rent per Rentable Square Foot ($/mo)	Monthly Installments of Basic Rent ($/mo)	Annual Basic Rent ($/yr)
1-36*	$3.74	$374,000.00	$4,488,000.00
37-48	$4.09	$409,000.00	$4,908,000.00
49-60	$4.21	$421,270.00	$5,055,240.00
61-72	$4.34	$433,908.10	$5,206,897.20
73-84	$4.47	$446,925.34	$5,363,104.12
85-96	$4.60	$460,333.10	$5,523,997.24
97-108	$4.74	$474,143.10	$5,689,717.16
109-120	$4.88	$488,367.39	$5,860,408.67
121-127	$5.03	$503,018.41	$6,036,220.93

*Provided that Tenant is not in default under this Lease beyond any applicable notice and cure period, monthly installments of Basic Rent shall be abated by fifty percent (50%) for months two (2) through fifteen (15) of the Initial Term (such that the Basic Rent payable during such months is at a rate of $1.87 per Rentable Square Foot per month) pursuant to the terms and conditions of Section 5.1 below.

1.13 Tenant's Percentage: A fraction, the numerator of which is the Rentable Square Feet of the Premises and the denominator of which is the Rentable Square Feet of the Building, each as determined pursuant to Section 2.2. By way of example, if the Premises is determined, pursuant to Section 2.2, to be 100,000 Rentable Square Feet, and the Building is determined, pursuant to Section 2.2, to be 180,000 Rentable Square Feet, then Tenant's Percentage shall be 56%.

1.14 Security Deposit: $571,018.41 (subject to adjustment in accordance with Section 2.2).

Guarantor: Maravai Life Sciences, Inc., a Delaware corporation.

Letter of Credit Amount: $500,000.00.

1.15 Broker(s): Cushman & Wakefield (Ted Jacobs), representing Tenant, and Jones Lang LaSalle (Chad Urie, Tim Olson and Grant Schoneman), representing Landlord.

1.16 Permitted Use: Office, laboratory and research and development and all uses ancillary thereto, and no other use, subject to compliance with all applicable Laws (defined below).

1.17 Building Area: Approximately 180,000 Rentable Square Feet, subject to final determination in accordance with Section 2.2 below.

ARTICLE 2

PREMISES AND COMMON AREAS

2.1 Premises. Landlord hereby leases to Tenant and Tenant hereby leases from Landlord the Premises outlined on the Floor Plan attached hereto, marked Exhibit "A-I", and incorporated herein by this reference ("Outline of Premises"). The Premises are located in the Building, which, together with the Parking Area, is located on the parcel or parcels of real property ("Project Site") outlined on the Project Site Plan attached hereto, marked as Exhibit "A-II", and incorporated herein by this reference ("Project Site Plan") (all of which, together with the Building Common Areas and the Project Common Areas, as hereinafter defined, are collectively referred to as the "Project"). The Premises are leased in their "AS-IS" condition in accordance with Article 14; provided however, the Premises will be improved by Landlord with the Tenant Improvements described in the Work Letter Agreement, a copy of which is attached hereto, marked as Exhibit "B" and incorporated herein by this reference ("Work Letter Agreement"). The parties hereto agree that this Lease is upon and subject to the terms, covenants and conditions herein set forth. Each of Landlord and Tenant covenants as a material part of the consideration for this Lease to keep and perform each and all of said terms, covenants and conditions by it to be kept and performed.

2.2 Rentable Area.

2.2.1. Landlord and Tenant stipulate and agree that: (a) subject to Section 2.2.2 below, the Rentable Square Feet contained in the Building is as specified in Section 1.17, and (b) the Rentable Square Feet of the Building shall include all of, and the Rentable Square Feet of the Premises shall include a portion of (such portion to be equitably determined by Landlord) the total square feet contained in any common areas (e.g., lobbies, mail room, fire control room, etc.) of the Building. The Basic Rent, Tenant's Percentage and Security Deposit specified in Sections 1.12, 1.13 and 1.14 above, respectively, are based upon the approximate Rentable Square Feet of the Premises set forth in Section 1.6 and the Rentable Square Feet of the Building set forth in Section 1,17. Prior to completion of the Tenant Improvements, Landlord shall cause the Rentable Square Feet of the Building and the Premises to be recalculated by McFarlane Architects ("Architect"), which recalculation shall be conclusive upon Landlord and Tenant, and, if different than the number of Rentable Square Feet set forth in Section 1.6, the Basic Rent, Tenant's Percentage and Security Deposit shall be adjusted accordingly. The Memorandum of Lease Terms (as defined in Section 3) shall indicate, among other things, the actual Rentable Square Feet of the Premises and Building, the Basic Rent, Tenant's Percentage, Security Deposit, Tenant's Vehicle Parking Spaces and the Tenant Improvement Allowance, as adjusted pursuant to this Section 2.2.1.

2.2.2. Landlord reserves the right (a) to modify the standards utilized hereunder for the measurement of Rentable Square Feet (so long as any such modification is reasonably consistent with then prevailing Institutional Owner Practices (defined below)) and (b) consistent with any such modifications of measurement standards, to adjust the Rentable Square Feet of the Premises and the Building and/or portions thereof and any economic terms set forth herein (such as Tenant's Percentage) calculated on the basis thereof; provided that Landlord shall have no right to adjust the Basic Rent then in effect as a result of any such modification.

2.3 Common Areas. Tenant and its employees, invitees and agents shall have the nonexclusive right to use in common with Landlord and other tenants or occupants of the Project and their respective employees, invitees and agents, subject to the Rules and Regulations referred to in Section 36.1 below and all covenants, conditions and restrictions affecting the Project, any of the following areas which may be appurtenant to the Premises (collectively, "Common Areas"):

2.3.1. any common entrances, lobbies, shared entry lobbies and corridors, shared restrooms, service areas, elevators, stairways, accessways and/or ramps which may be located in the Building, and any common pipes, wires and appurtenant equipment which may be serving the Premises (collectively, "Building Common Areas"); and

2.3.2. the Parking Area and any loading and unloading areas, trash areas, service areas, parking areas, roadways, sidewalks, walkways, plazas, parkways, driveways, landscaped areas and similar areas and facilities from time to time situated within the Project (collectively, "Project Common Areas").

2.4 Landlord's Reservation of Rights. Landlord reserves for itself, and for the owner(s) and operator(s) of the Project or any portion thereof, the right from time to time without material interference with Tenant's access to the Premises or Tenant's Permitted Use:

2.4.1. to install, use, maintain, repair and replace pipes, ducts, conduits, wires and appurtenant meters and equipment for service to other parts of the Building above the ceiling surfaces, below the floor surfaces, within the walls and in the central core areas of the Premises, and to relocate any pipes, ducts, conduits, wires and appurtenant meters and equipment which are located in the Premises or elsewhere, and to expand the Building and/or the Parking Area (after which expansion there shall be an appropriate adjustment made to Tenant's Percentage);

2.4.2. to make changes in its sole and absolute discretion to the Common Areas, including, without limitation, changes in the location, size, shape and number of driveways, entrances, parking spaces, parking areas, loading and unloading areas, ingress, egress, direction of traffic, landscaped areas and walkways;

2.4.3. to close temporarily any of the Common Areas for maintenance purposes and to avoid claims of prescriptive rights so long as reasonable access to the Premises remains available;

2.4.4. to designate other land outside the boundaries of the Building or the Project to be a part of the Project Common Areas;

2.4.5. to add additional buildings and improvements to the Project Common Areas;

2.4.6. to use the Common Areas while engaged in making additional improvements, repairs or alterations to the Building, the Parking Area or the Project, or any portion thereof; and

2.4.7. to do and perform such other acts and make such other changes in, to or with respect to the Project or any portion thereof as Landlord and/or the owner(s) and/or operator(s) thereof may deem to be appropriate.

ARTICLE 3

TERM

3.1 Initial Term. The "Initial Term" of this Lease shall be for the period designated in Section 1.7, commencing on the Commencement Date and ending on the last day of the month in which the expiration of such period occurs, unless sooner terminated as hereinafter provided; provided that if the Commencement Date occurs on a day other than the first day of any calendar month, for purposes of calculating the date ("Expiration Date") on which the Term is scheduled to expire and the timing of all scheduled increases in Basic Rent during the Term, the Commencement Date shall be deemed to be the first day of the calendar month following the Commencement Date. The Commencement Date, the date upon which the Initial Term of this Lease shall end unless sooner terminated pursuant to the provisions hereof, the Rentable Square Feet in the Premises and Tenant's Percentage as determined pursuant to Section 2.2 above shall be specified in a Memorandum of Lease Terms, which shall be in the form of Exhibit "C", attached hereto and incorporated herein by this reference ("Memorandum of Lease Terms"), and shall be executed by Tenant as soon as practicable after the Commencement Date. As used herein, "Term" shall refer to the Initial Term as it may be extended by written agreement of Landlord and Tenant, including, without limitation, as a result of Tenant's exercise of its Options in accordance with Section 3.2 below.

3.2 Option Terms. Tenant shall have the right and option ("Option") to extend the Term of this Lease for two (2) additional periods of five (5) years each (each an "Option Term" and collectively the "Option Terms"). Each Option Term shall commence on the day immediately succeeding the expiration date of the then current term and shall end on the day immediately preceding the fifth (5th) anniversary of the first day of such Option Term. Notwithstanding any provision of this Section 3.2 to the contrary, the Options shall be personal to the original Tenant named herein (i.e., Trilink Biotechnologies, LLC) ("Original Tenant") and any Permitted Transferee to whom this Lease is assigned pursuant to a Permitted Transfer (as those terms are defined in Section 27.1.1 below).

3.2.1. Tenant shall exercise each Option by giving written notice to Landlord of its election to do so not earlier than twelve (12) months and not later than nine (9) months prior to the expiration of the then current term. The giving of such notice of extension by Tenant shall automatically extend the Term of this Lease for

such Option Term, and no instrument of renewal or extension need be executed. In the event that Tenant fails to give timely notice to Landlord, this Lease shall automatically terminate at the end of the then current term and Tenant shall have no further option to extend the Term of this Lease. The Options shall be exercisable by Tenant only on the express condition that (i) at the time of the exercise, and at all times between the time of such exercise and the commencement of the Option Term, Tenant shall not be in Default under any of the provisions of this Lease, and (ii) Tenant shall not have been ten (10) or more days late in the payment of Monthly Basic Rent more than once during any twelve (12) consecutive month period during the Term.

3.2.2. The Option Terms shall be on all the terms and conditions of this Lease, except that: (i) during the first Option Term, Tenant shall have only the second Option to extend the Term as provided by this Section 3.2, and during the second Option Term, Tenant shall have no further right or option to extend the Term as provided by this Section 3.2; (ii) the Basic Rent for the Option Term shall be equal to the Fair Market Rental Value of the Premises for such Option Term, determined pursuant to Subsection 3.2.3 below; and (iii) Tenant shall not be entitled to any abatement of Basic Rent or any tenant improvement allowance during such Option Term unless otherwise determined to be included in the Fair Market Rental Value in accordance with Section 3.2.3 below. If Tenant subleases any portion of the Premises or assigns or otherwise transfers any interest under this Lease (other than in connection with a Permitted Transfer), the Options shall lapse. If Tenant subleases any portion of the Premises or assigns or otherwise transfers any interest of Tenant under this Lease (other than in connection with a Permitted Transfer) to any person or entity after the exercise of an Option but prior to the commencement of the applicable Option Term (whether with or without Landlord's consent), such Option shall lapse and the Term of this Lease shall expire as if such Option was not exercised.

3.2.3. For the purposes hereof, "Fair Market Rental Value" of the Premises shall mean the prevailing annual market rental value (which rental value determination may include increases in Rent during the Option Term) for Class "A" office, manufacturing, and laboratory/research and development space of comparable size, quality and location in comparable first-class office and laboratory/research and development buildings located in the Sorrento Mesa submarket of San Diego, California, as of the date of commencement of the applicable Option Term ("Comparable Transactions"), taking into consideration the amenities offered in or near the Project and the amount, availability and cost of parking; provided, however, that in calculating the Fair Market Rental Value, no consideration shall be given to (1) the fact that Landlord is or is not required to pay a real estate brokerage commission in connection with Tenant's exercise of its right to lease the Premises during the Option Term or the fact that landlords are or are not paying real estate brokerage commissions in connection with such comparable space, and (2) any period of rental abatement, if any, granted to tenants in comparable transactions in connection with the design, permitting and construction of tenant improvements in such comparable spaces. The Fair Market Rental Value shall additionally include a determination as to whether, and if so to what extent, Tenant must provide Landlord with financial security, such as a letter of credit or security deposit, for Tenant's Rent obligations in connection with Tenant's lease of the Premises during the Option Term. Such determination shall be made by reviewing the extent of financial security then generally being imposed in Comparable Transactions from tenants of comparable financial condition and credit history to the then existing financial condition and credit history of Tenant (with appropriate adjustments to account for differences in the then-existing financial condition of Tenant and such other tenants).

3.2.4. Promptly after receiving Tenant's notice of its election to exercise an Option to extend the Term of this Lease, Landlord shall provide Tenant with Landlord's good faith estimate of the Fair Market Rental Value of the Premises for the applicable Option Term ("Landlord's Fair Market Rental Value Notice "), in the event that Tenant objects to Landlord's determination of the Fair Market Rental Value within fifteen (15) business days following Tenant's receipt of Landlord's Fair Market Rental Value Notice, Landlord and Tenant shall attempt to agree upon the Fair Market Rental Value using their best good faith efforts. If Landlord and Tenant fail to reach agreement within ten (10) business days following Tenant's objection to the Fair Market Rental Value (" Outside Agreement Date"), then each party shall make a separate determination of the Fair Market Rental Value within ten (10) business days after the Outside Agreement Date, and such determinations shall be submitted to arbitration in accordance with Subsection 3.2.4(A) through Subsection 3.2.4(G) below.

(A) Landlord and Tenant shall each appoint one arbitrator who shall be a real estate broker or attorney who shall have been active over the five (5) year period ending on the date of such appointment in the leasing of office and laboratory/research and development properties in the Sorrento Mesa submarket of San Diego, California. The determination of the arbitrators shall be limited solely to the issue of whether Landlord's or

Tenant's submitted Fair Market Rental Value is the closest to the actual Fair Market Rental Value, as determined by the arbitrators, taking into account the requirements of Subsection 3,2.3. Each such arbitrator shall be appointed within fifteen (15) days after the applicable Outside Agreement Date.

(B) The two (2) arbitrators so appointed shall within ten (10) days of the date of the appointment of the last appointed arbitrator agree upon and appoint a third arbitrator who shall be qualified under the same criteria set forth hereinabove for qualification of the initial two (2) arbitrators.

(C) The three (3) arbitrators shall within thirty (30) days of the appointment of the third arbitrator reach a decision as to whether the parties shall use Landlord's or Tenant's submitted Fair Market Rental Value and shall notify Landlord and Tenant thereof.

(D) The decision of the majority of the three (3) arbitrators shall be binding upon Landlord and Tenant.

(E) If either Landlord or Tenant fails to appoint an arbitrator within fifteen (15) days after the applicable Outside Agreement Date, then the arbitrator appointed by one of them shall reach a decision, notify Landlord and Tenant thereof and such arbitrator's decision shall be binding upon Landlord and Tenant.

(F) If the two (2) arbitrators fail to agree upon and appoint a third arbitrator, or if both parties fail to appoint an arbitrator, then the appointment of the third arbitrator or any arbitrator shall be dismissed and the matter to be decided shall be forthwith submitted to arbitration under the provisions of the American Arbitration Association, but subject to the instruction set forth in this Subsection 3.2.4.

(G) The cost of the arbitration shall be paid by Landlord and Tenant equally.

ARTICLE 4

DELIVERY

Landlord will endeavor to tender possession of the Premises to Tenant with the Tenant Improvements Substantially Complete on or before the Estimated Commencement Date; provided, that if the date on which Landlord actually tenders possession of the Premises to Tenant in such condition does not occur on or before the Estimated Commencement Date, this Lease shall not be void or voidable, the Term of this Lease shall not be extended, and Landlord shall not be liable to Tenant for any loss or damage resulting therefrom; provided further that Landlord shall use commercially reasonable efforts to tender to Tenant delivery of possession of the Premises in such condition as soon as reasonably possible after the Estimated Commencement Date. Notwithstanding the foregoing, the Term and Tenant's obligation to pay Base Rent, Operating Expenses and Real Property Taxes shall not begin until the actual Commencement Date. Notwithstanding the foregoing, if Landlord is unable to deliver possession of the Premises to Tenant with the Landlord Work and Tenant Improvements Substantially Complete on or before the date which is sixty (60) days after the Estimated Commencement Date ("First Outside Delivery Date"), which First Outside Delivery Date shall be extended on a day-for-day basis for any delay caused by an event of Force Majeure (as defined in Section 36.8 below), a Tenant Delay (as that term is defined in the Work Letter Agreement) or similar matters beyond the reasonable control of Landlord, Tenant shall be entitled to receive an abatement of Basic Rent on a day-for-day basis for each day between the First Outside Delivery Date and the actual date on which possession of the Premises is delivered to Tenant with the Landlord Work and Tenant Improvements Substantially Complete ("Actual Delivery Date"), to be applied as a credit toward the Basic Rent next due and payable under this Lease (for example, if the Estimated Commencement Date is October 1, 2019, and the Actual Delivery Date is October 5, 2019, then Tenant shall receive a credit toward Basic Rent in an amount equal to four (4) days of Basic Rent). Notwithstanding the foregoing, if Landlord is unable to deliver possession of the Premises to Tenant with the Landlord Work and Tenant Improvements Substantially Complete on or before the date which is one hundred eighty (180) days after the Estimated Commencement Date ("Second Outside Delivery Date"), which Second Outside Delivery Date shall be extended on a day-for-day basis for any delay caused by an event of Force Majeure, a Tenant Delay or similar matters beyond the reasonable control of Landlord, then Tenant shall have the right to terminate this Lease by delivering Notice thereof to Landlord no later than five (5) business days after the Second Outside Delivery Date, which termination shall be effective as of the date of such Notice. Tenant's failure to deliver a Notice of termination within five (5) business days after the Second Outside Delivery Date shall be deemed

Tenant's waiver of its right to terminate this Lease due to a delay in delivery of the Premises. The remedies set forth in this Article 4 shall be Tenant's sole and exclusive remedies at law or equity for the matters described herein.

ARTICLE 5

RENT

5.1 Basic Rent. Tenant shall pay Landlord as consideration for the use and enjoyment of the Premises the Basic Rent designated in Section 1.12 (subject to proration as hereinafter provided) in equal monthly installments, each in advance on the first day of each calendar month during the Term commencing on the Commencement Date, except that the first month's Rent shall be paid to Landlord upon delivery to Landlord of a copy of this Lease, executed by Tenant. If the Term of this Lease commences on a day other than the first day of a calendar month or ends on a day other than the last day of a calendar month, then the Rent for such period shall be prorated on the basis of a thirty (30) day month. Provided that Tenant is not then in default under this Lease beyond any applicable notice and cure period, monthly installments of Basic Rent shall be abated by fifty percent (50%) for months two (2) through fifteen (15) of the Initial Term ("Abatement Period") (such that the Basic Rent payable during such months is at a rate of $1.87 per Rentable Square Foot per month). All other terms and provisions of this Lease shall apply to the Premises both during the Abatement Period and thereafter.

5.2 Additional Rent. In addition to the Basic Rent, Tenant agrees to pay as Additional Rent (defined below) the amount of Rent adjustments and other charges required by this Lease. Other charges to be paid by Tenant hereunder, including, without limitation, payments for Operating Expenses, Real Property Taxes, insurance, insurance deductibles and repairs shall be considered "Additional Rent" for purposes of this Lease. The term "Rent" as used in this Lease shall mean Basic Rent and Additional Rent and all other amounts payable by Tenant pursuant to this Lease. When no other time is stated herein for payment, payment of any amount due from Tenant to Landlord hereunder shall be made within ten (10) business days after Tenant's receipt of Landlord's invoice or statement therefor. All Rent shall be paid to Landlord, without prior demand and without any deduction or offset except as specified herein, in lawful money of the United States of America, at the address designated in Section 1.2 hereof or to such other person or at such other place as Landlord may from time to time designate in writing.

5.3 Late Payment. If Tenant fails to pay any installment of Rent when due or in the event Tenant fails to make any other payment for which Tenant is obligated under this Lease when due, such late amount shall accrue interest and Tenant shall pay Landlord as Additional Rent interest on such amount at an annual rate ("Default Rate") equal to the lesser of: (a) the then prevailing prime rate of Bank of America NT & SA ("Prime Rate") plus six (6) percentage points or (b) the maximum rate permitted by law from the date such amount became due until such amount is paid. If the format or components of the Prime Rate are materially changed, or if the Prime Rate ceases to exist, Landlord shall substitute a prime rate or alternative base rate of interest that is maintained by the Bank of America NT & SA or similar financial institution which Landlord determines in its reasonable business judgment. In addition to said interest, Tenant shall pay to Landlord concurrently with any installment of Rent, or other payment, not paid within five (5) days of the date upon which it is due, and Landlord may demand same from Tenant, as Additional Rent, a late charge equal to eight percent (8%) of the late amount to compensate Landlord for the extra costs incurred as a result of such late payment. THE PARTIES AGREE THAT ANY SUCH LATE PAYMENT MAY CAUSE LANDLORD TO INCUR ADMINISTRATIVE COSTS AND OTHER DAMAGE, THE EXACT AMOUNT OF WHICH WOULD BE IMPRACTICABLE OR EXTREMELY DIFFICULT TO ASCERTAIN, AND THAT SUCH INTEREST AND LATE CHARGE REPRESENT A FAIR AND REASONABLE ESTIMATE OF THE DETRIMENT THAT LANDLORD WILL SUFFER BY REASON OF LATE PAYMENT BY TENANT. Acceptance of any such interest and late charge shall not constitute a waiver of any Tenant Default with respect to the overdue amount, or prevent Landlord from exercising any of the other rights and remedies available to Landlord hereunder or at law.

5.4 Additional Late Payment Remedies. If any payment of Rent made by check, draft or money order is returned to Landlord due to insufficient funds, or otherwise, Landlord shall have the right, at any time thereafter and upon Notice (defined below) to Tenant, to require Tenant to make all subsequent payments of Rent by cashier's or certified check. Any payment returned to Landlord shall be subject to a handling charge of $50.00. If Tenant fails to pay an installment of Basic Rent within ten (10) days following the date the same is due on any three (3) or more occasions during any twelve (12) month period, Landlord shall have the right, in addition to any other

rights or remedies it may have hereunder or at law, to require Tenant thereafter to pay installments of Basic Rent quarterly in advance.

ARTICLE 6

RENT ADJUSTMENT

6.1 Definitions. For the purposes of this Lease, the following terms shall be defined as follows:

6.1.1. **Operating Expenses**: "Operating Expenses" shall consist of all costs of operation, management, ownership, insurance, maintenance and repair of the Project, including without limitation the Building, the Common Areas and all other portions of the Project. Operating Expenses shall include, without limitation, the following: (a) any and all non-tax assessments payable by Landlord for, or costs or expenses incurred by Landlord in connection with, the Building or the Project pursuant to any covenants, conditions or restrictions, reciprocal easement agreements, tenancy-in-common agreements or similar restrictions and agreements affecting the Building or the Project; (b) assessments and any taxes or assessments hereafter imposed in lieu thereof; (c) Rent taxes and gross receipts taxes (whether assessed against Landlord or assessed against Tenant and paid by Landlord, or both); (d) water and sewer charges; (e) accounting, legal and other consulting fees incurred by Landlord in connection with the Project or any portion thereof; (f) the net cost and expense of insurance, and any associated insurance deductibles, for which Landlord and/or the owner(s) and/or the operator(s) of the Project is (are) responsible or any first mortgagee with a lien affecting the Premises reasonably deems necessary in connection with the operation of the Building or the Project; (g) utilities, including, but not limited to, any and all costs and fees associated with the installation, maintenance, repair, or replacement of intrabuilding network telephone and data cable; (h) janitorial services, security, labor, utilities surcharges or any other costs levied, assessed or imposed by, or at the direction of, or resulting from statutes, including, but not limited to, the Americans with Disabilities Act (42 U.S.C. Section 12101 et seq.), or regulations or interpretations thereof promulgated by, any federal, state, regional, local or municipal governmental authority, agency or subdivision (each, a "Governmental Authority") in connection with the use or occupancy of the Project or any portion thereof; (i) costs and expenses incurred or suffered by Landlord in connection with transportation or energy management programs; (j) the cost (amortized over such period as is customary under sound institutional real estate property management procedures ("Institutional Owner Practices"), together with interest at a rate ("Interest Rate") equal to the Prime Rate plus two (2) percentage points on the enumerated balance): (i) of any capital improvements or replacements intended as labor-saving devices or to effect other economies in the maintenance or operation of, or stability of services to, the Building (including Building Common Areas) or the Project Common Areas by Landlord or by the owner(s) and/or the operator(s) thereof, or (ii) of replacing any equipment, systems or materials needed to operate the Project or any portion thereof at the same quality levels as prior to the improvement or replacement or as mandated by revisions or governmental interpretations of any applicable Laws (defined below) or (iii) which are designed to reduce Operating Expenses or to comply with Laws; (k) costs incurred in the management of the Project, including supplies, materials, equipment, on-site management office rent, wages and salaries of employees used in the management, operation and maintenance thereof, payroll taxes and similar governmental charges with respect thereto, and a Building management fee (not to exceed three percent (3%) of gross receipts, grossed up to reflect ninety-five percent (95%) occupancy if the Building is less than ninety-five percent (95%) occupied; provided, however, that for each calendar year after the first full calendar year of the Initial Term, such management fee shall not increase by more than six percent (6%) over the maximum permitted management fee for the immediately preceding calendar year, on a cumulative, compounding basis and regardless of the actual gross receipts for such preceding year; provided, however, that if the actual gross receipts and corresponding management fee for any calendar year are greater than the maximum amount permitted to be charged to Tenant hereunder, then the difference shall be added to the management fee for succeeding years of the Term until exhausted); (1) all costs and expenses for air-conditioning, waste disposal, heating, ventilating, elevator repair and maintenance, supplies, materials, equipment, and tools incurred in connection with the Project or any portion thereof (except as the same is payable to Landlord by tenants of the Project under their leases for space in the Project); (m) repair and maintenance of the roof and structural portions of the Building and the Common Areas, including the plumbing, heating, ventilating, air conditioning and electrical systems installed or furnished by Landlord; (n) maintenance costs of the Building, the Common Areas and the Project or any portion thereof, including utilities and payroll expenses, rent of personal property used in maintenance and all other upkeep; (o) costs and expenses of gardening and landscaping the Project or any portion thereof; (p) maintenance of signs located in or about the Project (other than Tenant's signs or the signs of other tenants or occupants of the Building who are responsible to maintain their own signs); (q) personal property taxes

levied on or attributable to personal property of Landlord or the owner(s) and/or operator(s) of the Project used in connection with the Project; (r) reasonable audit or verification fees incurred in connection with the Project; and (s) the costs and expenses of repairs (including latent defects), resurfacing, maintenance, painting, lighting, cleaning, refuse removal, security and similar items incurred with respect to the Project, including appropriate reserves.

Operating Expenses shall not include: (A) depreciation on the Building or equipment therein; (B) Landlord's executive salaries (above building manager); (C) real estate broker's commissions; (D) legal fees and disbursements incurred for collection of tenant accounts or negotiation of leases, or relating to disputes between Landlord and other tenants and occupants of the Building or Project; (E) the cost of any capital improvements unless specifically permitted by this Section 6.1.1, parts (a) through (s), inclusive; (F) amounts received by Landlord on account of proceeds of insurance to the extent the proceeds are reimbursement for expenses which were previously included in Operating Expenses; (G) payments of principal and interest on any mortgages upon the Project or Building; (H) payments of ground rent pursuant to any ground lease covering the Project or Building; (I) the costs of gas, steam or other fuel; operation of elevators and security systems; heating, cooling, air conditioning and ventilating; chilled water, hot and cold domestic water, sewer and other utilities or any other service work or facility, or level or amount thereof, provided to any other tenant or occupant in the Project which either (x) is not required to be supplied or furnished by Landlord to Tenant under the provisions of this Lease or (y) is supplied or furnished to Tenant pursuant to the terms of this Lease with separate or additional charge; (J) the cost of providing any service directly to and paid directly by a single individual lessee, or costs incurred for the benefit of a single lessee; (K) costs of any items to the extent Landlord actually receives reimbursement therefor from insurance proceeds, under warranties, or from a lessee or other third party, or which are paid out of reserves previously included in Operating Expenses; (L) costs incurred due to Landlord's breach of a law or ordinance; (M) repairs necessitated by the gross negligence or willful misconduct of Landlord or Landlord's employees, agents, or contractors; (N) Landlord's costs of any services provided to lessees or other occupants for which Landlord is actually reimbursed by such lessees or other occupants as an additional charge or rental over and above the basic rent (and escalations thereof) payable under the lease with such lessee or other occupant; (O) costs in connection with services that are provided to another lessee or occupant of the Project, but are not offered to Tenant; (P) salaries of employees of Landlord above those performing property management and facilities management duties for the Building; (Q) costs or expenses incurred in connection with the financing or sale of the Project or any portion thereof; (R) costs of environmental testing, monitoring, removal or remediation of any Hazardous Materials in the Project that are in existence at the Project prior to the Commencement Date except to the extent caused or exacerbated by Tenant; (S) the costs of acquiring investment-grade art; (T) fines, penalties, interest or other amounts imposed in connection with the Landlord's failure to pay any tax when due; (U) any item that, if included in Operating Expense, would involve a double collection for such item by Landlord; and (V) any cost that is expressly excluded from Operating Expenses in an express provision contained in this Lease.

6.1.2. **Real Property Taxes:** "Real Property Taxes" shall mean and include any form of assessment, re-assessment, license fee, license tax, business license fee, commercial rent tax, levy, charge, penalty, tax or similar imposition, imposed by any authority having the direct power to tax, including any Governmental Authority, or any school, agricultural, lighting, drainage or other improvement or special assessment district thereof, as against any legal or equitable interest of Landlord in the Building, the Premises or the Project, including but not limited to the following:

(A) any tax on Landlord's "right" to other income from the Project or any portion thereof or as against Landlord's business of leasing the Project or any portion thereof;

(B) any assessment, tax, fee, levy or charge in substitution, partially or totally, of any assessment, tax, fee, levy or charge previously included within the definition of real estate tax, including but not limited to, any assessments, taxes, fees, levies and charges that may be imposed by any Governmental Authority for such services as fire protection, street, sidewalk or road maintenance, refuse removal and for other governmental services formerly provided without charge to property owners or occupants, it being the intention of Tenant and Landlord that all such new and increased assessments, taxes, fees, levies and charges be included within the definition of "Real Property Taxes" for the purposes of this Lease;

(C) any assessment, tax, fee, levy or charge allocable to or measured by the area of any premises in the Project or the Rent payable hereunder and under any other leases for premises in the Building, the Parking Area or the Project, including without limitation any gross income tax or excise tax levied by any

Governmental Authority or any political subdivision thereof, with respect to the receipt of such Rent, or upon or with respect to the possession, leasing, operating, management, maintenance, alteration, repair, use or occupancy by tenants of their premises in the Project, or any portion thereof; and

(D) any assessment, tax, fee, levy or charge upon this transaction or any document creating or transferring an interest or an estate in the Project or any portion thereof, or based upon a reassessment of the Project or any portion thereof by virtue of a "change in ownership", and as a result thereof, and to the extent that in connection therewith, the Building is reassessed for real estate tax purposes by the appropriate Governmental Authority pursuant to the terms of Proposition 13 (as adopted by the voters of the State of California in the June, 1978 election, or any successor statute).

Notwithstanding any provision of this Section 6.1.2 expressed or implied to the contrary, "Real Property Taxes" shall not include Landlord's federal or state income, franchise, inheritance or estate taxes or any fines, penalties or interest arising out of a failure by Landlord to pay any Real Property Taxes when due.

6.1.3. **Tenant's Percentage.** "Tenant's Percentage" means the percentage set forth in Section 1.13; provided, however, that Landlord reserves the right from time to time during the Term of this Lease to recalculate Tenant's Percentage, in which case Tenant's Percentage shall mean that numeric figure obtained by dividing the Rentable Square Feet of the Premises, as adjusted pursuant to Section 2.2, by the total Rentable Square Feet of the Building.

6.2 Calculation Methods and Adjustments.

6.2.1. Subject to the provisions of this Section 6.2, all calculations, determinations, allocations and decisions to be made hereunder with respect to Operating Expenses and Real Property Taxes shall be made on a triple net basis in accordance with the good faith determination of Landlord applying sound accounting and property management principles consistently applied which are consistent with Institutional Owner Practices. Landlord shall have the right to equitably allocate some or all Operating Expenses among particular classes or groups of tenants in the Project or Building (for example, retail tenants) to reflect Landlord's good faith determination that measurably different amounts or types of services, work or benefits associated with Operating Expenses, as applicable, are being provided to or conferred upon such classes or groups. All discounts, reimbursements, rebates, refunds, or credits (collectively, "Reimbursements") attributable to Operating Expenses or Real Property Taxes received by Landlord in a particular year shall be deducted from Operating Expenses or Real Property Taxes, as applicable, in the year the same are received; provided, however, if such practice is consistent with Institutional Owner Practices, Landlord may treat Reimbursements generally (or under particular circumstances) on a different basis.

6.2.2. As of the date of this Lease, Tenant shall pay Additional Rent under this Article 6 based on the Operating Expenses and Real Property Taxes for the Project. If the Project at any time contains more than one building, Landlord shall have the right, from time to time, to equitably allocate some or all of the Operating Expenses and/or Real Property Taxes for the buildings comprising the Project among the Building and some or all of the other buildings of the Project. In such event, Landlord shall reasonably determine a method of allocating such Operating Expenses and/or Real Property Taxes attributable to the Building and/or such other building(s) of the Project to the Building and/or such other building(s) and Tenant shall be responsible for paying its proportionate share of such expense(s) which are allocated to the Building. Landlord shall also have the right, from time to time, to require Tenant to pay Tenant's Percentage of Operating Expenses and Real Property Taxes based solely on the Operating Expenses and Real Property Taxes for the Building.

6.3 Payment of Tenant's Percentage of Operating Expenses and Real Property Taxes. This shall be a triple net Lease and Basic Rent shall be paid to Landlord absolutely net of all costs and expenses, except as specifically provided to the contrary in this Lease. The provisions for payment of Tenant's Percentage of Operating Expenses and Tenant's Percentage of Real Property Taxes are intended to pass on to Tenant, and reimburse Landlord for, all costs and expenses of the nature described in Section 6.1 incurred in connection with the ownership, operation, management, insurance, maintenance and repair of the Project. For each calendar year of the Term, Tenant shall pay Tenant's Percentage of the Operating Expenses and Tenant's Percentage of the Real Property Taxes paid or incurred by Landlord for such year as Additional Rent. Tenant shall pay such amounts as follows:

6.3.1. **Estimate of Annual Operating Expenses and Real Property Taxes.** At the beginning of each calendar year, or as soon thereafter as practicable, Landlord shall deliver to Tenant a reasonable estimate

("Estimated Statement") of Tenant's Percentage of Operating Expenses and Tenant's Percentage of Real Property Taxes for the then current calendar year. Landlord may revise its estimates of Tenant's Percentage of Operating Expenses and Tenant's Percentage of Real Property Taxes for any year from time to time in its reasonable discretion, and upon receipt of a revised Estimated Statement, Tenant shall begin making payments under this Section 6.3.1 in accordance with such revised estimates. For each calendar year during the Term of this Lease, or portion thereof, Tenant shall pay to Landlord the estimated Tenant's Percentage of Operating Expenses and the estimated Tenant's Percentage of Real Property Taxes, as specified in the Estimated Statement. These estimated amounts shall be divided into twelve (12) equal monthly installments. Tenant shall pay to Landlord, concurrently with the regular monthly Basic Rent payment next due following the receipt of such an Estimated Statement, an amount equal to one monthly installment multiplied by the number of months from the commencement of the calendar year for which such estimates were prepared to the month of such payment, both months inclusive, less any amounts paid under this Section 6.3.1 after commencement of such calendar year based on the last Estimated Statement delivered by Landlord. Subsequent payments under this Section 6.3.1 shall be payable concurrently with the regular monthly Rent payments for the balance of that calendar year and shall continue until the next Estimated Statement is delivered by Landlord. Failure of Landlord to deliver an Estimated Statement for any calendar year shall not relieve Tenant of its obligation to make estimated payments of Tenant's Percentage of Operating Expenses and Tenant's Percentage of Real Property Taxes under this Section 6.3.1.

6.3.2. **Annual Reconciliation.** At the end of each calendar year or as soon thereafter as practicable Landlord shall deliver to Tenant a statement ("Annual Reconciliation") of (a) the actual annual Operating Expenses and Tenant's Percentage of Operating Expenses for the preceding year, and (b) the actual annual Real Property Taxes and Tenant's Percentage of Real Property Taxes for the preceding year. If for any year, the sum of Tenant's Percentage of Operating Expenses and Tenant's Percentage of Real Property Taxes (as specified in the Annual Reconciliation) is less than the total amount of the estimated payments made by Tenant under Section 6.3.1 above for such year, then any such overpayment, or overpayments, shall be credited toward the monthly Rent next falling due after determination by Landlord of such overpayment or overpayments and shall be paid to Tenant in a lump sum for periods after the expiration of the Term. Similarly, if for any year, the sum of Tenant's Percentage of Operating Expenses and Tenant's Percentage of Real Property Taxes (as specified in the Annual Reconciliation) is more than the total amount of the estimated payments made by Tenant under Section 6.3.1 above for such year, then any such underpayment, or underpayments, shall be paid by Tenant to Landlord concurrently with the next regular monthly Basic Rent payment coming due after Tenant's receipt of the Annual Reconciliation (or if the Term shall have expired or terminated, within thirty (30) days following Tenant's receipt of such Annual Reconciliation).

6.3.3. **Survival of Reconciliation.** Even though the Term shall have expired and Tenant shall have vacated the Premises, when the final determination of Tenant's Percentage of actual annual Operating Expenses, and/or of Tenant's Percentage of actual annual Real Property Taxes, for the year in which this Lease terminates is delivered to Tenant, (a) Tenant shall immediately pay any amounts payable to Landlord under Section 6.3.2 above (as a result of any underpayments by Tenant under Section 6.3.1 above), and/or (b) conversely, Landlord shall promptly rebate any amounts payable to Tenant under Section 6.3.2 (as a result of any overpayments under Section 6.3.1 above) provided that no Tenant Default existed at the expiration or earlier termination of this Lease.

6.4 Review of Annual Reconciliation. Provided that Tenant is not then in default with respect to its obligations under this Lease and provided further that Tenant strictly complies with the provisions of this Section 6.4, Tenant shall have the right, at Tenant's sole cost and expense and upon thirty (30) days prior Notice ("Review Notice") to Landlord delivered no later than sixty (60) days after an Annual Reconciliation is delivered to Tenant, to reasonably review or audit Landlord's supporting books and records (at Landlord's manager's corporate offices) for any portion of the Operating Expenses or Real Property Taxes for the particular year covered by such Annual Reconciliation, in accordance with the procedures set forth in this Section 6.4. To the extent that any amounts specified in such Annual Reconciliation were not previously paid, Tenant shall pay all such amounts to Landlord simultaneously with Tenant's delivery the Review Notice. Except as expressly provided herein, any review or audit of records under this Section 6.4 shall be at the sole expense of Tenant, shall be conducted by independent certified public accountants of national standing which are not compensated on a contingency fee or similar basis relating to the results of such review or audit and shall be completed within sixty (60) days after Landlord provides Tenant with access to Landlord's supporting books and records. Tenant shall, within thirty (30) days after completion of any such review or audit, deliver Notice to Landlord specifying the items described in the Annual Reconciliation that are claimed to be incorrect by such review or audit ("Dispute Notice"). The right of Tenant under this Section 6.4 may only be exercised once for each year covered by any Annual Reconciliation, and if Tenant fails to deliver a Review

Notice within the sixty (60) day period described above or a Dispute Notice within the thirty (30) day period described above, or if Tenant fails to meet any of the other above conditions of exercise of such right, the right of Tenant to review or audit a particular Annual Reconciliation (and all of Tenant's rights to make any claim relating thereto) under this Section 6.4 shall automatically be deemed waived by Tenant. Tenant acknowledges and agrees that any records of Landlord reviewed or audited under this Section 6.4 (and the information contained therein) constitute confidential information of Landlord, which shall not be disclosed other than to Tenant's accountants performing the review or audit and principals of Tenant who receive the results of the review or audit. If Landlord disagrees with Tenant's contention that an error exists with respect to the Annual Reconciliation in dispute, Landlord shall have the right to cause another review or audit of that portion of the Annual Reconciliation to be made by a firm of independent certified public accountants of national standing selected by Landlord ("Landlord's Accountant"). In the event of a disagreement between the two accounting firms, the review or audit of Landlord's Accountant shall be deemed to be correct and shall be conclusively binding on both Landlord and Tenant. In the event that it is finally determined pursuant to this Section 6.4 that a particular Annual Reconciliation overstated amounts payable by Tenant under this Article 6 with respect to the applicable year by more than five percent (5%), Landlord shall reimburse Tenant for the reasonable costs of Tenant's accountant and Landlord shall be liable for the costs of Landlord's Accountant. In all other cases, Tenant shall reimburse Landlord for the reasonable costs of Landlord's Accountant.

ARTICLE 7

SECURITY DEPOSIT

7.1 Security Deposit. Tenant shall deposit with Landlord, upon delivery to Landlord of a copy of this Lease executed by Tenant, the Security Deposit designated in Section 1.14. Said sum shall be held by Landlord as security for the full and faithful performance by Tenant of all of the terms, covenants and conditions of this Lease to be kept and performed by Tenant during the Term hereof and any extension hereof. Landlord shall have the right, but not the obligation, to apply all or any portion of the Security Deposit for the payment of Rent or any other sum due hereunder, to cure any default by Tenant of its obligations with respect to the restoration and surrender of the Premises or to cure any Tenant Default at any time, in which event Tenant shall be obligated to restore the Security Deposit to its original amount within ten (10) business days, and Tenant's failure to do so shall be deemed to be a Default under this Lease. Tenant hereby irrevocably waives and relinquishes any and all rights, benefits, or protections, if any, Tenant now has, or in the future may have, under Section 1950.7 of the California Civil Code, any successor statute, and all other provisions of law, now or hereafter in effect, including, but not limited to, any provision of law which: (a) establishes the time frame by which a landlord must refund a security deposit under a lease, or (b) provides that a landlord may claim from a security deposit only those sums reasonably necessary to remedy defaults in the payment of Rent, to repair damage caused by a tenant, or to clean the subject premises. Tenant acknowledges and agrees that: (i) any statutory time frames for the return of a security deposit are superseded by the express period identified in this Section 7.1 and (ii) rather than be so limited, Landlord may claim from the Security Deposit: (A) any and all sums expressly identified in this Section 7.1, and (B) any additional sums reasonably necessary to compensate Landlord for any and all losses or damages caused by Tenant's default of this Lease, including, but not limited to, all damages or Rent due upon termination of this Lease pursuant to Section 1951.2 of the California Civil Code, as amended and recodified from time to time. Landlord shall not be required to keep the Security Deposit separate from its general funds, and Tenant shall not be entitled to interest on such Security Deposit. Within thirty (30) days following the expiration of the Term, Landlord shall (provided that Tenant is not in Default under this Lease) return the Security Deposit to Tenant, less such portion as Landlord shall have applied in accordance with this Section 7.1. Should Landlord sell its interest in the Premises during the Term hereof and if Landlord deposits with (or gives a credit to) the purchaser thereof the then balance of the Security Deposit held by Landlord, Landlord shall be released from any further liability with respect to the Security Deposit.

7.2 Lease Guaranty. As a condition precedent to the effectiveness of this Lease, Tenant shall deliver to Landlord a Lease Guaranty in the form of Exhibit "D-1" executed by Guarantor concurrently with the execution and delivery of this Lease.

7.3 Letter of Credit. If at any time during the Term Guarantor's annual earnings before interest, taxes, depreciation and amortization ("EBITDA") is less than Twenty Million Dollars ($20,000,000.00), Tenant shall immediately deliver Notice thereof to Landlord and, within ten (10) business days thereafter, Tenant shall deposit with Landlord the Letter of Credit (as defined in Exhibit "D-2") in the Letter of Credit Amount as set forth in

Section 1.14. The Letter of Credit shall be provided by Guarantor as the applicant thereunder and shall comply with the requirements of Exhibit "D-2" attached hereto and incorporated by reference herein. If Tenant fails to provide such Letter of Credit within the ten (10) business day period set forth above, such failure shall be deemed a Tenant Default, without notice or opportunity to cure. Tenant shall deliver to Landlord a certified earnings report for Guarantor ("Earnings Report") within ten (10) business days after the Commencement Date and thereafter within ten (10) business days after Landlord's written request therefor (or as soon as reasonably practicable after the preparation of same by Guarantor), which request shall not be made more frequently than once in any consecutive twelve (12) month period unless Tenant is in default under this Lease. The Earnings Report shall include Guarantor's then current EBITDA; however, delivery of such Earnings Report shall not relieve Tenant of the obligation to immediately notify Landlord in writing if Guarantor's EBITDA is less than Twenty Million Dollars ($20,000,000.00).

ARTICLE 8

USE

8.1 General. Tenant shall use the Premises for the Permitted Use set forth in Section 1.16 above, and shall not use or permit the Premises to be used for any other purpose without the prior written consent of Landlord. Nothing contained herein shall be deemed to give Tenant any exclusive right to such use in the Project or any portion thereof (excluding only the Premises).

8.2 Laws/CC&R's.

8.2.1. Tenant shall not use or occupy the Premises in violation of any applicable laws, regulations, rules, orders, statutes or ordinances of any Governmental Authority, office, board or private entity in effect on or after the Effective Date and applicable to the Project or the use or occupancy of the Project, including, without limitation, the rules, regulations and requirements of the Pacific Fire Rating Bureau, and of any similar body, the Americans with Disabilities Act (42 U.S.C. Section 12101 et seq.) ("ADA") and Hazardous Material Laws (as defined in Section 8.3.7 below) (collectively, "Laws") or in violation of any government-issued permit for the Building or Project or any of the Rules and Regulations (as defined below), and shall, upon Notice from Landlord, discontinue any use of the Premises which is declared by any Governmental Authority having jurisdiction to be a violation of any Laws, or of any government-issued permit for the Building or Project. On or before the Commencement Date, Landlord shall cause the Building and the Premises to comply with all applicable Laws (including, but not limited to, any obligation imposed pursuant to the ADA). Except as expressly set forth in the immediately preceding sentence, Tenant shall cause the Premises to comply with all applicable Laws and shall comply with any direction of any Governmental Authority having jurisdiction which shall, by reason of the nature of Tenant's use or occupancy of the Premises, impose any obligation (including, but not limited to, any obligation imposed pursuant to the ADA as a result of Tenant's particular use of the Premises), upon Tenant or Landlord with respect to the Premises or with respect to the use or occupancy thereof; provided, however, unless resulting from an Alteration performed by Tenant or by Tenant's specific use of the Premises (as opposed to general office and laboratory/research and development use), Tenant shall not be responsible for any obligation imposed by the ADA after completion of the initial Tenant Improvements with respect to the Common Areas (except its prorata share of compliance costs included in Operating Expenses). Tenant shall comply with all rules, orders, regulations and requirements of the Pacific Fire Rating Bureau or any other organization performing a similar function. Tenant shall not do or permit to be done in or about the Premises anything which causes the insurance on the Premises, the Building or the Project or any portion thereof to be canceled or the cost thereof increased. Tenant shall promptly, upon demand, reimburse Landlord for any additional premium charged for any insurance policy by reason of Tenant's failure to comply with the provisions of this Section 8.2. In determining whether increased premiums are a result of Tenant's use of the Premises, a schedule issued by the organization computing the insurance rate on the Project or the Tenant Improvements showing the various components of such rate shall be conclusive evidence of the several items and charges which make up such rate. Tenant shall promptly comply with all reasonable requirements of the insurance authority or any present or future insurer relating to the Premises. Tenant shall not do or permit anything to be done in or about the Premises which will in any way obstruct or interfere with the rights of Landlord or other tenants or occupants of the Building, the Parking Area or the Project, or injure or unreasonably annoy them, or use or allow the Premises to be used for any improper, immoral, unlawful or objectionable purpose, nor shall Tenant cause, maintain or permit any legal nuisance in or about the Premises or the Project. Tenant shall comply with all restrictive covenants and obligations created by private contracts that affect the use and operation of

the Premises, the Building, the Common Areas or any other portion of the Project. Tenant shall not commit or suffer to be committed any waste in or upon the Premises or the Project and shall keep the Premises in first class repair and appearance. If any governmental license or permit shall be required for the proper and lawful conduct of Tenant's business in the Premises, Tenant, at its expense, shall procure, maintain and comply with the terms and conditions of each such license or permit.

Without limiting the generality of the foregoing:

(A) Landlord and Tenant agree to cooperate, and Tenant shall use its commercially reasonable efforts to participate in governmentally mandated regulations or voluntary traffic management programs applicable to businesses located in the area or to the Project. Neither this Section 8.2.1(A) nor any other provision of this Lease, however, is intended to or shall create any rights or benefits in any other person, firm, company, Governmental Authority or the public. Upon Tenant's failure to comply with this Section 8.2.1(A), Landlord may suspend Tenant's parking privileges in addition to taking such other remedies as may be available to a landlord against a defaulting tenant.

(B) Landlord and Tenant agree to cooperate and comply with any and all guidelines or controls imposed upon either Landlord or Tenant by any Governmental Authority or by any energy conservation association to which Landlord is a party concerning energy management

(C) All costs, fees, assessments and other charges paid by Landlord to any Governmental Authority or voluntary association in connection with any program of the types described in Sections 8.2.1(A) and 8.2.1(B) above, and all costs and fees paid by Landlord to any Governmental Authority or third party pursuant to or to effect such program, shall be included in Operating Expenses for the purposes of Article 6, whether or not specifically listed in such Article 6.

(D) Tenant shall be liable for all penalties, noncompliance costs or other losses, costs or expenses incurred by Landlord primarily as a result of Tenant's failure to comply with any of the provisions of Sections 8.2.1(A) through 8.2.1(C) above. Any such amount shall be payable by Tenant to Landlord within ten (10) business days after Landlord's demand therefor as Additional Rent. Failure of Tenant to pay any amount due pursuant to this Section 8.2.1(D) when due shall be deemed a Tenant Default pursuant to this Lease.

8.2.2. Tenant shall be responsible for all structural engineering reasonably required to determine structural load for any of Tenant's furniture, fixtures, equipment, other personal property, Alterations and Tenant Improvements; provided that Landlord reserves the right to prescribe the weight and position of all file cabinets, safes and heavy equipment which Tenant desires to place in the Premises so as to properly distribute the weight thereof. Further, Tenant's business machines and mechanical equipment which cause vibration or noise that may be transmitted to the Building structure or to any other space in the Building shall be so installed, maintained and used by Tenant as to eliminate such vibration or noise.

8.3 Hazardous Materials.

8.3.1. Tenant shall not cause or permit any Hazardous Materials (as defined in Section 8.3.7 below) to be brought upon, kept or used in or about the Premises, the Building or the Project in violation of applicable Laws by Tenant or any of its employees, agents, representatives, contractors or invitees (collectively with Tenant, each a "Tenant Party"). If (a) Tenant breaches such obligation, (b) the presence of Hazardous Materials as a result of such a breach results in contamination of the Project, any portion thereof, or any adjacent property, (c) contamination of the Premises otherwise occurs during the Term or any extension or renewal hereof or holding over hereunder or (d) contamination of the Project occurs as a result of Hazardous Materials that are placed on or under or are released into the Project by a Tenant Party, then Tenant shall indemnify, save, defend (at Landlord's option and with counsel reasonably acceptable to Landlord) and hold the Landlord Indemnified Parties (as defined in Section 22.1.2 below) harmless from and against any and all Claims (as defined in Article 20 below) of any kind or nature, including (i) diminution in value of the Project or any portion thereof, (ii) damages for the loss or restriction on use of rentable or usable space or of any amenity of the Project, (iii) damages arising from any adverse impact on marketing of space in the Project or any portion thereof and (iv) sums paid in settlement of Claims that arise before, during or after the Term as a result of such breach or contamination. This indemnification by Tenant includes costs incurred in connection with any investigation of site conditions or any clean-up, remedial, removal or restoration work required by any Governmental Authority because of Hazardous Materials present in the air, soil or

groundwater above, on, under or about the Project. Without limiting the foregoing, if the presence of any Hazardous Materials in, on, under or about the Project, any portion thereof or any adjacent property caused or permitted by any Tenant Party results in any contamination of the Project, any portion thereof or any adjacent property, then Tenant shall promptly take all actions at its sole cost and expense as are necessary to return the Project, any portion thereof or any adjacent property to its respective condition existing prior to the time of such contamination; provided that Landlord's written approval of such action shall first be obtained, which approval Landlord shall not unreasonably withhold; and provided, further, that it shall be reasonable for Landlord to withhold its consent if such actions could have a material adverse long-term or short-term effect on the Project, any portion thereof or any adjacent property. Tenant's obligations under this Section shall not be affected, reduced or limited by any limitation on the amount or type of damages, compensation or benefits payable by or for Tenant under workers' compensation acts, disability benefit acts, employee benefit acts or similar legislation. Notwithstanding anything to the contrary in this Lease, Tenant shall have no liability, responsibility, duty or obligation for any Hazardous Materials conditions existing as of the Commencement Date to the extent not caused, contributed to or exacerbated by a Tenant Party.

8.3.2. Landlord acknowledges that it is not the intent of this Article to prohibit Tenant from operating its business for the Permitted Use. Tenant may operate its business according to the custom of Tenant's industry so long as the use or presence of Hazardous Materials is strictly and properly monitored in accordance with applicable Laws. As a material inducement to Landlord to allow Tenant to use Hazardous Materials in connection with its business, Tenant agrees to deliver to Landlord (a) a list identifying each type of Hazardous Material to be present at the Premises that is subject to regulation under any environmental applicable Laws (other than customary quantities of typical office and cleaning supplies, provided no permits or approvals from, and no notice or disclosure to, any Governmental Authorities is required in connection with the presence of such supplies at the Premises), (b) a list of any and all approvals or permits from Governmental Authorities required in connection with the presence of such Hazardous Material at the Premises and (c) correct and complete copies of (i) notices of violations of applicable Laws related to Hazardous Materials and (ii) plans relating to the installation of any storage tanks to be installed in, on, under or about the Project (provided that installation of storage tanks shall only be permitted after Landlord has given Tenant its written consent to do so, which consent Landlord may withhold in its sole and absolute discretion) and closure plans or any other documents required by any and all Governmental Authorities for any storage tanks installed in, on, under or about the Project for the closure of any such storage tanks (collectively, "Hazardous Materials Documents"). Tenant shall deliver to Landlord updated Hazardous Materials Documents, within fourteen (14) days after receipt of a written request therefor from Landlord, not more often than once per year, unless (m) there are any changes to the Hazardous Materials Documents or (n) Tenant initiates any Alterations or changes its business, in either case in a way that involves any material increase in the types or amounts of Hazardous Materials. For each type of Hazardous Material listed, the Hazardous Materials Documents shall include (t) the chemical name, (u) the material state (e.g., solid, liquid, gas or cryogen), (v) the concentration, (w) the storage amount and storage condition (e.g., in cabinets or not in cabinets), (x) the use amount and use condition (e.g., open use or closed use), (y) the location (e.g., room number or other identification) and (z) if known, the chemical abstract service number. Notwithstanding anything in this Section to the contrary, Tenant shall not be required to provide Landlord with any Hazardous Materials Documents containing information of a proprietary nature, which Hazardous Materials Documents, in and of themselves, do not contain a reference to any Hazardous Materials or activities related to Hazardous Materials. Landlord may, at Landlord's expense, cause the Hazardous Materials Documents to be reviewed by a person or firm qualified to analyze Hazardous Materials to confirm compliance with the provisions of this Lease and with applicable Laws. In the event that a review of the Hazardous Materials Documents indicates non-compliance with this Lease or applicable Laws, Tenant shall, at its expense, diligently take steps to bring its storage and use of Hazardous Materials into compliance. Notwithstanding anything in this Lease to the contrary or Landlord's review into Tenant's Hazardous Materials Documents or use or disposal of hazardous materials, however, Landlord shall not have and expressly disclaims any liability related to Tenant's or other tenants' use or disposal of Hazardous Materials, it being acknowledged by Tenant that Tenant is best suited to evaluate the safety and efficacy of its Hazardous Materials usage and procedures.

8.3.3. At any time, and from time to time, Landlord shall have the right to conduct appropriate tests of the Project or any portion thereof to demonstrate that Hazardous Materials are present or that contamination has occurred due to the acts or omissions of a Tenant Party. Tenant shall pay all reasonable costs of such tests if such tests reveal that Hazardous Materials exist at the Project in violation of Tenant's obligations under this Lease.

8.3.4. Tenant shall not install or utilize any underground or other storage tanks storing Hazardous Materials on the Premises without Landlord's prior written consent, which consent may be withheld in

Landlord's sole and absolute discretion. Subject to the foregoing, if underground or other storage tanks storing Hazardous Materials installed or utilized by Tenant are located on the Premises, or are hereafter placed on the Premises by Tenant (or by any other party, if such storage tanks are utilized by Tenant), then Tenant shall monitor the storage tanks, maintain appropriate records, implement reporting procedures, properly close any underground storage tanks, and take or cause to be taken all other steps necessary or required under the applicable Laws.

8.3.5. Tenant shall promptly report to Landlord any actual or suspected presence of toxic or potentially toxic mold or water intrusion at the Premises of which Tenant has notice.

8.3.6. Tenant's obligations under this Section 8.3 shall survive the expiration or earlier termination of the Lease. During any period of time needed by Tenant or Landlord after the termination of this Lease to complete the removal from the Premises of any Hazardous Materials, Tenant shall be deemed a holdover tenant and subject to the provisions of Section 8.3.

8.3.7. As used in this Lease, the term "Hazardous Material" means any toxic, explosive, corrosive, flammable, infectious, radioactive, carcinogenic, mutagenic or otherwise hazardous substance, material or waste that is or becomes regulated by applicable Laws or any Governmental Authority, and the term "Hazardous Material Laws" means and includes all now and hereafter existing statutes, laws, ordinances, codes, regulations, rules, rulings, orders, decrees, directives, policies and requirements by any federal, state or local governmental authority regulating, relating to, or imposing liability or standards of conduct concerning public health and safety, the environment or any Hazardous Material, including, without limitation, the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (42 U.S.C. Section 9601 et seq.), Resource Conservation and Recovery Act, as amended (42 U.S.C. Section 6901 et seq.), and California Health and Safety Code (Sections 25100, 25249.5, 25316 and 39000, et seq. in each case).

8.3.8. Notwithstanding anything to the contrary in this Lease, Landlord shall have sole control over the equitable allocation of control areas (as defined in the California Building Standards Code) within the Project for the storage of Hazardous Materials. Without limiting the foregoing, if the use of Hazardous Materials by Tenant is such that Tenant utilizes fire control areas in the Project in excess of Tenant's Percentage of the Building or the Project, as applicable, then Tenant shall, at its sole cost and expense and upon Landlord's written request, establish and maintain a separate area of the Premises classified by the California Building Standards Code as a "Group H" occupancy area for the use and storage of Hazardous Materials, or take such other action as is necessary to ensure that its share of the fire control areas of the Building and the Project is not greater than Tenant's Percentage of the Building or the Project, as applicable. Notwithstanding anything in this Lease to the contrary, Landlord shall not have and expressly disclaims any liability related to Tenant's or other tenants' use or disposal of fire control areas, it being acknowledged by Tenant that Tenant and other tenants are best suited to evaluate the safety and efficacy of its Hazardous Materials usage and procedures.

8.4 Odors and Exhaust. Tenant acknowledges that Landlord would not enter into this Lease with Tenant unless Tenant assured Landlord that under no circumstances will any other occupants of the Building or the Project (including persons legally present in any outdoor areas of the Project) be subjected to odors or fumes (whether or not noxious), and that the Building and the Project will not be damaged by any exhaust, in each case from Tenant's operations. Landlord and Tenant therefore agree as follows:

8.4.1. Tenant shall not cause or permit (or conduct any activities that would cause) any release of any odors or fumes of any kind from the Premises.

8.4.2. If the Building has a ventilation system that, in Landlord's judgment, is adequate, suitable, and appropriate to vent the Premises in a manner that does not release odors affecting any indoor or outdoor part of the Project, Tenant shall vent the Premises through such system. If Landlord at any time determines that any existing ventilation system is inadequate, or if no ventilation system exists, Tenant shall in compliance with applicable Laws vent all fumes and odors from the Premises (and remove odors from Tenant's exhaust stream) as Landlord requires. The placement and configuration of all ventilation exhaust pipes, louvers and other equipment shall be subject to Landlord's approval. Tenant acknowledges Landlord's legitimate desire to maintain the Project (indoor and outdoor areas) in an odor-free manner, and Landlord may require Tenant to abate and remove all odors in a manner that goes beyond the requirements of applicable Laws.

8.4.3. Tenant shall, at Tenant's sole cost and expense, provide odor eliminators and other devices (such as filters, air cleaners, scrubbers and whatever other equipment may in Landlord's judgment be necessary or appropriate from time to time) to completely remove, eliminate and abate any odors, fumes or other substances in Tenant's exhaust stream that, in Landlord's judgment, emanate from Tenant's Premises. Any work Tenant performs under this Section shall constitute Alterations.

8.4.4. Tenant's responsibility to remove, eliminate and abate odors, fumes and exhaust shall continue throughout the Term. Landlord's construction of the Tenant Improvements shall not preclude Landlord from requiring additional measures to eliminate odors, fumes and other adverse impacts of Tenant's exhaust stream (as Landlord may designate in Landlord's discretion). Tenant shall install additional equipment as Landlord requires from time to time under the preceding sentence. Such installations shall constitute Alterations.

8.4.5. If Tenant fails to install satisfactory odor control equipment within ten (10) business days after Landlord's demand made at any time, then Landlord may, without limiting Landlord's other rights and remedies, require Tenant to cease and suspend any operations in the Premises that, in Landlord's determination, cause odors, fumes or exhaust. For example, if Landlord determines that Tenant's production of a certain type of product causes odors, fumes or exhaust, and Tenant does not install satisfactory odor control equipment within ten (10) business days after Landlord's request, then Landlord may require Tenant to stop producing such type of product in the Premises unless and until Tenant has installed odor control equipment satisfactory to Landlord.

ARTICLE 9

MOLD

Tenant agrees to use commercially reasonable efforts to maintain the Premises in a manner that prevents the occurrence of an infestation of toxic, or potentially toxic, mold, mildew, microbial growths, and any associated mycotoxins in the Premises, and shall comply, at a minimum, with the following: (a) Tenant agrees to immediately fix/abate any water intrusion in the Premises to the extent such action is required to be undertaken by Tenant pursuant to its maintenance obligations under this Lease, or, if not within Tenant's maintenance obligations, then Tenant agrees to immediately notify Landlord of any such water intrusion; (b) Tenant agrees to use all reasonable care to close all windows and other openings in the Premises to prevent outdoor water from penetrating into the interior unit; (c) Tenant agrees to clean and dry any visible moisture on windows, walls, and other surfaces, including personal property, as soon as reasonably possible after discovery; (d) Tenant agrees to keep the Premises free of dirt and debris that could reasonably be expected to harbor mold; (e) Tenant agrees to regularly clean and sanitize kitchens and other surfaces within the Premises where water, moisture condensation, and mold could reasonably be expected to collect; (f) Tenant agrees not to interfere with regular air flow and circulation throughout the Premises; (g) Tenant agrees to limit the indoor watering of plants; (h) Tenant agrees to use commercially reasonable efforts to prevent the overflow or release of water from bathrooms or kitchens, including but not limited to toilets, sinks, kitchen appliances, and other receptacles of water; (i) Tenant agrees not to obstruct fresh air supply to furnace, air conditioner or heater ducts; (j) Tenant agrees to maintain and not obstruct ventilation at all locations in the Premises; (k) Tenant agrees to use commercially reasonable efforts to prevent the clogging of all plumbing within the Premises; (l) Tenant agrees not to engage in any conduct that would reasonably be expected to promote or create mold growth; (m) Tenant agrees to report, within forty-eight (48) hours after Tenant discovery, the following to Landlord: (i) any non-working fan, heater, air conditioner or ventilation system; (ii) plumbing leaks, drips, sweating pipes, wet spots; (iii) overflows from bathroom, kitchen, or other facilities, including, but not limited to, tubs, showers, shower enclosures, toilets, sinks, kitchen appliances, or other receptacles of water, especially in cases where the overflow may have permeated walls, floors, ceilings or fixtures; (iv) water intrusion of any kind; (v) any mold or black or brown spots or moisture on surfaces inside the Premises; (vi) broken plumbing systems or standing water near structures within the Premises; and (vii) any odors consistent with mold growth within the Premises. Tenant agrees not to commence any mold investigation, testing, remediation or repair without first obtaining the prior written consent of Landlord. If Landlord consents to any mold investigation, remediation or repair by Tenant, Tenant agrees to not use any methods of mold investigation, testing, remediation and repair that are speculative and not generally accepted within the scientific community, and Landlord reserves the right to approve any and all third parties retained by Tenant to conduct any such mold investigation, testing, remediation and repair. As of the Effective Date such speculative and generally unaccepted methods of investigation, testing, remediation and repair include: (A) any use of settled dust vacuum sampling; (B) any use of interior wall cavity air sampling; (C) Tenant's

use of do-it-yourself mold investigation kits; and (D) use of any other methods that have not been peer reviewed and generally accepted within the scientific community.

ARTICLE 10

NOTICES

10.1 Method of Delivery. Any notice, consent, approval or objection required or permitted by this Lease (a "Notice") shall be in writing and may be delivered: (a) in person (by hand or by messenger or courier service) or (b) by certified or registered mail or United States Postal Service Express Mail, with postage prepaid, or (c) by a nationally recognized overnight delivery service that provides delivery verification, or (d) by facsimile transmission, addressed to Tenant at the Premises and to Landlord at each of the addresses designated in Section 1.2, and shall be deemed sufficiently given if served in a manner specified in this Article 10. Either party may specify a different address for Notice purposes by Notice to the other.

10.2 Receipt of Notices. Any Notice sent by registered or certified mail, return receipt requested, shall be deemed given on the date of delivery shown on the receipt card, or if no delivery date is shown, the postmark thereon. Notices delivered by United States Postal Service Express Mail or overnight delivery service that guarantees next day delivery shall be deemed given on the next business day after delivery of the same to the United States Postal Service or overnight delivery service. If any Notice is transmitted by facsimile transmission or similar means, the same shall be deemed served or delivered upon telephone confirmation of receipt of the transmission thereof, provided a copy is also delivered on or before the next business day via one of the methods in Section 10.l(a)-(c) above. If any Notice is received on a Saturday, Sunday or legal holiday, it shall be deemed received on the next business day.

10.3 Statutory Service of Notice. When a statute permits, or requires, service of a notice in a particular manner, service of that notice (or a similar Notice permitted, or required, by this Lease) in the manner permitted, or required, by this Article 10 shall replace and satisfy the statutory service-of-notice procedures, including, but not limited to, those required by California Code of Civil Procedure Section 1162, or any similar or successor statute.

ARTICLE 11

BROKERS

Tenant warrants that it has had no dealings with any real estate broker, finder or agent in connection with the negotiation of this Lease except for the broker(s) whose name(s) is (are) set forth in Section 1.16, whose commission shall be payable by Landlord pursuant to one or more separate agreements, and that it knows of no other real estate broker, finder or agent who is or might be entitled to a commission in connection with this Lease. Tenant shall be solely responsible for the payment of any fee due to any other broker, finder, agent or other party claiming under Tenant, and shall hold Landlord free and harmless against any liability in respect thereto, including attorneys' fees and costs incurred by Landlord in connection therewith.

ARTICLE 12

HOLDING OVER

If Tenant holds over after the expiration or earlier termination of the Term hereof without the express written consent of Landlord, Tenant shall become a Tenant at sufferance, at a Basic Rent equal to one hundred fifty percent (150%) of the Rent payable during the last month of the Term, and otherwise subject to the terms, covenants and conditions herein specified, so far as applicable. Acceptance by Landlord of Rent after such expiration or earlier termination without Landlord's prior written consent shall not waive Landlord's right to evict Tenant without thirty (30) days prior written notice. The foregoing provisions of this Article 12 are in addition to and do not affect Landlord's right of reentry or any rights of Landlord hereunder or as otherwise provided by law. If Tenant fails to surrender the Premises upon the expiration or earlier termination of this Lease, Tenant shall indemnify, defend and hold Landlord harmless from all Claims, including, without limitation, any claim made by any succeeding tenant founded on or resulting from such failure to surrender, lost profits and other consequential damages, and any and all

attorneys' fees and costs incurred by Landlord in connection Tenant's failure to surrender the Premises in accordance with the provisions of this Lease on the expiration or earlier termination of this Lease.

ARTICLE 13

TAXES ON TENANT'S PROPERTY

13.1 Personal Property and Fixtures. Tenant shall be liable for and shall pay, at least ten (10) days before delinquency, all taxes levied against any of Tenant's Personal Property (defined below) placed by Tenant or any Tenant Party in or about the Premises. If any such taxes on Tenant's Personal Property are levied against Landlord or Landlord's property, or if the assessed value of the Premises, Building or Project is increased by the inclusion therein of a value placed upon such Tenant's Personal Property, and if Landlord, after Notice to Tenant, pays the taxes based upon such increased assessment, which Landlord shall have the right to do regardless of the validity thereof (but only under proper protest if so requested by Tenant), Tenant shall, upon demand, repay to Landlord the taxes so levied against Landlord, or the portion of such taxes resulting from such increase in the assessment.

13.2 Tenant Improvements. If the Leasehold Improvements (defined below) in the Premises, whether installed and/or paid for by Landlord or Tenant and whether or not affixed to the real property so as to become a part thereof, are assessed for real property tax purposes at a valuation higher than the valuation at which tenant improvements conforming to Landlord's "Building Standard Improvements" (as defined in the Work Letter Agreement) for other space in the Building are assessed, then the real property taxes and assessments levied against the Building or Project by reason of such excess assessed valuation shall be deemed to be taxes levied against Tenant's Personal Property and shall be governed by the provisions of Section 13.1 above. If the records of the County Assessor are available and sufficiently detailed to serve as a basis for determining whether the Leasehold Improvements are assessed at a higher valuation than Landlord's "Building Standard Improvements", such records shall be binding on both Landlord and Tenant. If the records of the County Assessor are not available or sufficiently detailed to serve as a basis for making said determination, the actual cost of construction shall be used.

13.3 Additional Taxes. Tenant shall pay to Landlord, within ten (10) days of Landlord's demand therefor, and in such manner and at such times as Landlord shall direct from time to time by written notice to Tenant, any excise, sales, privilege or other tax, assessment or other charge (other than income or franchise taxes) imposed, assessed or levied by any Governmental Authority upon Landlord on account of: (a) the Rent payable by Tenant hereunder (or any other benefit received by Landlord hereunder), including, without limitation, any gross receipts tax, license fee or excise tax levied by any Governmental Authority, (b) this Lease, Landlord's business as a lessor hereunder, and the possession, leasing, operation, management, maintenance, alteration, repair, use or occupancy of any portion of the Premises (including, without limitation, any applicable possessory interest taxes), (c) this transaction or any document to which Tenant is a party creating or transferring an interest or an estate in the Premises, or (d) otherwise in respect of or as a result of the agreement or relationship of Landlord and Tenant hereunder.

ARTICLE 14

CONDITION OF PREMISES

14.1 As Is. Tenant acknowledges and agrees that, except with respect to the Landlord Work: (a) Tenant has inspected, or has had the opportunity to inspect, the Project, the Building and the Premises and, subject to Landlord's obligations under this Lease, acknowledges that the same are acceptable for Tenant's intended use and agrees to accept them in their "AS IS, WHERE IS" condition, (b) except as expressly provided in this Lease, neither Landlord nor any agent of Landlord has made any representation or warranty with respect to the Premises, the Building, the Parking Area or any other portion of the Project or with respect to the condition thereof or the suitability of the same for the conduct of Tenant's business, (c) except as expressly provided in the Work Letter Agreement and Section 16.2 below, and subject to the express representations and warranties of Landlord set forth in this Lease, Landlord shall have no obligation to alter, remodel, improve, repair, decorate or paint the Premises or any part thereof, or any portion of the Building or Project and (d) except as expressly provided in this Lease, Landlord shall have no obligation to provide Tenant with any allowance, rent credit or abatement in connection with Tenant's entering into this Lease. The taking of possession of the Premises by Tenant shall conclusively establish that the Project, the Building and the Premises were at such time in good order and clean condition and that Landlord shall

have discharged all of its obligations under the Work Letter Agreement (subject to any punch list items as set forth in the Work Letter Agreement), and the execution of this Lease by Tenant shall conclusively establish that the Premises, the Building, the Project and the Parking Area were in good and sanitary order, condition and repair at such time, except for latent defects, if any. Without limiting the foregoing, Tenant's execution of the Memorandum of Terms shall constitute a specific acknowledgment and acceptance of the various start-up inconveniences that may be associated with the use of the Building, the Parking Area and other portions of the Project, such as certain construction obstacles (e.g., scaffolding), delays in use of freight elevator service, unavailability of certain elevators for Tenant's use, uneven air-conditioning services and other typical conditions incident to recently constructed (or recently modified) office and laboratory/research and development buildings. Tenant (for itself and all other claiming through Tenant) hereby irrevocably waives and releases its right to terminate this Lease under Section 1932(1) of the California Civil Code. Notwithstanding anything to the contrary in this Lease, Landlord represents, to the actual knowledge of Steve Bollert, without a duty to inquire or investigate, that, as of the Commencement Date, (a) the Premises are not in material violation of any Laws, and (b) there are no damages or defects existing in the Premises that would not be visible upon an in-person inspection of the Premises.

14.2 Limited Warranty. Notwithstanding the foregoing provisions of Section 14.1, Landlord hereby warrants that all Building Systems (as that term is defined in Section 15.1 below) servicing the Premises shall be in good working order and condition for a period of twelve (12) months beginning on the Commencement Date. In the event of a failure of the foregoing warranty, provided that Tenant delivers Notice thereof to Landlord within the applicable twelve (12) month period, then Landlord shall cure such failure within a reasonable period of time after receiving such Notice and the cost thereof shall be at Landlord's sole cost and expense and shall not be included in Operating Expenses, except to the extent such failure is caused by Tenant or any Tenant Party, in which event Tenant shall reimburse Landlord for the cost to cure such failure.

ARTICLE 15

ALTERATIONS

15.1 Alterations and Major Alterations. Except for Permitted Alterations, Tenant shall make no alterations, additions, or improvements in or to the Premises (collectively, the "Alterations") without Landlord's prior written consent, which consent shall not be unreasonably withheld, conditioned or delayed for all Alterations other than Major Alterations (which shall be granted in Landlord's sole discretion), and then only by licensed contractors or mechanics approved by Landlord in writing, which approval shall not be unreasonably withheld, conditioned or delayed (provided that any contractors performing any Major Alterations shall be subject to approval by Landlord in its sole and absolute discretion). Tenant shall submit to Landlord plans and specifications for any proposed Alterations to the Premises, and may not make such Alterations until Landlord has approved such plans and specifications and the contractor performing any Alterations in writing. Tenant shall construct such Alterations in accordance with the plans and specifications approved by Landlord and in compliance with all applicable Laws, and shall not amend or modify such plans and specifications without Landlord's prior written consent. If any proposed Alterations require the consent or approval of any lessor of a superior lease or the holder of a mortgage encumbering the Premises, Tenant acknowledges that such consent or approval must be secured prior to the construction of such Alterations. Tenant agrees not to construct or erect partitions or other obstructions that might interfere with Landlord's free access to mechanical installations or service facilities of the Building or interfere with the moving of Landlord's equipment to or from the enclosures containing said installations or facilities. All Alterations shall be done at such times and in such manner as Landlord may from time to time reasonably designate. Tenant will pay the entire cost and expense of all Alterations, including, without limitation, for any painting, restoring or repairing of the Premises or the Building necessitated by the Alterations, and Landlord's actual out-of-pocket third party review and Landlord's supervision fee in an amount equal to five percent (5%) of the cost of the Alterations in question (except for Permitted Alterations). Tenant will also obtain and/or require: (a) builder's "all-risk" insurance (or the equivalent thereof) in an amount at least equal to the replacement value of the Alterations; (b) liability insurance insuring Tenant and each of Tenant's contractors against construction related risks in at least the form, amounts and coverage required of Tenant under Article 22; and (c) if requested by Landlord, demolition (if applicable) and payment and performance bonds in an amount not less than the full cost of the Alterations. The insurance policies described in clause (b) of this Section 15.1 must name Landlord, Landlord's lender (if any), Bollert/LeBeau Inc. and/or Bioscience Properties, Inc. ("Property Manager") and other parties reasonably requested by Landlord as additional insureds, specifically including completed operations. Tenant covenants and agrees that all Alterations done by Tenant shall be performed in full compliance with all Laws. If any Governmental Authority

requires any alterations or modifications to the Building or the Premises as a result of Tenant's Permitted Use of the Premises or as a result of any Alteration to the Premises made by or on behalf of Tenant, Tenant will pay the cost of all such alterations or modifications. If any such Alterations involve any modifications to (i) the structural portions of the Building, (ii) the mechanical, electrical, plumbing, fire/life safety or heating, ventilating and air conditioning systems of the Building (collectively, "Building Systems") or (iii) any portion of the Building outside of the interior of the Premises (a "Major Alteration"), it shall be reasonable for Landlord to withhold its consent to any such Major Alterations and it shall be reasonable for Landlord to condition its consent to any Major Alterations on Landlord making the Major Alterations, provided that Landlord may first require Tenant to deposit with Landlord an amount sufficient to pay the cost of the Major Alterations (including, without limitation, reasonable overhead, administrative costs and profit). Before commencing any work, Tenant shall give Landlord at least ten (10) days' Notice of the proposed commencement of such work and shall, if required by Landlord, deliver a copy of the completion and payment bond required by Landlord in form, substance and amount satisfactory to Landlord. "Permitted Alterations" means only cosmetic and non-structural Alterations and usual and customary maintenance and repairs of Leasehold Improvements if and to the extent that such cosmetic and non-structural Alterations, maintenance and repairs: (A) are of a type and extent which are customarily permitted to be made without consent by landlords acting consistently with Institutional Owner Practices leasing similar space for similar uses to similar tenants, (B) are in compliance with the Rules and Regulations and all applicable Laws, (C) are not Major Alterations, and (D) do not cost more than Fifty Thousand and 00/100 Dollars ($50,000.00) in each instance.

15.2 Removal of Alterations and Tenant's Personal Property. The Tenant Improvements together with all Alterations upon the Premises made by Tenant after the Commencement Date, including, without limitation, all wall coverings, built-in cabinet work, paneling and the like (collectively, "Leasehold Improvements"), shall, at Landlord's election given at the time Landlord approves such Alterations, either be removed by Tenant or shall become the property of Landlord and shall remain upon, and be surrendered with, the Premises at the end of the Term hereof; provided, however, that if Landlord, by Notice to Tenant at the time Landlord approves such Alterations, requires Tenant to remove any such Leasehold Improvements, Tenant shall repair all damage resulting from such removal or, at Landlord's option, shall pay to Landlord the cost of such removal, as reasonably estimated by Landlord, prior to the expiration of the Term of this Lease. Notwithstanding the foregoing, Tenant shall not be required, nor have the right, to remove the Tenant Improvements furnished pursuant to the Work Letter Agreement. All articles of personal property and all business and trade fixtures, cabling, machinery and equipment, furniture and movable partitions owned by Tenant or any other Tenant Party or that are installed by or for Tenant or any other Tenant Party at its expense in the Premises (collectively, "Tenant's Personal Property") shall be and remain the property of Tenant and shall be removed by Tenant prior to the expiration of the Term, and Tenant shall repair all damage to the Premises, if any, resulting from such removal. If Tenant shall fail to remove any of the foregoing from the Premises prior to termination of this Lease for any cause whatsoever, Tenant shall be deemed to be holding over in the Premises without the consent of Landlord and Landlord may, at its option, remove the same in any manner that Landlord shall choose, and store the same without liability to Tenant for loss thereof. In such event, Tenant agrees to pay to Landlord upon demand, any and all expenses incurred in such removal (including court costs and attorneys' fees) and storage charges thereon, for any length of time that the same shall be in Landlord's possession or control. Landlord may, at its option, without Notice, sell such property, or any of the same, at a private sale and without legal process, for such price as Landlord may obtain and apply the proceeds of such sale to any amounts due under this Lease from Tenant to Landlord and/or to all expenses, including attorneys' fees and costs, incident to the removal and/or sale thereof.

ARTICLE 16

REPAIRS

16.1 Tenant Obligations. Tenant shall, when and if needed, at Tenant's sole cost and expense and subject to Section 14.2 and Article 15 above, make all repairs to the Premises and every part thereof (including all structural and non-structural parts, but excluding the roof membrane) to maintain the Premises in the condition and repair that existed as of the Commencement Date, reasonable wear and tear and casualty damage excepted, and free from any Hazardous Materials. Except as expressly set forth in Section 14.2 above and Section 16.2 below, all Supplemental Equipment and all Building Systems exclusively serving the Premises shall be maintained, repaired and replaced as needed by Tenant at Tenant's sole cost and expense and Landlord shall have no liability for the operation, repair, maintenance or replacement of any Supplemental Equipment, nor shall Landlord have any liability for the operation, repair or maintenance of any Building Systems exclusively serving the Premises. "Supplemental

Equipment" means any items that are installed within the Premises by or at the direction of Tenant or that exclusively serve the Premises (other than standard Building Systems), including, without limitation: (A) any supplemental, specialty or non-Building standard electrical (including lighting), mechanical, plumbing, heating, ventilation and air conditioning systems, fixtures and equipment; (B) any supplemental, specialty or non-Building standard fire, life, safety or security systems, fixtures and equipment; and (C) all video, audio, communications or computer systems, fixtures and equipment (including cabling). Without limiting the foregoing, Tenant shall maintain, at its sole cost and expense, a contract for the regular maintenance and repair of the heating, ventilation and air conditioning systems, fixtures and equipment located in or exclusively serving the Premises.

16.2 Landlord Obligations. Landlord shall maintain, repair and replace the structural portions of the Building (including, without limitation, the roof structure, roof membrane, slab and exterior walls) outside of the Premises, the Parking Area and the Building Systems, and, except as expressly set forth in Section 14.2 above, the costs incurred by Landlord in performing such maintenance, repairs and replacements shall be included in Operating Expenses to the extent permitted under Section 6.1 above. For purposes of clarification, Landlord shall have no obligation to repair, maintain or replace any part of the Premises, any Building Systems exclusively serving the Premises (except as expressly set forth in Section 14.2 above) or any Supplemental Equipment. Landlord shall not be liable for any failure to make any repairs or replacements or to perform any maintenance to the extent that the need for such repairs, replacements or maintenance is caused by the negligence or willful misconduct of any Tenant Party. Except as provided in Articles 23 and 24 hereof, there shall be no abatement of Rent and no liability of Landlord by reason of any injury to or interference with Tenant's business arising from the making of any repairs, alterations, improvements or replacements in or to any portion of the Building or the Premises or in or to fixtures, appurtenances and equipment therein. Tenant waives the right to make repairs and replacements at Landlord's expense under any Law now or hereafter in effect including Section 1941 and 1942 of the California Civil Code (as the same may be amended from time to time) and any successor statute and similar Law now or hereafter in effect.

ARTICLE 17

LIENS

Tenant shall not cause or permit to be filed against the Premises, the Building or the Project or of any portion thereof or against Tenant's leasehold interest in the Premises any mechanics', materialmen's or other liens, including without limitation any state, federal or local "superfund" or Hazardous Materials cleanup lien imposed as a result of the presence of Hazardous Materials in, on or about the Premises, the Building or any other portion of the Project. Landlord shall have the right at all reasonable times to post and keep posted on the Premises any notices that it deems necessary for protection from such liens. Tenant shall discharge any lien filed against the Premises or against the Building for work claimed to have been done for, or materials claimed to have been furnished to, Tenant, by bond or otherwise, within ten (10) business days after the filing thereof, at the cost and expense of Tenant. If any such liens are filed and Tenant fails to discharge them pursuant to the foregoing sentence, Landlord may, without waiving its rights and remedies based on such breach of Tenant and without releasing Tenant from any of its obligations hereunder, cause such lien(s) to be released by any means it shall deem proper, including payments in satisfaction of the claim giving rise to such lien or by obtaining a corporate statutory mechanic's lien release bond in an amount equal to one hundred fifty percent (150%) of such lien claim. Tenant shall: (a) pay to Landlord, immediately upon Notice from Landlord, any cost or expense, including, without limitation, attorneys' fees and costs, incurred by Landlord by reason of Tenant's failure to discharge any such lien, together with interest thereon at the maximum rate per annum permitted by Law from the date of such payment by Landlord and (b) shall indemnify, defend and hold the Landlord Indemnified Parties harmless from and against any liens.

ARTICLE 18

ENTRY BY LANDLORD

Landlord reserves and shall at any and all reasonable times and upon at least twenty-four (24) hours prior notice to Tenant (except in the case of an emergency) and during normal business hours (except in the case of an emergency) have the right to enter the Premises to supply any service to be provided by Landlord to Tenant hereunder, to inspect the same, to show the Premises to prospective purchasers, lenders, or investors and during the last twelve (12) months of the Term or following a default by Tenant to prospective tenants, to post notices of non-responsibility, to alter, improve or repair the Premises or any other portion of the Building and/or the Project, as

provided in Section 2.4 above, or for any other reasonable purpose, all without being deemed guilty of any eviction of Tenant and without abatement of Rent. Landlord may, in order to carry out such purposes, erect scaffolding and other necessary structures where reasonably required by the character of the work to be performed, provided that the business of Tenant shall be interfered with as little as is reasonably practicable. Tenant hereby waives any claim for damages for any injury or inconvenience to or interference with Tenant's business, for any loss of occupancy or quiet enjoyment of the Premises and for any other loss in, upon and about the Premises, the Building or the Project on account of Landlord's entry or work permitted by this Article 18 or by Section 2.4 above, except to the extent caused by Landlord's gross negligence or willful misconduct; provided, however, that in no event shall Landlord be liable for consequential damages or lost profits. Without limiting the foregoing, Landlord shall use commercially reasonable efforts to minimize any disruption or interference to Tenant's business during such entry. Landlord shall at all times have and retain a key with which to unlock all doors in the Premises, excluding Tenant's vaults and safes. Landlord shall have the right to use any and all means that Landlord may deem proper to open said doors in an emergency in order to obtain entry to the Premises. Any entry to the Premises obtained by Landlord by any of said means, or otherwise, shall not be construed or deemed to be a forcible or unlawful entry into the Premises, or an eviction of Tenant from the Premises or any portion thereof, and any damages caused on account thereof shall be paid by Tenant.

ARTICLE 19

UTILITIES AND SERVICES

19.1 Premises Utilities. Notwithstanding anything to the contrary in this Lease, Tenant shall pay for the cost of all water (including the cost to service, repair and replace reverse osmosis, de-ionized and other treated water), electricity, gas, heating, ventilation and air-conditioning ("HVAC"), light, power, telephone, internet service, cable television, other telecommunications and other utilities supplied to the Premises, together with any fees, surcharges and taxes thereon. All such utilities and services provided to the Premises that are separately metered shall be paid by Tenant directly to the supplier of such utilities or services. If any such utility is not separately metered to Tenant, Tenant shall pay Tenant's Percentage of all charges of such utility jointly metered with other premises as Additional Rent or, in the alternative, Landlord may, at its option, monitor the usage of such utilities by Tenant and charge Tenant with the cost of purchasing, installing and monitoring such metering equipment, which cost shall be paid by Tenant as Additional Rent. Landlord may base its bills for utilities on reasonable estimates; provided that Landlord adjusts such billings promptly thereafter or as part of the next Annual Reconciliation to reflect the actual cost of providing utilities to the Premises. In the event that the Building or Project is less than fully occupied during a calendar year, Tenant acknowledges that Landlord may extrapolate utility usage that varies depending on the occupancy of the Building or Project (as applicable) to equal Landlord's reasonable estimate of what such utility usage would have been had the Building or Project, as applicable, been one hundred percent (100%) occupied during such calendar year; provided, however, that Landlord shall not recover more than one hundred percent (100%) of the cost of such utilities. Landlord may, in Landlord's sole and absolute discretion, at any time and from time to time, contract, or require Tenant to contract, for utility services (including generation, transmission, or delivery of the utility service) with a utility service provider(s) of Landlord's choosing. Tenant shall fully cooperate with Landlord and any utility service provider selected by Landlord. Tenant shall permit Landlord and the utility service provider to have reasonable access to the Premises and the utility equipment serving the Premises, including lines, feeders, risers, wiring, pipes, and meters. Tenant shall either pay or reimburse Landlord for all costs associated with any change of utility service, including the cost of any new utility equipment, within ten (10) business days after Landlord's written demand for payment or reimbursement.

19.2 Janitorial Service. Tenant, at its sole cost and expense, shall enter into an agreement for regular janitorial services for the Premises with a company which is fully bonded and insured and approved by Landlord in its reasonable discretion. Tenant shall keep the Premises at all times in a clean and orderly condition, at Tenant's expense and to the reasonable satisfaction of Landlord. Unless otherwise agreed to by Landlord, no one other than persons approved by Landlord shall be permitted to enter the Premises for the purpose of providing janitorial or cleaning service.

19.3 Landlord Exculpation. Landlord's failure to furnish or cause to be furnished any service which Landlord is required or elects to provide hereunder shall not result in any liability to Landlord. Landlord shall not be responsible or liable for any loss, damage, or expense that Tenant may incur as a result of any change of utility service, including any change that makes the utility supplied less suitable for Tenant's needs, or for any failure,

interruption, stoppage, or defect in any utility service. In addition, Tenant shall not be entitled to any abatement or reduction of Rent, no eviction of Tenant shall result from and Tenant shall not be relieved from the performance of any covenant or agreement in this Lease by reason of any such change, failure, interruption, stoppage or defect. In the event of any such failure, interruption, stoppage or defect of a service which Landlord is required to provide hereunder, Landlord shall diligently attempt to cause service to be resumed promptly. Notwithstanding the foregoing, in the event that Tenant is prevented from using, and does not use, the Premises or any portion thereof, as a result of a failure to provide any services or utilities to the Premises, to the extent within Landlord's reasonable control, which Landlord is required to provide under this Lease (an "Abatement Event"), then Tenant shall give Landlord written Notice of such Abatement Event, and if such Abatement Event continues for five (5) consecutive business days after Landlord's receipt of such Notice ("Eligibility Period") and Landlord does not diligently commence and pursue to completion the remedy of such Abatement Event, then, except to the extent covered by business interruption or similar insurance carried or required to be carried by Tenant hereunder, Basic Rent, Tenant's Percentage of Operating Expenses and Tenant's Percentage of Real Property Taxes shall be abated or reduced, as the case may be, after expiration of the Eligibility Period for such time that Tenant continues to be so prevented from using, and does not use, the Premises or a portion thereof, in the proportion that the rentable area of the portion of the Premises that Tenant is prevented from using, and does not use, bears to the total rentable area of the Premises. If, however, Tenant reoccupies any portion of the Premises during such period, the Basic Rent, Tenant's Percentage of Operating Expenses and Tenant's Percentage of Real Property Taxes allocable to such reoccupied portion, based on the proportion that the rentable area of such reoccupied portion of the Premises bears to the total rentable area of the Premises, shall be payable by Tenant from the date Tenant reoccupies such portion of the Premises. Such right to abate Basic Rent, Tenant's Percentage of Operating Expenses and Tenant's Percentage of Real Property Taxes shall be Tenant's sole and exclusive remedy at law or in equity for an Abatement Event. Except as expressly provided in this Section 19.3, nothing contained herein shall be interpreted to mean that Tenant is excused from paying Rent due hereunder.

19.4 Limitations on Tenant's Utilities. Tenant shall not, without Landlord's prior written consent, use any device in the Premises (including data processing machines) that will in any way (a) increase the amount of ventilation, air exchange, gas, steam, electricity or water required or consumed in the Premises based upon Tenant's Percentage of the Building or Project (as applicable) beyond the existing capacity of the Building or the Project usually furnished or supplied for the Permitted Use or (b) exceed Tenant's Percentage of the Building's or Project's (as applicable) capacity to provide such utilities or services. If Tenant shall require utilities or services in excess of those usually furnished or supplied for tenants in similar spaces in the Building or the Project by reason of Tenant's equipment or extended hours of business operations, then Tenant shall first procure Landlord's consent for the use thereof, which consent shall not be unreasonably withheld, conditioned or delayed (except that Landlord may condition such consent upon the availability of such excess utilities or services), and Tenant shall pay as Additional Rent an amount equal to the cost of providing such excess utilities and services.

19.5 Common Area Water. Landlord shall provide water in the Common Area for, to the extent applicable, lavatory and landscaping purposes only, which water shall be from the local municipal or similar source.

19.6 Energy Tracking. Within ten (10) business days following Landlord's written request therefor, Tenant shall deliver to Landlord copies of any invoices for utility services provided to the Premises and related information reasonably requested by Landlord in connection with the requirements of California Public Resources Code Section 25402.10, the corresponding regulations adopted by the California Energy Commission and provided in California Code of Regulations, Title 20, Division 2, Chapter 4, Article 9, Sections 1680-1684, and any supplemental and/or successor statute or regulations concerning the reporting of energy usage and efficiency relative to commercial buildings. Tenant acknowledges that any utility information for the Premises, the Building and the Project may be shared with third parties, including Landlord's consultants and Governmental Authorities. In addition to the foregoing, Tenant shall comply with all applicable Laws related to the disclosure and tracking of energy consumption at the Premises. The provisions of this Section shall survive the expiration or earlier termination of this Lease.

19.7 Reservation of Rights. Landlord reserves the right to stop service of the plumbing, ventilation, air conditioning and utility systems, when Landlord deems necessary or desirable, due to accident, emergency or the need to make repairs, alterations or improvements, until such repairs, alterations or improvements shall have been completed, and Landlord shall further have no responsibility or liability for failure to supply plumbing, ventilation, air conditioning or utility service when prevented from doing so by Force Majeure (as defined in Section 36.8

below) or, to the extent permitted by applicable Law, Landlord's negligence. Without limiting the foregoing, it is expressly understood and agreed that any covenants on Landlord's part to furnish any service pursuant to any of the terms, covenants, conditions, provisions or agreements of this Lease, or to perform any act or thing for the benefit of Tenant, shall not be deemed breached if Landlord is unable to furnish or perform the same by virtue of Force Majeure or, to the extent permitted by applicable Law, Landlord's negligence.

ARTICLE 20

INDEMNIFICATION AND EXCULPATION OF LANDLORD

Tenant shall indemnify, defend and hold harmless the Landlord Indemnified Parties (as defined in Section 22.1.2 below) from and against any and all claims, demands, penalties, fines, liabilities, actions (including, without limitation, informal proceedings), settlements, judgments, damages, losses, costs and expenses (including attorneys' fees and costs) of whatever kind or nature, known or unknown, contingent or otherwise, incurred or suffered by or asserted against such Landlord Indemnified Party (collectively, "Claims") arising from or in connection with, directly or indirectly, (a) any cause whatsoever in the Premises (including, but not limited to, Claims resulting in whole or in part from the negligence of the Landlord Indemnified Party), except to the extent directly caused by the gross negligence or intentional misconduct of such Landlord Indemnified Party, (b) the presence at or use or occupancy of the Premises or Project by a Tenant Party, (c) any act, neglect, fault or omission on the part of any Tenant Party, or (d) a breach or default by Tenant in the performance of any of its obligations hereunder. Payment shall not be a condition precedent to enforcement of the foregoing indemnity. In case any action or proceeding shall be brought against any Landlord Indemnified Party by reason of any such Claim, at such Landlord Indemnified Party's option, upon Notice from Landlord, Tenant shall defend the same at Tenant's expense by counsel selected by Landlord in its sole discretion. Tenant, as a material part of the consideration to Landlord, hereby assumes all risk of damage to property (including, without limitation, any damage to personal property or scientific research, including loss of records kept by Tenant within the Premises (in each case, regardless of whether such damage is foreseeable)) or injury to Tenant or any other Tenant Parties in, upon or about the Premises, the Building, the Parking Area or the Project from any cause whatsoever and hereby waives all Claims (including consequential damages and claims for injury to Tenant's business or loss of income arising out of any loss of use of the Premises, the Building, the Parking Area or the Project or any equipment or facilities therein, or relating to any such damage or destruction of personal property as described in this Section) in respect thereof against each Landlord Indemnified Party, except that which is solely caused by, or solely the result of: (i) any Landlord Default (defined below), (ii) the grossly negligent acts of such Landlord Indemnified Party, or (iii) the willful misconduct of such Landlord Indemnified Party. Landlord shall not be liable for any damages arising from any act, omission or neglect of any other tenant in the Building or the Project, or of any other third party, except to the extent arising from the gross negligence or willful misconduct of Landlord. Tenant acknowledges that security devices and services, if any, while intended to deter crime, may not in given instances prevent theft or other criminal acts. Landlord shall not be liable for injuries or losses caused by criminal acts of third parties, and Tenant assumes the risk that any security device or service may malfunction or otherwise be circumvented by a criminal. If Tenant desires protection against such criminal acts, then Tenant shall, at Tenant's sole cost and expense, obtain appropriate insurance coverage. Without limitation on other obligations of Tenant that survive the expiration of the Term, the clauses of this Article 20 shall survive the expiration or earlier termination of this Lease until all Claims against the Landlord Indemnified Parties involving any of the indemnified matters are fully, finally, and absolutely barred by the applicable statutes of limitations.

Subject to the provisions of Section 22.4 below, Landlord shall indemnify, defend and hold harmless Tenant from and against any and all third party claims, demands, penalties, fines, liabilities, actions (including, without limitation, informal proceedings), settlements, judgments, damages, losses, costs and expenses (including reasonable attorneys' fees and costs) of whatever kind or nature, known or unknown, contingent or otherwise, incurred or suffered by or asserted against Tenant to the extent proximately caused by the gross negligence or willful misconduct of Landlord in connection with Landlord's activities on or about the Building or Project.

ARTICLE 21

DAMAGE TO TENANT'S PROPERTY

Notwithstanding the provisions of Article 20 or anything to the contrary in this Lease, no Landlord Indemnified Party shall be liable for: (a) loss or damage to any property by theft or any other cause whatsoever, (b)

any injury or damage to persons resulting from fire, storms, earthquakes, explosion, falling plaster, steam, gas, electricity, water or rain which may leak from any part of the Building or the Project or from the pipes, appliances or plumbing work therein or from the roof, street or sub-surface or from any other place or resulting from dampness or any other cause whatsoever, except that which is solely caused by, or solely the result of: (i) the grossly negligent acts of such Landlord Indemnified Party, (ii) the willful misconduct of such Landlord Indemnified Party, or (iii) any latent defect in the Premises, the Building or any other portion of the Project that is not promptly remedied by Landlord following Landlord's receipt of notice thereof. Tenant shall immediately give Notice to Landlord in case of the occurrence of any fire or accidents in or about the Premises, the Building or any other portion of the Project, or the discovery of any defects therein (including, without limitation, any latent defect in the Premises) or in any fixtures or equipment that are the property of Landlord, Tenant or any other tenant or occupant of premises in the Project.

Without limiting the foregoing, Tenant acknowledges that safety and access control devices, services and programs provided by Landlord, if any, while intended to deter crime and ensure safety, may not in given instances prevent theft or other criminal acts, or ensure safety of persons or property. The risk that any safety or access control device, service or program may not be effective, or may malfunction, or be circumvented by a criminal, is assumed by Tenant with respect to Tenant's property and interests, and Tenant shall obtain insurance coverage to the extent Tenant desires protection against such criminal acts and other losses, as further described in Article 22. Tenant agrees to cooperate in any reasonable safety or security program developed by Landlord or required by Law.

ARTICLE 22

INSURANCE

22.1 Tenant's Insurance. Tenant shall, during the Term hereof (and during any period that Tenant may enter, occupy and/or use the Premises prior to the Commencement Date and any holdover period), at its sole cost and expense, keep in full force and effect the following insurance:

22.1.1. Property insurance insuring against any perils included within the classification "All Risk," including, without limitation, fire, windstorm, cyclone, tornado, hail, earthquake, explosion, riot, riot attending a strike, civil commotion, aircraft, vehicle, smoke damage, vandalism, malicious mischief and sprinkler leakage. Such insurance shall insure all property owned by Tenant or any other Tenant Party, for which Tenant or any other Tenant Party is legally liable or that was installed at the expense of Tenant or any other Tenant Party, and which is located in the Building, including, without limitation, furniture, furnishings, installations, fixtures and equipment, any other personal property, and in addition, all improvements and betterments to the Premises, including all Leasehold Improvements, in an amount not less than one hundred percent (100%) of the full replacement cost thereof. For the purposes of this Section 22.1.1, the Premises shall consist of the floor area shown in the Outline of Premises, consisting of the cubic space spanning from the floor slab to the bottom surface of the floor slab of the floor immediately above the Premises ("Upper Slab"), without any offsets or deductions that are included for the Permitted Use of Tenant. Such cubic space shall include the plenum space which is bounded by the lower surface of the Upper Slab and the suspended ceiling of the Premises. Such policy shall name Landlord, any mortgagees of Landlord and any other additional parties designated by Landlord as loss payees, as their respective interests may appear.

22.1.2. Commercial General Liability Insurance insuring Tenant on the current ISO CG 00 01 occurrence form or any equivalent reasonably acceptable to Landlord against any liability arising out of the lease, use, occupancy or maintenance of the Premises, the Building or the Project, or any portion of the foregoing. Such insurance shall be in the following minimum limits: $2,000,000 per occurrence and $3,000,000 in the aggregate and shall cover injury (including mental anguish) to or death of one or more persons and damage to tangible property (including loss of use) including blanket contractual liability, broad form property damage (including coverage for explosion, collapse and underground hazards), and $1,000,000 personal & advertising injury. The policy shall insure the hazards of the Premises and Tenant's operations thereon, Tenant's independent contractors and Tenant's contractual liability (including, without limitation, the indemnity contained in Article 20 hereof) and shall: (i) name Landlord (10770 Wateridge Investors LLC); SRE SD4, LLC; SB 10770 Wateridge Investors LLC; the Property Manager; any additional entity Landlord may designate from time to time; and their respective partners, parents, affiliates, divisions and subsidiaries, and each of their respective directors, officers, principals, partners, shareholders, members, managing members, agents, employees, successors and assigns (together with Landlord,

collectively, "Landlord Indemnified Parties") as additional insureds; and (ii) include coverage for cross liability claims between Named Insureds (i.e., "Named Insured vs. Named Insured" Cross Liability Coverage Endorsement if required for coverage and no exclusion for cross liability claims between Named Insureds). Such insurance shall not contain any exclusions or restrictions applicable to operations of the type contemplated by this Lease. In addition to any insurance required of Tenant, Tenant shall secure, pay for and maintain or cause Tenant's contractors and sub-contractors to secure, pay for and maintain insurance during any construction or work to the Premises performed by or on behalf of Tenant at a minimum equal to the limits of liability required by Tenant. Tenant's products and completed operations insurance shall be maintained for a minimum period equal to the greater of (i) the period under which a claim can be asserted under any applicable statutes of limitations and/or repose or (ii) three (3) years after Substantial Completion of the Tenant Improvements. Tenant's contractual liability insurance shall include coverage sufficient to meet the indemnity obligations included herein.

22.1.3. Worker's Compensation Insurance in compliance with statutory requirements of the state(s) in which the employee resides, is hired and in which this Lease takes place, which insurance shall apply to all persons employed by Tenant, and Employer's Liability insurance in amounts not less than $1,000,000 per accident, $1,000,000 per disease, and $1,000,000 disease-policy limit.

22.1.4. Business interruption insurance and extra expense coverage on ISO coverage form CP 0030 or equivalent reasonably acceptable to Landlord, which shall cover Tenant's monetary obligations under this Lease and any direct or indirect loss of earnings attributable to perils insured against in Section 22.1.1 above for a period of at least twelve (12) months. If Tenant fails to obtain business interruption insurance, it is understood and agreed upon that Tenant is fully responsible for its own business interruption exposure whether insured or not.

22.1.5. Comprehensive Automobile Liability Insurance including coverage for all owned, leased, hired and non-owned vehicles, if any, with a minimum combined single limit of $1,000,000 per occurrence for bodily injury and property damage liability.

22.1.6. Umbrella/Excess Liability Insurance policy with a per occurrence and annual aggregate limit of $5,000,000 per location/project. The limits of liability required in Section 22.1.2 above for Commercial General Liability can be provided in a combination of a Commercial General Liability policy and an Umbrella Liability policy. Coverage shall be in excess of Commercial General Liability, Auto Liability and Employers' Liability insurance with such coverage being on a follow form basis, concurrent to and not more restrictive than underlying insurance. Tenant shall, by specific endorsement to its Umbrella/Excess Liability policy, cause the coverage afforded to the Landlord Indemnified Parties thereunder to be first tier umbrella/excess coverage above the primary coverage afforded to the Landlord Indemnified Parties as set forth in this Lease and not concurrent with or excess to any other valid and collectible insurance available to the Landlord Indemnified Parties whether provided on a primary or excess basis. It is the specific intent of the parties that Tenant procure the excess carriers' agreement to waive and/or forego any viable "horizontal exhaustion" rights it might have in regard to any insurance any Landlord Indemnified Party might carry for its own benefit or on behalf of any other Landlord Indemnified Party.

22.1.7. If Tenant sells or dispenses alcoholic beverages, Liquor Liability Insurance with limits of not less than $5,000,000 per occurrence.

22.1.8. Pollution Legal Liability insurance if Tenant stores, handles, generates or treats Hazardous Materials, as determined solely by Landlord, on or about the Premises. Such coverage shall include bodily injury, sickness, disease, death or mental anguish or shock sustained by any person; property damage including physical injury to or destruction of tangible property including the resulting loss of use thereof, clean-up costs, and the loss of use of tangible property that has not been physically injured or destroyed; and defense costs, charges and expenses incurred in the investigation, adjustment or defense of claims for such compensatory damages. Coverage shall apply to both sudden and non-sudden pollution conditions including the discharge, dispersal, release or escape of smoke, vapors, soot, fumes, acids, alkalis, toxic chemicals, liquids or gases, waste materials or other irritants, contaminants or pollutants into or upon land, the atmosphere or any watercourse or body of water. Claims-made coverage is permitted, provided the policy retroactive date is continuously maintained prior to the Commencement Date (or such earlier date that Tenant has access to the Premises), and coverage is continuously maintained during all periods in which Tenant occupies the Premises. Coverage shall be maintained with limits of not less than $1,000,000 per incident with a $2,000,000 policy aggregate. Notwithstanding anything to the contrary in this Lease, such coverage shall not be required, if at all, until July 1, 2019.

22.1.9. Any other form or forms of insurance as Tenant or Landlord or any mortgagees of Landlord may reasonably require from time to time in form, in amounts and for insurance risks against which a prudent tenant would protect itself.

22.1.10. Tenant may place all or any of the foregoing insurance coverages under blanket insurance policies carried by Tenant provided that no other loss which may also be insured by such blanket insurance shall affect the insurance coverages required hereby and so long as such policy complies with the amount of coverage required hereunder and otherwise provides the same protection as would a separate policy insuring only Tenant's insurance obligations in compliance with the provisions of Section 22.1 hereof. In addition, Tenant shall deliver to Landlord a certificate specifically stating that such coverages apply to Landlord, the Premises, the Building and the Project.

22.1.11. If Tenant shall hire or bring a vendor or contractor onto the Premises to perform any alterations, work or improvements, Tenant agrees to have a written agreement with such vendor or contractor whereby such vendor or contractor will be required to carry the same insurance coverages for Commercial General Liability, Auto and Worker's Compensation, Employer's Liability and Pollution Legal Liability insurance as required of Tenant herein. Tenant shall also require that such vendor's or contractor's insurance meet the same additional terms as required of Tenant herein with regards to adding the Landlord Indemnified Parties and all mortgagees as additional insureds, maintaining primary and non-contributory coverage, waiving all rights of recovery and subrogation, and making certificates of insurance available as evidence of all policies during the term of their work and in advance of all applicable renewals. Tenant shall not allow any vendors or contractors to begin work prior to obtaining certificates evidencing all insurance requirements contained herein.

22.2 Standard of Insurance. All policies shall be written in a form satisfactory to Landlord, and the Commercial General Liability, Comprehensive Automobile Liability, Umbrella/Excess Liability, Liquor Liability (if applicable) and Pollution Legal Liability policies required under Section 22.1 shall name all Landlord Indemnified Parties as additional insureds on a primary and non-contributory basis. In addition, if Tenant places any such required coverages under a blanket insurance policy as set forth in Section 22.1.11, the blanket policy shall name all Landlord Indemnified Parties as additional insureds on a primary and non-contributory basis via blanket endorsement. All insurance policies required under Section 22.1 shall be issued by companies authorized to do business in the State of California with an A.M. Best's Rating of at least A-/V1II. No deductibles or Self-Insured Retention ("SIR") of Tenant shall exceed $25,000 without Landlord's prior written approval. All deductibles and SIR are the responsibility of Tenant and must be shown on the certificate of insurance. On or before the date which is ten (10) days after the execution of this Lease, and prior to or on the renewal of such policies thereafter, Tenant shall deliver to Landlord certificates evidencing the existence of the amounts and forms of coverage satisfactory to Landlord. No such policy shall be cancelable or reducible in coverage except after written notice to Landlord per the policy conditions. Any insurance limits required by this Lease are minimum limits only and not intended to restrict the liability imposed on any Tenant for liability under this Lease. Tenant shall, prior to the expiration of such policies, furnish Landlord with renewals or "binders" thereof, or Landlord may order such insurance and charge the cost thereof to Tenant as Additional Rent. If Landlord obtains any insurance that is the responsibility of Tenant under this Article 22, Landlord shall deliver to Tenant a written statement setting forth the cost of any such insurance and showing in reasonable detail the manner in which it has been computed and Tenant shall remit said amount to Landlord within ten (10) business days.

22.3 Landlord Insurance.

22.3.1. During the Term of this Lease, Landlord shall insure the Building and the Parking Areas (to the extent Landlord is the owner thereof) (excluding any property which Tenant is obligated to insure under Sections 22.1 and 22.2 hereof) against damage with All-Risk insurance (which may, but shall not be required to, insure against earthquake damage) and public liability insurance, all in such amounts and with such deductibles as Landlord and Tenant jointly and reasonably consider appropriate. Landlord may, but shall not be obligated to, obtain and carry any other form or forms of insurance as Landlord or Landlord's mortgagees may determine advisable. Notwithstanding any contribution by Tenant to the cost of insurance premiums, as provided herein, Tenant acknowledges that it has no right to receive any proceeds from any insurance policies carried by Landlord.

22.3.2. If any of Landlord's insurance policies shall be canceled or cancellation shall be threatened or the coverage thereunder reduced or threatened to be reduced in any way because of Tenant's specific use of the Premises or any part thereof by Tenant or any assignee or subtenant of Tenant or by anyone Tenant

permits on the Premises and, if Tenant fails to remedy the condition giving rise to such cancellation, threatened cancellation, reduction of coverage, threatened reduction of coverage, increase in premiums, or threatened increase in premiums, within three (3) days after Notice thereof, Landlord may, at its option, but without any obligation so to do, enter upon the Premises and attempt to remedy such condition, and Tenant shall promptly pay the cost thereof to Landlord as Additional Rent.

22.4 Subrogation Waivers.

22.4.1. **Subrogation Waiver – Policies Other than Property Insurance.** Tenant hereby waives all rights against the Landlord Indemnified Parties, Landlord's contractors (and their subcontractors of every tier), and their respective employees and agents, for any claims that arise from Tenant's work or activities and for recovery of damages under Tenant's insurance policies required under Section 22.1 or any other insurance policy carried by Tenant related to the Premises or this Lease (excluding Tenant's property insurance, which is addressed hereunder in Section 22.4.2). Tenant shall obtain an endorsement effecting the foregoing waiver with respect to its workers compensation and employers liability insurance. If any other policy implicated by the waiver in this Section 22.4.1 does not allow the applicable insured party to waive rights of recovery against others prior to a loss, the applicable insured shall obtain an endorsement effecting the applicable waiver.

22.4.2. **Subrogation Waiver – Property Insurance**. Landlord and Tenant waive all rights against each other for damages caused by fire or other causes of loss occurring on and after the date on which this Lease is executed to the extent such damages are covered (or are required to be covered) by any property insurance required under this Article 22 (including business income and loss of rent insurance) or otherwise carried by such party in relation to the Premises, the Building or the Project, regardless of whether such insurance is specifically required under this Lease. Tenant's waiver in this Section 22.4.2 also extends to the Landlord Indemnified Parties. Each party shall obtain an endorsement pursuant to which its insurers waive their subrogation rights against the parties specified in this Section 22.4.2. The waivers in this Section 22.4.2 will be effective as to a person or entity even though that person or entity would otherwise have a duty of indemnification, did not pay the insurance premium directly or indirectly, or did not have an insurable interest in the property damaged. To the extent that either party self-insures for its insurance obligations under this Lease (e.g., maintains a deductible amount), such party shall be treated as an independent insurer with full waiver of subrogation.

22.5 Exclusions. Landlord shall not be liable for any injury or damage to persons or property resulting from fire, explosion, falling plaster, steam, gas, electricity, electrical or electronic emanations or disturbance, water, rain or leaks from any part of the Building or from the pipes, or caused by dampness, vandalism, malicious mischief or by any other cause of whatever nature, unless caused by or due to the gross negligence of Landlord, its agents, servants or employees, and then only after (i) reasonable prior notice to Landlord of the condition claimed to constitute negligence, if applicable, and (ii) the expiration of a reasonable time after such notice has been received by Landlord without Landlord having taken all reasonable and practicable means to cure or correct such condition; and pending such cure or correction by Landlord, Tenant shall take all reasonably prudent temporary measures and safeguards to prevent any injury, loss or damage to persons or property. In no event shall Landlord be liable for any loss, the risk of which is covered by Tenant's insurance or is required to be so covered by this Lease; nor shall Landlord or its agents be liable for any such damage caused by other persons in the Building or caused by operations in construction of any private, public, or quasi-public work; nor shall Landlord be liable for any latent defect in the Premises or in the Building.

ARTICLE 23

DAMAGE OR DESTRUCTION

23.1 Damages. If the Building and/or the Premises are damaged by fire or other perils covered by Landlord's insurance, Landlord shall:

23.1.1. In the event of one hundred percent (100%) destruction of the Premises ("Total Destruction"), at Landlord's option, as soon as reasonably possible thereafter, commence repair, reconstruction and restoration of the Building and/or the Premises and prosecute the same diligently to completion, in which event this Lease shall remain in full force and effect; provided, however, that if within ninety (90) days after the occurrence of such damage, Landlord shall by Notice to Tenant elect not to so repair, reconstruct or restore the Building and/or the Premises, this Lease shall terminate as of the date of such Total Destruction.

23.1.2. In the event of a partial destruction of the Building and/or the Premises and if the damage thereto is such that the Building and/or the Premises is capable of being repaired, reconstructed or restored within a period of ninety (90) days from the date of Landlord's discovery of such damage, and if Landlord will receive insurance proceeds sufficient to cover the total cost of such repairs, reconstruction or restoration, Landlord shall commence and proceed diligently with the work of repairs, reconstruction and restoration of the Building and/or the Premises or both, as the case may be, and this Lease shall continue in full force and effect. If such work of repair, reconstruction and restoration shall require a period longer than ninety (90) days or exceeds twenty-five percent (25%) of the full replacement cost of the Building and/or the Premises, or both, as the case may be, or if insurance proceeds will not be sufficient to cover the cost of such repairs, reconstruction and restoration, then Landlord either may elect to so repair, reconstruct or restore and this Lease shall continue in full force and effect or may elect not to repair, reconstruct or restore and this Lease shall then terminate as of the date of such partial destruction. Under any of the conditions of this Section 23.1.2, Landlord shall give Notice to Tenant of its intention regarding repairs, including Landlord's good faith estimate of the time required to substantially complete such repairs ("Landlord's Repair Notice"), within said ninety (90) day period. If the partial destruction causes more than fifty percent (50%) of the Rentable Square Feet of the Premises to be unusable for the Permitted Use and Landlord's Repair Notice estimates that the repairs will take more than one hundred eighty (180) days after the occurrence thereof to substantially complete, and if Landlord does not elect to terminate this Lease, then Tenant shall have the right to terminate this Lease by Notice to Landlord delivered within ten (10) business days following delivery of Landlord's Repair Notice, which termination shall be effective no earlier than thirty (30) days after delivery of such Notice to Landlord. If damage is due to any cause other than fire or other peril covered by extended coverage insurance, Landlord may elect to terminate this Lease.

23.1.3. In any case where Landlord elects to repair, restore or reconstruct the Premises following the occurrence of any damage to which this Article 23 applies, then Tenant shall assign to Landlord the proceeds of its property insurance attributable to the Leasehold Improvements. If the cost of restoring the Leasehold Improvements exceeds the amount of the proceeds of Tenant's property insurance that are received by Landlord, Tenant shall promptly pay the amount of such deficiency to Landlord upon demand.

23.2 Termination of Lease. Upon any termination of this Lease under any of the provisions of this Article 23, the parties shall be released without further obligation to the other from the date possession of the Premises is surrendered to Landlord except for items which have therefore accrued and/or are then unpaid or items which expressly survive the expiration or sooner termination of this Lease.

23.3 Rent Abatement. In the event of any casualty, the Rent payable under this Lease shall be abated proportionately with the degree to which Tenant's Permitted Use of the Premises is impaired either during the period of such repair, reconstruction or restoration or until termination of the Lease pursuant to this Article 23, but only to the extent that Landlord is compensated for such loss by the insurance carried or required to be carried pursuant to Section 22.1.4 above. Notwithstanding the foregoing, there shall be no abatement of Rent if such damage is caused primarily by the negligence or intentional wrongdoing of Tenant or any Tenant Party. Tenant shall not be entitled to any compensation or damages for loss in the use of the whole or any part of the Premises and/or any inconvenience or annoyance occasioned by such damage, repair, reconstruction or restoration. If Landlord is obligated to or elects to repair or restore as herein provided, Landlord shall be obligated to repair or restore only those portions of the Building and the Premises which were originally provided at Landlord's expense, and the repair and restoration of items not provided at Landlord's expense shall be the obligation of Tenant.

23.4 Damage Near End of Term. Notwithstanding anything to the contrary contained in this Article 23, if material damage to the Premises occurs during the last twelve (12) months of the Term, either party may elect, no earlier than sixty (60) days after the date of the damage and not later than ninety (90) days after the date of such damage, to terminate this Lease by written notice to the other effective as of the date specified in the notice, which date shall not be less than ten (10) business days nor more than sixty (60) days after the date such notice is given.

23.5 Waiver of Statute. In the event of damage to the Premises and/or the Building, Tenant shall not be released from any of its obligations under this Lease except to the extent and upon the conditions expressly stated in this Article 23. Tenant hereby waives the provisions of California Civil Code Section 1932, Subsection 2, and Section 1933, Subsection 4, and any other statute or court decision relating to the abatement or termination of a lease upon destruction of the Premises and the provisions of this Article 23 shall govern in case of such destruction.

ARTICLE 24

EMINENT DOMAIN

24.1 Permanent Taking. If all of the Premises, or such part thereof as shall substantially interfere with Tenant's Permitted Use and occupancy thereof, shall be taken for any public or quasi-public purpose by any lawful power or authority by exercise of the right of appropriation, condemnation or eminent domain, or sold to prevent such taking (a "Taking"), either party shall have the right to terminate this Lease by Notice to the other effective as of the date possession is required to be surrendered to said authority. Tenant shall not assert any claim against Landlord or the taking authority for any compensation because of such Taking, and Landlord shall be entitled to receive the entire amount of any award without deduction for any estate or interest of Tenant. If the amount of property or the type of estate taken shall not substantially interfere with the conduct of Tenant's business, Landlord shall be entitled to the entire amount of the award without deduction for any estate or interest of Tenant, Landlord shall restore the Premises to substantially their same condition prior to such partial Taking, and Basic Rent shall be reduced, effective as of the date the condemning authority takes possession, in the same proportion which the Rentable Square Feet of the portion of the Premises so taken bears to the Rentable Square Feet of the entire Premises before the Taking. Nothing contained in this Section 24.1 shall be deemed to give Landlord any interest in any award made to Tenant for the taking of personal property and fixtures belonging to Tenant or for relocation costs and expenses.

24.2 Temporary Taking. Notwithstanding anything to the contrary in Section 24.1 above, in the event of Taking of the Premises or any part thereof for temporary use, (a) this Lease shall be and remain unaffected thereby and Rent shall not abate, and (b) Tenant shall be entitled to receive for itself such portion or portions of any award made for such use with respect to the period of the Taking which is within the Term, provided that if such Taking shall remain in force at the expiration or earlier termination of this Lease, Tenant shall then pay to Landlord a sum equal to the reasonable cost of performing Tenant's obligations under Section 15.2 above and Article 31 below with respect to surrender of the Premises and, upon such payment, shall be excused from such obligations. For purpose of this Article 24, a "temporary" Taking shall be defined as a Taking for a period of two hundred seventy (270) days or less and a "permanent" Taking shall be defined as a Taking for a period of more than two hundred seventy (270) days.

24.3 Waiver of Statute. Tenant (for itself and all others claiming through Tenant) hereby irrevocably waives and releases its rights under Section 1265.130 of the California Code of Civil Procedure.

ARTICLE 25

DEFAULTS AND REMEDIES

25.1 Tenant Default. The occurrence of any one or more of the following events, upon the expiration of any applicable time period, shall constitute a default hereunder by Tenant ("Tenant Default"):

25.1.1. Abandonment of the Premises by Tenant. Notwithstanding the provisions of California Civil Code Section 1951.3, "Abandonment" is defined to include, but not limited to, any absence by Tenant from the Premises for thirty (30) days or longer while in default pursuant to this Section 25.1;

25.1.2. The failure by Tenant to make any payment of Rent or any other payment required to be made by Tenant hereunder, as and when due, where such failure shall continue for a period of three (3) business days after Landlord's delivery of Notice thereof;

25.1.3. The failure by Tenant to obtain and keep in force at all times any insurance Tenant is required to obtain and keep in force under Article 22 where such failure is not cured within five (5) business days after Landlord's delivery of Notice of such failure;

25.1.4. Hypothecation, assignment or other transfer of this Lease or subletting of the Premises, or attempts of such actions in violation of Article 27 of this Lease;

25.1.5. The failure by Tenant to deliver any certificate, instrument or statement that is required to be delivered by Tenant under Article 28, Article 29 or Section 36.16 within the time frames required in Article 28,

Article 29 or Section 36.16, as applicable, which Tenant fails to cure within five (5) business days after Landlord's delivery of Notice thereof;

25.1.6. The failure by Tenant to observe or perform any of the express or implied covenants or provisions of this Lease to be observed or performed by Tenant, other than as specified in Sections 25.1.1 -25.1.5 above or Section 25.1.7 below, where such failure shall continue for a period of thirty (30) days after Landlord's delivery of Notice thereof; provided that if the nature of any such failure is such that more than thirty (30) days are reasonably required for its cure, then no Tenant Default shall be deemed to occur if (and for so long as) Tenant commences the cure of such failure within said thirty (30) day period and thereafter diligently prosecutes such cure to completion within ninety (90) days after Landlord's delivery of Notice thereof; or

25.1.7. The (a) making by Tenant of any general assignment for the benefit of creditors; (b) filing by or against Tenant of a petition to have Tenant adjudged a bankrupt or a petition for reorganization or arrangement under any Law relating to bankruptcy; (c) appointment of a trustee or receiver to take possession of substantially all of Tenant's assets located at the Premises or of Tenant's interest in this Lease; (d) attachment, execution or other judicial seizure of substantially all of Tenant's assets located at the Premises or of Tenant's interest in this Lease; or (f) Tenant's convening of a meeting of its creditors or any class thereof for the purpose of effecting a moratorium upon or composition of its debts, or any class thereof; provided that no Tenant Default will be deemed to occur under this Section 25.1.7 if (i) any petition described in clause (a) above that filed against (rather than by) Tenant, is dismissed within thirty (30) days) after filing, (ii) in the event any trustee or receiver shall take possession of substantially all of Tenant's assets located at the Premises or Tenant's interest in this Lease, possession of the same is restored to Tenant within thirty (30) days or (iii) any attachment, execution or other judicial seizure described in clause (d) above is discharged within thirty (30) days.

Any Notice from Landlord required hereby shall be in lieu of, and not in addition to, any Notice required under California Code of Civil Procedure Section 1161 regarding unlawful detainer actions or any similar successor statute. Accordingly, Tenant (for itself and all others claiming through Tenant) hereby expressly and irrevocably waives the notice requirements of California Code of Civil Procedure Section 1162 that would otherwise govern notices required under Section 1161, and agrees that any notice provided pursuant to this Section 25.1 shall replace and satisfy any such requirements of Section 1162.

25.2 Landlord Remedies. In the event of any such Tenant Default, in addition to any other remedies available to Landlord at law or in equity, including, without limitation, the remedies available under California Civil Code Section 1951.2 and any successor statute, Landlord shall have the immediate option to terminate this Lease and all rights of Tenant hereunder. In the event that Landlord shall elect to so terminate this Lease then Landlord may recover from Tenant:

25.2.1. The worth at the time of award of any unpaid Rent which had been earned at the time of such termination; plus

25.2.2. the worth at the time of award of the amount by which the unpaid Rent which would have been earned after termination until the time of award exceeds the amount of such Rent loss that Tenant proves could have been reasonably avoided; plus

25.2.3. the worth at the time of award of the amount by which the unpaid Rent for the balance of the Term after the time of award exceeds the amount of such Rent loss that Tenant proves could be reasonably avoided; plus

25.2.4. any other amount necessary to compensate Landlord for all the detriment proximately caused by Tenant's failure to perform Tenant's obligations under this Lease or which in the ordinary course of things would be likely to result therefrom, including but not limited to the cost of recovering possession of the Premises, expenses of reletting, including necessary repair, renovation and alteration of the Premises, reasonable attorneys' fees and any other reasonable costs; and

25.2.5. at Landlord's election, such other amounts in addition to or in lieu of the foregoing as may be permitted from time to time by applicable Law.

As used in Sections 25.2.1 and 25.2.2 above, the "worth at the time of award" is computed by allowing interest at the Default Rate. As used in Section 25.2.3 above, the "worth at the time of award" is computed by

discounting such amount at the discount rate of the Federal Reserve Bank of San Francisco ("Discount Rate") at the time of award plus one percent (1%). If the format or components of the Discount Rate are materially changed, or if the Discount Rate ceases to exist, Landlord shall substitute a discount rate which is maintained by the Federal Reserve Bank of San Francisco or similar financial institution and which is most nearly equivalent to the Discount Rate.

25.3 Additional Remedies. If any such Tenant Default occurs, Landlord may utilize the remedy described in California Civil Code Section 1951.4 (which provides landlord may continue the lease in effect after a tenant's breach and abandonment and recover Rent as it becomes due, if tenant has the right to sublet or assign subject to reasonable limitations). Accordingly, in the event of any Tenant Default and abandonment of the Premises by Tenant, if Landlord does not elect to terminate this Lease on account of such Tenant Default, then Landlord may from time-to-time, without terminating this Lease, enforce all of its rights and remedies under this Lease, including the right to recover all Rent as it becomes due. In the event of the Abandonment of the Premises by Tenant or in the event that Landlord utilizes the remedy described in this Section 25.3 above or shall take possession of the Premises pursuant to legal proceeding or pursuant to any notice provided by Law, then if Landlord does not elect to terminate this Lease as provided above, Landlord may from time to time, without terminating this Lease, either recover all Rent as it becomes due or relet the Premises or any part thereof for the Term of this Lease on terms and conditions as Landlord in its sole discretion may deem advisable with the right to make alterations and repairs to the Premises.

If Landlord shall elect to so relet, such reletting shall not relieve Tenant of any obligation hereunder, except that the rents received by Landlord from such reletting shall be applied as follows: (a) first, to the payment of any indebtedness other than Rent due hereunder from Tenant to Landlord; (b) second, to the payment of any cost of such reletting; (c) third, to the payment of the cost of any alterations and repairs to the Premises; (d) fourth, to the payment of Rent due and unpaid hereunder and (e) the residue, if any, shall be held by Landlord and applied to payment of future Rent as the same may become due and payable hereunder. Should that portion of such rents received from such reletting during any month, which is applied to the payment of Rent hereunder, be less than the Rent payable during that month by Tenant hereunder, then Tenant shall pay such deficiency to Landlord immediately upon demand therefor by Landlord. Such deficiency shall be calculated and paid monthly. Tenant shall also pay to Landlord, as soon as ascertained, any costs and expenses, including attorneys' fees, incurred by Landlord in such reletting or in making such alterations and repairs not covered by the rents received from such reletting. During the continuance of a Tenant Default, Landlord shall have the right to market the Premises to potential new tenants and may show the Premises to such potential new tenants during normal business hours.

25.4 Notice of Default. Tenant hereby acknowledges that default by Tenant hereunder, and Landlord's election to prepare and serve a Notice of any such default hereunder (a "Notice of Default"), will cause Landlord to incur costs not contemplated by this Lease, and costs in addition to any costs which may be reimbursed to Landlord by any provision which may be contained herein relative to the payment of interest or late charges on amounts due hereunder. Accordingly, Landlord shall be entitled to reasonable attorneys' fees and all other costs and expenses incurred in the preparation and service of a Notice of Default and consultations in connection therewith, with respect to which Landlord and Tenant agree that Five Hundred Dollars ($500.00) is a reasonable minimum sum per such occurrence, whether or not legal action is subsequently commenced in connection with any such default. It is further hereby specifically agreed by and between Landlord and Tenant that any and all such fees and costs shall be deemed Additional Rent hereunder, and may, at the option of Landlord, be included in any Notice of Default hereunder.

25.5 Landlord's Right to Cure. If Tenant should fail to make any payment or perform any of its other obligations hereunder, Landlord, without being under any obligation to do so and without thereby waiving such default, may make such payment and/or remedy such other default for the account of Tenant (and enter the Premises for such purpose): (a) immediately and without notice in the case: (i) of emergency, (ii) of a default by Tenant of its obligations under Section 8.3, Section 15.2 and/or Article 31, (iii) where such default unreasonably interferes with any other tenant in the Building or Project, (iv) a failure to satisfy or otherwise discharge any lien, or (v) where such default will result in the violation of Law or the cancellation of any insurance policy maintained by Landlord and (b) in any other case if such default continues beyond the applicable notice and cure period specified in Section 25.1 above, and thereupon Tenant shall be obligated to, and hereby agrees to pay Landlord, upon demand, all costs, expenses, and disbursements incurred by Landlord in taking such remedial action, together with an amount equal to five percent (5%) thereof for Landlord's overhead and administrative expenses, and the sum of such costs, together

with interest thereon at the rate described in Section 5.3 from the date of Landlord's payment thereof, shall be deemed Additional Rent.

25.6 Waiver of Redemption. Tenant (for itself and all others claiming through Tenant) hereby irrevocably waives and releases its rights to redemption and reinstatement under any present or future case law or statutory provision (including, without limitation, Sections 473, 1174 and 1179 of the California Code of Civil Procedure and Section 3275 of the California Civil Code) in the event that Tenant is dispossessed from the Premises for any reason.

25.7 Landlord's Default. Landlord's failure to perform or observe any of its obligations under this Lease shall constitute a default by Landlord under this Lease (a "Landlord Default") only if Landlord, or the Holder (defined below) of any Security Instrument (defined below) covering the Premises, fails to perform obligations required of Landlord within thirty (30) days after Notice by Tenant to Landlord (and to each Holder pursuant to Section 36.5 below), specifying wherein Landlord has failed to perform such obligations in reasonable detail; provided, however, that if the nature of Landlord's obligation is such that more than thirty (30) days are required for performance, then no Landlord Default shall occur if Landlord commences performance within such thirty (30) day period and thereafter diligently prosecutes the same to completion (or if any Holder of any Security Instrument commences and prosecutes the cure pursuant to Section 36.5 below). In no event shall Tenant be entitled to terminate this Lease by reason of any Landlord Default, and Tenant's remedies shall be limited to an action for monetary damages at law. Without limiting the foregoing, in recognition that Landlord must receive timely payments of Rent and operate the Building and Project, Tenant shall have no right of self-help to perform repairs or any other obligation of Landlord and, except as expressly provided in Articles 23 and 24, shall have no right to withhold, set-off, or abate Rent.

ARTICLE 26

NO WAIVER

All rights, options and remedies of Landlord contained in this Lease shall be construed and held to be cumulative, and not one of them shall be exclusive of the other, and Landlord shall have the right to pursue any one or all of such remedies or any other remedy or relief which may be provided by Law, whether or not stated in this Lease. The waiver by Landlord of any breach of any term, covenant or condition herein contained shall not be deemed to be a waiver of any subsequent breach of the same or any other term, covenant or condition herein contained, nor shall any custom or practice which may grow up between the parties in the administration of the terms hereof be deemed a waiver of or in any way affect the right of Landlord to insist upon the performance by Tenant in strict accordance with said terms. The subsequent acceptance of Rent hereunder by Landlord shall not be deemed to be a waiver of any preceding breach by Tenant of any term, covenant or condition of this Lease, other than the failure of Tenant to pay the particular Rent so accepted, regardless of Landlord's knowledge of such preceding breach at the time of acceptance of such Rent. No acceptance by Landlord of a lesser sum than the Basic Rent and Additional Rent or other sum then due shall be deemed to be other than on account of the earliest installment of such Rent or other amount due, nor shall any endorsement or statement on any check or any letter accompanying any check be deemed an accord and satisfaction, and Landlord may accept such check or payment without prejudice to Landlord's right to recover the balance of such installment or other amount or pursue any other remedy provided in this Lease. Without limiting the foregoing, Tenant (for itself and all others claiming through Tenant) acknowledges that this Article 26 imparts actual notice to Tenant, pursuant to California Code of Civil Procedure Section 1161.1(c), that Landlord's acceptance of partial payment of Rent shall not constitute a waiver of any rights available under this Lease or at law or equity, including, without limitation, the right to recover possession of the Premises.

ARTICLE 27

ASSIGNMENT AND SUBLETTING

27.1 Transfer. Tenant shall not voluntarily or by operation of law: (a) sublease all or any part of the Premises ("Sublease"), (b) assign this Lease ("Assignment"), or (c) enter into any other agreement or arrangement: (i) that permits a third party (other than Tenant's employees and occasional guests) to enter, occupy or use any portion of the Premises or remove any of Tenant's Personal Property therefrom or (ii) otherwise assigns, transfers, mortgages, pledges, hypothecates, encumbers or permits a lien to attach to Tenant's interest under this Lease or in

the Premises (each of the foregoing (a), (b) and (c), a "Transfer"), without first obtaining Landlord's prior written consent in accordance with this Article 27. In addition, for purposes of this Lease a "Transfer" (which shall be subject to the provisions of this Article 27) shall also include: (A) a direct or indirect transfer, assignment, pledge, or hypothecation of a Controlling (defined below) interest in Tenant and/or (B) the dissolution of the entity that constitutes Tenant without its immediate reconstitution. "Control" or "Controlling" means possession of the direct or indirect power to direct or cause the direction of the management and policies of a person or entity. No consent to an assignment, encumbrance or sublease shall constitute a waiver of any provision of this Article 27 or consent to any future assignment, encumbrance or transfer. Any Transfer without Landlord's prior written consent shall be voidable at Landlord's election and shall constitute a Tenant Default.

27.2 Transfer Procedure. If Tenant desires to make any Transfer, then at least thirty (30) days prior to the date when Tenant desires the Transfer to be effective ("Transfer Date") Tenant shall give Landlord a Notice ("Transfer Notice") setting forth: (a) the name, address and business of the person or entity to which the Transfer is proposed ("Proposed Transferee"); (b) information (including references) concerning the character, ownership and financial condition of the Proposed Transferee; (c) the proposed Transfer Date (which shall not be later than 90 days following the Transfer Notice); (d) any ownership or commercial relationship between Tenant and the Proposed Transferee; and (e) the consideration and all other material terms and conditions of the proposed Transfer, all in such detail as Landlord shall reasonably require. If Landlord reasonably requests additional detail (including, without limitation, financial statements of the proposed Transferee or a current estoppel certificate from Tenant), the Transfer Notice shall not be deemed to have been received until Landlord receives such additional detail, and Landlord may withhold consent to any proposed Transfer until such information is provided to it.

27.3 Recapture. Within thirty (30) days of Landlord's receipt of a Transfer Notice, and all information specified in Section 27.2 above, Landlord may, at its option, in its sole and absolute discretion, by Notice to Tenant ("Recapture Notice"), elect to: (a) in the case of a proposed Sublease, sublease the Premises or the portion thereof proposed to be sublet by Tenant at a rental rate per square foot equal to the lesser of the per square foot rental rate under this Lease or the proposed Sublease; (b) in the case of a proposed Assignment, take an assignment of this Lease upon the same terms as those offered to the proposed assignee; or (c) terminate this Lease in its entirety or as to the portion of the Premises subject to the proposed Transfer. Tenant shall have the right, by Notice to Landlord no later than five (5) business days following Landlord's delivery of a Recapture Notice, to withdraw the subject Transfer Notice, in which event such Recapture Notice shall have no force or effect. Tenant's failure to deliver such Notice to withdraw the subject Transfer Notice within such five (5) business day period shall be deemed a waiver of its right to withdraw such Transfer Notice and the parties shall proceed pursuant to the Recapture Notice. If Landlord elects to proceed pursuant to clause (a) or (b) above (and Tenant does not timely withdraw the subject Transfer Notice), any payment by Landlord to Tenant pursuant to such clause shall not exceed the amount which Tenant would have received pursuant to Section 27.5.2 below if Landlord had elected to consent to the proposed Sublease or Assignment. If this Lease shall be terminated with respect to the entire Premises, the Term shall end on the Transfer Date as if that date had been originally fixed in this Lease for the expiration of the Term. If Landlord recaptures only a portion of the Premises, the Rent during the unexpired Term and Tenant's Percentage shall be adjusted proportionately based on the Rentable Square Feet remaining in the Premises after such recapture. Tenant shall, at Tenant's own cost and expense, discharge in full any commissions which may be due and owing as a result of any proposed assignment or subletting, whether or not the Premises (or portion thereof) are recaptured pursuant to this Section 27.3 and rented by Landlord to the proposed tenant or any other tenant.

27.4 Landlord's Consent; Consent Standards; No Release.

27.4.1. Unless Landlord elects to exercise any of its rights under Section 27.3 above, Landlord shall, by Notice to Tenant, elect to: (a) consent to such proposed Transfer upon the terms and to the Proposed Transferee; or (b) refuse to give its consent to the proposed Transfer. Landlord shall not unreasonably withhold its consent to any Proposed Transfer; provided that, without limiting other situations in which it may be reasonable for Landlord to withhold its consent to any proposed Transfer, it shall be deemed reasonable for Landlord to withhold its consent to any proposed Transfer if Landlord determines in its sole discretion that: (i) the Proposed Transferee, in the case of an Assignment of this Lease or a Sublease of more than fifty percent (50%) of the Rentable Square Feet of the Premises, does not have sufficient financial strength or stability to perform all obligations under this Lease, and to perform them without any higher risk of default than Tenant; (ii) the intended use of the Premises (or the applicable portion thereof) by the Proposed Transferee is inconsistent or incompatible with other uses in the Building or in the Project; (iii) the intended use of the Premises (or the applicable portion thereof) by the Proposed

Transferee will require alteration of the Premises; (iv) the intended use of the Premises (or the applicable portion thereof) by the Proposed Transferee will violate this Lease or any Laws governing the Premises or the Building or Project; (v) the Proposed Transferee has the power of eminent domain, is a Governmental Authority or an agency or subdivision of a foreign government; (vi) either the Proposed Transferee, or any person which directly or indirectly controls, is controlled by, or is under common control with the Proposed Transferee: (A) occupies space in the Project or has negotiated with Landlord or any of its affiliates within the preceding one hundred eighty (180) days (or is currently negotiating with Landlord or any of its affiliates) to lease space in the Building or Project or (B) does not intend to occupy the Premises or the applicable portion thereof; (vii) at the time Tenant delivers the Transfer Notice, there exists an uncured Tenant Default; (viii) the proposed Transfer would cause Landlord to be in violation of another lease or agreement to which Landlord is a party or would give an occupant of the Building or Project a right to cancel or modify its lease; (ix) any ground lessor or mortgagee whose consent to such Transfer is required fails to consent thereto; (x) the use of the Premises (or the applicable portion thereof), the Building or the Project by the Proposed Transferee would, in Landlord's judgment, significantly increase pedestrian traffic in and out of the Building and/or the Project, generate increased loitering in Common Areas, increase security risk, or require any alterations to the Building or the Project to comply with applicable Laws; (xi) the Proposed Transferee would be a competitor to another tenant in the Building in violation of such other tenant's lease; (xii) the Proposed Transferee has been required by any prior landlord, lender or Governmental Authority to take material remedial action in connection with Hazardous Materials contaminating a property, which contamination resulted from Proposed Transferee's action or omission or use of the property in question; or (xiii) the Proposed Transferee is subject to a material enforcement order issued by any Governmental Authority in connection with the use, disposal or storage of Hazardous Materials.

27.4.2. Tenant further agrees that Landlord may condition its consent to any proposed Transfer upon satisfaction of any of the following conditions: (a) delivery to Landlord of a true copy of a fully executed sublease, assignment of lease or other instrument pursuant to which the applicable Transfer is made ("Transfer Instrument"); (b) delivery to Landlord of original executed copies (by Tenant and the Transferee (defined below)) of Landlord's form of Consent to Sublease (in the case of a Sublease) or Assignment and Assumption of Lease and Consent (in the case of an Assignment) or other instrument under which Landlord grants consent to the applicable Transfer ("Consent Instrument") and (c) receipt by Landlord of all sums and amounts to which Landlord is entitled under Section 27.5 below. Tenant acknowledges and agrees that any Consent Instrument may, without limitation: (i) in the case of a Sublease or Assignment, require the person or entity to which the Transfer is made ("Transferee") to be bound by all of the terms and provisions of this Lease and to perform all of the obligations of Tenant hereunder applicable to the Premises, or the portion thereof that is the subject of the applicable Transfer; (ii) in the case of an Assignment, include waivers by Tenant of all applicable suretyship defenses, including, but not limited to, those contained in Sections 2787 to 2855, inclusive, of the California Civil Code; and (iii) in the case of a Sublease: (A) provide that such Sublease is subject and subordinate to this Lease to all Security Instruments encumbering the Building or the Project, (B) require the Transferee to, upon demand by Landlord following the occurrence of any Tenant Default, remit directly to Landlord, all monies payable from such Transferee to Tenant in connection with such Sublease and (C) provide that in the event of termination of this Lease for any reason, including without limitation a voluntary surrender by Tenant, or in the event of any reentry or repossession of the Premises by Landlord, Landlord may, at its option, either: (x) terminate the sublease or (y) take over all of the right, title and interest of Tenant, as sublessor, under such sublease, in which case such sublessee shall attorn to Landlord, but that nevertheless Landlord shall not: (1) be liable for any previous act or omission of Tenant under such sublease, (2) be subject to any defense or offset previously accrued in favor of the sublessee against Tenant, or (3) be bound by any previous modification of any sublease made without Landlord's written consent, or by any previous prepayment by sublessee of more than one month's rent.

27.4.3. If Landlord grants its consent to any proposed Transfer described in any Transfer Notice, Tenant may during the thirty (30) days thereafter consummate such Transfer with the Proposed Transferee upon the terms and conditions described in the applicable Transfer Notice; provided, however, that any material change in such terms shall be subject to Landlord's consent as provided in this Article 27. No Assignment or Sublease or other Transfer (whether with or without Landlord's consent) shall relieve Tenant or any assignee or sublessee from any obligation under this Lease whether or not accrued as of the date of the Assignment or Sublease (and, to the extent such Tenant is deemed a surety of an assignee, Tenant hereby waives all applicable suretyship defenses, including, but not limited to, those contained in Sections 2787 to 2855, inclusive, of the California Civil Code.

27.5 Landlord's Costs; Transfer Premiums.

27.5.1. If Tenant requests Landlord's consent to a proposed Transfer under the provisions of this Article 27, Tenant shall, upon demand, reimburse all of Landlord's reasonable expenses, costs and attorneys' fees incurred in connection with processing such request for consent, whether or not Landlord grants consent to such proposed Transfer.

27.5.2. If Landlord consents to a Transfer, Tenant shall pay to Landlord fifty percent (50%) of any rent or other consideration realized by Tenant pursuant to such Transfer in excess of (i) the Rent payable by Tenant under this Lease, (ii) any reasonable tenant improvement allowance or other economic concession (e.g., space planning allowance, moving expenses, free or reduced rent periods, etc.) actually incurred by Tenant in connection with such Transfer, (iii) any reasonable advertising costs and brokerage commissions actually incurred by Tenant in connection with such Transfer, and (iv) any reasonable legal fees actually incurred by Tenant in connection with such Transfer.

27.6 Rights Not Transferable. All: (a) options to extend or renew the Term and/or to expand the Premises, if any, contained in this Lease or any addendum or amendment hereto or letter of agreement; (b) all rights to any signage at the Project in any location outside of the Premises, if any, contained in this Lease or any addendum or amendment hereto or letter of agreement; (c) all rights to above standard (or discounted) parking at the Project, if any, contained in this Lease or any addendum or amendment hereto or letter of agreement; and (d) all rights to receive any above standard services or utilities, if any, contained in this Lease or any addendum or amendment hereto or letter of agreement, are personal to the Original Tenant (or a Permitted Transferee), and may not be transferred in connection with any Transfer or exercised by any Transferee. Consent by Landlord to any Transfer shall not include consent to the assignment or transfer of any such options, rights or privileges (and such options, rights, or privileges shall terminate upon such assignment or subletting), unless Landlord, in its sole and absolute discretion, specifically grants in writing such options, rights, privileges or services to such assignee or subtenant.

27.7 Affiliate Transfers. Notwithstanding anything to the contrary contained in this Article 27, (a) any Transfer to an affiliate of Tenant (an entity which is controlled by, controls, or is under common control with Tenant), (b) any Transfer to an entity which acquires all or substantially all of the assets or interests (partnership, stock or other) of Tenant, or (c) any Transfer to an entity which is the resulting entity of a merger or consolidation of Tenant, shall not be deemed a Transfer under this Article 27, provided that (i) in the case of an assignment of this Lease or a sublease of more than fifty percent (50%) of the Rentable Square Feet of the Premises, the financial credit of such transferee entity is, in Landlord's reasonable judgment, the same or greater than that of Tenant both as of the Effective Date of this Lease and as of the date of the proposed transfer; (ii) Tenant notifies Landlord of such transfer within thirty (30) days thereof and promptly thereafter supplies Landlord with any documents or information reasonably requested by Landlord regarding such transfer or such affiliate; and (iii) such transfer is not a subterfuge by Tenant or Guarantor to avoid its obligations under this Lease or otherwise effectuate any "release" by Tenant or Guarantor of such obligations. A transfer made in accordance with this Section 27.7 shall be referred to as a "Permitted Transfer" and the transferee shall be referred to as a "Permitted Transferee." "Control," as used in this Section 27.7, shall mean the ownership, directly or indirectly, of more than fifty percent (50%) of the voting securities of, or possession of the right to vote, in the ordinary direction of its affairs, of more than fifty percent (50%) of the voting interest in, any person or entity. No assignment or sublease under this Section 27.7 shall relieve Tenant from any of its obligations under this Lease whether or not accrued as of the date of such assignment or sublease.

ARTICLE 28

SUBORDINATION

Without the necessity of any additional documents being executed by Tenant for the purpose of effecting a subordination, and at the election of Landlord, or any current or future mortgagee or holder of deed of trust with a lien on the Building or the Project or any ground lessor with respect to the Building or the Project (each, a "Holder"), this Lease shall be subject and subordinate at all times to: (a) all ground leases or underlying leases which may now exist or hereafter be executed affecting the Building, the Project, or the land upon which the Building and the Project are situated, or both; and (b) the lien of any mortgage or deed of trust which may now exist or hereafter be executed in any amount for which the Building, the Project, the land upon which the Building and the Project are situated, ground leases or underlying leases, or Landlord's interest or estate in any of said items is

specified as security (collectively, "Security Instruments"). With respect to any Security Instrument existing as of the Commencement Date, Landlord shall use commercially reasonable efforts to assist Tenant in obtaining a commercially reasonable non-disturbance agreement from the Holder thereof. Notwithstanding the foregoing, Landlord shall have the right to subordinate or cause to be subordinated such ground leases or any such liens to this Lease. In the event that any ground lease or underlying lease terminates for any reason or any mortgage or deed of trust is foreclosed or a conveyance in lieu of foreclosure is made for any reason, Tenant shall, notwithstanding any subordination, attorn to and become the tenant of the successor-in-interest to Landlord, at the option of such successor-in-interest to Landlord. Tenant covenants and agrees to execute and deliver, within ten (10) business days after demand by Landlord therefor, any additional documents evidencing the priority or subordination of this Lease with respect to any such Security Instruments. Tenant hereby irrevocably appoints Landlord as its attorney-in-fact to execute, deliver and record any such document in the name and on behalf of Tenant.

ARTICLE 29

ESTOPPEL CERTIFICATE

29.1 Tenant Estoppel Certificate. Within ten (10) business days following any written request which Landlord may make from time to time, Tenant shall execute and deliver to Landlord a statement, in a form substantially similar to the form of Exhibit "E" attached hereto, and incorporated herein by this reference (a "Tenant Estoppel Certificate") certifying: (a) the Commencement Date of this Lease; (b) that this Lease is unmodified and in full force and effect (or, if there have been modifications hereto, that this Lease is in full force and effect, and stating the date and nature of such modifications); (c) the date to which the Rent and other sums payable under this Lease have been paid; (d) that to the best of Tenant's knowledge, there are no then current defaults under this Lease by Landlord except as specified in Tenant's statement; (e) that Tenant has received no written notice that there are any then current defaults under this Lease by Tenant except as specified in Tenant's statement; and (f) such other matters as are reasonably included in such statement by Landlord. Landlord and Tenant intend that any statement delivered pursuant to this Article 29 may be relied upon by any mortgagee, lessor, beneficiary, purchaser or prospective purchaser of the Building or the Project or any interest therein.

29.2 Failure to Deliver. Tenant's failure to deliver such statement within such time shall be conclusive upon Tenant: (a) that this Lease is in full force and effect, without modification except as may be represented by Landlord, (b) that there are no uncured defaults in Landlord's performance, (c) that not more than one (1) month's Rent has been paid in advance and (d) that the statements included in the Tenant Estoppel Certificate are true and correct, without exception. Additionally, any such failure to timely deliver a Tenant Estoppel Certificate shall constitute an immediate Tenant Default hereunder.

ARTICLE 30

INTENTIONALLY OMITTED

ARTICLE 31

SURRENDER OF PREMISES

Upon the expiration or earlier termination of the Term hereof, Tenant shall peaceably surrender the Premises and all Leasehold Improvements therein, excepting only any of the same that are required to be removed in accordance with Section 15.2 above, to Landlord broom-clean, in good order, repair and condition (reasonable wear and tear and casualty damage excepted), with all of Tenant's Personal Property removed and free of any Hazardous Materials, and shall otherwise comply with all of the requirements of Section 15.2 above and Section 41.1 below. The voluntary or other surrender of this Lease by Tenant, or a mutual cancellation thereof, shall not work a merger, and shall, at the option of Landlord, operate as an assignment to it of any or all subleases or subtenancies. The delivery of keys to any employee of Landlord or to Landlord's agent or any employee thereof shall not be sufficient to constitute a termination of this Lease or a surrender of the Premises.

ARTICLE 32

PERFORMANCE BY TENANT

All covenants and agreements to be performed by Tenant under any of the terms of this Lease shall be timely performed by Tenant at Tenant's sole cost and expense and without any abatement of Rent except as expressly provided in this Lease. If Tenant shall fail to pay any sum of money owed to any party other than Landlord, for which it is liable hereunder, or if Tenant shall fail to timely perform any other act on its part to be performed hereunder Landlord may, without waiving or releasing Tenant from obligations of Tenant, but shall not be obligated to, make any such payment or perform any such other act to be made or performed by Tenant pursuant to Section 25.5 above.

ARTICLE 33

PARKING

Beginning on the Commencement Date, Tenant and Tenant's business visitors ("Tenant's Parking Invitees") shall be entitled to use the number of parking spaces set forth in Section 1.8 during the Initial Term, which parking spaces shall be located in the surface parking area of the Project ("Parking Area"). There shall be no direct charge attributable to Tenant's use of the Parking Area, other than any taxes imposed by any governmental authority in connection with the renting of parking spaces by Tenant or the use of the Parking Area by Tenant. Tenant's continued right to use the Parking Area is conditioned upon Tenant abiding by the Parking Rules and Regulations set forth on Exhibit "G" as amended from time to time for the orderly operation and use of the Parking Area, including any sticker, parking pass or other identification system established by Landlord, Tenant's cooperation in seeing that Tenant's employees and visitors also comply with the Parking Rules and Regulations and Tenant not being in default under this Lease (beyond any applicable notice and cure periods). Landlord specifically reserves the right to change the size, configuration, design, layout and all other aspects of the Parking Area at any time and Tenant acknowledges and agrees that Landlord may, from time to time, close-off or restrict access to the Parking Area for purposes of permitting or facilitating any such construction, alteration or improvements; provided, however, in connection with any such access restrictions, the same shall be without incurring any liability to Tenant and without any abatement of Rent under this Lease to the extent Landlord provides any reasonably required temporary, alternate parking. Landlord may delegate its responsibilities hereunder to a parking operator in which case such parking operator shall have all the rights of control attributed hereby to Landlord. Any parking passes issued to Tenant pursuant to this Article 33 shall be provided to Tenant solely for use by Tenant's own personnel and such passes may not be transferred, assigned, subleased or otherwise alienated by Tenant without Landlord's prior approval. Tenant may validate visitor parking by such method or methods as Landlord may establish, at the validation rate from time to time generally applicable to visitor parking.

ARTICLE 34

LIMITATION ON LIABILITY

34.1 Landlord's Liability. In consideration of the benefits accruing hereunder, Tenant and all of its successors and assigns covenant and agree that, in the event of any actual or alleged failure, breach or default hereunder by Landlord:

34.1.1. The sole and exclusive remedy shall be against Landlord's interest in the Project;

34.1.2. Only Landlord shall be sued or named as a party in any suit or action;

34.1.3. No writ of attachment, execution, possession, or sale, will ever be levied against the assets of Landlord, except the Building;

34.1.4. The obligations under this Lease do not constitute personal obligations of any Landlord Indemnified Party (other than Landlord), and Tenant shall not seek recourse against any Landlord Indemnified Party (other than Landlord) or any of their personal assets (other than Landlord's interest in the Project) for satisfaction of any liability in respect to this Lease (and, without limiting the foregoing, neither the negative capital account of any Landlord Indemnified Party, nor any obligation of any Landlord Indemnified Party to restore a negative capital account or to contribute capital to Landlord, shall at any time be deemed to be the property or an asset of Landlord,

and neither Tenant nor any of its successors or assigns shall have any right to collect, enforce or proceed against or with respect to any such negative capital account of an Landlord Indemnified Party's obligation to restore or contribute); and

34.1.5. These covenants and agreements are enforceable by Landlord and the other Landlord Indemnified Parties.

ARTICLE 35

CONFIDENTIALITY

Tenant agrees that the terms and conditions of this Lease and any documents or information delivered hereunder are confidential and constitute proprietary information. Disclosure of the terms and conditions hereof or any documents or information delivered hereunder could adversely affect the ability of Landlord to negotiate with other tenants or potential tenants of the Building. Tenant and its partners, officers, members, managers, directors, employees, agents, advisors, representatives and attorneys, shall not disclose the terms and conditions of this Lease or any documents or information delivered hereunder to any other person without the prior written consent of Landlord except (a) pursuant to an order of a court of competent jurisdiction, (b) to its investors, lenders or prospective lenders, (c) to accountants who audit its financial statements or prepare its tax returns, (d) to its attorneys, insurers, to any Governmental Authority or person to whom disclosure is required by applicable Law and (e) in connection with any action brought to enforce the terms of this Lease on account of the breach or alleged breach hereof. In the event that Tenant concludes that it is obligated by Law to disclose the terms of this Lease (e.g., pursuant to a filing with the Securities and Exchange Commission ("SEC") or the New York Stock Exchange), Tenant shall provide written notice to Landlord before any public disclosure, and the parties shall use their commercially reasonable efforts to cause a mutually agreeable release or announcement to be issued. The foregoing shall not preclude communications or disclosures by Tenant necessary to implement the provisions of this Lease or to comply with the accounting and disclosure obligations of the SEC or the rules of the New York Stock Exchange. If Tenant determines that it is required to file this Lease, a summary thereof, or a notification thereof, and/or descriptions related thereto, to comply with the requirements of an applicable stock exchange, SEC regulation, or any Governmental Authority, including the SEC, Tenant shall use its best efforts to provide the maximum amount of advance written notice of any such required disclosure to Landlord with a minimum advance notice period of five (5) business days. Tenant will provide Landlord with a copy of this Lease marked to show provisions for which Tenant intends to seek confidential treatment. Tenant shall reasonably consider and incorporate Landlord's comments thereon to the extent consistent with the legal requirements governing redaction of information from material agreements that must be publicly filed. Notwithstanding anything to the contrary contained in this Lease, neither Landlord nor Tenant (nor either of their affiliates) shall (orally or in writing) publicly disclose, issue any press release or make any other public statement, or otherwise communicate with the media, concerning the existence of this Lease or the subject matter hereof, without the prior written approval of the other.

ARTICLE 36

MISCELLANEOUS

36.1 Rules and Regulations. Tenant shall faithfully observe and comply with the "Rules and Regulations", a copy of which is attached hereto, marked Exhibit "F", and incorporated herein by this reference ("Rules and Regulations"), and all modifications thereof and additions thereto made from time to time by Landlord. Landlord shall not be responsible to Tenant for the violation or nonperformance by any other tenant or occupant of the Building or the Project of any of said Rules and Regulations.

36.2 Conflict of Laws. This Lease shall be governed by and construed pursuant to the Laws of the State of California (without reference to its conflicts of laws rules or principles).

36.3 Successors and Assigns. Except as otherwise provided in this Lease, all of the covenants, conditions and provisions of this Lease shall be binding upon and inure to the benefit of the parties hereto and their respective heirs, personal representatives, successors and assigns (subject to the restrictions on Tenant's right to assign, sublet or transfer contained in Article 27).

36.4 Professional Fees. If Landlord should bring suit for possession of the Premises, for the recovery of any sum due under this Lease, or because of the breach of any provisions of this Lease, or for any other relief

against Tenant hereunder, or in the event of any other litigation between the parties with respect to this Lease, then all reasonable costs and reasonable expenses, including, without limitation, actual professional fees such as appraisers', accountants', and attorneys' fees, incurred by the prevailing party therein shall be paid by the other party, which obligation on the part of the other party shall be deemed to have accrued on the date of the commencement of such action and shall be enforceable whether or not the action is prosecuted to judgment.

36.5 Mortgagee Protection. Tenant shall give Notice to any beneficiary of a deed of trust or mortgage covering the Premises whose address shall have been furnished to Tenant of any default on the part of Landlord under this Lease, and shall offer such beneficiary or mortgagee a reasonable opportunity to cure the default, in no event less than sixty (60) days, including time to obtain possession of the Premises by power of sale or a judicial foreclosure if necessary to effect a cure.

36.6 Definition of Landlord. The term "Landlord", as used in this Lease, so far as covenants or obligations on the part of Landlord are concerned, shall be limited to mean and include only the owner or owners, at the time in question, of the fee title of the Premises or the lessees under any ground lease, if any. In the event of any transfer, assignment or other conveyance or transfers of any such title, the original landlord herein named (and in case of any subsequent transfers or conveyances, the then grantor) shall be automatically freed and relieved from and after the date of such transfer, assignment or conveyance of all liability as respects the performance of any covenants or obligations on the part of Landlord contained in this Lease thereafter to be performed. Without further agreement, the transferee of such title shall be deemed to have assumed and agreed to observe and perform any and all obligations of Landlord hereunder, during its ownership of the Premises. Landlord may transfer its interest in the Premises without the consent of Tenant and such transfer or any subsequent transfer shall not be deemed a violation on Landlord's part of any of the terms and conditions of this Lease.

36.7 Identification of Tenant. If more than one person or entity executes this Lease as Tenant: (a) each of them shall be jointly and severally liable for observing and performing all of the terms, covenants, conditions, provisions and agreements of this Lease to be observed and performed by Tenant, and (b) the term "Tenant" as used in this Lease shall mean and include each of them jointly and severally. The act of or Notice from, or Notice or refund to, or the signature of any one or more of them, with respect to the tenancy of this Lease, including but not limited to any renewal, extension, expiration, termination or modification of this Lease, shall be binding upon each and all of the persons executing this Lease as Tenant with the same force and effect as if each and all of them had so acted, so given or received such Notice or refund, or so signed.

36.8 Force Majeure. Each party shall have no liability whatsoever to the other party on account of any of the following ("Force Majeure"): (a) the inability of such party to fulfill, or any delay in fullfilling, any of its obligations under this Lease by reason of strike, other labor trouble, governmental preemption or priorities or other controls in connection with a national or other public emergency, or shortages of fuel, supplies or labor resulting therefrom, inclement weather, casualty, earthquake, war, riot, civil commotion, terrorism or any other cause, whether similar or dissimilar to the above, beyond such party's reasonable control (financial condition excepted); or (b) any failure or defect in the supply, quantity, character, or maintenance of electricity, water, intrabuilding network telephone and data cable service, or other service furnished to the Premises by reason of any requirement, act or omission of the public utility or others furnishing the Building with such service, or for any other reason, whether similar or dissimilar to the above, beyond such party's reasonable control. If this Lease specifies a time period for performance of an obligation of such party, that time period shall be extended by the period of any delay in such party's performance caused by any of the events of Force Majeure described above. Notwithstanding the foregoing, nothing in this Section 36.8 shall relieve Tenant from the obligation to pay any Rent or extend the time for payment of any Rent.

36.9 Terms and Headings. The words "Landlord" and "Tenant" as used herein shall include the plural as well as the singular. Words used in any gender include other genders. The Article and Section headings of this Lease are not a part of this Lease and shall have no effect upon the construction or interpretation of any part hereof.

36.10 Examination of Lease. Submission of this instrument for examination or signature by Tenant does not constitute a reservation of or option for lease, and it is not effective as a lease or otherwise until execution by and delivery to both Landlord and Tenant.

36.11 Time. Time is of the essence with respect to the performance of every provision of this Lease in which time is a factor.

36.12 Prior Agreement; Amendments. This Lease contains all of the agreements of the parties hereto with respect to any matter covered or mentioned in this Lease, and no prior agreement or understanding pertaining to any such matter, written or verbal, shall be effective for any purpose. No provisions of this Lease may be amended or added to except by an agreement in writing signed by the parties hereto or their respective successors-in-interest.

36.13 Severability. Any provision of this Lease which shall prove to be invalid, void or illegal shall in no way affect, impair or invalidate any other provision hereof, and such other provisions shall remain in full force and effect.

36.14 Recording. Tenant shall not record this Lease or a short form memorandum hereof without the consent of Landlord (in its sole and absolute discretion), which consent may be conditioned upon Tenant's delivery to Landlord of a fully executed quitclaim releasing Tenant's interest in the Premises, the Project or any portion thereof.

36.15 Modification for Lenders. If, in connection with obtaining construction, interim or permanent financing for the Project the lender shall request reasonable modifications in this Lease as a condition to such financing, Tenant will not unreasonably withhold, delay or condition its consent thereto, provided that such modifications do not materially increase the obligations or costs of Tenant hereunder or materially adversely affect the leasehold interest hereby created or Tenant's rights hereunder.

36.16 Financial Statements. At any time during the Term of this Lease, Tenant shall, upon ten (10) business days' Notice from Landlord, provide Landlord with its current financial statements and financial statements of the two (2) years prior to the year in which Landlord's Notice was given (together with, if Tenant's obligations under this Lease are guaranteed, the guarantor's current financial statements and financial statements of the two (2) years prior to the year in which Landlord's Notice was given); provided Tenant shall not be required to provide such financial statements more than once in each consecutive twelve (12) month period during the Term unless (a) Tenant is in default under this Lease, or (b) requested in connection with a proposed sale, transfer, financing or refinancing of the Project or any portion thereof. If Tenant's compliance with the immediately preceding sentence would result in Tenant providing the same financial statements that were previously provided to Landlord, then Tenant shall be responsible for providing only those financial statements, if any, that have not previously been delivered. Such statements shall be prepared in accordance with generally accepted accounting principles and, if such is the normal practice of Tenant, shall be audited by an independent certified public accountant. All financial statements shall be certified as true and correct by Tenant's chief financial officer and Tenant agrees that Landlord may share such financial statements with prospective lenders or purchasers of the Property.

36.17 Quiet Enjoyment. Landlord covenants and agrees with Tenant that, upon Tenant paying the Rent required under this Lease and performing all of the covenants and provisions on Tenant's part to be observed and performed under this Lease, Tenant shall during the Term, peaceably and quietly have, hold and enjoy the Premises in accordance with this Lease without interference by any persons lawfully claiming by or through Landlord. The foregoing covenant is in lieu of any other covenant express or implied.

36.18 Tenant as Corporation, Partnership or Limited Liability Company. If Tenant is a corporation, partnership or limited liability company, Tenant and the persons executing this Lease on behalf of Tenant represent and warrant that it is an entity duly qualified to do business in California and that the individuals executing this Lease on Tenant's behalf are duly authorized to execute and deliver this Lease on its behalf, in the case of a corporation, in accordance with its by-laws and with a duly adopted resolution of the board of directors of Tenant, a copy of which shall be delivered to Landlord upon execution hereof by Tenant, in the case of a partnership, in accordance with the partnership agreement and the most current amendments thereto, if any, copies of which shall be delivered to Landlord upon execution hereof by Tenant, and, in the case of a limited liability company, in accordance with its governing documents and any documents required thereby, copies of which shall be delivered to Landlord upon execution hereof by Tenant, and that this Lease is binding upon Tenant in accordance with its terms.

36.19 CASp Disclosure. For purposes of Section 1938 of the California Civil Code, Landlord hereby discloses to Tenant that the Building Common Areas, Project Common Areas and Premises, as of the date of this Lease, have not been inspected by a Certified Access Specialist (CASp), as that term is defined in California Civil Code Section 55.52. In accordance with subsection (e) of Section 1938 of the California Civil Code, Tenant is further notified as follows:

A Certified Access Specialist (CASp) can inspect the subject premises and determine whether the subject premises comply with all of the applicable construction-related accessibility standards under state law. Although state law does not require a CASp inspection of the subject premises, the commercial property owner or lessor may not prohibit the lessee or tenant from obtaining a CASp inspection of the subject premises for the occupancy or potential occupancy of the lessee or tenant, if requested by the lessee or tenant. The parties shall mutually agree on the arrangements for the time and manner of the CASp inspection, the payment of the fee for the CASp inspection, and the cost of making any repairs necessary to correct violations of construction-related accessibility standards within the premises.

ARTICLE 37

SIGNAGE

Landlord retains absolute control over the exterior appearance of the Building and the Project and the exterior appearance of the Premises as viewed from the Building Common Areas and Project Common Areas. Tenant will not, without Landlord's prior written consent, install, or permit to be installed, any drapes, furnishings, signs, lettering, designs, advertising or any items that will in any way alter the exterior appearance of the Building, the Project or the exterior appearance of the Premises as viewed from the Building Common Areas and Project Common Areas. Any sign, advertising, design, or lettering installed by Tenant shall be considered an Alteration and shall be subject to the provisions of Article 15; provided that Landlord shall have the right to withhold its consent to the same in its sole and absolute discretion. Notwithstanding the foregoing, Tenant shall have (a) the exclusive right, without obligation, to have its name (including its logo) displayed on one (1) building-top sign on the Building, which building-top sign shall be located on the non-glass area of the northeast portion of the Building facing Lusk Boulevard at the Wateridge intersection, as generally shown on Exhibit I ("Tenant's Building-Top Signage"), and Landlord shall trim the trees shown on Exhibit I to maximize the visibility of Tenant's Building Top Signage from Lusk Boulevard (subject to the terms and conditions set forth below in this Article 37) and such exclusive right shall be conditioned upon Tenant's (or a Permitted Transferee's) occupancy of the entire Premises, and (b) the nonexclusive right, without obligation, to have its name (including its logo) displayed on (i) signage at the front of the Building at the main entrance lobby, (ii) if approved by the City of San Diego and constructed by Landlord, prominently as the first and only signage on the top line of the monument sign located at the main driveway entrance to the Building, (iii) prominently as the first and only name on the top line of the Building's lobby directory, and (iv) its pro rata portion of any other Project Signage (as that term is defined below) as reasonably determined by Landlord based on Tenant's Percentage (the signage rights granted to Tenant in the foregoing subsections (a) and (b) shall be collectively referred to herein as "Tenant's Signage"), subject to the terms and conditions set forth in this Article 37. Tenant hereby acknowledges that, as of the Effective Date, Landlord has not received approval from the City of San Diego (or any other authority with jurisdiction over the Project) for any exterior signage for the Project and, accordingly, Tenant's right to any such signage (including, without limitation, Tenant's Signage set forth above) is contingent on such approval. In addition, the specifications of Tenant's Signage (including, without limitation, the dimensions, and configuration thereof) shall be subject to the prior written approval of Landlord, which approval shall not be unreasonably withheld, provided that such specifications are consistent with Landlord's sign program for the Project and all applicable Laws. As used herein, the "Project Signage" shall mean all exterior signage for the Project (e.g., building-top signage and/or facade signage above the main entrance(s) to the Building) and one or more monument signs), which Project Signage (including the size, location and existence thereof) shall be determined by Landlord in its reasonable discretion. The construction and installation of Tenant's Signage shall be performed by Tenant (upon Landlord's approval thereof), at Tenant's sole cost and expense. Prior to installation, Tenant shall deliver to Landlord a drawing depicting the design, size, location, specifications, graphics, materials and colors of Tenant's Signage, all of which shall be consistent with Landlord's sign program and the Rules and Regulations. Tenant's Signage shall be subject to any applicable review and approval by the City of San Diego and any other authorities with jurisdiction over the Project, and Tenant shall obtain all applicable permits and authorizations by Governmental Authorities prior to installation of Tenant's Signage. After installation, Tenant shall maintain Tenant's Signage in good condition and repair at all times through the Term. Tenant shall remove Tenant's Signage upon the expiration or earlier termination of this Lease and shall repair any damage caused thereby. The maintenance and removal of Tenant's Signage shall be performed at

Tenant's sole cost and expense. All signage rights granted to Tenant under this Lease are personal to the original Tenant named herein, and, except in connection with a Permitted Transfer to a Permitted Transferee, may not be assigned or transferred without Landlord's prior written consent, which consent Landlord may withhold in its sole and absolute discretion.

ARTICLE 38

EXECUTIVE ORDER 13224

Tenant hereby represents and warrants to Landlord that Tenant is not: (a) in violation of any Anti-Terrorism Law (defined below); (b) conducting any business or engaging in any transaction or dealing with any Prohibited Person (defined below), including, without limitation, the making or receiving of any contribution of funds, goods or services to or for the benefit of any Prohibited Person; (c) dealing in, or otherwise engaging in any transaction relating to, any property or interest in property blocked pursuant to Executive Order No. 13224; (d) engaging in or conspiring to engage in any transaction that evades or avoids, or has the purpose of evading or avoiding, or attempts to violate any of the prohibitions set forth in any Anti-Terrorism Law; or (e) a Prohibited Person, nor are any of its partners, members, managers, officers or directors a Prohibited Person. As used herein, "Anti-Terrorism Law" is defined as any Law relating to terrorism, anti-terrorism, money laundering or anti-money laundering activities, including, without limitation, Executive Order No. 13224 and Title 3 of the USA Patriot Act. As used herein " Executive Order No. 13224" is defined as Executive Order No. 13224 on Terrorist Financing effective September 24, 2001, and relating to "Blocking Property and Prohibiting Transactions With Persons Who Commit, or Support Terrorism." "Prohibited Person" is defined as: (i) a person or entity that is listed in the Annex to Executive Order No. 13224; (ii) a person or entity with whom Tenant or Landlord is prohibited from dealing or otherwise engaging in any transaction by any Anti-Terrorism Law; or (iii) a person or entity that is named as a "specially designated national and blocked person" on the most current list published by the U.S. Treasury Department Office of Foreign Assets Control at its official website, http://www.treas.gov/ofac/t11sdn.pdf or at any replacement website or other official publication of such list. "USA Patriot Act" is defined as the "Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001" (Public Law 107-56).

ARTICLE 39

WAIVER OF JURY TRIAL

TO THE EXTENT PERMITTED BY LAW, LANDLORD AND TENANT WAIVE THE RIGHT TO A TRIAL BY JURY.

ARTICLE 40

TENANT REPRESENTATIONS

Tenant represents and warrants to Landlord as of the date hereof and continuing thereafter as follows:

(a) The execution and delivery of this Lease by Tenant will not result in a breach of the terms or provisions of, or constitute a default (or a condition that, upon notice or lapse of time, or both, would constitute a default) under its organizational documents or any indenture, agreement, or obligation by which Tenant is bound, and will not constitute a violation of any Law applicable to Tenant.

(b) The person executing this Lease on Tenant's behalf is duly authorized to so act; that Tenant is duly organized, is qualified to do business in the jurisdiction in which the Building is located, is in good standing under the Laws of the state of its organization and the Laws of the jurisdiction in which the Building is located, and has the power and authority to enter into this Lease; and that all action required to authorize Tenant and such person to enter into this Lease has been duly taken.

(c) Any financial statements provided by Tenant are true, correct and complete in all material respects and do not omit to state a fact that would be material to Tenant's financial condition. There has been no material adverse change in Tenant's financial condition since Tenant provided such financial statements.

(d) Tenant is in compliance with all applicable anti-money laundering Laws, including, without limitation, the USA Patriot Act, and the Laws administered by the United States Treasury Department's Office of

Foreign Assets Control, including, without limitation, Executive Order No. 13224. Tenant is not owned or controlled directly or indirectly by any person or entity, on the SDN List published by the United States Treasury Department's Office of Foreign Assets Control and Tenant is not a person otherwise identified by any Governmental Authority as a person with whom a U.S. Person is prohibited from transacting business. As of the date hereof, a list of such designations and the text of Executive Order No. 13224 are published under the internet website address www.ustreas.gov/offices/enforcement/ofac.

ARTICLE 41

ADDITIONAL PROVISIONS

41.1 Early Access. Following twenty-four (24) hours' notice to Landlord and upon receipt of written approval by Landlord (which shall not be unreasonably withheld or delayed), Landlord shall permit Tenant and its agents to enter the Premises up to sixty (60) days prior to the Commencement Date ("Early Access Period") for the sole purpose of installing, at Tenant's sole cost and expense, its furniture, fixtures, equipment and cabling in the Premises; provided, however, that in no event shall such early access, regardless of when provided, extend or otherwise affect the Commencement Date. Any such entry shall be in a manner and upon terms and conditions and at times satisfactory to Landlord's representative. The foregoing license to enter the Premises prior to the Commencement Date is, however, conditioned upon Tenant's contractors and their subcontractors and employees working in harmony and not interfering with the work being performed by Landlord. If at any time such entry shall cause disharmony or interfere with the work being performed by Landlord, this license may be withdrawn by Landlord upon twenty-four (24) hours written notice to Tenant. Tenant shall be liable for any damages caused by Tenant's activities at the Premises. Such license is further conditioned upon the compliance by Tenant's contractors with all requirements imposed by Landlord on third party contractors, including, without limitation, the maintenance by Tenant and its contractors and subcontractors of workers' compensation and public liability and property damage insurance in amounts and with companies and on forms satisfactory to Landlord, with certificates of such insurance being furnished to Landlord prior to proceeding with any such entry. The entry shall be deemed to be under all of the provisions of this Lease except as expressly set forth in this Section 41.1. During the Early Access Period, Tenant shall have no obligation to pay Basic Rent, Operating Expenses or Real Property Taxes. Landlord shall not be liable in any way for any injury, loss or damage which may occur to any such work being performed by Tenant, the same being solely at Tenant's risk. All costs and expenses in connection with or arising out of the performance of any work by Tenant during such early entry shall be borne by Tenant, and all payments therefor shall be made by Tenant promptly as they become due. Tenant shall, at its sole cost and expense, comply with all applicable laws, ordinances, regulations and policies governing its work. Tenant shall defend, indemnify and hold Landlord and its members, agents, employees, partners, and their respective employees, partners, officers, directors, agents, representatives, successors and assigns, harmless from and against any and all suits, claims, actions, losses, costs, liabilities or expenses (including reasonable attorneys' fees and claims for workers' compensation) to the extent arising out of or in connection with any and all work during such early entry (including, but not limited to, claims for breach of warranty, personal injury or property damage). Landlord shall have the right, in Landlord's sole and absolute discretion, to settle, compromise, or otherwise dispose of any and all suits, claims, and actions against any of the indemnified parties arising out of or in connection with the work performed by Tenant during any early entry. Tenant shall coordinate such entry with Landlord's building manager and, except as expressly set forth in this Section 41.1, such entry shall be made in compliance with all terms and conditions of this Lease and the Rules and Regulations attached hereto.

41.2 Environmental Assessments. Tenant hereby acknowledges receipt of the Phase I Environmental Site Assessment dated April 12, 2018, prepared by AES Due Diligence, Inc. regarding the Project ("Original Phase I Assessment"); a copy of the executive summary of the Original Phase I Assessment is attached hereto as Exhibit "H". The Original Phase I Assessment shall serve as the "baseline" for determining the environmental condition of the Project prior to Tenant's occupancy thereof. In addition to the surrender obligations set forth elsewhere in this Lease (including, without limitation, Section 15.2 and Article 31), upon the expiration or earlier termination of this Lease, Tenant, at its sole cost and expense, shall (a) cause a Phase I environmental assessment (or similar non-invasive assessment) of the Project ("Phase I Surrender Assessment") to be performed and deliver the results thereof to Landlord no later than thirty (30) days following such expiration or earlier termination (but in no event shall the Phase I Surrender Assessment be dated more than ten (10) days prior to such expiration or earlier termination); and (b) if and to the extent recommended by the Phase I Surrender Assessment and consented to by Landlord in writing, cause a Phase II environmental assessment (or similar additional assessment) of the Project ("Phase II Surrender

Assessment") to be performed and deliver the results thereof to Landlord no later than thirty (30) days following the date of the Phase I Surrender Assessment. In addition, Landlord shall have the right, in its sole and absolute discretion, to hire, or to cause Tenant to hire, an environmental consultant to conduct a physical inspection of the Project ("Environmental Inspection") upon the expiration or earlier termination of this Lease, which inspection shall be at Tenant's sole cost and expense. The Phase I Surrender Assessment and any Phase II Surrender Assessment and/or Environmental Inspection, as the same compare to the Original Phase I Assessment, shall be used to, among other things, determine the extent of Tenant's compliance (or noncompliance) with Section 8.3 above.

41.3 Generator. Tenant shall have the right to install one (1) standalone emergency generator serving the Premises ("Generator") in a location reasonably approved by Landlord. All costs and expenses to install and maintain the Generator shall be the sole responsibility of Tenant, except that Tenant may elect, prior to the commencement of the Tenant Improvements, to apply a portion of the Tenant Improvement Allowance toward the cost of the Generator. The installation of the Generator shall be deemed an Alteration subject to the terms and conditions of Article 15 above.

41.4 Security System. Tenant shall have the right to install an integrated security system within the Premises ("Security System"). All costs and expenses to install and maintain the Security System shall be the sole responsibility of Tenant. The installation of the Security System shall be deemed an Alteration subject to the terms and conditions of Article 15 above.

41.5 Roof Rights and Telecommunications Equipment. Tenant shall have the non-exclusive right to install on the roof of the Building, at its sole cost and expense but at no charge due to Landlord, one (1) satellite dish or one (1) antenna, together with related cables and appurtenances for Tenant's data transmission network, provided that (i) the dish or antenna, all appurtenant equipment, and all connecting wires and cables on the roof and within the Building risers shall be depicted on plans and specifications showing the size and configuration thereof and such plans and specifications shall be delivered to Landlord for its prior approval, which shall not be unreasonably withheld or delayed; (ii) any such installation shall be completed in full compliance with any and all rules established for the location of communications installations established by Landlord, all applicable laws, municipal or governmental rules, regulations, permits and approvals, any covenants, conditions or restrictions governing the Premises and/or the Project in effect at the time Tenant desires to install such equipment, and any applicable owners' association rules, regulations, permits and approvals; (iii) any such installation and the use thereof shall not interfere with the operation of any third party communications installations existing on the roof of the Building at the time Tenant installs its equipment; and (iv) any such installation shall not be visible from view from the ground level or any other lot within the Project to Landlord's reasonable satisfaction. Subject to the foregoing, Tenant shall have the right to vertical access to the roof at no additional cost for the purpose of installing and maintaining its rooftop installation. Tenant shall pay all costs and expenses incurred in connection with the installation, maintenance and, upon the expiration of the Term or any earlier termination of this Lease, the removal of all of Tenant's equipment, wires and cables from the roof and all other portions of the Building. Furthermore, Tenant shall obtain Landlord's consent, which shall not be unreasonably withheld or delayed, prior to each occasion on which Tenant or its agents access the roof. Tenant shall contract solely with Landlord's roof contractor for any and all rooftop installation and removal.

41.6 Right of First Refusal. Beginning on the Effective Date, provided that Tenant is not in default under this Lease beyond applicable notice and cure periods and provided further that, if the Initial Term has commenced, Tenant occupies one hundred percent (100%) of the Premises, then Landlord agrees that prior to leasing one or more of the other suites of the Building to a third party for the first time, Landlord shall submit a copy of the first bona fide offer to lease such space from a third party that Landlord is willing to accept ("Offer") to Tenant. Tenant shall have a one-time right ("ROFR") to elect to lease the entire space identified in the Offer ("Offer Space"), on terms and conditions identical to those contained in the Offer (except as indicated below), provided that Tenant delivers written notice exercising its ROFR within seven (7) business days following delivery of the copy of the Offer from Landlord to Tenant. If Tenant duly and timely exercises the ROFR, Landlord and Tenant shall promptly amend this Lease to include the Offer Space on terms and conditions identical to those contained in the Offer, except that (a) the term of the lease relative to the Offer Space shall be coterminous with the Lease for the Premises and (b) any concessions in the Offer (e.g., any improvement allowance) shall be equitably reduced to correspond with a reduced amortization period equal to the remaining portion of the existing Term. If for any reason, Tenant fails to duly and timely exercise the ROFR, or if Tenant properly exercises such right but thereafter for any reason does not enter into the amendment of the Lease within thirty (30) days after exercise of the ROFR

(unless the delay is caused by Landlord), then Landlord shall be free to lease the Offer Space to another tenant without any obligation pursuant to this Section 41.6 and the ROFR shall terminate and be of no further force or effect. The ROFR shall apply during the Initial Term only (and not during any Option Term or other expansion term), shall be personal to the Original Tenant (or any Permitted Transferee) and may not be exercised or assigned, voluntarily or involuntarily, by or to any person or entity other than such Original Tenant or Permitted Transferee and shall not be assignable separate and apart from this Lease.

41.7 Termination Option. Tenant shall have a one (1) time option to terminate this Lease ("Termination Option") effective on the last day of the one hundredth (100th) full month of the Initial Term ("Termination Date"), provided that (a) Tenant shall give Landlord written notice ("Termination Notice") of its exercise of the Termination Option, if at all, no sooner than the last day of the eighty-eighth (88th) full month of the Initial Term and no later than the last day of the ninetieth (90th) full month of the Initial Term, (b) Tenant shall not be in default under the terms of this Lease (after the lapse of all applicable notice and cure periods) at the time Tenant delivers the Termination Notice to Landlord or at any time between delivery of the Termination Notice and the Termination Date, and (c) concurrently with Tenant's delivery of the Termination Notice to Landlord, Tenant shall pay to Landlord a termination fee ("Termination Fee") equal to the sum of (i) the unamortized balance (amortized over the Initial Term), as of the Termination Date, of the Tenant Improvement Allowance, plus (ii) an amount equal to the monthly Basic Rent payable as of the Termination Date multiplied by twenty (20). The actual amount of the Termination Fee (as calculated pursuant to the immediately preceding sentence) shall be specified in the Commencement Letter. The Termination Option is applicable to the original Premises only and shall not apply to any additional or expansion premises in the Project which may become a part of this Lease. The Termination Option is personal to the Original Tenant (or any Permitted Transferee) and may not be exercised or assigned, voluntarily or involuntarily, by or to any person or entity other than such Original Tenant or Permitted Transferee.

[*signatures on following page*]

IN WITNESS WHEREOF, the parties have executed this Lease as of the Effective Date.

LANDLORD:

10770 WATERIDGE INVESTORS LLC,
a California limited liability company

By: SRE SD4, LLC,
a Delaware limited liability company,
its sole member

By: SB 10770 Wateridge Investors LLC,
a California limited liability company
its manager

By: _____

Name: _____

Its: _____

TENANT:

TRILINK BIOTECHNOLOGIES, LLC,
a Delaware limited liability company

By: /s/ Eric Tardif

Name: Eric Tardif

Its: President

By: _____

Name: _____

Its: _____

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SECOND AMENDMENT TO LEASE

THIS SECOND AMENDMENT TO LEASE ("Amendment") is made and entered into as of October 6, 2016, by and between **ARAME, LLC,** a North Carolina limited liability company ("Landlord") and **CYGNUS TECHNOLOGIES, INC.,** a North Carolina corporation ("Tenant").

RECITALS:

WHEREAS, Landlord and Tenant entered into that certain Commercial Lease Agreement dated June 7, 2012 as amended by that Lease Amendment of Lease dated January 28, 2016 (collectively, the "Lease"), demising premises located at and known as 4332 Southport Supply Road, Southport, North Carolina 28461, and also sometimes described as Unit Nos. 100, 104 and 204 in the St. James Square Office Park Condominium (Phase Two) (the "Premises"), all as more particularly described in the Lease; and

WHEREAS, Landlord and Tenant wish to amend the terms of the Lease as set forth below.

TERMS OF AMENDMENT:

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Landlord and Tenant hereby agree as follows:

1. *Base Rent Adjustment.* Subsection 3 c. of the Lease is hereby amended by deleting such subsection in its entirety and substituting therefor the following:

"c. The Base Rent shall be adjusted every five (5) years of the term of this Lease, with the first such adjustment to be effective on July 1, 2017 (the "Initial Base Rent Adjustment Date" and each subsequent fifth anniversary during the Lease term (sometimes referred to as the "term" or "Lease Term") is, together with the Initial Base Rent Adjustment Date, a "Base Rent Adjustment Date"). The Base Rent shall be adjusted in the manner set forth in this paragraph c. and subject to below paragraph d., to Fair Market Rent (defined below), provided, however, that in no event shall the Base Rent ever be reduced below the Base Rent in effect during the twelve months of the term of this Lease immediately preceding the effective date of any such adjustment, and, subject to below paragraph (d), the monthly Base Rent from and after any Base Rent Adjustment Date shall be equal to the greater of (i) the Base Rent applicable to the last year of the prior five years of the Lease term immediately preceding the next Base Rent Adjustment Date, and (ii) Fair Market Rent.

"Fair Market Rent" means the then prevailing market rate for comparable space in comparable buildings in the general area of the Premises, taking into account the size of the Lease, market escalations and the credit of Tenant. The Base Rent shall not be reduced by reason of any costs or expenses saved by Landlord by reason of Landlord's not having to find a new tenant for such Premises (including, without limitation, brokerage commissions, costs of improvements, rent concessions or lost rental income during any vacancy period). In the event Landlord and Tenant fail to reach an agreement in writing on such Base

Rent adjustment at least six months prior to the next Base Rent Adjustment Date (the "Six Month Deadline"), then Fair Market Rent shall be determined as follows:

within thirty days following the Six-Month Deadline, Landlord shall give notice ("Landlord's Notice") to Tenant of Landlord's determination of Fair Market Rent and absent agreement with Tenant on Fair Market Rent and execution of the Base Rent Confirmation Amendment (defined below) by the date 14 days after Tenant's receipt of such Landlord's Notice (which Landlord's Notice shall include give the name of a commercial real estate broker with at least five years' experience in the Southport, North Carolina (or nearby) commercial real estate leasing market ("Landlord Broker"). Within three business days after expiration of such 14-day period, Tenant shall give Landlord the name of a commercial real estate broker with at least five years' experience in the Southport, North Carolina (or nearby) commercial real estate leasing market ("Tenant Broker"). Landlord Broker and Tenant Broker shall attempt prior to that date which is 45 days after the Six Month Deadline, to agree on Fair Market Rent, and in the event of such agreement prior to such date, such Fair Market Rent shall be final and binding on the Landlord and Tenant for the five year portion of the Lese Term commencing with the next Base Rent Adjustment Date. If the Landlord Broker and the Tenant Broker arc unable to so agree on Fair Market Rent prior to that date which is 45 days after the Six Month Deadline (the 'Second Deadline'), each shall set forth in writing its recommendation of Fair Market Rent (respectively, the "Landlord Broker's Recommendation" and the "Tenant's Broker Recommendation"). If the Landlord Broker's Recommendation and the Tenant's Broker's Recommendation are within 5% of the higher of the two such recommendations for Fair Market Rent, the two recommendations shall be averaged and such average shall be final and binding on the Landlord and Tenant as the applicable Fair Market Rent for such 5-year period of the Lease Term commencing with the next Base Rent Adjustment Date. If the Landlord Broker's Recommendation and the Tenant Broker's Recommendation are not within 5% of the higher of the two such recommendations, then the Landlord Broker and the Tenant Broker shall mutually designate within seven days after the Second Deadline ("Arbitrator Broker Selection Date"), a third commercial real estate broker with at least five years' experience in the Southport, North Carolina (or nearby) commercial real estate leasing market ("Arbitrator Broker"). The Arbitrator Broker shall prior to that date which is thirty days after selection of the Arbitrator Broker ("Arbitrator Decision Deadline"), determine as the Fair Market Rent either the Landlord Broker's Recommendation or the Tenant Broker's Recommendation, which determination shall be final and binding on the Landlord and Tenant. In the event that the Arbitrator Broker is not selected by the Arbitrator Broker Selection Date or the Arbitrator Broker has not determined the Fair Market Rent in accordance with the foregoing by the Arbitrator Decision Deadline, then either Landlord or Tenant may apply to the Wilmington, North Carolina office of the American Arbitration Association ("AAA"), or if there is no such Wilmington AAA office, to the Charlotte, North Carolina AAA office, for the appointment of a single arbitrator, having the same qualifications as the Arbitrator Broker, to determine the Fair Market Rent as either the proposed Fair Market Rent set forth as the Landlord Broker's Recommendation or the proposed Fair Market Rent set forth as the Tenant Broker's Recommendation, which determination shall be final and binding on the Landlord and Tenant. The Fair Market Rent shall in all circumstances be determined by that date 75 days prior to the next Base Rent Adjustment Date. At the request of Landlord or Tenant, after the Fair Market Rent is determined in accordance with the foregoing, each shall execute a letter confirming such Fair Market Rent (a "Base Rent Confirmation Amendment"), but the execution of same shall not be a condition to such Fair Market Rent being final and binding on the Landlord and Tenant. The determination of Base Rent does not reduce the Tenant's obligation to pay or reimburse Landlord for condominium association dues, real property taxes and ad valorem taxes and other reimbursable items as set forth in the Lease, and Tenant shall reimburse and pay Landlord as set forth in the Lease with respect to same.

d. Notwithstanding the foregoing, Base Rent for each twelve calendar months of the Lease Term commencing with the 12-month period beginning July 1, 2018 shall be adjusted upward but not downward annually, commencing with the Base Rent due for the twelve calendar months commencing July 1, 2018. Such Base Rent adjustment for each 12 calendar months during the Lease Term commencing with the twelve month period beginning July 1, 2018, shall be computed by adding to such yearly Base Rent the sum determined by multiplying the annual Base Rent during the 5-year period following the most recent Base Rent Adjustment Date by the percentage increase in the "Consumer Price index for Urban Wage Earners and Clerical Workers – United States, 1967 = 100", published by the United State Bureau of Labor Statistics – Charlotte, during the following time period (the ***"CPI Increase Measurement Period")***: the twelve calendar month period ending June 30th of the calendar year in which the respective twelve calendar month of the Lease Term falls (i.e., the CPI Increase Measurement Period for the second Lease year of the five year period following the Initial Base Rent Adjustment Date is July 1, 2017 through June 30, 2018). For each Lease year after the 12 calendar month period ending June 30, 2018, the yearly Base Rent last due pursuant to Subsection 3 c. above, as most recently adjusted under this Subsection 3 d. (the ***"most recent yearly Base Rent")*** shall be increased, but not decreased, by a sum equal to the most recent yearly Base Rent times the percentage increase in the Consumer Price Index over the CPI Increase Measurement Period ending on June 30th of the calendar year in which the next ensuing 12 months of the Lease Term falls (for illustration only, the CPI Increase Measurement Period for the third 12 months of the Lease Term following the Initial Base Rent Adjustment Date (i.e., the 12 month period commencing July 1, 2020) will be the 12 calendar month period ending June 30, 2020). If the United States Bureau of Labor Statistics Index referred to above is discontinued or changed in form, the parties shall use instead the most nearly comparable index of said Bureau or the agency most nearly performing the same function as said Bureau, making such interpolations or adjustments as may be necessary to obtain a fair computation. Under no circumstances shall this Subsection 3 d. operate to cause the Base Rent in effect in any year of the Lease Term to decrease from the Base Rent in effect for the Lease year prior thereto."

2 . *Ratification.* Except as otherwise amended herein, Landlord and Tenant agree that the Lease is hereby affirmed and continues in full force and effect. All references to the "Lease" shall be deemed to be references to the Lease as amended by this Amendment.

3 . *Effect of Amendment.* The preparation, revision or delivery of this Amendment for examination and discussion is merely a part of the negotiations between Landlord and Tenant. Neither party shall have any obligation or liability to the other whatsoever at law or in equity (including any claims for detrimental reliance or promissory estoppel and regardless of whether either party has commenced performance) unless and until such time as both parties shall have executed and delivered this Amendment.

Remainder of page left blank; signature page is next page.

IN WITNESS WHEREOF, each party has caused this Amendment to Lease to be executed under seal by its duly authorized representative as of the date first written above.

LANDLORD:	**TENANT:**
ARAME, LLC	**CYGNUS TECHNOLOGIES, INC.**
By: /s/ Robert Beckman Name: Robert Beckman Its: Member-Manager	By: /s/ Kenneth Hoffman Name: Its:

Lease Amendment

This Lease Amendment is hereby made and entered into by and between ARAME, LLC ("Landlord") and CYGNUS TECHNOLOGIES, INC ("Tenant") on February 01, 2016.

WITNESSETH:

WHEREAS, Landlord and Tenant have previously entered into a Lease Agreement ("the Lease") dated June 07, 2012 whereby CYGNUS TECHNOLOGIES, INC leased from ARAME, LLC office complex located in 4332 Southport Supply Road, Southport, Brunswick County County, North Carolina 28461, more particularly described in the Lease; and

WHEREAS, Landlord and Tenant desire to amend the Lease as herein stated.

NOW, THEREFORE, for and in consideration of the mutual covenants and promises herein contained, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

1. Landlord and Tenant both acknowledge and agree that the Lease is currently in effect and that neither party is in breach or default of the Lease.

2. Landlord and Tenant hereby amend the Lease as follows:

   The original address has been corrected to read "4332" Southport Supply Road

   Per the "Lease Payment Provision" on page 2, clause# 3, subset "b", the Additional Rent shall be modified from $2,566.00 per month to $3,316.00 per month based on annual increases to the property taxes and POA dues.

3. Except as specifically amended hereinabove, the original terms and provisions of the Lease remain in full force and effect, and both Landlord and Tenant hereby affirm and consent to the Lease, as herein amended, and agree to be bound thereby.

4. This Lease Amendment can be recorded at the discretion of North Carolina and ARAME, LLC, or the parties can prepare a short form memorandum of this Lease Amendment which can be properly executed and recorded in the Register's Office for Brunswick County, North Carolina.

5. All of the terms, covenants and conditions of the Lease as amended to date shall continue in full force and effect, and the same arc hereby reaffirmed, remade and rewritten, except to the extent that any such terms, covenants or conditions have been nullified hereby or

conflict or are inconsistent with the terms of this Amendment to Lease, in which event the terms of this Amendment to Lease shall, in all respects, govern and prevail.

6. This Amendment to Lease shall be binding upon and shall inure to the benefit of the parties hereto and their respective successors and assigns. No reference in the preceding sentence to assigns shall be deemed to authorize any assignment or other transfer, in whole or in part, of the interest of Tenant in violation of any of the provisions of the Lease.

IN WITNESS WHEREOF, this Lease Amendment has been executed on the day and date first above written.

/s/ Robert Beckman	January 28, 2016
ARAME, LLC	Date
/s/ Kenneth Hoffman	January 28, 2016
CYGNUS TECHNOLOGIES, INC	Date

COMMERCIAL LEASE AGREEMENT

STATE OF NORTH CAROLINA
COUNTY OF BRUNSWICK

THIS LEASE AGREEMENT is made and entered into as of the 7th day of June, 2012, by and between ARAME, LLC (hereinafter called "Lessor") and Cygnus Technologies, Inc., (hereinafter called ''Lessee").

WITNESSETH:

WHEREAS, Lessor is the owner of all of that certain tract or parcel of improved real property located at 4330 Southport Supply Road, Southport, NC, upon which is currently located a office complex, said property being more particularly described on Exhibit "A", which is attached hereto and incorporated herein by specific reference thereto (hereinafter referred to as the "Premises"); and

WHEREAS, Lessee is desirous of leasing the Premises from Lessor in accordance with the terms and provisions set forth herein below; and

NOW, THEREFORE, for and in consideration of the sum of Ten Dollars ($10.00), the premises and covenants herein contained, and other good and valuable consideration, the receipt, adequacy and sufficiency of which is hereby acknowledged, the parties hereby covenant and agree as follows:

TO HAVE AND TO HOLD the said Premises unto the Lessee upon the following terms and conditions:

1. TERM. The term of this Lease shall begin on the 1st day of July, 2012, and shall end on the 31st day of July, 2027, unless the beginning and ending dates of the Lease terms are advanced or delayed or unless the Lease term is further extended or earlier terminated under any applicable provisions of this Agreement. For purposes of this Agreement, the terms "commencement date" and "expiration date" shall be deemed respectively to be the dates specified herein above, as such dates may be so changed or modified.

2. PRORATIONS. All operating expenses for or pertaining to the Premises for utilities and assigned service contracts and agreements. If final readings are not possible, a final adjustment will be made within thirty (30) days after request thereof by Lessee or Lessor after receipt of the final bills. Lessee shall be responsible for making all arrangements for the continuation of utility service, including, but not limited to, changing the billing name for such service into the name of Lessee immediately upon commencement of the lease.

3. LEASE PAYMENT PROVISIONS and OPTION TO PURCHASE. The Lease payments shall be as follows:

a. Lessee shall pay to the Lessor, Base Rent in the amount of **$15,434.00** per month; and

b. Lessee shall also pay to the Lessor, Additional Rent in the amount of **$2,566.00** per month as Lessee's estimated pro rata share of the ad valorem property taxes and condominium association dues. Within thirty days after the end of each calendar year, Lessor shall provide Lessee with a statement showing the actual taxes and dues paid by the Lessor for the previous year, the amount paid by Lessee and the balance due or amount overpaid. Tenant shall pay any amount due within thirty days and shall offset any overpayment against the next Base Rent payment. The amount of Additional Rent to be paid for each subsequent year shall be adjusted by the anticipated pro rata share of the ad valorem property taxes and condominium association dues for the current year. The adjusted Additional Rent payment amount shall change effective March 1 of each year.

c. The Base Rent shall be adjusted every five (5) years on the anniversary date of the Lease. The Base Rent shall be adjusted to an amount that is comparable to the rent for similar properties in the general area but in no event shall the Base rent be less than $_____

4. LATE CHARGES. Lessee's failure to pay Lease payments or any other amount payable hereunder promptly may cause Lessor to incur unanticipated costs, and the parties hereto agree that the exact amount

of such costs are impracticable or extremely difficult to ascertain. Such costs may include, but are not limited to, processing and accounting charges and late charges which may be imposed upon Lessor by any holder of a mortgage or security deed encumbering the Premises. Therefore, if Lessor does not receive payment of a Lease payment or any other amount payable hereunder with five (5) days of the due date, Lessee shall pay Lessor liquidated damages equal to five percent (5%) of such overdue amount. The parties agree that such late charge represents a reasonable good faith estimate of the costs and damages Lessor expects to incur by reason of any such late payment and shall in no event be construed to constitute a penalty.

5. INTEREST ON PAST DUE AMOUNTS. Any amount of Lease payments or any other amount owed by Lessee or Lessor hereunder which is not paid when due shall bear interest at the rate of six percent (6%) per month from the due date until such outstanding amount is paid. The payment of any such interest shall not, however, excuse or cure any default by Lessee under this Agreement. However, if the interest rate specified in this Agreement is at any time determined to be higher that the highest rate permitted by applicable law, the interest rate shall be reduced to the maximum interest rate permitted by law.

6. DEFAULT. The occurrence of one or more of the following events (herein called "Events of Default") shall constitute a default by the Lessee:

   a. Failure to pay lease payment when due;

   b. Failure to perform any other provision of this Lease if the failure to perform is not cured within fifteen (15) days after notice thereof has been given to Lessee.

7. LESSOR'S REMEDIES UPON DEFAULT BY LESSEE. Lessor shall have the following remedies if Lessee commits a default. These remedies are not exclusive; they are cumulative in addition to any remedies now or later allowed by law.

c. Lessor shall have the right to continue this Lease in full force and effect, and the right to enter the Premises without notice to vacate (any right to which is hereby waived by Lessee) and relet them, changing any and all locks on the Premises all without being liable for forcible entry, trespass, or other tort. Lessee shall be liable immediately to Lessor for all costs Lessor shall incur in reletting the Premises and Lessee shall pay to Lessor the total Lease payments due under this Lease on the date that such payment is due, less the Lease payment Lessor receives from any reletting.

d Lessor shall have the right to terminate this Lease without notice to vacate (any right to which is hereby waived by Lessee) and Lessee's rights to possession of the Premises at any time, and re-enter the Premises and Lessor shall have the right to pursuer its remedies at law or in equity to recover of Lessee all amounts of Lease payments then due or thereafter accruing and such other damages as are caused by Lessee's default.

8. WARRANTIES OF LESSOR. Lessor warrants and represent to Lessee that:

a. Lessor has received no notice from any governmental authority of zoning, environment, building, or fire violations with respect to the Premises.

b. Lessor has received no notice from any public authority of any eminent domain or condemnation proceedings conceding the Premises or any part thereof. Lessor further warrants that in the event it receives any such notice prior to the closing date, it will notice Lessee in writing prior to the closing.

c. Lessor is a Limited Liability Company organized and created under the laws of the State of North Carolina, and is in good standing.

d. Except as noted herein, Lessor warrants that it has the full right, power, and authority to enter into this Agreement, to perform it

obligations hereunder, and to execute and deliver this Agreement and all other documents to be executed and delivered by Lessor at closing in connection with the transaction contemplated herein. The representations and warranties set forth in this subparagraph shall be deemed to be renewed and restated at and as of the closing date. At closing, Lessor shall deliver to Lessee documentation evidencing the representations set forth herein.

e. Lessor warrants that the Lessee shall have an uninterruptable use of the property and the right to have quiet possession of the property. No act of omission or commission of the Lessor shall affect such right of Lessee.

9. MAINTENANCE AND REPAIR OBLIGATIONS.

a. Lessor hereby agrees, at Lessor's sole cost and expense, to maintain, repair, restore, and replace all portions of the Premises, as necessary to keep the same in reasonably good order, condition and repair, ordinary wear and tear excepted including, but not limited to the roof, exterior walls, foundations, and structural portions of the Premises, including specifically the heating, ventilation and air-conditioning systems, equipment, and facilities. Lessor shall also maintain and repair the driveways, parking lots, and landscaped areas located on and surrounding the Premises.

b. Lessee hereby agrees at Lessee's cost, to be responsible for interior maintenance of the Premises, including painting, repainting and redecorating, cleaning and replacement of carpeting and other similar maintenance.

10. ALTERATIONS, ADDITIONS, and IMPROVEMENTS. Lessee shall be responsible for all costs of construction and remodeling of the interior of the Premises, which includes any architectural and engineering fees. Lessee shall have the right to have interior work bid and performed by contractors of Lessee's choice, subject to Lessor's reasonable approval. All personal property including fixtures, soft

surface wall covering, panels, partitions and equipment placed in the Premise by Lessee shall remain the property of Lessee, whether or not physically attached to the premises, and Lessee may remove such property at any time, but Lessee shall be responsible for repairing any damage done to the Premises by such removal.

11. INSURANCE.

11.1 LIABILITY INSURANCE. At all times during the Lease term, Lessee shall maintain a policy of commercial general liability and umbrella insurance from an insurance carrier approved by Lessor. Lessee shall name Lessor and any mortgage holder as additional insured and loss payees under such policy. The amount of such insurance shall not be less than _____Dollars ($_____) per occurrence. The liability insurance obtained by Lessee under this Section shall, in addition to all other coverage, insure Lessor against Lessee's performance of all indemnifications of Lessor provided under this Agreement to the extent that the matters giving rise to such indemnity result from the negligence of Lessee. The amount and coverage of such insurance shall not, however, limit Lessee's liability nor relieve Lessee of any other obligations under this Agreement.

11.2 PROPERTY AND CASUALTY INSURANCE. At all times during the Lease term, Lessee shall maintain insurance covering loss of or damage to the Personal Property in the amount not less than _____Dollars ($) (hereinafter referred to as the "Property Insurance"). Such property insurance shall contain the inflation guard endorsement and shall provide protection against all perils including in the classification of fire, extended coverage, vandalism, malicious mischief, special extended perils (all risks), sprinkler leakage, and other perils which Lessor deems reasonably necessary.

12. DESTRUCTION OR DAMAGE OF PREMISES. If the Premises are totally destroyed by storm, fire, lightning, or other casualty, then at the option of the Lessee, this Agreement shall terminate as of the date of such destruction, and payment of Lease payments shall be accounted for as between Lessor and Lessee as of that date. Such option to terminate this Agreement shall be exercised by the delivery

of written notice by Lessee or Lessor within thirty (30) days of the date of such destruction.

13. CONDEMNATION. If the whole of the Premises or such portion thereof as will render the Premises totally unusable for the purpose for which leased, shall be taken by any legally constituted authority for any public use or purpose in any eminent domain proceeding or any conveyance made in lieu thereof, then in either of said events, the lease term shall terminate as of the date when possession thereof is so taken by said public authority.

14. CONDITION UPON TERMINATION. Upon termination of this Agreement, Lessee shall surrender the Premises to Lessor broom clean and in the same condition as received. All alterations, additions and improvements to the Premises shall become Lessor's property and shall be surrendered to Lessor upon the expiration or earlier termination of the Agreement, except as set forth in paragraph 10 above.

15. TERMINATION OF AGREEMENT. No termination of this Agreement prior to the scheduled expiration date hereof, by lapse of time or otherwise, shall affect Lessor's right to collect the lease payments for the period prior to the termination thereof. Lessee covenants and agrees not to vacate the Premises or exercise any right of termination arising out of any breach by Lessor of any provision in this Agreement or relating to the condition or state of repair of the Premises. No surrender of the Premises or any part thereof by delivery of keys or otherwise shall operate to terminate this Agreement, unless and until such termination is expressly acknowledged in writing by the authorized officer of Lessor.

16. REAL-ESTATE AND PERSONAL PROPERTY TAXES. Lessor shall pay any and all ad valorem real property taxes with regard to the Premises for each calendar year during the Lease term (herein referred to as the "Real Estate Taxes"). Lessee shall pay any and all personal property taxes.

17. HAZARDOUS MATERIALS AND ENVIRONMENTAL LAWS. Lessee agrees that it will comply fully and promptly with any and all environmental laws, regulations, statutes, ordinances, policies, and orders issued by any Federal, state, county, or local governmental authority; that it will obtain, maintain in full force and effect, and strictly comply with any and all governmental permits, approvals and authorizations necessary for the conduct of its business operations; that it will supply Lessor with copies of any such permits, approvals and authorizations; and that it will promptly notify Lessor and supply Lessor with a copy of any notice of violations of any environmental law, regulation, statute, ordinance, policy, or order Lessor receives.

Lessee shall not place within the property any hazardous waste or materials as such materials are defined in RCRA, CERCLA (Super Fund), and North Carolina's Oil Pollution and Hazardous Substances Control Act, or under any other statute, Federal regulation, state regulation or court interpretation of the same, except with the express consent of the Lessor. Lessor reserves the right to inspect the property for purposes of determining compliance with this paragraph. Should Lessee place hazardous materials or waste on property, he shall become solely responsible for the removal of same, and if Lessor incurs any liability either during the term of this lease and following the termination of same for the removal of hazardous waste or materials, or for damage caused by said hazardous waste or material placed on the premises by Lessee, the Lessee shall be solely responsible to Lessor for those damages, including, but not limited to, the cost of removing said materials and any penalties imposed for having materials on the site. Lessee agrees to indemnify and hold Lessor harmless in regard to any damages which may result from Lessee's placing said materials on the Premises and for the acts referred to herein.

18. INDEMNITY. Lessee shall indemnify and save harmless Lessor from and against any and all claims, costs, expenses and/or liability for damages to persons, or property arising from or relating to the use or occupancy of the Premises by Lessee, the conduct of Lessee's business or anything done or permitted to be done by Lessee in or about the Premises, or otherwise resulting from any breach or default

in the performance of Lessee's obligations under this Agreement, including attorney's fees and court costs. Lessor will similarly indemnify Lessee for any third-party liability claims for events occurring prior to the date of commencement.

19. UTILITIES. Lessee shall pay, directly to the appropriate utility supplier thereof, all utility bills relating to services rendered or supplied to the Premises or otherwise relating to Lessee's use or occupancy thereof, including, but not limited to, bills of water, sewer, gas, electricity, fuel, garbage collection, and sanitary services.

20. ASSIGNMENT AND SUBLETTING. Lessee shall not assign this Agreement or any interest hereunder, or sublet the Premises or any part thereof, or permit the use of the Premises by any party other than Lessee, without first obtaining the prior written consent of Lessor, which consent shall not be unreasonably withheld.

21. SUBORDINATION. Lessee agrees that this Lease is and shall remain subject and subordinate to and may be assigned as security for any present and future mortgages or deeds or trusts which may now or hereafter affect such leases of the Premises and to and for all renewals, modifications, consolidations, replacements, and extensions thereof. This clause shall be self-operative and no further instrument shall be necessary by to effect such subordination; however, Lessee shall execute promptly and deliver to Lessor any such certificate or certificates in writing as Lessor may request evidencing the subordination of this Lease to or the assignment of this Lease as additional security for such mortgage or deed of trust.

22. USE OF PREMISES. The Premises shall not be used for any illegal purposes or in violation of any regulation of any governmental body, or in any manner so as to create any nuisance or trespass, or so as to vitiate any insurance or increase the rate of insurance on the Premises. Lessee shall not abandon or vacate the Premises during the lease term, and shall use the Premises for the purposes set forth herein above until the expiration date of earlier termination of this Agreement.

23. QUIET ENJOYMENT AND TRANSFER OF TENANTS. Lessor agrees that Lessee on paying the rent and performing all of the terms and conditions of this Lease shall quietly have, hold and enjoy the Premises for the term aforesaid subject to the terms of this Agreement and any underlying mortgage or deed to secure debt encumbering the Premises.

24. NOTICES. Any notice or demand which by any provision of this Agreement is required or allowed to be given by either party to the other shall be deemed to have been sufficiently given for all purposes when made in writing and sent in the United States Mail as certified or registered mail. Return receipt requested, postage prepaid and addressed:

a. If to Lessee, to

Cygnus Technologies, Inc.
% Kenneth Hoffman

Southport, NC 28461

b. If to Lessor, to

ARAME, LLC
% Robert Beckman
1205 Vanderhorst Place
Wilmington, NC 28405

25. HEIRS AND ASSIGNS. The provisions of this Lease shall bind and inure to the benefit of Lessor and Lessee, and their respective successors, heirs, legal representatives, and assigns. It is understood and agreed, however, that the term “Lessor” as used in this Lease, means only the owner or the Lessor for the time being of the property, so that in the event of any sale or sales (including, without limitation, any judicial sale, any sale in foreclosure and any sale pursuant to a power of sale contained in a mortgage or deed of trust affecting all or any part of the building or the land) of said property or of any lease thereof, the Lessor named herein shall be and hereby is entirely freed and relieved of all covenants, and obligations of Lessor hereunder

accruing thereafter, and it shall be deemed without further agreement that the purchaser of the Premises, as the case may be, has assumed and agreed to carry out any and all covenants and obligations of Lessor hereunder during the period such party has possession of the Premises. Lessee shall from time to time upon request of Lessor execute and deliver to Lessor a certificate or certificates stating that this Lease is unmodified and in full force and effect or in full force and effect as modified and stating the modifications. Such certificates shall also state the amount of rent then in effect, the dates to which rent has been paid in advance, the amount of any security deposit and specify any default in Lessor's performance claimed by Lessee.

26. END OF TERM, HOLDING OVER, AND ATTORNEY'S FEES. Upon the expiration of the term or other termination of this Lease, Lessee shall quit and surrender to Lessor the Premises, in the Premises' original condition. If Lessee shall hold over after the expiration of the term or other termination of this Lease, such holding over shall not be deemed to be a renewal of this Lease but shall be deemed to create a tenancy-at-will and by such holding over Lessee shall be deemed to have agreed to be bound by all of the terms and conditions of this Lease except those as to the term hereof. If any rent or other sum owing under this Lease is collected by or through an attorney-at-law, Lessee agrees to pay Lessor's reasonable attorney's fee not in excess of fifteen percent (15%) (or if the statutes or other laws of the State of North Carolina in effect at the time of such collection limit the amount so payable as attorney's fees, then the maximum percentage allowed by such laws or statutes) of the amount so collected.

27. INSPECTION. Lessor shall have the right to enter upon the Premises at any reasonable hour to inspect for compliance with the terms of this Lease. Lessor shall provide Lessee with notice of the inspection at least twenty-four (24) hours prior to such inspection.

28. ARBITRATION. Any disagreement between the parties with respect to the interpretation or application of this Lease or the obligations of the parties hereunder shall be resolved by arbitration. Such arbitration shall be conducted, upon request of either Lessor or Lessee, before a

single arbitrator designated by the American Arbitration Association and in accordance with the rules of that Association. The arbitrator designated and acting under this Lease shall make the award in strict conformity with such rules and shall have no power to depart from or change any of the provisions thereof. The expense of arbitration proceedings conducted hereunder shall be born equally by the parties. All arbitration proceedings hereunder shall be conducted in the county in which the leased premises are located. During the period of any dispute, the Lessee will continue to make all lease payments as due under the Agreement.

29. SEVERABILITY. If any part of this Lease is determined to be unenforceable, the remainder of the Lease shall be unaffected.

30. INTEGRATION AND BINDING EFFECT. The entire Agreement, intent and understanding between Lessor and Lessee is contained in the provision of this Commercial Lease Agreement and any stipulations, representations, promises or agreements, written or oral, made prior to or contemporaneous with this Lease shall have no legal or equitable effect or consequence unless reduced to writing herein. This Lease shall be governed by and construed pursuant to the laws of the State of North Carolina.

IN WITNES WHEREOF, the parties have hereunto set their hands and seals as of the day and year set forth opposite their respective signatures.

LESSOR: ARAME, LLC

By: /s/ Robert Beckman Date: June 7, 2012

TITLE: Member

LESSEE: CYGNUS TECHNOLOGIES, INC.

BY: /s/ Kenneth Hoffman Date: June 7, 2012

TITLE: President

Exhibit 10.20

EXECUTION VERSION

SECOND AMENDED & RESTATED ADVISORY AGREEMENT

THIS SECOND AMENDED & RESTATED ADVISORY AGREEMENT (this "Agreement") is made as of September 15, 2016, by and among GTCR Management XI LP, a Delaware limited partnership ("GTCR"), Vector Laboratories, Inc., a California corporation ("Vector"), and TriLink BioTechnologies, LLC, a Delaware limited liability company ("TriLink" and, together with Vector, each an "Opco" and collectively "Opcos"). Capitalized terms used but not otherwise defined herein shall have the meanings set forth in the Limited Liability Company Agreement of the Company (as defined below), dated as of April 5, 2016, among the parties from time to time party thereto (as amended or modified from time to time, the "LLC Agreement").

WHEREAS, Maravai Life Sciences, Inc., a Delaware corporation ("Parent"), and GTCR entered into an Advisory Agreement, dated as of March 18, 2014 (the "Original Agreement");

WHEREAS, Parent, GTCR and VLI Merger Sub, Inc., a California corporation ("VLI"), entered into an Amended & Restated Advisory Agreement, dated as of April 5, 2016 (the "A&R Agreement") to amend, replace and supersede in its entirety the Original Agreement;

WHEREAS, on April 5, 2016, VLI merged with and into Vector pursuant to that certain Agreement and Plan of Merger, dated as of March 2, 2016, by and among VLI, Vector and certain other parties thereto;

WHEREAS, pursuant to the transactions contemplated by that certain Securities Purchase Agreement, dated as of August 16, 2016, by and among TRIHC, Inc., a California corporation ("Seller"), Maravai Intermediate Holdings II, LLC, a Delaware limited liability company ("Purchaser"), TriLink and certain other parties thereto, on the date hereof Purchaser acquired from Seller 100% of the issued and outstanding equity interests of TriLink;

WHEREAS, each Opco is an indirect subsidiary of Maravai Life Sciences Holdings, LLC, a Delaware limited liability company (the "Company");

WHEREAS, certain investment funds or special purpose investment vehicles managed or advised by GTCR (collectively, the "Investors") purchased (the "Investment") certain equity securities of Company, are making additional capital contributions with respect thereto as of the date of this Agreement and may make additional capital contributions with respect thereto pursuant to that certain Unit Purchase Agreement, dated as of March 18, 2014 (as amended or modified from time to time, the "Unit Purchase Agreement") between the Company and the Investors;

WHEREAS, Opcos desire to receive financial and business consulting services from GTCR and obtain the benefit of GTCR's experience in business and financial management generally and its knowledge of Opcos and Opcos' financial affairs in particular;

WHEREAS, in connection with the Investment, GTCR is willing to provide financial and business consulting services to Opcos, and the compensation arrangements set forth in this Agreement are designed to compensate GTCR for such services; and

WHEREAS, Opcos and GTCR desire to enter into this Agreement to amend and replace, and supersede in its entirety, the A&R Agreement;

NOW, THEREFORE, in consideration of the foregoing premises and the respective agreements hereinafter set forth and the mutual benefits to be derived herefrom, GTCR and Opco hereby agree as follows:

1 . Engagement. Opcos hereby engage GTCR as a financial and business consultant, and GTCR hereby agrees to provide financial and business consulting services to Opcos, all on the terms and subject to the conditions set forth below.

2. Services of GTCR. GTCR hereby agrees during the term of this engagement to consult with the board of directors (or similar governing bodies) of Opcos (collectively, the "Boards"), the boards of directors (or similar governing bodies) of Opcos' affiliates and the management of Opcos and their respective affiliates in such manner and on such business and financial matters as may be reasonably requested from time to time by the Boards, including:

(a) corporate strategy;

(b) budgeting of future corporate investments;

(c) acquisition and divestiture strategies; and

(d) debt and equity financings.

3 . Personnel. GTCR shall provide and devote to the performance of this Agreement such partners, employees and agents of GTCR as GTCR shall deem appropriate for the furnishing of the services required hereby.

4. Placement Fees.

(a) Each time any of the Investors and/or any of their Affiliates (as defined, for all purposes hereunder, in the Unit Purchase Agreement) provide any equity and/or debt financing to the Company or any of its Subsidiaries (including pursuant to Section 1 of the Unit Purchase Agreement), Opcos shall concurrently pay to GTCR a placement fee in immediately available funds in an aggregate amount equal to one percent (1.0%) of the gross amount of such equity and/or debt financing.

(b) In addition to any amounts payable to GTCR pursuant to Section 4(a), Opcos shall, concurrently with the consummation of each other equity and/or debt financing of the Company or any of its Subsidiaries, pay to GTCR a placement fee in immediately available funds in an aggregate amount equal to one percent (1.0%) of the gross amount of such equity and/or debt financing (including the committed amount (whether drawn or undrawn) of any revolving credit facility).

5 . Advisory Fee. Commencing on the date hereof, Opcos shall pay to GTCR an annual advisory fee in an aggregate amount equal to $500,000, payable in advance in equal quarterly installments.

6 . Expenses. Opcos shall promptly upon demand reimburse GTCR for such reasonable travel expenses, legal fees and other out-of-pocket fees and expenses as have been or may be incurred by or on behalf of GTCR or any of its Affiliates (other than the Company and its Subsidiaries), or any of their respective members, partners, directors, managers, officers, principals, employees or agents, in connection with each Subsequent Closing (as defined in the Unit Purchase Agreement), any other financing of the Company or any of its Subsidiaries, or the rendering of any other services hereunder (including fees and expenses incurred in attending Company-related meetings and retaining legal, regulatory, political or other advisors).

7 . Term. This Agreement will continue from the date hereof until the earlier of (a) the date on which the Investors and their Affiliates (other than the Company and its Subsidiaries) cease to own in the aggregate at least 10% of the Investor Securities (as defined in the Unit Purchase Agreement) and (b) consummation of an Approved Sale. No termination of this Agreement, whether pursuant to this paragraph or otherwise, shall affect Opcos' obligations with respect to fees, costs and expenses incurred by GTCR in rendering services hereunder and not reimbursed by Opcos as of the effective date of such termination.

8. Liability. Neither GTCR nor any of its Affiliates (other than the Company and its Subsidiaries), nor any of their respective members, partners, directors, managers, officers, principals, employees or agents (all of whom are express third party beneficiaries of this Section 8), shall be liable to the Company, Opcos or their respective Subsidiaries or other affiliates for any loss, liability, damage or expense arising out of or in connection with the performance of services contemplated by this Agreement, except to the extent a court of competent jurisdiction shall determine in a final non-appealable order that such loss, liability, damage or expense resulted directly from the fraud, gross negligence or willful misconduct of GTCR.

9 . Indemnification. Each Opco shall indemnify and hold harmless GTCR and its Affiliates (other than the Company and its Subsidiaries), and each of their respective members, partners, directors, managers, officers, principals, employees and agents (all of whom are express third-party beneficiaries of this Section 9), against and from any and all loss, liability, suits, claims, costs, damages and expenses (including attorneys' fees) arising from their performance hereunder, except to the extent directly resulting from their gross negligence or willful misconduct as determined by a court of competent jurisdiction in a final non-appealable order. Each Opco hereby acknowledges that certain of its directors or managers, as applicable (each a "D&O Indemnitee"), have rights to indemnification, advancement of expenses and/or insurance provided by the Investors and other Affiliates of GTCR (collectively, the "Affiliate Indemnitors"). Each Opco hereby agrees (i) that such Opco is the indemnitor of first resort with respect to all indemnifiable claims against the D&O Indemnitees, whether arising under this Agreement or otherwise related to such Opco and its Affiliates (i.e., its obligations to the D&O Indemnitees are primary and any obligation of the Affiliate Indemnitors to advance expenses or to provide indemnification for the same expenses or liabilities incurred by the D&O Indemnitees are secondary), (ii) that such Opco shall be required to advance the full amount of expenses incurred by the D&O Indemnitees and shall be liable for the full amount of all expenses,

judgments, penalties, fines and amounts paid in settlement to the extent legally permitted and as required by the terms of this Agreement and the organizational documents (including the certificate of incorporation, certificate of formation, by-laws and limited liability company agremenet, as applicable) of such Opco (or any other agreement between such Opco and the D&O Indemnitees), without regard to any rights the D&O Indemnitees may have against the Affiliate Indemnitors, and (iii) that such Opco irrevocably waives, relinquishes and releases the Affiliate Indemnitors from any and all claims against the Affiliate Indemnitors for contribution, subrogation or any other recovery of any kind in respect thereof. Each Opco agrees to indemnify the Affiliate Indemnitors directly for any amounts that the Affiliate Indemnitors pay as indemnification or advancement on behalf of a D&O Indemnitee and for which the D&O Indemnitee may be entitled to indemnification from such Opco in connection with serving as a director, manager or officer of such Opco or its subsidiaries. Each Opco further agrees that no advancement or payment by the Affiliate Indemnitors on behalf of a D&O Indemnitee with respect to any claim for which such D&O Indemnitee has sought indemnification from such Opco shall affect the foregoing and the Affiliate Indemnitors shall be subrogated to the extent of such advancement or payment to all of the rights of recovery of such D&O Indemnitee against such Opco.

10. Independent Contractor. GTCR shall perform services hereunder as an independent contractor, retaining control over and responsibility for its own operations and personnel. Neither GTCR nor any of its Affiliates (other than the Company and its Subsidiaries), nor any of their respective members, partners, directors, managers, officers, principals, employees or agents, shall be considered employees or agents of Opcos as a result of this Agreement nor shall any of them have authority as a result of this Agreement to contract in the name of or bind Opcos, except as expressly agreed to in writing by such Opco.

11. Notices. All notices, demands or other communications to be given or delivered under or by reason of the provisions of this Agreement shall be in writing and shall be deemed to have been given when (a) delivered personally to the recipient, (b) sent to the recipient by reputable express courier service (charges prepaid), (c) mailed to the recipient by certified or registered mail, return receipt requested and postage prepaid, or (d) telecopied to the recipient (with hard copy sent to the recipient by reputable overnight courier service (charges prepaid) that same day) if telecopied before 5:00 p.m. Chicago, Illinois time on a business day, and otherwise on the next business day. Such notices, demands and other communications shall be sent to GTCR and to Opcos at the addresses indicated below or at such other address or to the attention of such other Person as the recipient party has specified by prior written notice to the sending party:

If to GTCR:

GTCR Management XI LP
300 North LaSalle Street, Suite 5600
Chicago, Illinois 60654
Facsimile: (312) 382-2201
Attention: Constantine S. Mihas
Sean L. Cunningham
Benjamin J. Daverman

Kirkland & Ellis LLP
300 North LaSalle Street
Chicago, Illinois 60654
Facsimile: (312) 862-2200
Attention: Sanford E. Perl, P.C.
Michael H. Weed, P.C.

If to Opcos:

c/o GTCR Management LLC
300 North LaSalle Street, Suite 5600
Chicago, Illinois 60654
Facsimile: (312) 382-2201
Attention: Chief Executive Officer

12. Entire Agreement; Modification. This Agreement, those documents expressly referred to herein and other documents of even date herewith embody the complete agreement and understanding among the parties hereto with respect to the subject matter hereof and supersede and preempt any prior understandings, agreements or representations by or among the parties hereto, written or oral, which may have related to the subject matter hereof in any way. The provisions of this Agreement may be amended, modified and/or waived only with the prior written consent of Opcos and GTCR.

13. Waiver of Breach. No failure by any party to insist upon the strict performance of any covenant, duty, agreement, or condition of this Agreement or to exercise any right or remedy consequent upon a breach thereof shall constitute a waiver of any such breach or any other covenant, duty, agreement, or condition. The waiver by any party of a breach of any covenant, duty, agreement, or condition of this Agreement of any other party shall not operate or be construed as a waiver of any subsequent breach of that provision or any other provision hereof.

14. Assignment. Neither GTCR nor either Opco may assign its rights or obligations under this Agreement without the express written consent of the other, except that GTCR may assign all or any of its rights and obligations hereunder to any of its Affiliates.

15. Successors and Assigns. All covenants and agreements contained in this Agreement shall bind and inure to the benefit of the parties hereto and their respective heirs, executors, administrators, successors, legal representatives, and permitted assigns, whether so expressed or not.

16. Severability. Whenever possible, each provision of this Agreement shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Agreement is held to be invalid, illegal or unenforceable in any respect under any applicable law or rule in any jurisdiction, such invalidity, illegality or unenforceability shall not affect any other provision or the effectiveness or validity of any provision in any other

jurisdiction, and this Agreement will be reformed, construed, and enforced in such jurisdiction as if such invalid, illegal, or unenforceable provision had never been contained herein.

17. Counterparts. This Agreement may be executed in multiple counterparts with the same effect as if all signing parties had signed the same document. All counterparts shall be construed together and constitute the same instrument.

18. Electronic Delivery. This Agreement, the agreements referred to herein, and each other agreement or instrument entered into in connection herewith or therewith or contemplated hereby or thereby, and any amendments hereto or thereto, to the extent signed and delivered by means of a photographic, facsimile, portable document format (.pdf), or similar reproduction of such signed writing using a facsimile machine or electronic mail shall be treated in all manner and respects as an original agreement or instrument and shall be considered to have the same binding legal effect as if it were the original signed version thereof delivered in person. At the request of any party hereto or to any such agreement or instrument, each other party hereto or thereto shall re-execute original forms thereof and deliver them to all other parties hereto. No party hereto or to any such agreement or instrument shall raise the use of a facsimile machine or electronic mail to deliver a signature or the fact that any signature or agreement or instrument was transmitted or communicated through the use of a facsimile machine or electronic mail as a defense to the formation or enforceability of a contract and each such party forever waives any such defense.

19. Applicable Law. This Agreement shall be governed by, and construed in accordance with, the laws of the State of Delaware, without giving effect to any choice of law or conflict of law rules or provisions (whether of the State of Delaware or any other jurisdiction) that would cause the application of the laws of any jurisdiction other than the State of Delaware.

20. Jurisdiction; Venue; Service of Process. Each party hereto agrees that it may bring any action between the parties hereto arising out of or related to this Agreement in the Court of Chancery of the State of Delaware (the "Court of Chancery") or, to the extent the Court of Chancery does not have subject matter jurisdiction, the United States District Court for the District of Delaware and the appellate courts having jurisdiction of appeals in such courts (the "Delaware Federal Court") or, to the extent neither the Court of Chancery nor the Delaware Federal Court has subject matter jurisdiction, the Superior Court of the State of Delaware (the "Chosen Courts"), and, solely with respect to any such action (a) irrevocably submits to the non-exclusive jurisdiction of the Chosen Courts, (b) waives any objection to laying venue in any such action in the Chosen Courts, (c) waives any objection that the Chosen Courts are an inconvenient forum or do not have jurisdiction over any party hereto and (d) agrees that service of any process, summons, notice or document by United States certified or registered mail to such party's respective address set forth in the Company's books and records or such other address or to the attention of such other person as the recipient party has specified by prior written notice to the sending party shall be effective service of process in any action, suit or proceeding in Delaware with respect to any matters to which it has submitted to jurisdiction as set forth in the immediately preceding sentence.

21. MUTUAL WAIVER OF JURY TRIAL. BECAUSE DISPUTES ARISING IN CONNECTION WITH COMPLEX TRANSACTIONS ARE MOST QUICKLY

AND ECONOMICALLY RESOLVED BY AN EXPERIENCED AND EXPERT PERSON AND THE PARTIES HERETO WISH APPLICABLE STATE AND FEDERAL LAWS TO APPLY (RATHER THAN ARBITRATION RULES), THE PARTIES HERETO DESIRE THAT THEIR DISPUTES BE RESOLVED BY A JUDGE APPLYING SUCH APPLICABLE LAWS. THEREFORE, TO ACHIEVE THE BEST COMBINATION OF THE BENEFITS OF THE JUDICIAL SYSTEM AND OF ARBITRATION, EACH PARTY TO THIS AGREEMENT (INCLUDING THE COMPANY) HEREBY WAIVES ALL RIGHTS TO TRIAL BY JURY IN ANY ACTION, SUIT, OR PROCEEDING BROUGHT TO RESOLVE ANY DISPUTE BETWEEN OR AMONG ANY OF THE PARTIES HERETO, WHETHER ARISING IN CONTRACT, TORT, OR OTHERWISE, ARISING OUT OF, CONNECTED WITH, RELATED OR INCIDENTAL TO THIS AGREEMENT AND/OR THE TRANSACTIONS CONTEMPLATED HEREBY AND/OR THE RELATIONSHIPS ESTABLISHED AMONG THE PARTIES HEREUNDER.

2 2 . No Third-Party Beneficiaries. Except as expressly provided herein, no term or provision of this Agreement is intended to be, or shall be, for the benefit of any Person not a party hereto, and no such other Person shall have any right or cause of action hereunder.

2 3 . Descriptive Headings; Interpretation. The descriptive headings of this Agreement are inserted for convenience only and do not constitute a substantive part of this Agreement. Whenever required by the context, any pronoun used in this Agreement shall include the corresponding masculine, feminine, or neuter forms, and the singular form of nouns, pronouns, and verbs shall include the plural and vice versa. The use of the word “including” in this Agreement shall be by way of example rather than by limitation. Reference to any agreement, document, or instrument means such agreement, document, or instrument as amended or otherwise modified from time to time in accordance with the terms thereof, and, if applicable, hereof. Without limiting the generality of the immediately preceding sentence, no amendment or other modification to any agreement, document, or instrument that requires the consent of any Person pursuant to the terms of this Agreement or any other agreement will be given effect hereunder unless such Person has consented in writing to such amendment or modification. The use of the words “or,” “either,” and “any” shall not be exclusive. The parties hereto have participated jointly in the negotiation and drafting of this Agreement. In the event an ambiguity or question of intent or interpretation arises, this Agreement shall be construed as if drafted jointly by the parties hereto, and no presumption or burden of proof shall arise favoring or disfavoring any party by virtue of the authorship of any of the provisions of this Agreement.

* * * * *

IN WITNESS WHEREOF, the undersigned have caused this Second Amended & Restated Advisory Agreement to be duly executed and delivered as of the date and year first above written.

GTCR MANAGEMENT XI LP

By: GTCR Management LLC
Its: General Partner

By: /s/ Constantine S. Mihas
Name: Constantine S. Mihas
Its: Authorized Signatory

VECTOR LABORATORIES, INC.

By: _____
Name:
Its:

TRILINK BIOTECHNOLOGIES, LLC

By: _____
Name:
Its:

IN WITNESS WHEREOF, the undersigned have caused this Second Amended & Restated Advisory Agreement to be duly executed and delivered as of the date and year first above written.

GTCR MANAGEMENT XI LP

By: GTCR Management LLC
Its: General Partner

By: /s/ Constantine S. Mihas
Name: Constantine S. Mihas
Its: Authorized Signatory

VECTOR LABORATORIES, INC.

By: /s/ Eric Tardif
Name: Eric Tardif
Its: Executive Vice President

TRILINK BIOTECHNOLOGIES, LLC

By: /s/ Eric Tardif
Name: Eric Tardif
Its: Executive Vice President

Exhibit 10.21

EXECUTION VERSION

INVESTMENT AND DIRECTOR COMPENSATION AGREEMENT

THIS INVESTMENT AND DIRECTOR COMPENSATION AGREEMENT (this "Agreement") is made as of January 1, 2017 by and between Maravai Life Sciences Holdings, LLC, a Delaware limited liability company (the "Company") and Robert B. Hance ("Director"). Capitalized terms used but not otherwise defined herein shall have the meanings ascribed to such terms in Section 8 of this Agreement, or if not defined herein, the meanings in the LLC Agreement.

The Company and Director desire to enter into an agreement pursuant to which, on the terms and subject to the conditions contained herein, the Company will sell and issue to Director 18,035 of the Company's Common Units, (i) 10,000 of which will be treated as Series 4 Incentive Units which will constitute Common Units treated as "Incentive Units" under the LLC Agreement (the "Incentive Units") and (ii) 8,035 of which will be treated as "Capital Units" under the LLC Agreement (the "Director Capital Units" and, together with the Incentive Units, the "Director Securities").

The Company and Director mutually desire to enter into an agreement containing the terms and conditions pursuant to which Director will serve as member of the board of managers of the Company (the "Board").

Certain provisions of this Agreement are intended for the benefit of, and are enforceable by, the Investors.

The parties hereto intend that the Incentive Units will have a $0.00 liquidation value as of the date of this Agreement so that the grant of the Incentive Units to Director will not result in taxable income to Director as of the date of grant under the Code.

NOW, THEREFORE, in consideration of the mutual covenants contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties to this Agreement hereby agree as follows:

PROVISIONS RELATING TO DIRECTOR SECURITIES

1. Issuance and Sale of Director Securities.

(a) Closing. Upon execution of this Agreement (the "Closing"), (i) Director will purchase from the Company, and the Company will sell to Director, 8,035 of the Company's Capital Units at a price of approximately $31.11 per Unit and (ii) the Company will grant to Director 10,000 of the Company's Incentive Units at no cost per Unit. Such Incentive Units shall be Series 4 Incentive Units and shall be subject to the vesting requirements described herein. Each Incentive Unit shall have an initial Capital Contribution for such Incentive Unit equal to zero and an initial Participation Threshold of $32.08. The Participation Threshold with respect to each Incentive Unit is subject to adjustment from time to time as set forth in the LLC Agreement. The Company will deliver to Director a copy of the certificate(s) representing such Director Securities, and Director will deliver to the Company (x) a cashier's or certified check or wire transfer of immediately available funds in an aggregate amount equal to $250,000.00 as payment for such Director Securities, (y) an executed counterpart signature page to each of the Securityholders Agreement and the Registration Rights Agreement as an "Other Securityholder"

thereunder, and (z) an executed counterpart signature page to the LLC Agreement (clauses (y) and (z) collectively, the "Transaction Documents"). Both the Director Capital Units and the Incentive Units are Common Units.

(b) Subsequent Closings. If, from time to time after the Closing, the Investors make subsequent Capital Contributions to the Company in respect of Common Units acquired by the Investors pursuant to the GTCR Unit Purchase Agreement (each such subsequent Capital Contribution, a "Subsequent Contribution"), Director will, concurrently with each such Subsequent Contribution, make an additional Capital Contribution to the Company in respect of the Director Capital Units, by wire transfer of funds or certified or cashier's check, in an amount equal to (i) $302,882, multiplied by (ii) a fraction (x) the numerator of which will be the Capital Contributions to the Company to be made by the Investors in respect of Common Units in connection with such Subsequent Contribution and (y) the denominator of which will be $300,000,000; provided, that in no event shall the aggregate amount of all Capital Contributions to the Company made by Director hereunder (including at the Closing and pursuant to this Section 1(b)) exceed $302,882. In connection with any such Subsequent Contribution pursuant to this Section 1(b), the Company will update the Unit Ledger to the LLC Agreement to reflect such additional Capital Contribution. To the extent that, after the date hereof, any Person (other than any Investor) assumes or otherwise agrees to perform all or part of the obligations of the Investors under Section 1(b)(ii) of the GTCR Unit Purchase Agreement, any Capital Contribution made by such Person in connection with a Subsequent Contribution shall be treated as having been made by the Investors for purposes of this Section 1(b).

(c) 83(b) Election. Within 30 days after the acquisition of the Incentive Units at the Closing, Director will make an effective election (an "83(b) Election") with the Internal Revenue Service under Section 83(b) of the Internal Revenue Code of 1986, as amended, and the regulations promulgated thereunder in the form of Exhibit A attached hereto.

(d) Certificates. Until released upon the occurrence of a Sale of the Company, all certificates evidencing the Director Securities shall be held, subject to the other terms of this Agreement and the Securityholders Agreement, by the Company for the benefit of Director and the other holder(s) of the Director Securities. Upon the occurrence of a Sale of the Company, subject to the provisions of the LLC Agreement (including Section 12.1 thereof), the Company will return all certificates in its possession evidencing the Director Securities to the record holders thereof or, subject to Section 1(h), to the appropriate acquirer thereof.

(e) Regulation D; Rule 701. The issuance of the Director Securities to Director hereunder is intended to be exempt from registration under the Securities Act pursuant to Regulation D or Rule 701 hereunder.

(f) Representations and Warranties. In connection with the transactions contemplated by Section 1 above, Director represents and warrants to the Company that:

(i) Director possesses all requisite capacity, power and authority to enter into and perform Director's obligations under this Agreement;

(ii) this Agreement constitutes the legal, valid and binding obligation of Director, enforceable in accordance with its terms, and the execution, delivery and

performance of this Agreement by Director does not and will not conflict with, violate or cause a breach of any agreement, contract or instrument to which Director is a party or any judgment, order or decree to which Director is subject;

(iii) except as set forth on Exhibit B attached hereto, Director is neither party to, nor bound by, any other employment agreement, consulting agreement, non-compete agreement, non-solicitation agreement or confidentiality agreement or any other agreement which could impair or interfere with Director's obligations hereunder;

(iv) Director hereby acknowledges and agrees that (A) there is no current public market for the Director Securities, none is expected to develop and the Director Securities are subject to substantial restrictions on transferability, and (B) as a result of such matters and other factors, the Director Securities are difficult to value;

(v) the Director Securities to be acquired by Director pursuant to this Agreement will be acquired for Director's own account and not with a view to, or intention of, distribution thereof in violation of the Securities Act, or any applicable state securities laws, and the Director Securities will not be disposed of in contravention of the Securities Act or any applicable state securities laws;

(vi) Director is able to bear the economic risk of Director's investment in the Director Securities for an indefinite period of time because the Director Securities have not been registered under the Securities Act or applicable state securities laws and are subject to substantial restrictions on Transfer set forth herein and in the LLC Agreement, and, therefore, cannot be sold unless subsequently registered under the Securities Act and applicable state securities laws, or an exemption from such registration is available, and in compliance with such restrictions on Transfer;

(vii) Director has had an opportunity to ask questions and receive answers concerning the terms and conditions of the Transaction Documents (in particular, with respect to the distribution provisions set forth in the LLC Agreement) and the offering of Director Securities and has had full and free access and opportunity to inspect, review, examine and inquire about all financial and other information concerning the Company as Director has requested;

(viii) Director understands and agrees that (A) the investment in the Company involves a high degree of risk, (B) in the future the Director Securities may significantly increase or decrease in value, and (C) no guarantees or representations have been made or can be made with respect to the future value of the Director Securities or the future profitability or success of the Company;

(ix) Director acknowledges and agrees that (A) the Company and its Subsidiaries may incur in the future a substantial amount of senior or other indebtedness and (B) there may be additional issuances of Common Units or other Equity Securities after the date hereof and the equity interests of Director may be diluted in connection with any such issuance, subject to the terms of the LLC Agreement and the Securityholders Agreement;

(x) Director has had an opportunity to consult Director's own tax counsel as to the U.S. federal, state, local and foreign tax consequences of the transactions contemplated by the Transaction Documents and independent legal counsel regarding Director's rights and obligations under the Transaction Documents and fully understands the terms and conditions contained herein and therein. Director is not relying on the Company or any of its or its Subsidiaries' or Affiliates' employees, agents or representatives with respect to the legal, tax, economic, and related considerations of an investment in the Director Securities;

(xi) Director is an "accredited investor" within the meaning of Rule 501 of Regulation D of the Securities and Exchange Commission and is sophisticated in financial matters and is able to evaluate the risks and benefits of the investment in the Director Securities; and

(xii) Director is a resident of the State set forth in Director's address for notices in Section 9 hereof.

(g) Director Acknowledgment. As an inducement to the Company to issue the Director Securities to Director, and as a condition thereto, Director acknowledges and agrees that neither the issuance of the Director Securities to Director nor any provision contained in this Agreement shall entitle Director to remain a director of the Company or its Subsidiaries or affect the right of the Company or its Subsidiaries to terminate Director's service to the Company at any time for any reason.

(h) Security Powers. Concurrently with the execution of this Agreement, Director shall execute in blank ten security transfer powers in the form of Exhibit C attached hereto (the "Security Powers") with respect to the Director Securities and shall deliver such Security Powers to the Company. The Security Powers shall authorize the Company to assign, Transfer and deliver the Director Securities to the appropriate acquirer thereof pursuant to Section 3 below or Section 8.2 of the LLC Agreement and under no other circumstances.

(i) Spousal Consent. Concurrently with the execution of this Agreement, if Director is lawfully married, Director's spouse shall execute the Consent in the form of Exhibit D attached hereto.

(j) Certain Covenants. Director acknowledges that Director has not breached, and that Director will continue to fully comply with, the covenants referenced on Exhibit B attached hereto and set forth in Exhibit E attached hereto.

2. Vesting of Incentive Units.

(a) The Director Capital Units shall not be subject to vesting and shall be fully vested upon purchase. The Incentive Units shall be subject to vesting in the manner specified in this Section 2. Except as otherwise provided in this Section 2, the Incentive Units shall vest 20% on each of the first five anniversaries of the Reference Date (such that the Incentive Units shall become 100% vested on the fifth anniversary of the Reference Date), if as of each such date Director is, and since the Closing continuously has been, a member of the Board.

(b) Sale of the Company. Upon the occurrence of a Sale of the Company, all Incentive Units which have not yet become vested shall become vested as of the date of consummation of such Sale of the Company, if, as of such date, Director has been continuously member of the Board or any of its Subsidiaries from the Reference Date through and including such date, subject to the provisions of this Section 2(b).

(c) All Incentive Units which have become vested hereunder, if any, are collectively referred to herein as the "Vested Incentive Units." All Incentive Units which have not become vested hereunder, if any, are collectively referred to herein as the "Unvested Incentive Units."

3. Forfeiture and Repurchase Option.

(a) Forfeiture; Repurchase Option. In the event of a Separation, (i) all Unvested Incentive Units (whether held by Director or one or more of Director's transferees, other than the Company and the Investors) automatically (without any action by Director or any of Director's transferees) will be forfeited to the Company and deemed canceled and no longer outstanding without any payment therefor, and (ii) all Vested Incentive Units (whether held by Director or one or more of Director's transferees, other than the Company and the Investors) will be subject to a right of repurchase by the Company and the Investors pursuant to the terms and conditions in this Section 3 (the "Repurchase Option"). The Company may assign its repurchase rights set forth in this Section 3 to any Person; provided that if there is a Subsidiary Public Offering and the securities of such Subsidiary are distributed to the members of the Company, then such Subsidiary will be treated as the Company for purposes of this Section 3 with respect to any repurchase of the securities of such Subsidiary.

(b) Purchase Price. In the event of a Separation, the purchase price for each Vested Incentive Unit will be the Fair Market Value of such Unit. The Fair Market Value of any Unit for purposes of this Section 3 shall be the Fair Market Value of such Unit as of the first date of delivery of the Repurchase Notice or Supplemental Repurchase Notice, as the case may be, pursuant to Section 3(c) or Section 3(d).

(c) Repurchase Notice. The Company may elect to purchase all or any portion of the Vested Incentive Units pursuant to this Section 3 by delivering written notice (the "Repurchase Notice") to the holder or holders of such securities within seven (7) months after the Separation. The Repurchase Notice will set forth the number of Vested Incentive Units to be acquired from each holder, the aggregate consideration to be paid for such Units and the time and place for the closing of the transaction.

(d) Supplemental Repurchase Notice. If for any reason the Company does not elect to purchase all of the Vested Incentive Units pursuant to the Repurchase Option, the Investors shall be entitled to exercise the Repurchase Option for all or any portion of the Vested Incentive Units which the Company has not elected to purchase (the "Available Securities"). As soon as practicable after the Company has determined that there will be Available Securities, but in any event before the date that is six (6) months and one day after the Separation, the Company shall give written notice (the "Option Notice") to the Investors setting forth the number of Available Securities and the purchase price for the Available Securities. The Investors may elect to purchase any or all of the Available Securities by giving written notice to the Company within

seven (7) months after the Separation. If the Investors elect to purchase an aggregate number of any class of Available Securities greater than the number of Available Securities of such class, the Available Securities of such class shall be allocated among the Investors based upon the number of Units of such class owned by each Investor. As soon as practicable, and in any event within ten (10) days after the expiration of the seven (7)-month period set forth above, the Company shall notify each holder of Director Securities as to the number of Units of each class being purchased from such holder by the Investors (the "Supplemental Repurchase Notice"). At the time the Company delivers the Supplemental Repurchase Notice to the holder(s) of Director Securities, the Company shall also deliver written notice to each Investor setting forth the number of Units of each class such Investor is entitled to purchase, the aggregate purchase price and the time and place of the closing of the transaction.

(e) Closing of Repurchase. The closing of the purchase of the Vested Incentive Units pursuant to the Repurchase Option shall take place on the date designated by the Company in the Repurchase Notice or Supplemental Repurchase Notice, which date shall not be more than one (1) month nor less than five (5) days after the delivery of the later of either such notice to be delivered. The Company will pay for the Vested Incentive Units to be purchased by it pursuant to the Repurchase Option by first offsetting amounts outstanding under any bona fide debts owed by Director to the Company or any of its Subsidiaries, and will pay the remainder of the purchase price by, at its option, (i) a check or wire transfer of funds, (ii) the issuance of a subordinated promissory note of the Company or a Subsidiary of the Company payable in up to three (3) annual installments beginning on the first anniversary of the closing of such repurchase and bearing interest (payable quarterly) at a per annum rate equal to eight percent (8%), (iii) the issuance in exchange for such securities of a number of a new class or series of Units or other Company Equity Securities that are senior to the other existing Units and bearing a yield of eight percent (8%) per annum, compounded quarterly, or (iv) any combination of (i), (ii) and (iii) as the Board may elect in its discretion. Each Investor will pay for the Vested Incentive Units purchased by it by a check or wire transfer of funds. The Company and the Investors will be entitled to receive customary representations and warranties from the sellers regarding such sale and to require that all sellers' signatures be guaranteed. Notwithstanding the foregoing, the Company may, at its option, effect repurchases as contemplated by Section 4.6 of the LLC Agreement.

(f) Restrictions on Repurchase. Notwithstanding anything to the contrary contained in this Agreement, all repurchases of Director Securities by the Company pursuant to the Repurchase Option and all payments of principal and interest on any promissory note issued pursuant to Section 3(e)(ii) shall be subject to applicable restrictions contained in the Delaware Limited Liability Company Act, the Delaware General Corporation Law or such other governing corporate or limited liability company law, and in the Company's and its Subsidiaries' debt and equity financing agreements. If any such restrictions prohibit (i) the repurchase of Vested Incentive Units hereunder which the Company is otherwise entitled or required to make, (ii) dividends or other transfers of funds from one or more Subsidiaries to the Company to enable such repurchases or (iii) the payment of principal or interest required to be paid on any promissory note issued pursuant to Section 3(e)(ii), then the Company (or the corporate successor to the Company, if applicable) may make such repurchases and may pay amounts due on such note as soon as it is permitted to make repurchases, pay such amounts or receive funds from Subsidiaries under such restrictions.

(g) Revocation. If the Fair Market Value of the Vested Incentive Units is finally determined to be an amount at least ten percent (10)% greater than the per Unit repurchase price for such Unit of Vested Incentive Units in the Repurchase Notice or in the Supplemental Repurchase Notice, each of the Company and the Investors shall have the right to revoke its exercise of the Repurchase Option for all or any portion of the Vested Incentive Units elected to be repurchased by it by delivering notice of such revocation in writing to the holders of the Vested Incentive Units during the thirty (30)-day period beginning on the date that the Company and/or the Investors are given written notice that the Fair Market Value of a Unit of the Vested Incentive Units was finally determined to be an amount at least ten percent (10)% greater than the per Unit repurchase price for the Vested Incentive Units set forth in the Repurchase Notice or in the Supplemental Repurchase Notice.

(h) Default Event. Notwithstanding anything to the contrary contained in this Agreement, in the event Director fails, for any reason, to make all or any portion of any Capital Contribution to the Company that Director is required to make pursuant to Section 1(b) (a "Default Event"), a portion of Director Capital Units equal to the difference between (i) the number of Capital Units then owned by Director (whether held by Director or one or more of Director's transferees, other than the Company and the Investors) minus (ii) a number of Capital Units equal to the aggregate amount of Capital Contributions made by Director as of such Default Event divided by a per Unit purchase price equal to (x) the sum of all Capital Contributions made with respect to all outstanding Capital Units immediately following such Default Event divided by (y) the total number of outstanding Capital Units immediately following such Default Event, will automatically (without any action by Director or any of Director's transferees) be forfeited to the Company and deemed canceled and no longer outstanding without any payment therefor; provided that, following such forfeiture and cancellation, the Capital Contributions with respect to each Capital Unit still held by Director shall be adjusted to be an amount equal to (A) the aggregate amount of Capital Contributions made by Director as of such Default Event divided by (B) the total number of Capital Units held by Director immediately following such forfeiture and cancellation. Notwithstanding anything to the contrary in this Agreement, the provisions of this Section 3(h) shall be the Company's sole recourse against Director with respect to a Default Event.

(i) Certificates. Promptly upon the forfeiture of any Units pursuant to this Section 3 (whether held by Director or one of Director's transferees, other than the Company and the Investors), Director and Director's transferees shall return the certificates, if any, evidencing such Units to the Company and the Company shall mark as canceled all such certificates evidencing such forfeited Units.

(j) Termination. The provisions of this Section 3 will terminate with respect to all Director Securities upon the consummation of a Sale of the Company.

4. Restrictions on Transfer of Director Securities.

(a) Transfers in a Public Sale. In addition to the restrictions on transfer set forth in the LLC Agreement, the Registration Rights Agreement and any agreement executed pursuant thereto, a holder of Director Securities may only sell Common Stock in a Public Sale if such Common Stock is vested and to the extent that, before and after giving effect to such sale, the Director Cumulative Sale Percentage would be equal to or less than the Investor Cumulative

Sale Percentage. Except as set forth in the prior sentence, the Director Securities may not be Transferred in a Public Sale.

(b) Legend. In addition to the legend(s) required by the LLC Agreement, each certificate evidencing the Director Securities and each certificate issued in exchange for or upon the Transfer of any Director Securities (if such securities remain Director Securities as defined herein after such Transfer) shall be stamped or otherwise imprinted with a legend in substantially the following form:

> "THE SECURITIES REPRESENTED BY THIS CERTIFICATE ARE ALSO SUBJECT TO ADDITIONAL RESTRICTIONS ON TRANSFER, CERTAIN REPURCHASE OPTIONS, CERTAIN FORFEITURE PROVISIONS AND CERTAIN OTHER AGREEMENTS SET FORTH IN AN INVESTMENT AND DIRECTOR COMPENSATION SECURITIES AGREEMENT BETWEEN THE COMPANY AND AN DIRECTOR OF THE COMPANY AND OTHER PARTIES, DATED AS OF JANUARY 1, 2017, AS AMENDED. A COPY OF SUCH AGREEMENT MAY BE OBTAINED BY THE HOLDER HEREOF AT THE COMPANY'S PRINCIPAL PLACE OF BUSINESS WITHOUT CHARGE."

The Company shall imprint such legend on certificates evidencing Director Securities outstanding prior to the date hereof. The legend set forth above shall be removed from the certificates evidencing any securities which cease to be Director Securities.

5. Board of Managers.

(a) Service. Director agrees to serve on the Board for the period (the "Board Period") commencing as of the Reference date and ending upon his separation pursuant to Section 5(c) hereof (a "Separation").

(b) Director Compensation. Commencing on the Reference Date and continuing until the cessation of the Board Period, in consideration for Director's service as a member of the Board, Director will be paid director fees in the aggregate amount of $10,000.00 per Board meeting attended (as reduced in accordance with this Section 5(b) (as applicable), the "Director Fees"); provided that, for any Board meeting that Director attends telephonically and not in person, the Company will only be required to pay $5,000.00 in Director Fees to Director for such Board Meeting. The Company or its designee will reimburse Director for all reasonable out-of-pocket travel expenses incurred in connection with Director's attendance at meetings of the Board, in accordance with the Company's expense reimbursement policy in effect from time to time.

(c) Separation. The Board Period will continue until (i) Director resigns from the Board, (ii) Director's death or disability or (iii) the Board or any Investor removes Director from the Board.

6. Confidential Information.

(a) Obligation to Maintain Confidentiality. Director acknowledges that the information, observations and data (including trade secrets) obtained by him during the course of his directorship with the Company and its Subsidiaries concerning the business or affairs of the Company and its Subsidiaries and Affiliates ("Confidential Information") are the property of the Company or such Subsidiaries and Affiliates, including information concerning acquisition opportunities in or reasonably related to the Company's and its Subsidiaries' business or industry of which Director becomes aware during the Board Period. Therefore, Director agrees that he will not disclose to any unauthorized Person or use for his own account any Confidential Information without the Board's written consent, unless and to the extent that the Confidential Information, (i) becomes generally known to and available for use by the public other than as a result of Director's acts or omissions to act or (ii) is required to be disclosed pursuant to any applicable law or court order. Director shall deliver to the Company at a Separation, or at any other time the Company may request, all memoranda, notes, plans, records, reports, computer tapes, printouts and software and other documents and data (and copies thereof) relating to the Confidential Information or the business of the Company and its Subsidiaries and Affiliates (including all acquisition prospects, lists and contact information) which he may then possess or have under his control.

(b) Third Party Information. Director understands that the Company and its Subsidiaries and Affiliates will receive from third parties confidential or proprietary information ("Third Party Information") subject to a duty on the Company's and its respective Subsidiaries and Affiliates' part to maintain the confidentiality of such information and to use it only for certain limited purposes. During the Board Period and thereafter, and without in any way limiting the provisions of Section 6(a) above, Director will hold Third Party Information in the strictest confidence and will not disclose to anyone (other than personnel and consultants of the Company or its Subsidiaries and Affiliates who need to know such information in connection with their work for the Company or its Subsidiaries and Affiliates) or use, except in connection with his work as a director for the Company or its Subsidiaries and Affiliates, Third Party Information unless expressly authorized by a member of the Board (other than Director) in writing.

(c) Use of Information of Prior Employers. During the Board Period, Director will not improperly use or disclose any confidential information or trade secrets, if any, of any former employers or any other Person to whom Director has an obligation of confidentiality, and will not bring onto the premises of the Company or any of its Subsidiaries or Affiliates any unpublished documents or any property belonging to any former employer or any other Person to whom Director has an obligation of confidentiality unless consented to in writing by the former employer or Person. Director will use in the performance of his duties only information which is (i) generally known and used by persons with training and experience comparable to Director's and which is (x) common knowledge in the industry or (y) is otherwise legally in the public domain, (ii) is otherwise provided or developed by the Company or any of its Subsidiaries or Affiliates or (iii) in the case of materials, property or information belonging to any former employer or other Person to whom Director has an obligation of confidentiality, approved for such use in writing by such former employer or Person. In furtherance of the foregoing, concurrently with the execution of this Agreement, Director shall execute and deliver to the Company a certificate in the form of Exhibit E attached hereto.

7. Noncompetition and Nonsolicitation. Director acknowledges that during the Board Period he will become familiar with the Company's and its Subsidiaries' trade secrets and with other confidential information concerning the Company and such Subsidiaries and that his services will be of special, unique and extraordinary value to the Company and such Subsidiaries. Therefore, Director agrees that:

(a) Noncompetition. During the Board Period and the two (2)-year period immediately following the Board Period (such period, together with the Board Period, is referred to herein as the "Restricted Period"), Director shall not engage in any Competitive Activities, other than Permitted Activities. For the purposes of this Agreement, "Competitive Activities" means Director engaging, or causing or directing any Person to engage, directly or indirectly, as a principal, agent, shareholder, investor, employer, partner, director, officer, employee, consultant, member, joint venturer, manager, lender, consultant or operator of, or owning 5% or more of, any business or company at any particular time which is engaged in the Company Business. For the purposes of this Agreement, "Permitted Activities" means Director's (i) continuing ownership in, or participation and membership on the board of directors, board of managers or similar governing body of, an entity in which Director owns an interest or for which he serves in a director, manager or similar capacity prior to the time such entity becomes engaged in the Company Business, which as of the date hereof are those board memberships set forth on Annex I; (ii) serving as the chief executive officer or in a senior management position of an entity engaged in the Company Business (A) which derives no more than 5% of its annual revenue on a consolidated basis from the Company Business and (B) provided that Director does not have direct supervisory authority or day-to-day managerial responsibilities regarding the division or subsidiary engaged in the Company Business.

(b) Nonsolicitation. During the Restricted Period, Director shall not directly or indirectly through another entity (i) induce or attempt to induce any employee of the Company or any of its Subsidiaries to leave the employ of the Company or such Subsidiary, or in any way interfere with the relationship between the Company or any of its Subsidiaries and any employee thereof, (ii) hire any employee of the Company or any of its Subsidiaries or hire any former employee of the Company or any of its Subsidiaries within one year after such person ceased to be an employee of the Company or any of its Subsidiaries or (iii) induce or attempt to induce any customer, supplier, licensee or other business relation of the Company or any of its Subsidiaries to cease doing business with the Company or such Subsidiary or in any way interfere with the relationship between any such customer, supplier, licensee or business relation and the Company or any such Subsidiary to the extent such inducement, interference or solicitation relates to Director conducting or engaging in Competitive Activities; provided, that the foregoing shall not restrict Director from (A) engaging in general solicitation efforts not specifically targeted at any such employee, or (B) hiring any employee of the Company or such Subsidiary who responds to any such regular solicitation effort without any other inducement to leave the employ of the Company or any of its Subsidiaries.

(c) Enforcement. If, at the time of enforcement of Section 6 or this Section 7, a court holds that the restrictions stated herein are unreasonable under circumstances then existing, the parties hereto agree that the maximum duration, scope or geographical area reasonable under such circumstances shall be substituted for the stated period, scope or area and that the court shall be allowed to revise the restrictions contained herein to cover the maximum

duration, scope and area permitted by law. Because Director's services are unique and because Director has access to confidential information, the parties hereto agree that money damages would be an inadequate remedy for any breach of this Agreement. Therefore, in the event a breach or threatened breach of this Agreement, the Company or its Subsidiaries and/or its successors or assigns may, in addition to other rights and remedies existing in their favor, subject to Section 10(g), apply to any court of competent jurisdiction for specific performance and/or injunctive or other relief in order to enforce, or prevent any violations of, the provisions hereof (without posting a bond or other security). In the event that Director breaches any provision of this Section 7, then the Restricted Period shall be extended for a period of time equal to the period of time during which such breach occurred and, in the event that the Company or any of its Subsidiaries is required to seek relief from such breach in any court, then the Restricted Period shall be extended for a period of time equal to the pendency of such proceedings, including all appeals.

(d) Additional Acknowledgments. Director acknowledges that the provisions of this Section 7 are in consideration of: (i) board membership with the Company, (ii) the issuance of the Director Securities and (iii) additional good and valuable consideration as set forth in this Agreement. In addition, Director agrees and acknowledges that the restrictions contained in Section 6 and this Section 7 do not preclude Director from earning a livelihood, nor do they unreasonably impose limitations on Director's ability to earn a living. In addition, Director acknowledges (x) that the business of the Company and its Subsidiaries will be conducted throughout the United States and other jurisdictions where the Company or any of its Subsidiaries conduct business during the Board Period, and (y) notwithstanding the state of organization or principal office of the Company or any of its Subsidiaries, or any of its respective executives or employees, it is expected that the Company and its Subsidiaries will have business activities and have valuable business relationships within its industry throughout the United States and other jurisdictions where the Company or any of its Subsidiaries conduct business during the Board Period. Director agrees and acknowledges that the potential harm to the Company and its Subsidiaries of the non-enforcement of any provision of Section 6 or this Section 7 outweighs any potential harm to Director of its enforcement by injunction or otherwise. The covenants contained in each of Sections 6(a), 6(b), 6(c), 7(a) and 7(b) may be enforced independently and without any one or more of such sections limiting the provisions of any one or more of the other of such sections. Director acknowledges that he has carefully read this Agreement and consulted with legal counsel of his choosing regarding its contents, has given careful consideration to the restraints imposed upon Director by this Agreement and is in full accord as to their necessity for the reasonable and proper protection of confidential and proprietary information of the Company or any of its Subsidiaries now existing or to be developed in the future. Director expressly acknowledges and agrees that each and every restraint imposed by this Agreement is reasonable with respect to subject matter, time period and geographical area.

GENERAL PROVISIONS

8. Definitions.

"Board" means the Company's board of managers.

"Common Stock" means, collectively, (a) following the organization of a corporation and reorganization or recapitalization of the Company into such corporation as provided in Section 12.1 of the LLC Agreement, the common equity securities of such corporation and any other class or series of authorized capital stock of such corporation that is not limited to a fixed sum or percentage of par or stated value in respect of the rights of the holders thereof to participate in dividends or in the distribution of assets upon any liquidation, dissolution or winding up of such corporation, and (b) any common stock of a Subsidiary of either the Company or such corporation distributed by the Company or such corporation to its unitholders or shareholders, as applicable.

"Company Business" means the business of providing those services or distributing, manufacturing, selling or otherwise providing those products set forth on Annex II attached hereto which the Company and its Subsidiaries actually provide as of the date hereof.

"Director Cumulative Sale Percentage" means, on any date of determination, a percentage equal to the quotient of (a) the aggregate number of shares of Common Stock sold by Director and/or Director's Permitted Transferees in Public Sales from and including the consummation of the Company's initial Public Offering and to and including such date, divided by (b) the aggregate number of shares of Common Stock held by Director and Director's Permitted Transferees upon the consummation of the Company's initial Public Offering.

"Director Securities" means all Common Units (including all Capital Units Incentive Units) at any time held or acquired by Director. Director Securities will continue to be Director Securities in the hands of any holder other than Director (except for the Company and the Investors and except for transferees in a Public Sale), and except as otherwise provided herein, each such other holder of Director Securities will succeed to all rights and obligations attributable to Director as a holder of Director Securities hereunder. Director Securities will also include equity of the Company (or a corporate successor to the Company or a Subsidiary of the Company) issued with respect to Director Securities (a) by way of a Unit split, Unit distribution, conversion, or other recapitalization, (b) by way of reorganization or recapitalization of the Company in connection with the incorporation of a corporate successor prior to a Public Offering or (c) by way of a distribution of securities of a Subsidiary of the Company to the members of the Company following or with respect to a Subsidiary Public Offering. Notwithstanding the foregoing, all Unvested Incentive Units shall remain Unvested Incentive Units after any Transfer thereof (other than to the Company or any of the Investors).

"Fair Market Value" of each Unit of Director Securities means the fair value of such Director Securities as determined in good faith by the Board (other than the Director) applying the provisions of Sections 11.2(a)(ii) and 11.2(b) of the LLC Agreement.

"Investor Cumulative Sale Percentage" means, on any date of determination, a percentage equal to the quotient of (a) the aggregate number of shares of Common Stock sold by the Investors in Public Sales from and including the consummation of the Company's initial Public Offering and to and including such date, divided by (b) the aggregate number of shares of Common Stock held by the Investors upon the consummation of the Company's initial Public Offering.

"LLC Agreement" means the Second Amended and Restated Limited Liability Company Agreement of the Company, dated as of April 5, 2016, as amended or modified from time to time in accordance with its terms.

"Reference Date" means January 1, 2017.

"Securityholders Agreement" means the Amended and Restated Securityholders Agreement, dated as of April 5, 2016, by and among the Company and the other parties signatories thereto as amended or modified from time to time in accordance with its terms.

9 . Notices. All notices, demands or other communications to be given or delivered under or by reason of the provisions of this Agreement shall be in writing and shall be deemed to have been given when (a) delivered personally to the recipient, (b) sent to the recipient by reputable express courier service (charges prepaid), (c) mailed to the recipient by certified or registered mail, return receipt requested and postage prepaid, or (d) telecopied or e-mailed to the recipient (with hard copy sent to the recipient by reputable overnight courier service (charges prepaid) that same day) if telecopied or e-mailed before 5:00 p.m. Chicago, Illinois time on a business day, and otherwise on the next business day. Such notices, demands and other communications shall be sent to the parties at the addresses indicated below:

If to Company:

Maravai Life Sciences Holdings, LLC
c/o GTCR Management LLC
300 North LaSalle Street
Chicago, Illinois 60654
Facsimile: (312) 382-2201
Attention: Chief Executive Officer

with copies to:

GTCR Management LLC
300 North LaSalle Street
Chicago, Illinois 60654
Facsimile: (312) 382-2201
Attention: Constantine S. Mihas
Sean L. Cunningham
Benjamin J. Daverman

Kirkland & Ellis LLP
300 North LaSalle Street
Chicago, Illinois 60654
Facsimile: (312) 862-2200
Attention: Sanford E. Perl, P.C.
Michael H. Weed, P.C.

If to Director:

Robert B. Hance
Email:

If to the Investors:

GTCR Management LLC
300 North LaSalle Street
Chicago, Illinois 60654
Facsimile: (312) 382-2201
Attention: Constantine S. Mihas
Sean L. Cunningham
Benjamin J. Daverman

with copies to:

Kirkland & Ellis LLP
300 North LaSalle Street
Chicago, Illinois 60654
Facsimile: (312) 862-2200
Attention: Sanford E. Perl, P.C.
Michael H. Weed, P.C.

or such other address or to the attention of such other Person as the recipient party shall have specified by prior written notice to the sending party.

10. General Provisions.

(a) Transfers in Violation of Agreement. Any Transfer or attempted Transfer of any Director Securities in violation of any provision of this Agreement shall be void, and the Company shall not record such Transfer on its books or treat any purported Transferee of such Director Securities as the owner of such equity for any purpose.

(b) Severability. Whenever possible, each provision of this Agreement will be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Agreement is held to be invalid, illegal or unenforceable in any respect under any applicable law or rule in any jurisdiction, such invalidity, illegality or unenforceability will not affect any other provision or any other jurisdiction, but this Agreement will be reformed,

construed and enforced in such jurisdiction as if such invalid, illegal or unenforceable provision had never been contained herein.

(c) Entire Agreement. This Agreement, those documents expressly referred to herein and other documents of even date herewith embody the complete agreement and understanding among the parties hereto and supersede and preempt any prior understandings, agreements or representations by or among the parties hereto, written or oral, which may have related to the subject matter hereof in any way.

(d) Descriptive Headings; Interpretation; No Strict Construction. The descriptive headings of this Agreement are inserted for convenience only and do not constitute a substantive part of this Agreement. Whenever required by the context, any pronoun used in this Agreement shall include the corresponding masculine, feminine, or neuter forms, and the singular form of nouns, pronouns, and verbs shall include the plural and vice versa. The use of the word "including" in this Agreement shall be by way of example rather than by limitation. Reference to any agreement, document, or instrument means such agreement, document, or instrument as amended or otherwise modified from time to time in accordance with the terms thereof, and, if applicable, hereof. The use of the words "or," "either," and "any" shall not be exclusive. The parties hereto have participated jointly in the negotiation and drafting of this Agreement. In the event an ambiguity or question of intent or interpretation arises, this Agreement shall be construed as if drafted jointly by the parties hereto, and no presumption or burden of proof shall arise favoring or disfavoring any party by virtue of the authorship of any of the provisions of this Agreement.

(e) Counterparts. This Agreement may be executed in multiple counterparts with the same effect as if all signing parties had signed the same document. All counterparts shall be construed together and constitute the same instrument.

(f) Successors and Assigns. Except as otherwise provided herein, this Agreement shall bind and inure to the benefit of and be enforceable by Director, the Company, the Investors and their respective successors and assigns (including subsequent holders of Director Securities); provided that the rights and obligations of Director under this Agreement shall not be assigned or delegated except for the assignment and delegation of Director's rights and obligations hereunder as a holder of Director Securities in connection with a permitted Transfer of Director Securities hereunder and under the other Transaction Documents.

(g) Applicable Law. This Agreement shall be governed by, and construed in accordance with, the laws of the State of Delaware, without giving effect to any choice of law or conflict of law rules or provisions (whether of the State of Delaware or any other jurisdiction) that would cause the application of the laws of any jurisdiction other than the State of Delaware.

(h) Jurisdiction; Venue; Service of Process. Each party hereto agrees that it shall bring any action between the parties hereto arising out of or related to this Agreement in the Court of Chancery of the State of Delaware (the "Court of Chancery") or, to the extent the Court of Chancery does not have subject matter jurisdiction, the United States District Court for the District of Delaware and the appellate courts having jurisdiction of appeals in such courts (the "Delaware Federal Court") or, to the extent neither the Court of Chancery nor the Delaware Federal Court has subject matter jurisdiction, the Superior Court of the State of Delaware (the

"Chosen Courts"), and, solely with respect to any such action (a) irrevocably submits to the exclusive jurisdiction of the Chosen Courts, (b) waives any objection to laying venue in any such action in the Chosen Courts, (c) waives any objection that the Chosen Courts are an inconvenient forum or do not have jurisdiction over any party hereto and (d) agrees that service of any process, summons, notice or document pursuant to Section 10 shall be effective service of process in any action, suit or proceeding in Delaware with respect to any matters to which it has submitted to jurisdiction as set forth in the immediately preceding sentence.

(i) MUTUAL WAIVER OF JURY TRIAL . BECAUSE DISPUTES ARISING IN CONNECTION WITH COMPLEX TRANSACTIONS ARE MOST QUICKLY AND ECONOMICALLY RESOLVED BY AN EXPERIENCED AND EXPERT PERSON AND THE PARTIES HERETO WISH APPLICABLE STATE AND FEDERAL LAWS TO APPLY (RATHER THAN ARBITRATION RULES), THE PARTIES HERETO DESIRE THAT THEIR DISPUTES BE RESOLVED BY A JUDGE APPLYING SUCH APPLICABLE LAWS. THEREFORE, TO ACHIEVE THE BEST COMBINATION OF THE BENEFITS OF THE JUDICIAL SYSTEM AND OF ARBITRATION, EACH PARTY TO THIS AGREEMENT HEREBY WAIVES ALL RIGHTS TO TRIAL BY JURY IN ANY ACTION, SUIT, OR PROCEEDING BROUGHT TO RESOLVE ANY DISPUTE BETWEEN OR AMONG ANY OF THE PARTIES HERETO, WHETHER ARISING IN CONTRACT, TORT, OR OTHERWISE, ARISING IN CONTRACT, TORT OR OTHERWISE, ARISING OUT OF, CONNECTED WITH, RELATED OR INCIDENTAL TO THIS AGREEMENT AND/OR THE TRANSACTIONS CONTEMPLATED HEREBY AND/OR THE RELATIONSHIP ESTABLISHED AMONG THE PARTIES HEREUNDER.

(j) Director's Cooperation. During the Board Period and thereafter, Director shall cooperate with the Company and its Subsidiaries and Affiliates in any disputes with third parties, internal investigation or administrative, regulatory or judicial proceeding as reasonably requested by the Company (including Director being available to the Company upon reasonable notice for interviews and factual investigations, appearing at the Company's request to give testimony without requiring service of a subpoena or other legal process, volunteering to the Company all pertinent information and turning over to the Company all relevant documents which are or may come into Director's possession, all at times and on schedules that are reasonably consistent with Director's other permitted activities and commitments). In the event the Company requires Director's cooperation in accordance with this paragraph after the Board Period, the Company shall reimburse Director for reasonable travel expenses (including lodging and meals, upon submission of receipts).

(k) Remedies. Each of the parties to this Agreement (and each of the Investors as third party beneficiaries) shall have all rights and remedies set forth in this Agreement and all rights and remedies which such Person has been granted at any time under any other agreement or contract and all of the rights which such Person has under any law. Each of the parties to this Agreement will be entitled to enforce its rights under this Agreement specifically, to recover damages and costs caused by any breach of any provision of this Agreement and to exercise all other rights existing in its favor. The parties hereto agree and acknowledge that money damages may not be an adequate remedy for any breach of the provisions of this Agreement and that any party may in its sole discretion, but subject to Section 10(h), apply to any court of law or equity of competent jurisdiction (without posting any bond or deposit) for specific performance and/or

other injunctive relief in order to enforce or prevent any violations of the provisions of this Agreement.

(l) Amendment and Waiver. The provisions of this Agreement may be amended and waived only with the prior written consent of the Company, Director and the Majority Holders (as defined in the GTCR Unit Purchase Agreement). No failure by any party to insist upon the strict performance of any covenant, duty, agreement, or condition of this Agreement or to exercise any right or remedy consequent upon a breach thereof shall constitute a waiver of any such breach or any other covenant, duty, agreement, or condition. The waiver by any party of a breach of any covenant, duty, agreement, or condition of this Agreement of any other party shall not operate or be construed as a waiver of any subsequent breach of that provision or any other provision hereof.

(m) Business Days. If any time period for giving notice or taking action hereunder expires on a day which is a Saturday, Sunday or holiday in the state in which the Company's chief executive office is located, the time period shall be automatically extended to the business day immediately following such Saturday, Sunday or holiday.

(n) Indemnification and Reimbursement of Payments on Behalf of Director. The Company and its Subsidiaries shall be entitled to deduct or withhold from any amounts owing from the Company or any of its Subsidiaries to Director (including withholding shares or other equity securities in the case of issuances of equity by the Company or any of its Subsidiaries) any federal, state, local or foreign withholding taxes, excise taxes, or employment taxes ("Taxes") imposed with respect to Director's compensation or other payments from the Company or any of its Subsidiaries or Director's ownership interest in the Company, including wages, bonuses, distributions, the receipt or exercise of equity options and/or the receipt or vesting of restricted equity. In the event any such deductions or withholdings are not made, Director shall indemnify the Company or any of its Subsidiaries for any amounts paid with respect to any such Taxes, together with any interest, penalties and related expenses thereto.

(o) Termination. This Agreement shall survive a Separation and shall remain in full force and effect after such Separation.

(p) Adjustments of Numbers. All numbers set forth herein that refer to Unit prices or amounts will be appropriately adjusted to reflect Unit splits, Unit distributions, combinations of Units and other recapitalizations affecting the subject class of equity.

(q) Deemed Transfer of Director Securities. If the Company (and/or the Investors and/or any other Person acquiring securities) shall make available, at the time and place and in the amount and form provided in this Agreement, the consideration for the Director Securities to be repurchased, in each case, in accordance with the provisions of this Agreement, then from and after such time, the Person from whom such Units are to be repurchased shall no longer have any rights as a holder of such Units (other than the right to receive payment of such consideration in accordance with this Agreement), and such Units shall be deemed purchased in accordance with the applicable provisions hereof and the Company (and/or the Investors and/or any other Person acquiring securities) shall be deemed the owner and holder of such Units, whether or not the certificates therefor have been delivered as required by this Agreement.

(r) No Pledge or Security Interest. The purpose of the Company's retention of Director's certificates and executed security powers is solely to facilitate the provisions set forth in Section 3 herein and Section 8.2 of the LLC Agreement and does not by itself constitute a pledge by Director of, or the granting of a security interest in, the underlying equity.

(s) Rights Granted to the Investors and their Affiliates. Any rights granted to any of the Investors or any of their respective Affiliates hereunder may also be exercised (in whole or in part) by their designees.

(t) Subsidiary Public Offering. If, after or otherwise in connection with consummation of a Subsidiary Public Offering, the Company distributes or otherwise transfers all or part of securities of such Subsidiary to members of the Company, then such securities will be treated in the same manner as (but excluding any "preferred" features of the Units with respect to which they were distributed) the Units with respect to which they were distributed for purposes of Sections 1, 2, 3, and 4.

(u) Electronic Delivery. This Agreement, the agreements referred to herein, and each other agreement or instrument entered into in connection herewith or therewith or contemplated hereby or thereby, and any amendments hereto or thereto, to the extent signed and delivered by means of a photographic, facsimile, portable document format (.pdf), or similar reproduction of such signed writing using a facsimile machine or electronic mail shall be treated in all manner and respects as an original agreement or instrument and shall be considered to have the same binding legal effect as if it were the original signed version thereof delivered in person. At the request of any party hereto or to any such agreement or instrument, each other party hereto or thereto shall re-execute original forms thereof and deliver them to all other parties hereto. No party hereto or to any such agreement or instrument shall raise the use of a facsimile machine or electronic mail to deliver a signature or the fact that any signature or agreement or instrument was transmitted or communicated through the use of a facsimile machine or electronic mail as a defense to the formation or enforceability of a contract and each such party forever waives any such defense.

(v) No Third-Party Beneficiaries. Except as expressly provided herein, no term or provision of this Agreement is intended to be, or shall be, for the benefit of any Person not a party hereto, and no such other Person shall have any right or cause of action hereunder.

* * * * *

IN WITNESS WHEREOF, the parties hereto have executed this Investment and Director Compensation Agreement as of the date first above written.

MARAVAI LIFE SCIENCES HOLDINGS, LLC

By: /s/ Eric Tardif
Name: Eric Tardif
Its: President

MARAVAI LIFESCIENCES, INC.

By: /s/ Eric Tardif
Name: Eric Tardif
Its: President

/s/ Robert B. Hance
Robert B. Hance

By his signature above, Director also hereby agrees (a) to be a party to and to be bound by the LLC Agreement, the Registration Rights Agreement and the Securityholders Agreement and (b) that the Director Securities issued hereunder shall be subject to the restrictions and obligations applicable thereto contained in the LLC Agreement, the Registration Rights Agreement and the Securityholders Agreement. This signature page shall constitute a counterpart signature page to the LLC Agreement, the Registration Rights Agreement and the Securityholders Agreement, and Director shall be bound by and shall comply with (i) the provisions of the LLC Agreement, including the power of attorney granted in Section 13.1 of the LLC Agreement, as a Unitholder and Additional Unitholder, (ii) the Registration Rights Agreement as an Other Securityholder and (iii) the Securityholders Agreement as an Other Securityholder, in each case, in the same manner as if Director were an original signatory to such agreements.

IN WITNESS WHEREOF, the parties hereto have executed this Investment and Director Compensation Agreement as of the date first above wriuen.

MARAVAI LIFE SCIENCES HOLDINGS, LLC

By: _____

Name:
Its:

MARAVAI LIFESCIENCES, INC

By: _____

Name:
Its:

/s/ Robert B. Hance
Robert B. Hance

By his signature above, Director also hereby agrees (a) to be a party to and to be bound by the LLC Agreement, the Registration Rights Agreement and the Securityholders Agreement and (b) that the Director Securities issued hereunder shall be subject to the restrictions and obligations applicable thereto contained in the LLC Agreement, the Registration Rights Agreement and the Securityholders Agreement. This signature page shall constitute a counterpart signature page to the LLC Agreement, the Registration .Rights Agreement and the Securityholders Agreement, and Director shall be bound by and shall comply with (i) the provisions of the LLC Agreement, including the power of attorney granted in Section 13.1 of the LLC Agreement, as a Unitholder and Additional Unitholder, (ii) the Registration Rights Agreement as an Other Securityholder and (iii) the Securityholders Agreement as an Other (Securityholder, in each case, in the same manner as if Director were an original signatory to such agreements.

Each Investor, by signing below, acknowledges and accepts the rights granted to it as a third party beneficiary of this Agreement under Sections 3, 9, and 10 hereof as set forth therein and no Investor shall have any liability or obligation under this Agreement as a result of its signature below:

THE INVESTORS:

GTCR FUND XI/A LP

By: GTCR Partners XI/A&C LP
Its: General Partner

By: GTCR Investment XI LLC
Its: General Partner

By: /s/ Constantine S. Mihas
Name: Constantine S. Mihas
Its: Principal

GTCR FUND XI/C LP

By: GTCR Partners XI/A&C LP
Its: General Partner

By: GTCR Investment XI LLC
Its: General Partner

By: /s/ Constantine S. Mihas
Name: Constantine S. Mihas
Its: Principal

GTCR CO-INVEST XI LP

By: GTCR Investment XI LLC
Its: General Partner

By: /s/ Constantine S. Mihas
Name: Constantine S. Mihas

Its: Principal

Exhibit 10.22

Execution Version

INVESTMENT AND DIRECTOR COMPENSATION AGREEMENT

THIS INVESTMENT AND DIRECTOR COMPENSATION AGREEMENT (this "Agreement") is made as of January 8, 2020 by and among Maravai Life Sciences Holdings, LLC, a Delaware limited liability company (the "Company"), Gregory T. Lucier ("Director") and RiverRoad Capital Partners, LLC, a Delaware limited liability company ("RiverRoad" and, together with Director, the "Director Parties"). Capitalized terms used but not otherwise defined herein shall have the meanings ascribed to such terms in Section 8 of this Agreement, or if not defined herein, the meanings in the LLC Agreement.

The Company and the Director Parties desire to enter into an agreement pursuant to which, the Company will issue to certain of the Director Parties 12,000 of the Company's Series 9 Incentive Units which will constitute Common Units treated as "Incentive Units" under the LLC Agreement (the "Incentive Units" and referred to herein as the "Director Securities").

The Company and the Director Parties mutually desire to enter into an agreement containing the terms and conditions pursuant to which Director will serve as member of the board of managers of the Company (the "Board").

Certain provisions of this Agreement are intended for the benefit of, and are enforceable by, the Investors.

The parties hereto intend that the Incentive Units will have a $0.00 liquidation value as of the date of this Agreement so that the grant of the Incentive Units to the Director Parties will not result in taxable income to the Director Parties as of the date of grant under the Code.

NOW, THEREFORE, in consideration of the mutual covenants contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties to this Agreement hereby agree as follows:

PROVISIONS RELATING TO DIRECTOR SECURITIES

1. Issuance of Director Securities.

(a) Incentive Units. Upon execution of this Agreement (the "Closing"), the Company will grant to RiverRoad, on behalf of Director, 12,000 of the Company's Incentive Units at no cost per Unit. Such Incentive Units shall be Series 9 Incentive Units and shall be subject to the vesting requirements described herein. Each Incentive Unit shall have an initial Capital Contribution for such Incentive Unit equal to zero and an initial Participation Threshold of $54.95. The Participation Threshold with respect to each Incentive Unit is subject to adjustment from time to time as set forth in the LLC Agreement. The Company will deliver to the applicable Director Party a copy of the certificate(s) representing such Incentive Units, and RiverRoad will deliver to the Company (x) an executed counterpart signature page to each of the Securityholders Agreement and the Registration Rights Agreement as an "Other Securityholder" thereunder, and (y) an executed counterpart signature page to the LLC Agreement (clauses (x) and (y) collectively, the "Transaction Documents"). The Incentive Units are Common Units.

(b) 83(b) Election. Within 30 days after the acquisition of the Incentive Units at the Closing, Director will make an effective election (an "83(b) Election") with the Internal Revenue Service under Section 83(b) of the Internal Revenue Code of 1986, as amended, and the regulations promulgated thereunder in the form of Exhibit A attached hereto.

(c) Certificates. Until released upon the occurrence of a Sale of the Company, all certificates evidencing the Incentive Units shall be held, subject to the other terms of this Agreement and the Securityholders Agreement, by the Company for the benefit of Director and the other holder(s) of the Incentive Units. Upon the occurrence of a Sale of the Company, subject to the provisions of the LLC Agreement (including Section 12.1 thereof), the Company will return all certificates in its possession evidencing the Incentive Units to the record holders thereof or, subject to Section 1(g), to the appropriate acquirer thereof.

(d) Regulation D; Rule 701. The issuance of the Incentive Units to Director hereunder is intended to be exempt from registration under the Securities Act pursuant to Regulation D or Rule 701 hereunder.

(e) Representations and Warranties. In connection with the transactions contemplated by Section 1 above, Director and RiverRoad jointly and severally represent and warrant to the Company that:

(i) the Director Parties possesses all requisite capacity, power and authority to enter into and perform the Director Parties' obligations under this Agreement;

(ii) this Agreement constitutes the legal, valid and binding obligation of the Director Parties, enforceable in accordance with its terms, and the execution, delivery and performance of this Agreement by the Director Parties does not and will not conflict with, violate or cause a breach of any agreement, contract or instrument to which either of the Director Parties is a party or any judgment, order or decree to which a Director Party is subject;

(iii) except as set forth on Exhibit B attached hereto, Director is neither party to, nor bound by, any other employment agreement, consulting agreement, non-compete agreement, non-solicitation agreement or confidentiality agreement or any other agreement which could impair or interfere with Director's obligations hereunder;

(iv) the Director Parties hereby acknowledge and agree that (A) there is no current public market for the Director Securities, none is expected to develop and the Director Securities are subject to substantial restrictions on transferability, and (B) as a result of such matters and other factors, the Director Securities are difficult to value;

(v) the Director Securities to be acquired by RiverRoad pursuant to this Agreement will be acquired for RiverRoad's own account, on behalf of Director, and not with a view to, or intention of, distribution thereof in violation of the Securities Act, or any applicable state securities laws, and the Director Securities will not be disposed of in contravention of the Securities Act or any applicable state securities laws;

(vi) each of the Director Parties is able to bear the economic risk of such Director Party's investment in the Director Securities for an indefinite period of time because the Director Securities have not been registered under the Securities Act or applicable state securities laws and are subject to substantial restrictions on Transfer set forth herein and in the LLC Agreement, and, therefore, cannot be sold unless subsequently registered under the Securities Act and applicable state securities laws, or an exemption from such registration is available, and in compliance with such restrictions on Transfer;

(vii) each of the Director Parties has had an opportunity to ask questions and receive answers concerning the terms and conditions of the Transaction Documents (in particular, with respect to the distribution provisions set forth in the LLC Agreement) and the offering of Director Securities and has had full and free access and opportunity to inspect, review, examine and inquire about all financial and other information concerning the Company as such Director Party has requested;

(viii) each Director Party understands and agrees that (A) the investment in the Company involves a high degree of risk, (B) in the future the Director Securities may significantly increase or decrease in value, and (C) no guarantees or representations have been made or can be made with respect to the future value of the Director Securities or the future profitability or success of the Company;

(ix) each Director Party acknowledges and agrees that (A) the Company and its Subsidiaries may incur in the future a substantial amount of senior or other indebtedness and (B) there may be additional issuances of Common Units or other Equity Securities after the date hereof and the equity interests of Director may be diluted in connection with any such issuance, subject to the terms of the LLC Agreement and the Securityholders Agreement;

(x) each Director Party has had an opportunity to consult such Director Party's own tax counsel as to the U.S. federal, state, local and foreign tax consequences of the transactions contemplated by the Transaction Documents and independent legal counsel regarding such Director Party's rights and obligations under the Transaction Documents and fully understands the terms and conditions contained herein and therein. Neither Director Party is relying on the Company or any of its or its Subsidiaries' or Affiliates' employees, agents or representatives with respect to the legal, tax, economic, and related considerations of an investment in the Director Securities;

(xi) each of the Director Parties is an "accredited investor" within the meaning of Rule 501 of Regulation D of the Securities and Exchange Commission and is sophisticated in financial matters and is able to evaluate the risks and benefits of the investment in the Director Securities;

(xii) Director is a resident of the State set forth in Director's address for notices in Section 9 hereof; and

(xiii) RiverRoad is a Delaware limited liability company owned and controlled by Director.

(f) Director Parties Acknowledgment. As an inducement to the Company to issue the Director Securities to the applicable Director Party, and as a condition thereto, the Director Parties acknowledge and agree that neither the issuance of the Director Securities to such Director Party nor any provision contained in this Agreement shall entitle Director to remain a director of the Company or its Subsidiaries or affect the right of the Company or its Subsidiaries to terminate Director's service to the Company at any time for any reason.

(g) Security Powers. Concurrently with the execution of this Agreement, RiverRoad shall execute in blank ten security transfer powers in the form of Exhibit C attached hereto (the "Security Powers") with respect to the Director Securities and shall deliver such Security Powers to the Company. The Security Powers shall authorize the Company to assign, Transfer and deliver the Director Securities to the appropriate acquirer thereof pursuant to Section 3 below or Section 8.2 of the LLC Agreement and under no other circumstances.

(h) Spousal Consent. Concurrently with the execution of this Agreement, if Director is lawfully married, Director's spouse shall execute the Consent in the form of Exhibit D attached hereto.

(i) Certain Covenants. Each Director Party acknowledges that such Director Party has not breached, and that such Director Party will continue to fully comply with, the covenants referenced on Exhibit B attached hereto and set forth in Exhibit E attached hereto.

2. Vesting of Incentive Units.

(a) The Incentive Units shall be subject to vesting in the manner specified in this Section 2. Except as otherwise provided in this Section 2, the Incentive Units shall vest 20% on each of the first five anniversaries of the Reference Date (such that the Incentive Units shall become 100% vested on the fifth anniversary of the Reference Date), if as of each such date Director is, and since the Closing continuously has been, a member of the Board.

(b) Sale of the Company. Upon the occurrence of a Sale of the Company, all Incentive Units which have not yet become vested shall become vested as of the date of consummation of such Sale of the Company, if, as of such date, Director has been continuously member of the Board from the Reference Date through and including such date, subject to the provisions of this Section 2(b).

(c) All Incentive Units which have become vested hereunder, if any, are collectively referred to herein as the "Vested Incentive Units." All Incentive Units which have not become vested hereunder, if any, are collectively referred to herein as the "Unvested Incentive Units."

3. Forfeiture and Repurchase Option.

(a) Forfeiture; Repurchase Option. In the event of a Separation, (i) all Unvested Incentive Units (whether held by any Director Party or one or more of their respective

transferees, other than the Company and the Investors) automatically (without any action by such Director Party or any of their transferees) will be forfeited to the Company and deemed canceled and no longer outstanding without any payment therefor, and (ii) all Vested Incentive Units (whether held by any Director Party or one or more of their respective transferees, other than the Company and the Investors) will be subject to a right of repurchase by the Company and the Investors pursuant to the terms and conditions in this Section 3 (the "Repurchase Option"). The Company may assign its repurchase rights set forth in this Section 3 to any Person; provided that if there is a Subsidiary Public Offering and the securities of such Subsidiary are distributed to the members of the Company, then such Subsidiary will be treated as the Company for purposes of this Section 3 with respect to any repurchase of the securities of such Subsidiary.

(b) Purchase Price. In the event of a Separation, the purchase price for each Vested Incentive Unit will be the Fair Market Value of such Unit. The Fair Market Value of any Unit for purposes of this Section 3 shall be the Fair Market Value of such Unit as of the first date of delivery of the Repurchase Notice or Supplemental Repurchase Notice, as the case may be, pursuant to Section 3(c) or Section 3(d).

(c) Repurchase Notice. The Company may elect to purchase all or any portion of the Vested Incentive Units pursuant to this Section 3 by delivering written notice (the "Repurchase Notice") to the holder or holders of such securities within seven (7) months after the Separation. The Repurchase Notice will set forth the number of Vested Incentive Units to be acquired from each holder, the aggregate consideration to be paid for such Units and the time and place for the closing of the transaction.

(d) Supplemental Repurchase Notice. If for any reason the Company does not elect to purchase all of the Vested Incentive Units pursuant to the Repurchase Option, the Investors shall be entitled to exercise the Repurchase Option for all or any portion of the Vested Incentive Units which the Company has not elected to purchase (the "Available Securities"). As soon as practicable after the Company has determined that there will be Available Securities, but in any event before the date that is six (6) months and one day after the Separation, the Company shall give written notice (the "Option Notice") to the Investors setting forth the number of Available Securities and the purchase price for the Available Securities. The Investors may elect to purchase any or all of the Available Securities by giving written notice to the Company within seven (7) months after the Separation. If the Investors elect to purchase an aggregate number of any class of Available Securities greater than the number of Available Securities of such class, the Available Securities of such class shall be allocated among the Investors based upon the number of Units of such class owned by each Investor. As soon as practicable, and in any event within ten (10) days after the expiration of the seven (7)-month period set forth above, the Company shall notify each holder of Director Securities as to the number of Units of each class being purchased from such holder by the Investors (the "Supplemental Repurchase Notice"). At the time the Company delivers the Supplemental Repurchase Notice to the holder(s) of Director Securities, the Company shall also deliver written notice to each Investor setting forth the number of Units of each class such Investor is entitled to purchase, the aggregate purchase price and the time and place of the closing of the transaction.

(e) Closing of Repurchase. The closing of the purchase of the Vested Incentive Units pursuant to the Repurchase Option shall take place on the date designated by the Company in the Repurchase Notice or Supplemental Repurchase Notice, which date shall not be more than one (1) month nor less than five (5) days after the delivery of the later of either such notice to be delivered. The Company will pay for the Vested Incentive Units to be purchased by it pursuant to the Repurchase Option by first offsetting amounts outstanding under any bona fide debts owed by any Director Party to the Company or any of its Subsidiaries, and will pay the remainder of the purchase price by, at its option, (i) a check or wire transfer of funds, (ii) the issuance of a subordinated promissory note of the Company or a Subsidiary of the Company payable in up to three (3) annual installments beginning on the first anniversary of the closing of such repurchase and bearing interest (payable quarterly) at a per annum rate equal to eight percent (8%), (iii) the issuance in exchange for such securities of a number of a new class or series of Units or other Company Equity Securities that are senior to the other existing Units and bearing a yield of eight percent (8%) per annum, compounded quarterly, or (iv) any combination of (i), (ii) and (iii) as the Board may elect in its discretion. Each Investor will pay for the Vested Incentive Units purchased by it by a check or wire transfer of funds. The Company and the Investors will be entitled to receive customary representations and warranties from the sellers regarding such sale and to require that all sellers' signatures be guaranteed. Notwithstanding the foregoing, the Company may, at its option, effect repurchases as contemplated by Section 4.6 of the LLC Agreement.

(f) Restrictions on Repurchase. Notwithstanding anything to the contrary contained in this Agreement, all repurchases of Director Securities by the Company pursuant to the Repurchase Option and all payments of principal and interest on any promissory note issued pursuant to Section 3(e)(ii) shall be subject to applicable restrictions contained in the Delaware Limited Liability Company Act, the Delaware General Corporation Law or such other governing corporate or limited liability company law, and in the Company's and its Subsidiaries' debt and equity financing agreements. If any such restrictions prohibit (i) the repurchase of Vested Incentive Units hereunder which the Company is otherwise entitled or required to make, (ii) dividends or other transfers of funds from one or more Subsidiaries to the Company to enable such repurchases or (iii) the payment of principal or interest required to be paid on any promissory note issued pursuant to Section 3(e)(ii), then the Company (or the corporate successor to the Company, if applicable) may make such repurchases and may pay amounts due on such note as soon as it is permitted to make repurchases, pay such amounts or receive funds from Subsidiaries under such restrictions.

(g) Revocation. If the Fair Market Value of the Vested Incentive Units is finally determined to be an amount at least ten percent (10)% greater than the per Unit repurchase price for such Unit of Vested Incentive Units in the Repurchase Notice or in the Supplemental Repurchase Notice, each of the Company and the Investors shall have the right to revoke its exercise of the Repurchase Option for all or any portion of the Vested Incentive Units elected to be repurchased by it by delivering notice of such revocation in writing to the holders of the Vested Incentive Units during the thirty (30)-day period beginning on the date that the Company and/or the Investors are given written notice that the Fair Market Value of a Unit of the Vested Incentive Units was finally determined to be an amount at least ten percent (10)% greater than the per Unit repurchase price for the Vested Incentive Units set forth in the Repurchase Notice or in the Supplemental Repurchase Notice.

(h) Certificates. Promptly upon the forfeiture of any Units pursuant to this Section 3 (whether held by any Director Party or one or more of their respective transferees, other than the Company and the Investors), the Director Parties and their respective transferees shall return the certificates, if any, evidencing such Units to the Company and the Company shall mark as canceled all such certificates evidencing such forfeited Units.

(i) Termination. The provisions of this Section 3 will terminate with respect to all Director Securities upon the consummation of a Sale of the Company.

4. Restrictions on Transfer of Director Securities.

(a) Transfers in a Public Sale. In addition to the restrictions on transfer set forth in the LLC Agreement, the Registration Rights Agreement and any agreement executed pursuant thereto, a holder of Director Securities may only sell Common Stock in a Public Sale if such Common Stock is vested and to the extent that, before and after giving effect to such sale, the Director Cumulative Sale Percentage would be equal to or less than the Investor Cumulative Sale Percentage. Except as set forth in the prior sentence, the Director Securities may not be Transferred in a Public Sale.

(b) Legend. In addition to the legend(s) required by the LLC Agreement, each certificate evidencing the Director Securities and each certificate issued in exchange for or upon the Transfer of any Director Securities (if such securities remain Director Securities as defined herein after such Transfer) shall be stamped or otherwise imprinted with a legend in substantially the following form:

> "THE SECURITIES REPRESENTED BY THIS CERTIFICATE ARE ALSO SUBJECT TO ADDITIONAL RESTRICTIONS ON TRANSFER, CERTAIN REPURCHASE OPTIONS, CERTAIN FORFEITURE PROVISIONS AND CERTAIN OTHER AGREEMENTS SET FORTH IN AN INVESTMENT AND DIRECTOR COMPENSATION SECURITIES AGREEMENT BETWEEN THE COMPANY AND AN DIRECTOR OF THE COMPANY AND OTHER PARTIES, DATED AS OF JANUARY 8, 2020, AS AMENDED. A COPY OF SUCH AGREEMENT MAY BE OBTAINED BY THE HOLDER HEREOF AT THE COMPANY'S PRINCIPAL PLACE OF BUSINESS WITHOUT CHARGE."

The Company shall imprint such legend on certificates evidencing Director Securities outstanding prior to the date hereof. The legend set forth above shall be removed from the certificates evidencing any securities which cease to be Director Securities.

5. Board of Managers.

(a) Service. Director agrees to serve on the Board for the period (the "Board Period") commencing as of the Reference date and ending upon his separation pursuant to Section 5(c) hereof (a "Separation").

(b) Director Compensation. Commencing on the Reference Date and continuing until the cessation of the Board Period, in consideration for Director's service as a member of

the Board, Director will be paid director fees in the aggregate amount of $10,000.00 per Board meeting attended (as reduced in accordance with this Section 5(b) (as applicable), the "Director Fees"); provided that, for any Board meeting that Director attends telephonically and not in person, the Company will only be required to pay $5,000.00 in Director Fees to Director for such Board Meeting. The Company or its designee will reimburse Director for all reasonable out-of-pocket travel expenses incurred in connection with Director's attendance at meetings of the Board, in accordance with the Company's expense reimbursement policy in effect from time to time.

(c) Separation. The Board Period will continue until (i) Director resigns from the Board, (ii) Director's death or disability or (iii) the Board or any Investor removes Director from the Board.

6. Confidential Information.

(a) Obligation to Maintain Confidentiality. Director acknowledges that the information, observations and data (including trade secrets) obtained by him during the course of his directorship with the Company and its Subsidiaries concerning the business or affairs of the Company and its Subsidiaries and Affiliates ("Confidential Information") are the property of the Company or such Subsidiaries and Affiliates, including information concerning acquisition opportunities in or reasonably related to the Company's and its Subsidiaries' business or industry of which Director becomes aware during the Board Period. Therefore, Director agrees that he will not disclose to any unauthorized Person or use for his own account any Confidential Information without the Board's written consent, unless and to the extent that the Confidential Information, (i) becomes generally known to and available for use by the public other than as a result of Director's acts or omissions to act or (ii) is required to be disclosed pursuant to any applicable law or court order. Director shall deliver to the Company at a Separation, or at any other time the Company may request, all memoranda, notes, plans, records, reports, computer tapes, printouts and software and other documents and data (and copies thereof) relating to the Confidential Information or the business of the Company and its Subsidiaries and Affiliates (including all acquisition prospects, lists and contact information) which he may then possess or have under his control.

(b) Third Party Information. Director understands that the Company and its Subsidiaries and Affiliates will receive from third parties confidential or proprietary information ("Third Party Information") subject to a duty on the Company's and its respective Subsidiaries and Affiliates' part to maintain the confidentiality of such information and to use it only for certain limited purposes. During the Board Period and thereafter, and without in any way limiting the provisions of Section 6(a) above, Director will hold Third Party Information in the strictest confidence and will not disclose to anyone (other than personnel and consultants of the Company or its Subsidiaries and Affiliates who need to know such information in connection with their work for the Company or its Subsidiaries and Affiliates) or use, except in connection with his work as a director for the Company or its Subsidiaries and Affiliates, Third Party Information unless expressly authorized by a member of the Board (other than Director) in writing.

(c) Use of Information of Prior Employers. During the Board Period, Director will not improperly use or disclose any confidential information or trade secrets, if any, of any former employers or any other Person to whom Director has an obligation of confidentiality, and will not bring onto the premises of the Company or any of its Subsidiaries or Affiliates any unpublished documents or any property belonging to any former employer or any other Person to whom Director has an obligation of confidentiality unless consented to in writing by the former employer or Person. Director will use in the performance of his duties only information which is (i) generally known and used by persons with training and experience comparable to Director's and which is (x) common knowledge in the industry or (y) is otherwise legally in the public domain, (ii) is otherwise provided or developed by the Company or any of its Subsidiaries or Affiliates or (iii) in the case of materials, property or information belonging to any former employer or other Person to whom Director has an obligation of confidentiality, approved for such use in writing by such former employer or Person. In furtherance of the foregoing, concurrently with the execution of this Agreement, Director shall execute and deliver to the Company a certificate in the form of Exhibit E attached hereto.

7 . Nonsolicitation. Director acknowledges that during the Board Period Director will become familiar with the Company's and its Subsidiaries' trade secrets and with other confidential information concerning the Company and such Subsidiaries and that his services will be of special, unique and extraordinary value to the Company and such Subsidiaries. Therefore, Director agrees that:

(a) Nonsolicitation. During the Board Period and the one (1)-year period immediately following the Board Period (such period, together with the Board Period, is referred to herein as the "Restricted Period"), Director shall not directly or indirectly through another entity (i) induce or attempt to induce any employee of the Company or any of its Subsidiaries to leave the employ of the Company or such Subsidiary, or in any way interfere with the relationship between the Company or any of its Subsidiaries and any employee thereof or (ii) hire any employee of the Company or any of its Subsidiaries or hire any former employee of the Company or any of its Subsidiaries within one year after such person ceased to be an employee of the Company or any of its Subsidiaries; provided, that the foregoing shall not restrict Director from (A) engaging in general solicitation efforts not specifically targeted at any such employee, or (B) hiring any employee of the Company or such Subsidiary who responds to any such regular solicitation effort without any other inducement to leave the employ of the Company or any of its Subsidiaries.

(b) Enforcement. If, at the time of enforcement of Section 6 or this Section 7, a court holds that the restrictions stated herein are unreasonable under circumstances then existing, the parties hereto agree that the maximum duration, scope or geographical area reasonable under such circumstances shall be substituted for the stated period, scope or area and that the court shall be allowed to revise the restrictions contained herein to cover the maximum duration, scope and area permitted by law. Because Director's services are unique and because Director has access to confidential information, the parties hereto agree that money damages would be an inadequate remedy for any breach of this Agreement. Therefore, in the event a breach or threatened breach of this Agreement, the Company or its Subsidiaries and/or its successors or assigns may, in addition to other rights and remedies existing in their favor, subject to Section 10(g), apply to any court of competent jurisdiction for specific

performance and/or injunctive or other relief in order to enforce, or prevent any violations of, the provisions hereof (without posting a bond or other security). In the event that Director breaches any provision of this Section 7, then the Restricted Period shall be extended for a period of time equal to the period of time during which such breach occurred and, in the event that the Company or any of its Subsidiaries is required to seek relief from such breach in any court, then the Restricted Period shall be extended for a period of time equal to the pendency of such proceedings, including all appeals.

(c) Additional Acknowledgments. Director acknowledges that the provisions of this Section 7 are in consideration of: (i) board membership with the Company, (ii) the issuance of the Director Securities and (iii) additional good and valuable consideration as set forth in this Agreement. In addition, Director agrees and acknowledges that the restrictions contained in Section 6 and this Section 7 do not preclude Director from earning a livelihood, nor do they unreasonably impose limitations on Director's ability to earn a living. In addition, Director acknowledges (x) that the business of the Company and its Subsidiaries will be conducted throughout the United States and other jurisdictions where the Company or any of its Subsidiaries conduct business during the Board Period, and (y) notwithstanding the state of organization or principal office of the Company or any of its Subsidiaries, or any of its respective executives or employees, it is expected that the Company and its Subsidiaries will have business activities and have valuable business relationships within its industry throughout the United States and other jurisdictions where the Company or any of its Subsidiaries conduct business during the Board Period. Director agrees and acknowledges that the potential harm to the Company and its Subsidiaries of the non-enforcement of any provision of Section 6 or this Section 7 outweighs any potential harm to Director of its enforcement by injunction or otherwise. The covenants contained in each of Sections 6(a), 6(b), 6(c) and 7(a) may be enforced independently and without any one or more of such sections limiting the provisions of any one or more of the other of such sections. Director acknowledges that he has carefully read this Agreement and consulted with legal counsel of his choosing regarding its contents, has given careful consideration to the restraints imposed upon Director by this Agreement and is in full accord as to their necessity for the reasonable and proper protection of confidential and proprietary information of the Company or any of its Subsidiaries now existing or to be developed in the future. Director expressly acknowledges and agrees that each and every restraint imposed by this Agreement is reasonable with respect to subject matter, time period and geographical area.

(d) Additional Covenants. Each Director Party shall cause each of the other Director Parties to fully and faithfully comply with all provisions of this Agreement, the Transaction Documents and any other agreement which any Director Party and the Company or the Investors may enter into from time to time. Each Director Party hereby acknowledges and agrees that a breach by any Director Party of this Agreement, the Transaction Documents and any other agreement which any Director Party and the Company or the Investors may enter into from time to time shall be deemed to be a breach of all other Director Parties thereunder and each Director Party shall be jointly and severally liable with respect to all such breaches. Each Director Party shall cause the representations and warranties set forth in Section 1(e) to be true and correct for so long as such Director Party holds any Director Securities.

8. Definitions.

"Board" means the Company's board of managers.

"Common Stock" means, collectively, (a) following the organization of a corporation and reorganization or recapitalization of the Company into such corporation as provided in Section 12.1 of the LLC Agreement, the common equity securities of such corporation and any other class or series of authorized capital stock of such corporation that is not limited to a fixed sum or percentage of par or stated value in respect of the rights of the holders thereof to participate in dividends or in the distribution of assets upon any liquidation, dissolution or winding up of such corporation, and (b) any common stock of a Subsidiary of either the Company or such corporation distributed by the Company or such corporation to its unitholders or shareholders, as applicable.

"Director Cumulative Sale Percentage" means, on any date of determination, a percentage equal to the quotient of (a) the aggregate number of shares of Common Stock sold by the Director Parties and/or the Director Parties' Permitted Transferees in Public Sales from and including the consummation of the Company's initial Public Offering and to and including such date, divided by (b) the aggregate number of shares of Common Stock held by the Director Parties and the Director Parties' Permitted Transferees upon the consummation of the Company's initial Public Offering.

"Director Securities" means all Common Units (including all Incentive Units) at any time held or acquired by a Director Party. Director Securities will continue to be Director Securities in the hands of any holder other than a Director Party (except for the Company and the Investors and except for transferees in a Public Sale), and except as otherwise provided herein, each such other holder of Director Securities will succeed to all rights and obligations attributable to a Director Party as a holder of Director Securities hereunder. Director Securities will also include equity of the Company (or a corporate successor to the Company or a Subsidiary of the Company) issued with respect to Director Securities (a) by way of a Unit split, Unit distribution, conversion, or other recapitalization, (b) by way of reorganization or recapitalization of the Company in connection with the incorporation of a corporate successor prior to a Public Offering or (c) by way of a distribution of securities of a Subsidiary of the Company to the members of the Company following or with respect to a Subsidiary Public Offering. Notwithstanding the foregoing, all Unvested Incentive Units shall remain Unvested Incentive Units after any Transfer thereof (other than to the Company or any of the Investors).

"Fair Market Value" of each Unit of Director Securities means the average of the closing prices of the sales of such Director Securities on all securities exchanges on which such Director Securities may at the time be listed, or, if there have been no sales on any such exchange on any day, the average of the highest bid and lowest asked prices on all such exchanges at the end of such day, or, if on any day such Director Securities are not so listed, the average of the representative bid and asked prices quoted in the NASDAQ System as of 4:00 P.M., New York time, or, if on any day such Director Securities are not quoted in the NASDAQ System, the average of the highest bid and lowest asked prices on such day in the domestic over the counter

market as reported by the National Quotation Bureau Incorporated, or any similar successor organization, in each such case averaged over a period of 21 days consisting of the day as of which the Fair Market Value is being determined and the 20 consecutive business days prior to such day. If at any time such Director Securities are not listed on any securities exchange or quoted in the NASDAQ System or the over the counter market, the Fair Market Value will be the fair value of such Director Securities as determined in good faith by the Board (other than Director) in accordance with the provisions of Section 11.2(a)(ii) and 11.2(b) of the LLC Agreement. If Director disagrees with such determination, Director shall deliver to the Board a written notice of objection within ten (10) days after delivery of the Repurchase Notice (or if no Repurchase Notice is delivered, then within ten (10) days after delivery of the Supplemental Repurchase Notice). Upon receipt of Director's written notice of objection, the Board and Director will negotiate in good faith to agree on such Fair Market Value. If such agreement is not reached within 30 days after the delivery of the Repurchase Notice (or if no Repurchase Notice is delivered, then within 30 days after the delivery of the Supplemental Repurchase Notice), Fair Market Value shall be determined by an appraiser applying the provisions of Sections 11.2(a)(ii) and 11.2(b) of the LLC Agreement. The appraiser will be jointly selected by the Board (other than Director) and Director, which appraiser shall submit to the Board and Director a report within 30 days of its engagement setting forth such determination. If the parties are unable to agree on an appraiser within 30 days after delivery of the Repurchase Notice or the Supplemental Repurchase Notice, within seven (7) days, each party shall submit the names of one nationally recognized firm that is engaged in the business of valuing nonpublic securities, and such firms shall jointly select an appraiser. The expenses of such appraiser shall be borne by Director unless the appraiser's valuation is more than 10% greater than the amount determined by the Board (other than Director), in which case the expenses of the appraiser shall be borne by the Company. The determination of such appraiser as to Fair Market Value shall be final and binding upon all parties.

"Investor Cumulative Sale Percentage" means, on any date of determination, a percentage equal to the quotient of (a) the aggregate number of shares of Common Stock sold by the Investors in Public Sales from and including the consummation of the Company's initial Public Offering and to and including such date, divided by (b) the aggregate number of shares of Common Stock held by the Investors upon the consummation of the Company's initial Public Offering.

"LLC Agreement" means the Second Amended and Restated Limited Liability Company Agreement of the Company, dated as of April 5, 2016, as amended or modified from time to time in accordance with its terms.

"Reference Date" means January 8, 2020.

"Securityholders Agreement" means the Amended and Restated Securityholders Agreement, dated as of April 5, 2016, by and among the Company and the other parties signatories thereto as amended or modified from time to time in accordance with its terms.

9 . Notices. All notices, demands or other communications to be given or delivered under or by reason of the provisions of this Agreement shall be in writing and shall be deemed to have been given when (a) delivered personally to the recipient, (b) sent to the recipient by

reputable express courier service (charges prepaid), (c) mailed to the recipient by certified or registered mail, return receipt requested and postage prepaid, or (d) telecopied or e-mailed to the recipient (with hard copy sent to the recipient by reputable overnight courier service (charges prepaid) that same day) if telecopied or e-mailed before 5:00 p.m. Chicago, Illinois time on a business day, and otherwise on the next business day. Such notices, demands and other communications shall be sent to the parties at the addresses indicated below:

If to Company:

Maravai Life Sciences Holdings, LLC
c/o GTCR Management LLC
300 North LaSalle Street
Chicago, Illinois 60654
Facsimile: (312) 382-2201
Attention: Chief Executive Officer

with copies to:

GTCR Management LLC
300 North LaSalle Street
Chicago, Illinois 60654
Facsimile: (312) 382-2201
Attention: Constantine S. Mihas
Sean L. Cunningham
Benjamin J. Daverman

Kirkland & Ellis LLP
300 North LaSalle Street
Chicago, Illinois 60654
Facsimile: (312) 862-2200
Attention: Sanford E. Perl, P.C.
Michael H. Weed, P.C.

If to Director:

Gregory T. Lucier
Email:

If to the Investors:

GTCR Management LLC 300 North LaSalle Street
Chicago, Illinois 60654
Facsimile: (312) 382-2201
Attention: Constantine S. Mihas
Sean L. Cunningham

Benjamin J. Daverman

with copies to:

Kirkland & Ellis LLP
300 North LaSalle Street
Chicago, Illinois 60654
Facsimile: (312) 862-2200
Attention: Sanford E. Perl, P.C.
Michael H. Weed, P.C.

or such other address or to the attention of such other Person as the recipient party shall have specified by prior written notice to the sending party.

10. General Provisions.

(a) Transfers in Violation of Agreement. Any Transfer or attempted Transfer of any Director Securities in violation of any provision of this Agreement shall be void, and the Company shall not record such Transfer on its books or treat any purported Transferee of such Director Securities as the owner of such equity for any purpose.

(b) Severability. Whenever possible, each provision of this Agreement will be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Agreement is held to be invalid, illegal or unenforceable in any respect under any applicable law or rule in any jurisdiction, such invalidity, illegality or unenforceability will not affect any other provision or any other jurisdiction, but this Agreement will be reformed, construed and enforced in such jurisdiction as if such invalid, illegal or unenforceable provision had never been contained herein.

(c) Entire Agreement. This Agreement, those documents expressly referred to herein and other documents of even date herewith embody the complete agreement and understanding among the parties hereto and supersede and preempt any prior understandings, agreements or representations by or among the parties hereto, written or oral, which may have related to the subject matter hereof in any way; provided, that nothing herein modifies, waives, terminates, supersedes or restates the Investment Agreement, dated as of October 26, 2016, by and between the Company and RiverRoad, as amended.

(d) Descriptive Headings; Interpretation; No Strict Construction. The descriptive headings of this Agreement are inserted for convenience only and do not constitute a substantive part of this Agreement. Whenever required by the context, any pronoun used in this Agreement shall include the corresponding masculine, feminine, or neuter forms, and the singular form of nouns, pronouns, and verbs shall include the plural and vice versa. The use of the word “including” in this Agreement shall be by way of example rather than by limitation. Reference to any agreement, document, or instrument means such agreement, document, or instrument as amended or otherwise modified from time to time in accordance with the terms thereof, and, if applicable, hereof. The use of the words “or,” “either,” and “any” shall not be exclusive. The parties hereto have participated jointly in the negotiation and drafting of this

Agreement. In the event an ambiguity or question of intent or interpretation arises, this Agreement shall be construed as if drafted jointly by the parties hereto, and no presumption or burden of proof shall arise favoring or disfavoring any party by virtue of the authorship of any of the provisions of this Agreement.

(e) Counterparts. This Agreement may be executed in multiple counterparts with the same effect as if all signing parties had signed the same document. All counterparts shall be construed together and constitute the same instrument.

(f) Successors and Assigns. Except as otherwise provided herein, this Agreement shall bind and inure to the benefit of and be enforceable by the Director Parties, the Company, the Investors and their respective successors and assigns (including subsequent holders of Director Securities); provided that the rights and obligations of the Director Parties under this Agreement shall not be assigned or delegated except for the assignment and delegation of a Director Party's rights and obligations hereunder as a holder of Director Securities in connection with a permitted Transfer of Director Securities hereunder and under the other Transaction Documents.

(g) Applicable Law. This Agreement shall be governed by, and construed in accordance with, the laws of the State of Delaware, without giving effect to any choice of law or conflict of law rules or provisions (whether of the State of Delaware or any other jurisdiction) that would cause the application of the laws of any jurisdiction other than the State of Delaware.

(h) Jurisdiction; Venue; Service of Process. Each party hereto agrees that it shall bring any action between the parties hereto arising out of or related to this Agreement in the Court of Chancery of the State of Delaware (the "Court of Chancery") or, to the extent the Court of Chancery does not have subject matter jurisdiction, the United States District Court for the District of Delaware and the appellate courts having jurisdiction of appeals in such courts (the "Delaware Federal Court") or, to the extent neither the Court of Chancery nor the Delaware Federal Court has subject matter jurisdiction, the Superior Court of the State of Delaware (the "Chosen Courts"), and, solely with respect to any such action (a) irrevocably submits to the exclusive jurisdiction of the Chosen Courts, (b) waives any objection to laying venue in any such action in the Chosen Courts, (c) waives any objection that the Chosen Courts are an inconvenient forum or do not have jurisdiction over any party hereto and (d) agrees that service of any process, summons, notice or document pursuant to Section 10 shall be effective service of process in any action, suit or proceeding in Delaware with respect to any matters to which it has submitted to jurisdiction as set forth in the immediately preceding sentence.

(i) MUTUAL WAIVER OF JURY TRIAL. BECAUSE DISPUTES ARISING IN CONNECTION WITH COMPLEX TRANSACTIONS ARE MOST QUICKLY AND ECONOMICALLY RESOLVED BY AN EXPERIENCED AND EXPERT PERSON AND THE PARTIES HERETO WISH APPLICABLE STATE AND FEDERAL LAWS TO APPLY (RATHER THAN ARBITRATION RULES), THE PARTIES HERETO DESIRE THAT THEIR DISPUTES BE RESOLVED BY A JUDGE APPLYING SUCH APPLICABLE LAWS. THEREFORE, TO ACHIEVE THE BEST COMBINATION OF THE BENEFITS OF THE JUDICIAL SYSTEM AND OF ARBITRATION, EACH PARTY TO THIS

AGREEMENT HEREBY WAIVES ALL RIGHTS TO TRIAL BY JURY IN ANY ACTION, SUIT, OR PROCEEDING BROUGHT TO RESOLVE ANY DISPUTE BETWEEN OR AMONG ANY OF THE PARTIES HERETO, WHETHER ARISING IN CONTRACT, TORT, OR OTHERWISE, ARISING IN CONTRACT, TORT OR OTHERWISE, ARISING OUT OF, CONNECTED WITH, RELATED OR INCIDENTAL TO THIS AGREEMENT AND/OR THE TRANSACTIONS CONTEMPLATED HEREBY AND/OR THE RELATIONSHIP ESTABLISHED AMONG THE PARTIES HEREUNDER.

(j) Director's Cooperation. During the Board Period and thereafter, the Director Parties shall cooperate with the Company and its Subsidiaries and Affiliates in any disputes with third parties, internal investigation or administrative, regulatory or judicial proceeding as reasonably requested by the Company (including Director being available to the Company upon reasonable notice for interviews and factual investigations, appearing at the Company's request to give testimony without requiring service of a subpoena or other legal process, volunteering to the Company all pertinent information and turning over to the Company all relevant documents which are or may come into a Director Parties' possession, all at times and on schedules that are reasonably consistent with Director's other permitted activities and commitments). In the event the Company requires a Director Parties' cooperation in accordance with this paragraph after the Board Period, the Company shall reimburse such Director Party for reasonable travel expenses (including lodging and meals, upon submission of receipts).

(k) Remedies. Each of the parties to this Agreement (and each of the Investors as third party beneficiaries) shall have all rights and remedies set forth in this Agreement and all rights and remedies which such Person has been granted at any time under any other agreement or contract and all of the rights which such Person has under any law. Each of the parties to this Agreement will be entitled to enforce its rights under this Agreement specifically, to recover damages and costs caused by any breach of any provision of this Agreement and to exercise all other rights existing in its favor. The parties hereto agree and acknowledge that money damages may not be an adequate remedy for any breach of the provisions of this Agreement and that any party may in its sole discretion, but subject to Section 10(h), apply to any court of law or equity of competent jurisdiction (without posting any bond or deposit) for specific performance and/or other injunctive relief in order to enforce or prevent any violations of the provisions of this Agreement.

(l) Amendment and Waiver. The provisions of this Agreement may be amended and waived only with the prior written consent of the Company, Director and the Majority Holders (as defined in the GTCR Unit Purchase Agreement). No failure by any party to insist upon the strict performance of any covenant, duty, agreement, or condition of this Agreement or to exercise any right or remedy consequent upon a breach thereof shall constitute a waiver of any such breach or any other covenant, duty, agreement, or condition. The waiver by any party of a breach of any covenant, duty, agreement, or condition of this Agreement of any other party shall not operate or be construed as a waiver of any subsequent breach of that provision or any other provision hereof.

(m) Business Days. If any time period for giving notice or taking action hereunder expires on a day which is a Saturday, Sunday or holiday in the state in which the Company's

chief executive office is located, the time period shall be automatically extended to the business day immediately following such Saturday, Sunday or holiday.

(n) Indemnification and Reimbursement of Payments on Behalf of Director. The Company and its Subsidiaries shall be entitled to deduct or withhold from any amounts owing from the Company or any of its Subsidiaries to Director (including withholding shares or other equity securities in the case of issuances of equity by the Company or any of its Subsidiaries) any federal, state, local or foreign withholding taxes, excise taxes, or employment taxes ("Taxes") imposed with respect to Director's compensation or other payments from the Company or any of its Subsidiaries or a Director Party's ownership interest in the Company, including wages, bonuses, distributions, the receipt or exercise of equity options and/or the receipt or vesting of restricted equity. In the event any such deductions or withholdings are not made, Director shall indemnify the Company or any of its Subsidiaries for any amounts paid with respect to any such Taxes, together with any interest, penalties and related expenses thereto.

(o) Termination. This Agreement (except for the provisions of Section 5) shall survive a Separation and shall remain in full force and effect after such Separation.

(p) Adjustments of Numbers. All numbers set forth herein that refer to Unit prices or amounts will be appropriately adjusted to reflect Unit splits, Unit distributions, combinations of Units and other recapitalizations affecting the subject class of equity.

(q) Deemed Transfer of Director Securities. If the Company (and/or the Investors and/or any other Person acquiring securities) shall make available, at the time and place and in the amount and form provided in this Agreement, the consideration for the Director Securities to be repurchased, in each case, in accordance with the provisions of this Agreement, then from and after such time, the Person from whom such Units are to be repurchased shall no longer have any rights as a holder of such Units (other than the right to receive payment of such consideration in accordance with this Agreement), and such Units shall be deemed purchased in accordance with the applicable provisions hereof and the Company (and/or the Investors and/or any other Person acquiring securities) shall be deemed the owner and holder of such Units, whether or not the certificates therefor have been delivered as required by this Agreement.

(r) No Pledge or Security Interest. The purpose of the Company's retention of the Director Parties' certificates and executed security powers is solely to facilitate the provisions set forth in Section 3 herein and Section 8.2 of the LLC Agreement and does not by itself constitute a pledge by any Director Party of, or the granting of a security interest in, the underlying equity.

(s) Rights Granted to the Investors and their Affiliates. Any rights granted to any of the Investors or any of their respective Affiliates hereunder may also be exercised (in whole or in part) by their designees.

(t) Subsidiary Public Offering. If, after or otherwise in connection with consummation of a Subsidiary Public Offering, the Company distributes or otherwise transfers

all or part of securities of such Subsidiary to members of the Company, then such securities will be treated in the same manner as (but excluding any "preferred" features of the Units with respect to which they were distributed) the Units with respect to which they were distributed for purposes of Sections 1, 2, 3, and 4.

(u) Electronic Delivery. This Agreement, the agreements referred to herein, and each other agreement or instrument entered into in connection herewith or therewith or contemplated hereby or thereby, and any amendments hereto or thereto, to the extent signed and delivered by means of a photographic, facsimile, portable document format (.pdf), or similar reproduction of such signed writing using a facsimile machine or electronic mail shall be treated in all manner and respects as an original agreement or instrument and shall be considered to have the same binding legal effect as if it were the original signed version thereof delivered in person. At the request of any party hereto or to any such agreement or instrument, each other party hereto or thereto shall re-execute original forms thereof and deliver them to all other parties hereto. No party hereto or to any such agreement or instrument shall raise the use of a facsimile machine or electronic mail to deliver a signature or the fact that any signature or agreement or instrument was transmitted or communicated through the use of a facsimile machine or electronic mail as a defense to the formation or enforceability of a contract and each such party forever waives any such defense.

(v) No Third-Party Beneficiaries. Except as expressly provided herein, no term or provision of this Agreement is intended to be, or shall be, for the benefit of any Person not a party hereto, and no such other Person shall have any right or cause of action hereunder.

* * * * *

IN WITNESS WHEREOF, the parties hereto have executed this Investment and Director Compensation Agreement as of the date first above written.

MARAVAI LIFE SCIENCES HOLDINGS, LLC

By: /s/ Carl Hull
Name: Carl Hull
Its: Chief Executive Officer

RIVERROAD CAPITAL PARTNERS, LLC

By: /s/ Gregory T. Lucier
Name: Gregory T. Lucier
Its: Managing Director

/s/ Gregory T. Lucier
Gregory T. Lucier

By it signature above, RiverRoad also hereby agrees (a) to be a party to and to be bound by the LLC Agreement, the Registration Rights Agreement and the Securityholders Agreement and (b) that the Director Securities issued hereunder shall be subject to the restrictions and obligations applicable thereto contained in the LLC Agreement, the Registration Rights Agreement and the Securityholders Agreement. This signature page shall constitute a counterpart signature page to the LLC Agreement, the Registration Rights Agreement and the Securityholders Agreement, and RiverRoad shall be bound by and shall comply with (i) the provisions of the LLC Agreement, including the power of attorney granted in Section 13.1 of the LLC Agreement, as a Unitholder and Additional Unitholder, (ii) the Registration Rights Agreement as an Other Securityholder and (iii) the Securityholders Agreement as an Other Securityholder, in each case, in the same manner as if RiverRoad were an original signatory to such agreements.

Each Investor, by signing below, acknowledges and accepts the rights granted to it as a third party beneficiary of this Agreement under Sections 3, 9, and 10 hereof as set forth therein and no Investor shall have any liability or obligation under this Agreement as a result of its signature below:

THE INVESTORS:

GTCR FUND XI/B LP

By: GTCR Partners XI/B LP
Its: General Partner

By: GTCR Investment XI LLC
Its: General Partner

By: /s/ Constantine S. Mihas
Name: Constantine S. Mihas
Its: Principal

GTCR/MARAVAI SPLITTER LP

By: GTCR Partners XI/B LP
Its: General Partner

By: GTCR Investment XI LLC
Its: General Partner

By: /s/ Constantine S. Mihas
Name: Constantine S. Mihas
Its: Principal

GTCR CO-INVEST XI LP

By: GTCR Investment XI LLC
Its: General Partner

By: /s/ Constantine S. Mihas
Name: Constantine S. Mihas
Its: Principal

Exhibit 10.23

EXECUTION VERSION

INVESTMENT AND DIRECTOR COMPENSATION AGREEMENT

THIS INVESTMENT AND DIRECTOR COMPENSATION AGREEMENT (this "Agreement") is made as of August 10, 2016 by and between Maravai Life Sciences Holdings, LLC, a Delaware limited liability company (the "Company") and Murali K. Prahalad ("Director"). Capitalized terms used but not otherwise defined herein shall have the meanings ascribed to such terms in Section 8 of this Agreement, or if not defined herein, the meanings in the LLC Agreement.

The Company and Director desire to enter into an agreement pursuant to which the Company will sell and issue to Director 10,000 of the Company's Series 2 Incentive Units which will constitute Common Units treated as "Incentive Units" under the LLC Agreement (the "Incentive Units" and referred to herein as the "Director Securities").

The Company and Director mutually desire to enter into an agreement containing the terms and conditions pursuant to which Director will serve as member of the board of managers of the Company (the "Board") and the boards of managers or directors, as applicable, of the Company's subsidiary, Maravai Life Sciences, Inc. ("OpCo").

Certain provisions of this Agreement are intended for the benefit of, and are enforceable by, the Investors.

The parties hereto intend that the Incentive Units will have a $0.00 liquidation value as of the date of this Agreement so that the grant of the Incentive Units to Director will not result in taxable income to Director as of the date of grant under the Code.

NOW, THEREFORE, in consideration of the mutual covenants contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties to this Agreement hereby agree as follows:

PROVISIONS RELATING TO DIRECTOR SECURITIES

1. Issuance and Sale of Director Securities.

(a) Incentive Units. Upon execution of this Agreement (the "Closing"), the Company will grant to Director 10,000 of the Company's Incentive Units at no cost per Unit. Such Incentive Units shall be Series 2 Incentive Units and shall be subject to the vesting requirements described herein. Each Incentive Unit shall have an initial Capital Contribution for such Incentive Unit equal to zero and an initial Participation Threshold of $9.21. The Participation Threshold with respect to each Incentive Unit is subject to adjustment from time to time as set forth in the LLC Agreement. The Company will deliver to Director a copy of the certificate(s) representing such Incentive Units, and Director will deliver to the Company (x) an executed counterpart signature page to each of the Securityholders Agreement and the Registration Rights Agreement as an "Other Securityholder" thereunder, and (y) an executed counterpart signature page to the LLC Agreement (clauses (x) and (y) collectively, the "Transaction Documents"). The Incentive Units are Common Units.

(b) 83(b) Election. Within 30 days after the acquisition of the Incentive Units at the Closing, Director will make an effective election (an "83(b) Election") with the Internal

Revenue Service under Section 83(b) of the Internal Revenue Code of 1986, as amended, and the regulations promulgated thereunder in the form of Exhibit A attached hereto.

(c) Certificates. Until released upon the occurrence of a Sale of the Company, all certificates evidencing the Incentive Units shall be held, subject to the other terms of this Agreement and the Securityholders Agreement, by the Company for the benefit of Director and the other holder(s) of the Incentive Units. Upon the occurrence of a Sale of the Company, subject to the provisions of the LLC Agreement (including Section 12.1 thereof), the Company will return all certificates in its possession evidencing the Incentive Units to the record holders thereof or, subject to Section 1(g), to the appropriate acquirer thereof.

(d) Regulation D; Rule 701. The issuance of the Incentive Units to Director hereunder is intended to be exempt from registration under the Securities Act pursuant to Regulation D or Rule 701 hereunder.

(e) Representations and Warranties. In connection with the transactions contemplated by Section 1 above, Director represents and warrants to the Company that:

(i) Director possesses all requisite capacity, power and authority to enter into and perform his obligations under this Agreement;

(ii) This Agreement constitutes the legal, valid and binding obligation of Director, enforceable in accordance with its terms, and the execution, delivery and performance of this Agreement by Director does not and will not conflict with, violate or cause a breach of any agreement, contract or instrument to which Director is a party or any judgment, order or decree to which Director is subject;

(iii) Except as set forth on Exhibit B attached hereto, Director is neither party to, nor bound by, any other employment agreement, consulting agreement, noncompete agreement, non-solicitation agreement or confidentiality agreement or any other agreement which could impair or interfere with Director's obligations hereunder;

(iv) Director hereby acknowledges and agrees that (A) there is no current public market for the Director Securities, none is expected to develop and the Director Securities are subject to substantial restrictions on transferability, and (B) as a result of such matters and other factors, the Director Securities are difficult to value;

(v) the Director Securities to be acquired by Director pursuant to this Agreement will be acquired for Director's own account and not with a view to, or intention of, distribution thereof in violation of the Securities Act, or any applicable state securities laws, and the Director Securities will not be disposed of in contravention of the Securities Act or any applicable state securities laws;

(vi) Director is able to bear the economic risk of Director's investment in the Director Securities for an indefinite period of time because the Director Securities have not been registered under the Securities Act or applicable state securities laws and are subject to substantial restrictions on Transfer set forth herein and in the LLC Agreement, and, therefore, cannot be sold unless subsequently registered under the

Securities Act and applicable state securities laws, or an exemption from such registration is available, and in compliance with such restrictions on Transfer;

(vii) Director has had an opportunity to ask questions and receive answers concerning the terms and conditions of the Transaction Documents (in particular, with respect to the distribution provisions set forth in the LLC Agreement) and the offering of Director Securities and has had full and free access and opportunity to inspect, review, examine and inquire about all financial and other information concerning the Company as Director has requested;

(viii) Director understands and agrees that (A) the investment in the Company involves a high degree of risk, (B) in the future the Director Securities may significantly increase or decrease in value, and (C) no guarantees or representations have been made or can be made with respect to the future value of the Director Securities or the future profitability or success of the Company;

(ix) Director acknowledges and agrees that (A) the Company and its Subsidiaries may incur in the future a substantial amount of senior or other indebtedness and (B) there may be additional issuances of Common Units or other Equity Securities after the date hereof and the equity interests of Director may be diluted in connection with any such issuance, subject to the terms of the LLC Agreement and the Securityholders Agreement;

(x) Director has had an opportunity to consult Director's own tax counsel as to the U.S. federal, state, local and foreign tax consequences of the transactions contemplated by the Transaction Documents and independent legal counsel regarding his rights and obligations under the Transaction Documents and fully understands the terms and conditions contained herein and therein. Director is not relying on the Company or any of its or its Subsidiaries' or Affiliates' employees, agents or representatives with respect to the legal, tax, economic, and related considerations of an investment in the Director Securities;

(xi) Director is an "accredited investor" within the meaning of Rule 501 of Regulation D of the Securities and Exchange Commission and is sophisticated in financial matters and is able to evaluate the risks and benefits of the investment in the Director Securities; and

(xii) Director is a resident of the State set forth in Director's address for notices in Section 9 hereof.

(f) Director Acknowledgment. As an inducement to the Company to issue the Director Securities to Director, and as a condition thereto, Director acknowledges and agrees that neither the issuance of the Director Securities to Director nor any provision contained in this Agreement shall entitle Director to remain a director of the Company or its Subsidiaries or affect the right of the Company or its Subsidiaries to terminate Director's service to the Company at any time for any reason.

(g) Security Powers. Concurrently with the execution of this Agreement, Director shall execute in blank ten security transfer powers in the form of Exhibit C attached hereto (the "Security Powers") with respect to the Director Securities and shall deliver such Security Powers to the Company. The Security Powers shall authorize the Company to assign, Transfer and deliver the Director Securities to the appropriate acquirer thereof pursuant to Section 3 below or Section 8.2 of the LLC Agreement and under no other circumstances.

(h) Spousal Consent. Concurrently with the execution of this Agreement, if Director is lawfully married, Director's spouse shall execute the Consent in the form of Exhibit D attached hereto.

(i) Certain Covenants. Director acknowledges that Director has not breached, and that Director will continue to fully comply with, the covenants referenced on Exhibit B attached hereto and set forth in Exhibit E attached hereto.

2. Vesting of Incentive Units.

(a) The Incentive Units shall be subject to vesting in the manner specified in this Section 2. Except as otherwise provided in this Section 2, the Incentive Units shall vest 20% on each of the first five anniversaries of the Reference Date (such that the Incentive Units shall become 100% vested on the fifth anniversary of the Reference Date), if as of each such date Director is, and since the Closing continuously has been, a member of the Board.

(b) Sale of the Company. Upon the occurrence of a Sale of the Company, all Incentive Units which have not yet become vested shall become vested as of the date of consummation of such Sale of the Company, if, as of such date, Director has been continuously member of the Board or any of its Subsidiaries from the Reference Date through and including such date, subject to the provisions of this Section 2(b).

(c) All Incentive Units which have become vested hereunder, if any, are collectively referred to herein as the "Vested Incentive Units." All Incentive Units which have not become vested hereunder, if any, are collectively referred to herein as the "Unvested Incentive Units."

3. Forfeiture and Repurchase Option.

(a) Forfeiture; Repurchase Option. In the event of a Separation, (i) all Unvested Incentive Units (whether held by Director or one or more of Director's transferees, other than the Company and the Investors) automatically (without any action by Director or any of Director's transferees) will be forfeited to the Company and deemed canceled and no longer outstanding without any payment therefor, and (ii) all Vested Incentive Units (whether held by Director or one or more of Director's transferees, other than the Company and the Investors) will be subject to a right of repurchase by the Company and the Investors pursuant to the terms and conditions in this Section 3 (the "Repurchase Option"). The Company may assign its repurchase rights set forth in this Section 3 to any Person; provided that if there is a Subsidiary Public Offering and the securities of such Subsidiary are distributed to the members of the Company, then such Subsidiary will be treated as the Company for purposes of this Section 3 with respect to any repurchase of the securities of such Subsidiary.

(b) Purchase Price. In the event of a Separation, the purchase price for each Vested Incentive Unit will be the Fair Market Value of such Unit. The Fair Market Value of any Unit for purposes of this Section 3 shall be the Fair Market Value of such Unit as of the first date of delivery of the Repurchase Notice or Supplemental Repurchase Notice, as the case may be, pursuant to Section 3(c) or Section 3(d).

(c) Repurchase Notice. The Company may elect to purchase all or any portion of the Vested Incentive Units pursuant to this Section 3 by delivering written notice (the "Repurchase Notice") to the holder or holders of such securities within seven (7) months after the Separation. The Repurchase Notice will set forth the number of Director Securities to be acquired from each holder, the aggregate consideration to be paid for such Units and the time and place for the closing of the transaction.

(d) Supplemental Repurchase Notice. If for any reason the Company does not elect to purchase all of the Vested Incentive Units pursuant to the Repurchase Option, the Investors shall be entitled to exercise the Repurchase Option for all or any portion of the Vested Incentive Units which the Company has not elected to purchase (the "Available Securities"). As soon as practicable after the Company has determined that there will be Available Securities, but in any event before the date that is six (6) months and one day after the Separation, the Company shall give written notice (the "Option Notice") to the Investors setting forth the number of Available Securities and the purchase price for the Available Securities. The Investors may elect to purchase any or all of the Available Securities by giving written notice to the Company within seven (7) months after the Separation. If the Investors elect to purchase an aggregate number of any class of Available Securities greater than the number of Available Securities of such class, the Available Securities of such class shall be allocated among the Investors based upon the number of Units of such class owned by each Investor. As soon as practicable, and in any event within ten (10) days after the expiration of the seven (7)-month period set forth above, the Company shall notify each holder of Director Securities as to the number of Units of each class being purchased from such holder by the Investors (the "Supplemental Repurchase Notice"). At the time the Company delivers the Supplemental Repurchase Notice to the holder(s) of Director Securities, the Company shall also deliver written notice to each Investor setting forth the number of Units of each class such Investor is entitled to purchase, the aggregate purchase price and the time and place of the closing of the transaction.

(e) Closing of Repurchase. The closing of the purchase of the Vested Incentive Units pursuant to the Repurchase Option shall take place on the date designated by the Company in the Repurchase Notice or Supplemental Repurchase Notice, which date shall not be more than one (1) month nor less than five (5) days after the delivery of the later of either such notice to be delivered. The Company will pay for the Vested Incentive Units to be purchased by it pursuant to the Repurchase Option by first offsetting amounts outstanding under any bona fide debts owed by Director to the Company or any of its Subsidiaries, and will pay the remainder of the purchase price by, at its option, (i) a check or wire transfer of funds, (ii) the issuance of a subordinated promissory note of the Company or a Subsidiary of the Company payable in up to three (3) annual installments beginning on the first anniversary of the closing of such repurchase and bearing interest (payable quarterly) at a per annum rate equal to eight percent (8%), (iii) the issuance in exchange for such securities of a number of a new class or series of Units or other Company Equity Securities that are senior to the other existing Units and bearing a yield of eight

percent (8%) per annum, compounded quarterly, or (iv) any combination of (i), (ii) and (iii) as the Board may elect in its discretion. Each Investor will pay for the Vested Incentive Units purchased by it by a check or wire transfer of funds. The Company and the Investors will be entitled to receive customary representations and warranties from the sellers regarding such sale and to require that all sellers' signatures be guaranteed. Notwithstanding the foregoing, the Company may, at its option, effect repurchases as contemplated by Section 4.6 of the LLC Agreement.

(f) Restrictions on Repurchase. Notwithstanding anything to the contrary contained in this Agreement, all repurchases of Director Securities by the Company pursuant to the Repurchase Option and all payments of principal and interest on any promissory note issued pursuant to Section 3(e)(ii) shall be subject to applicable restrictions contained in the Delaware Limited Liability Company Act, the Delaware General Corporation Law or such other governing corporate or limited liability company law, and in the Company's and its Subsidiaries' debt and equity financing agreements. If any such restrictions prohibit (i) the repurchase of Vested Incentive Units hereunder which the Company is otherwise entitled or required to make, (ii) dividends or other transfers of funds from one or more Subsidiaries to the Company to enable such repurchases or (iii) the payment of principal or interest required to be paid on any promissory note issued pursuant to Section 3(e)(ii), then the Company (or the corporate successor to the Company, if applicable) may make such repurchases and may pay amounts due on such note as soon as it is permitted to make repurchases, pay such amounts or receive funds from Subsidiaries under such restrictions.

(g) Revocation. If the Fair Market Value of the Vested Incentive Units is finally determined to be an amount at least ten percent (10)% greater than the per Unit repurchase price for such Unit of Vested Incentive Units in the Repurchase Notice or in the Supplemental Repurchase Notice, each of the Company and the Investors shall have the right to revoke its exercise of the Repurchase Option for all or any portion of the Vested Incentive Units elected to be repurchased by it by delivering notice of such revocation in writing to the holders of the Vested Incentive Units during the thirty (30)-day period beginning on the date that the Company and/or the Investors are given written notice that the Fair Market Value of a Unit of the Vested Incentive Units was finally determined to be an amount at least ten percent (10)% greater than the per Unit repurchase price for the Vested Incentive Units set forth in the Repurchase Notice or in the Supplemental Repurchase Notice.

(h) Certificates. Promptly upon the forfeiture of any Units pursuant to this Section 3 (whether held by Director or one of Director's transferees, other than the Company and the Investors), Director and Director's transferees shall return the certificates, if any, evidencing such Units to the Company and the Company shall mark as canceled all such certificates evidencing such forfeited Units.

(i) Termination. The provisions of this Section 3 will terminate with respect to all Director Securities upon the consummation of a Sale of the Company.

4. Restrictions on Transfer of Director Securities.

(a) Transfers in a Public Sale. In addition to the restrictions on transfer set forth in the LLC Agreement, the Registration Rights Agreement and any agreement executed

pursuant thereto, a holder of Director Securities may only sell Common Stock in a Public Sale if such Common Stock is vested and to the extent that, before and after giving effect to such sale, the Director Cumulative Sale Percentage would be equal to or less than the Investor Cumulative Sale Percentage. Except as set forth in the prior sentence, the Director Securities may not be Transferred in a Public Sale.

(b) Legend. In addition to the legend(s) required by the LLC Agreement, each certificate evidencing the Director Securities and each certificate issued in exchange for or upon the Transfer of any Director Securities (if such securities remain Director Securities as defined herein after such Transfer) shall be stamped or otherwise imprinted with a legend in substantially the following form:

> "THE SECURITIES REPRESENTED BY THIS CERTIFICATE ARE ALSO SUBJECT TO ADDITIONAL RESTRICTIONS ON TRANSFER, CERTAIN REPURCHASE OPTIONS, CERTAIN FORFEITURE PROVISIONS AND CERTAIN OTHER AGREEMENTS SET FORTH IN AN INVESTMENT AND DIRECTOR COMPENSATION SECURITIES AGREEMENT BETWEEN THE COMPANY AND AN DIRECTOR OF THE COMPANY AND OTHER PARTIES, DATED AS OF AUGUST 10, 2016, AS AMENDED. A COPY OF SUCH AGREEMENT MAY BE OBTAINED BY THE HOLDER HEREOF AT THE COMPANY'S PRINCIPAL PLACE OF BUSINESS WITHOUT CHARGE."

The Company shall imprint such legend on certificates evidencing Director Securities outstanding prior to the date hereof. The legend set forth above shall be removed from the certificates evidencing any securities which cease to be Director Securities.

5. Board of Managers.

(a) Service. Director agrees to serve on the Board for the period (the "Board Period"), and as a member of the board of directors of OpCo, as of the Reference date and ending upon his separation pursuant to Section 5(c) hereof (a "Separation").

(b) Director Compensation. Commencing on the Reference Date and continuing until the cessation of the Board Period, in consideration for Director's service as a member of the Board, Director will be paid director fees in the aggregate amount of $10,000 per Board meeting attended (as reduced in accordance with this Section 5(b) (as applicable), the "Director Fees"); provided that, for any Board meeting that Director attends telephonically and not in person, the Company will only be required to pay $5,000 in Director Fees to Director for such Board Meeting. OpCo will reimburse Director for all reasonable out-of-pocket travel expenses incurred in connection with Director's attendance at meetings of the Board and the board of directors of OpCo, in each case in accordance with the Company's expense reimbursement policy in effect from time to time.

(c) Separation. The Board Period will continue until (i) Director resigns from the Board, (ii) Director's death or disability or (iii) the Board or any Investor removes Director from the Board and the board of directors of OpCo.

6. Confidential Information.

(a) Obligation to Maintain Confidentiality. Director acknowledges that the information, observations and data (including trade secrets) obtained by him during the course of his directorship with the Company and its Subsidiaries concerning the business or affairs of the Company and its Subsidiaries and Affiliates ("Confidential Information") are the property of the Company or such Subsidiaries and Affiliates, including information concerning acquisition opportunities in or reasonably related to the Company's and its Subsidiaries' business or industry of which Director becomes aware during the Board Period. Therefore, Director agrees that he will not disclose to any unauthorized Person or use for his own account any Confidential Information without the Board's written consent, unless and to the extent that the Confidential Information, (i) becomes generally known to and available for use by the public other than as a result of Director's acts or omissions to act or (ii) is required to be disclosed pursuant to any applicable law or court order. Director shall deliver to the Company at a Separation, or at any other time the Company may request, all memoranda, notes, plans, records, reports, computer tapes, printouts and software and other documents and data (and copies thereof) relating to the Confidential Information or the business of the Company and its Subsidiaries and Affiliates (including all acquisition prospects, lists and contact information) which he may then possess or have under his control.

(b) Third Party Information. Director understands that the Company and its Subsidiaries and Affiliates will receive from third parties confidential or proprietary information ("Third Party Information") subject to a duty on the Company's and its respective Subsidiaries and Affiliates' part to maintain the confidentiality of such information and to use it only for certain limited purposes. During the Board Period and thereafter, and without in any way limiting the provisions of Section 6(a) above, Director will hold Third Party Information in the strictest confidence and will not disclose to anyone (other than personnel and consultants of the Company or its Subsidiaries and Affiliates who need to know such information in connection with their work for the Company or its Subsidiaries and Affiliates) or use, except in connection with his work as a director for the Company or its Subsidiaries and Affiliates, Third Party Information unless expressly authorized by a member of the Board (other than Director) in writing.

(c) Use of Information of Prior Employers. During the Board Period, Director will not improperly use or disclose any confidential information or trade secrets, if any, of any former employers or any other Person to whom Director has an obligation of confidentiality, and will not bring onto the premises of the Company or any of its Subsidiaries or Affiliates any unpublished documents or any property belonging to any former employer or any other Person to whom Director has an obligation of confidentiality unless consented to in writing by the former employer or Person. Director will use in the performance of his duties only information which is (i) generally known and used by persons with training and experience comparable to Director's and which is (x) common knowledge in the industry or (y) is otherwise legally in the public domain, (ii) is otherwise provided or developed by the Company or any of its Subsidiaries or Affiliates or (iii) in the case of materials, property or information belonging to any former employer or other Person to whom Director has an obligation of confidentiality, approved for such use in writing by such former employer or Person. In furtherance of the

foregoing, concurrently with the execution of this Agreement, Director shall execute and deliver to the Company a certificate in the form of Exhibit E attached hereto.

7. Noncompetition and Nonsolicitation. Director acknowledges that during the Board Period he will become familiar with the Company's and its Subsidiaries' trade secrets and with other confidential information concerning the Company and such Subsidiaries and that his services will be of special, unique and extraordinary value to the Company and such Subsidiaries. Therefore, Director agrees that:

(a) Noncompetition. During the Board Period and the two (2)-year period immediately following the Board Period (such period, together with the Board Period, is referred to herein as the "Restricted Period"), Director shall not engage in any Competitive Activities. For purposes of this Agreement, "Competitive Activities" means Director engaging, or causing or directing any Person to engage, directly or indirectly, as a principal, agent, shareholder, investor, employer, partner, director, officer, employee, consultant, member, joint venturer, manager, lender, consultant, operator, or in any capacity whatsoever (other than as a customer), including, without limitation, in any division, group or franchise of a larger organization whose commercial offerings include a product line competitive with Company that, at that time, both accounts for more than twenty percent (20%) of that larger organization's revenues and more than twenty percent (20%) of Company's revenues (in the Company Business or any other business for which the Company or any of its Subsidiaries has a Bona Fide Interest), within the United States or any other jurisdiction in which the Company or any of its Subsidiaries engages in the Company Business or for which the Company or any of its Subsidiaries has a Bona Fide Interest (whether such business is located in the United States or such other jurisdiction or markets to customers located within the United States or such other jurisdiction); provided, that notwithstanding anything in this Agreement to the contrary, Competitive Activities shall not include Director being a passive owner of not more than 2% of the outstanding stock of any class of a corporation that is publicly traded, so long as Director has no active participation in the Company Business of such corporation. As used herein, a "Bona Fide Interest" means a bona fide interest or expectancy relating to the acquisition of such business by the Company or any of its Subsidiaries, as evidenced by appropriate written documentation (for example, a term sheet or letter of intent or emails or other written records that evidence that the parties have an interest or expectancy and have had discussions relating to such acquisition) or discussions indicating an intent to pursue such acquisition transaction (except that, with respect to the portion of the Restricted Period following the Board Period, the bona fide interest or expectancy is measured as of the time immediately preceding the Separation).

(b) Nonsolicitation. During the Restricted Period, Director shall not directly or indirectly through another entity (i) induce or attempt to induce any employee of the Company or any of its Subsidiaries to leave the employ of the Company or such Subsidiary, or in any way interfere with the relationship between the Company or any of its Subsidiaries and any employee thereof, (ii) hire any employee of the Company or any of its Subsidiaries or hire any former employee of the Company or any of its Subsidiaries within one year after such person ceased to be an employee of the Company or any of its Subsidiaries or (iii) induce or attempt to induce any customer, supplier, licensee or other business relation of the Company or any of its Subsidiaries to cease doing business with the Company or such Subsidiary or in any way interfere with the relationship between any such customer, supplier, licensee or business relation and the Company

or any such Subsidiary to the extent such inducement, interference or solicitation relates to Director conducting or engaging in Competitive Activities; provided, that the foregoing shall not restrict Director from (A) engaging in general solicitation efforts not specifically targeted at any such employee, or (B) hiring any employee of the Company or such Subsidiary who responds to any such regular solicitation effort without any other inducement to leave the employ of the Company or any of its Subsidiaries.

(c) Enforcement. If, at the time of enforcement of Section 6 or this Section 7, a court holds that the restrictions stated herein are unreasonable under circumstances then existing, the parties hereto agree that the maximum duration, scope or geographical area reasonable under such circumstances shall be substituted for the stated period, scope or area and that the court shall be allowed to revise the restrictions contained herein to cover the maximum duration, scope and area permitted by law. Because Director's services are unique and because Director has access to confidential information, the parties hereto agree that money damages would be an inadequate remedy for any breach of this Agreement. Therefore, in the event a breach or threatened breach of this Agreement, the Company or its Subsidiaries and/or its successors or assigns may, in addition to other rights and remedies existing in their favor, subject to Section 10(g), apply to any court of competent jurisdiction for specific performance and/or injunctive or other relief in order to enforce, or prevent any violations of, the provisions hereof (without posting a bond or other security). In the event that Director breaches any provision of this Section 7, then the Restricted Period shall be extended for a period of time equal to the period of time during which such breach occurred and, in the event that the Company or any of its Subsidiaries is required to seek relief from such breach in any court, then the Restricted Period shall be extended for a period of time equal to the pendency of such proceedings, including all appeals.

(d) Additional Acknowledgments. Director acknowledges that the provisions of this Section 7 are in consideration of: (i) board membership with the Company and OpCo, (ii) the issuance of the Director Securities and (iii) additional good and valuable consideration as set forth in this Agreement. In addition, Director agrees and acknowledges that the restrictions contained in Section 6 and this Section 7 do not preclude Director from earning a livelihood, nor do they unreasonably impose limitations on Director's ability to earn a living. In addition, Director acknowledges (x) that the business of the Company and its Subsidiaries will be conducted throughout the United States and other jurisdictions where the Company or any of its Subsidiaries conduct business during the Board Period, and (y) notwithstanding the state of organization or principal office of the Company or any of its Subsidiaries, or any of its respective executives or employees, it is expected that the Company and its Subsidiaries will have business activities and have valuable business relationships within its industry throughout the United States and other jurisdictions where the Company or any of its Subsidiaries conduct business during the Board Period. Director agrees and acknowledges that the potential harm to the Company and its Subsidiaries of the non-enforcement of any provision of Section 6 or this Section 7 outweighs any potential harm to Director of its enforcement by injunction or otherwise. The covenants contained in each of Sections 6(a), 6(b), 6(c), 7(a) and 7(b) may be enforced independently and without any one or more of such sections limiting the provisions of any one or more of the other of such sections. Director acknowledges that he has carefully read this Agreement and consulted with legal counsel of his choosing regarding its contents, has given careful consideration to the restraints imposed upon Director by this Agreement and is in full

accord as to their necessity for the reasonable and proper protection of confidential and proprietary information of the Company or any of its Subsidiaries now existing or to be developed in the future. Director expressly acknowledges and agrees that each and every restraint imposed by this Agreement is reasonable with respect to subject matter, time period and geographical area.

GENERAL PROVISIONS

8. Definitions.

"Board" means the Company's board of managers.

"Common Stock" means, collectively, (a) following the organization of a corporation and reorganization or recapitalization of the Company into such corporation as provided in Section 12.1 of the LLC Agreement, the common equity securities of such corporation and any other class or series of authorized capital stock of such corporation that is not limited to a fixed sum or percentage of par or stated value in respect of the rights of the holders thereof to participate in dividends or in the distribution of assets upon any liquidation, dissolution or winding up of such corporation, and (b) any common stock of a Subsidiary of either the Company or such corporation distributed by the Company or such corporation to its unitholders or shareholders, as applicable.

"Company Business" means the business(es) of providing those services or selling those products which the Company or any of its Subsidiaries actually provide or sell.

"Director Cumulative Sale Percentage" means, on any date of determination, a percentage equal to the quotient of (a) the aggregate number of shares of Common Stock sold by Director and/or Director's Permitted Transferees in Public Sales from and including the consummation of the Company's initial Public Offering and to and including such date, divided by (b) the aggregate number of shares of Common Stock held by Director and Director's Permitted Transferees upon the consummation of the Company's initial Public Offering.

"Director Securities" means all Common Units (including all Incentive Units) at any time acquired by Director. Director Securities will continue to be Director Securities in the hands of any holder other than Director (except for the Company and the Investors and except for transferees in a Public Sale), and except as otherwise provided herein, each such other holder of Director Securities will succeed to all rights and obligations attributable to Director as a holder of Director Securities hereunder. Director Securities will also include equity of the Company (or a corporate successor to the Company or a Subsidiary of the Company) issued with respect to Director Securities (a) by way of a Unit split, Unit distribution, conversion, or other recapitalization, (b) by way of reorganization or recapitalization of the Company in connection with the incorporation of a corporate successor prior to a Public Offering or (c) by way of a distribution of securities of a Subsidiary of the Company to the members of the Company following or with respect to a Subsidiary Public Offering. Notwithstanding the foregoing, all Unvested Incentive Units shall remain Unvested Incentive Units after any Transfer thereof (other than to the Company or any of the Investors).

"Fair Market Value" of each Unit of Director Securities means the fair value of such Director Securities as determined in good faith by the Board (other than the Director) applying the provisions of Sections 11.2(a)(ii) and 11.2(b) of the LLC Agreement.

"Investor Cumulative Sale Percentage" means, on any date of determination, a percentage equal to the quotient of (a) the aggregate number of shares of Common Stock sold by the Investors in Public Sales from and including the consummation of the Company's initial Public Offering and to and including such date, divided by (b) the aggregate number of shares of Common Stock held by the Investors upon the consummation of the Company's initial Public Offering.

"LLC Agreement" means the Second Amended and Restated Limited Liability Company Agreement of the Company, dated as of April 5, 2016, as amended or modified from time to time in accordance with its terms.

"Reference Date" means August 3, 2016.

"Securityholders Agreement" means the Amended and Restated Securityholders Agreement, dated as of April 5, 2016, by and among the Company and the other parties signatories thereto as amended or modified from time to time in accordance with its terms.

9 . Notices. All notices, demands or other communications to be given or delivered under or by reason of the provisions of this Agreement shall be in writing and shall be deemed to have been given when (a) delivered personally to the recipient, (b) sent to the recipient by reputable express courier service (charges prepaid), (c) mailed to the recipient by certified or registered mail, return receipt requested and postage prepaid, or (d) telecopied or e-mailed to the recipient (with hard copy sent to the recipient by reputable overnight courier service (charges prepaid) that same day) if telecopied or e-mailed before 5:00 p.m. Chicago, Illinois time on a business day, and otherwise on the next business day. Such notices, demands and other communications shall be sent to the parties at the addresses indicated below:

If to Company:

Maravai Life Sciences Holdings, LLC
c/o GTCR Management LLC
300 North LaSalle Street
Chicago, Illinois 60654
Facsimile: (312) 382-2201
Attention: Chief Executive Officer

with copies to:

GTCR Management LLC
300 North LaSalle Street
Chicago, Illinois 60654
Facsimile: (312) 382-2201

Attention: Constantine S. Mihas
Sean L. Cunningham
Benjamin J. Daverman

Kirkland & Ellis LLP
300 North LaSalle Street
Chicago, Illinois 60654
Facsimile: (312) 862-2200
Attention: Sanford E. Perl, P.C.
Michael H. Weed, P.C.

If to Director:

_____
_____
Email: _____

If to the Investors:

GTCR Management LLC
300 North LaSalle Street
Chicago, Illinois 60654
Facsimile: (312) 382-2201
Attention: Constantine S. Mihas
Sean L. Cunningham
Benjamin J. Daverman

with copies to:

Kirkland & Ellis LLP
300 North LaSalle Street
Chicago, Illinois 60654
Facsimile: (312) 862-2200
Attention: Sanford E. Perl, P.C.
Michael H. Weed, P.C.

or such other address or to the attention of such other Person as the recipient party shall have specified by prior written notice to the sending party.

10. General Provisions.

(a) Transfers in Violation of Agreement. Any Transfer or attempted Transfer of any Director Securities in violation of any provision of this Agreement shall be void, and the Company shall not record such Transfer on its books or treat any purported Transferee of such Director Securities as the owner of such equity for any purpose.

(b) Severability. Whenever possible, each provision of this Agreement will be interpreted in such manner as to be effective and valid under applicable law, but if any provision

of this Agreement is held to be invalid, illegal or unenforceable in any respect under any applicable law or rule in any jurisdiction, such invalidity, illegality or unenforceability will not affect any other provision or any other jurisdiction, but this Agreement will be reformed, construed and enforced in such jurisdiction as if such invalid, illegal or unenforceable provision had never been contained herein.

(c) Entire Agreement. This Agreement, those documents expressly referred to herein and other documents of even date herewith embody the complete agreement and understanding among the parties hereto and supersede and preempt any prior understandings, agreements or representations by or among the parties hereto, written or oral, which may have related to the subject matter hereof in any way.

(d) Descriptive Headings; Interpretation; No Strict Construction. The descriptive headings of this Agreement are inserted for convenience only and do not constitute a substantive part of this Agreement. Whenever required by the context, any pronoun used in this Agreement shall include the corresponding masculine, feminine, or neuter forms, and the singular form of nouns, pronouns, and verbs shall include the plural and vice versa. The use of the word "including" in this Agreement shall be by way of example rather than by limitation. Reference to any agreement, document, or instrument means such agreement, document, or instrument as amended or otherwise modified from time to time in accordance with the terms thereof, and, if applicable, hereof. The use of the words "or," "either," and "any" shall not be exclusive. The parties hereto have participated jointly in the negotiation and drafting of this Agreement. In the event an ambiguity or question of intent or interpretation arises, this Agreement shall be construed as if drafted jointly by the parties hereto, and no presumption or burden of proof shall arise favoring or disfavoring any party by virtue of the authorship of any of the provisions of this Agreement.

(e) Counterparts. This Agreement may be executed in multiple counterparts with the same effect as if all signing parties had signed the same document. All counterparts shall be construed together and constitute the same instrument.

(f) Successors and Assigns. Except as otherwise provided herein, this Agreement shall bind and inure to the benefit of and be enforceable by Director, the Company, the Investors and their respective successors and assigns (including subsequent holders of Director Securities); provided that the rights and obligations of Director under this Agreement shall not be assigned or delegated except for the assignment and delegation of Director's rights and obligations hereunder as a holder of Director Securities in connection with a permitted Transfer of Director Securities hereunder and under the other Transaction Documents.

(g) Applicable Law. This Agreement shall be governed by, and construed in accordance with, the laws of the State of Delaware, without giving effect to any choice of law or conflict of law rules or provisions (whether of the State of Delaware or any other jurisdiction) that would cause the application of the laws of any jurisdiction other than the State of Delaware.

(h) Jurisdiction; Venue; Service of Process. Each party hereto agrees that it shall bring any action between the parties hereto arising out of or related to this Agreement in the Court of Chancery of the State of Delaware (the "Court of Chancery") or, to the extent the Court of Chancery does not have subject matter jurisdiction, the United States District Court for the

District of Delaware and the appellate courts having jurisdiction of appeals in such courts (the "Delaware Federal Court") or, to the extent neither the Court of Chancery nor the Delaware Federal Court has subject matter jurisdiction, the Superior Court of the State of Delaware (the "Chosen Courts"), and, solely with respect to any such action (a) irrevocably submits to the exclusive jurisdiction of the Chosen Courts, (b) waives any objection to laying venue in any such action in the Chosen Courts, (c) waives any objection that the Chosen Courts are an inconvenient forum or do not have jurisdiction over any party hereto and (d) agrees that service of any process, summons, notice or document pursuant to Section 10 shall be effective service of process in any action, suit or proceeding in Delaware with respect to any matters to which it has submitted to jurisdiction as set forth in the immediately preceding sentence.

(i) MUTUAL WAIVER OF JURY TRIAL . BECAUSE DISPUTES ARISING IN CONNECTION WITH COMPLEX TRANSACTIONS ARE MOST QUICKLY AND ECONOMICALLY RESOLVED BY AN EXPERIENCED AND EXPERT PERSON AND THE PARTIES HERETO WISH APPLICABLE STATE AND FEDERAL LAWS TO APPLY (RATHER THAN ARBITRATION RULES), THE PARTIES HERETO DESIRE THAT THEIR DISPUTES BE RESOLVED BY A JUDGE APPLYING SUCH APPLICABLE LAWS. THEREFORE, TO ACHIEVE THE BEST COMBINATION OF THE BENEFITS OF THE JUDICIAL SYSTEM AND OF ARBITRATION, EACH PARTY TO THIS AGREEMENT HEREBY WAIVES ALL RIGHTS TO TRIAL BY JURY IN ANY ACTION, SUIT, OR PROCEEDING BROUGHT TO RESOLVE ANY DISPUTE BETWEEN OR AMONG ANY OF THE PARTIES HERETO, WHETHER ARISING IN CONTRACT, TORT, OR OTHERWISE, ARISING IN CONTRACT, TORT OR OTHERWISE, ARISING OUT OF, CONNECTED WITH, RELATED OR INCIDENTAL TO THIS AGREEMENT AND/OR THE TRANSACTIONS CONTEMPLATED HEREBY AND/OR THE RELATIONSHIP ESTABLISHED AMONG THE PARTIES HEREUNDER.

(j) Director's Cooperation. During the Board Period and thereafter, Director shall cooperate with the Company and its Subsidiaries and Affiliates in any disputes with third parties, internal investigation or administrative, regulatory or judicial proceeding as reasonably requested by the Company (including Director being available to the Company upon reasonable notice for interviews and factual investigations, appearing at the Company's request to give testimony without requiring service of a subpoena or other legal process, volunteering to the Company all pertinent information and turning over to the Company all relevant documents which are or may come into Director's possession, all at times and on schedules that are reasonably consistent with Director's other permitted activities and commitments). In the event the Company requires Director's cooperation in accordance with this paragraph after the Board Period, the Company shall reimburse Director for reasonable travel expenses (including lodging and meals, upon submission of receipts).

(k) Remedies. Each of the parties to this Agreement (and each of the Investors as third party beneficiaries) shall have all rights and remedies set forth in this Agreement and all rights and remedies which such Person has been granted at any time under any other agreement or contract and all of the rights which such Person has under any law. Each of the parties to this Agreement will be entitled to enforce its rights under this Agreement specifically, to recover damages and costs caused by any breach of any provision of this Agreement and to exercise all other rights existing in its favor. The parties hereto agree and acknowledge that money damages

may not be an adequate remedy for any breach of the provisions of this Agreement and that any party may in its sole discretion, but subject to Section 10(h), apply to any court of law or equity of competent jurisdiction (without posting any bond or deposit) for specific performance and/or other injunctive relief in order to enforce or prevent any violations of the provisions of this Agreement.

(l) Amendment and Waiver. The provisions of this Agreement may be amended and waived only with the prior written consent of the Company, Director and the Majority Holders (as defined in the GTCR Unit Purchase Agreement). No failure by any party to insist upon the strict performance of any covenant, duty, agreement, or condition of this Agreement or to exercise any right or remedy consequent upon a breach thereof shall constitute a waiver of any such breach or any other covenant, duty, agreement, or condition. The waiver by any party of a breach of any covenant, duty, agreement, or condition of this Agreement of any other party shall not operate or be construed as a waiver of any subsequent breach of that provision or any other provision hereof.

(m) Business Days. If any time period for giving notice or taking action hereunder expires on a day which is a Saturday, Sunday or holiday in the state in which the Company's chief executive office is located, the time period shall be automatically extended to the business day immediately following such Saturday, Sunday or holiday.

(n) Indemnification and Reimbursement of Payments on Behalf of Director. The Company and its Subsidiaries shall be entitled to deduct or withhold from any amounts owing from the Company or any of its Subsidiaries to Director (including withholding shares or other equity securities in the case of issuances of equity by the Company or any of its Subsidiaries) any federal, state, local or foreign withholding taxes, excise taxes, or employment taxes ("Taxes") imposed with respect to Director's compensation or other payments from the Company or any of its Subsidiaries or Director's ownership interest in the Company, including wages, bonuses, distributions, the receipt or exercise of equity options and/or the receipt or vesting of restricted equity. In the event any such deductions or withholdings are not made, Director shall indemnify the Company or any of its Subsidiaries for any amounts paid with respect to any such Taxes, together with any interest, penalties and related expenses thereto.

(o) Termination. This Agreement shall survive a Separation and shall remain in full force and effect after such Separation.

(p) Adjustments of Numbers. All numbers set forth herein that refer to Unit prices or amounts will be appropriately adjusted to reflect Unit splits, Unit distributions, combinations of Units and other recapitalizations affecting the subject class of equity.

(q) Deemed Transfer of Director Securities. If the Company (and/or the Investors and/or any other Person acquiring securities) shall make available, at the time and place and in the amount and form provided in this Agreement, the consideration for the Director Securities to be repurchased, in each case, in accordance with the provisions of this Agreement, then from and after such time, the Person from whom such Units are to be repurchased shall no longer have any rights as a holder of such Units (other than the right to receive payment of such consideration in accordance with this Agreement), and such Units shall be deemed purchased in accordance with the applicable provisions hereof and the Company (and/or the Investors and/or

any other Person acquiring securities) shall be deemed the owner and holder of such Units, whether or not the certificates therefor have been delivered as required by this Agreement.

(r) No Pledge or Security Interest. The purpose of the Company's retention of Director's certificates and executed security powers is solely to facilitate the provisions set forth in Section 3 herein and Section 8.2 of the LLC Agreement and does not by itself constitute a pledge by Director of, or the granting of a security interest in, the underlying equity.

(s) Rights Granted to the Investors and their Affiliates. Any rights granted to any of the Investors or any of their respective Affiliates hereunder may also be exercised (in whole or in part) by their designees.

(t) Subsidiary Public Offering. If, after or otherwise in connection with consummation of a Subsidiary Public Offering, the Company distributes or otherwise transfers all or part of securities of such Subsidiary to members of the Company, then such securities will be treated in the same manner as (but excluding any "preferred" features of the Units with respect to which they were distributed) the Units with respect to which they were distributed for purposes of Sections 1, 2, 3, and 4.

(u) Electronic Delivery. This Agreement, the agreements referred to herein, and each other agreement or instrument entered into in connection herewith or therewith or contemplated hereby or thereby, and any amendments hereto or thereto, to the extent signed and delivered by means of a photographic, facsimile, portable document format (.pdf), or similar reproduction of such signed writing using a facsimile machine or electronic mail shall be treated in all manner and respects as an original agreement or instrument and shall be considered to have the same binding legal effect as if it were the original signed version thereof delivered in person. At the request of any party hereto or to any such agreement or instrument, each other party hereto or thereto shall re-execute original forms thereof and deliver them to all other parties hereto. No party hereto or to any such agreement or instrument shall raise the use of a facsimile machine or electronic mail to deliver a signature or the fact that any signature or agreement or instrument was transmitted or communicated through the use of a facsimile machine or electronic mail as a defense to the formation or enforceability of a contract and each such party forever waives any such defense.

(v) No Third-Party Beneficiaries. Except as expressly provided herein, no term or provision of this Agreement is intended to be, or shall be, for the benefit of any Person not a party hereto, and no such other Person shall have any right or cause of action hereunder.

* * * * *

IN WITNESS WHEREOF, the parties hereto have executed this Investment and Director Compensation Agreement as of the date first above written.

MARAVAI LIFE SCIENCES HOLDINGS, LLC

By: /s/ Carl Hull
Name: Carl Hull
Its: Chief Executive Officer

MARAVAI LIFESCIENCES, INC.

By: /s/ Carl Hull
Name: Carl Hull
Its: Chief Executive Officer

Murali K. Prahalad

By his signature above, Director also hereby agrees (a) to be a party to and to be bound by the LLC Agreement, the Registration Rights Agreement and the Securityholders Agreement and (b) that the Director Securities issued hereunder shall be subject to the restrictions and obligations applicable thereto contained in the LLC Agreement, the Registration Rights Agreement and the Securityholders Agreement. This signature page shall constitute a counterpart signature page to the LLC Agreement, the Registration Rights Agreement and the Securityholders Agreement, and Director shall be bound by and shall comply with (i) the provisions of the LLC Agreement, including the power of attorney granted in Section 13.1 of the LLC Agreement, as a Unitholder and Additional Unitholder, (ii) the Registration Rights Agreement as an Other Securityholder and (iii) the Securityholders Agreement as an Other Securityholder, in each case, in the same manner as if Director were an original signatory to such agreements.

IN WITNESS WHEREOF, the parties hereto have executed this Investment and Director Compensation Agreement as of the date first above written.

MARAVAI LIFE SCIENCES HOLDINGS, LLC

By:_____
Name:
Its:

MARAVAI LIFESCIENCES, INC.

By:_____
Name:
Its:

/s/ Murali K. Prahalad
Murali K. Prahalad

By his signature above, Director also hereby agrees (a) to be a party to and to be bound by the LLC Agreement, the Registration Rights Agreement and the Securityholders Agreement and (b) that the Director Securities issued hereunder shall be subject to the restrictions and obligations applicable thereto contained in the LLC Agreement, the Registration Rights Agreement and the Securityholders Agreement. This signature page shall constitute a counterpart signature page to the LLC Agreement, the Registration Rights Agreement and the Securityholders Agreement, and Director shall be bound by and shall comply with (i) the provisions of the LLC Agreement, including the power of attorney granted in Section 13.1 of the LLC Agreement, as a Unitholder and Additional Unitholder, (ii) the Registration Rights Agreement as an Other Securityholder and (iii) the Securityholders Agreement as an Other Securityholder, in each case, in the same manner as if Director were an original signatory to such agreements.

Each Investor, by signing below, acknowledges and accepts the rights granted to it as a third party beneficiary of this Agreement under Sections 3, 9, and 10 hereof as set forth therein and no Investor shall have any liability or obligation under this Agreement as a result of its signature below:

THE INVESTORS:

GTCR FUND XI/A LP

By: GTCR Partners XI/A&C LP
Its: General Partner

By: GTCR Investment XI LLC
Its: General Partner

By: /s/ Constantine S. Mihas
Name: Constantine S. Mihas
Its: Principal

GTCR FUND XI/C LP

By: GTCR Partners XI/A&C LP
Its: General Partner

By: GTCR Investment XI LLC
Its: General Partner

By: /s/ Constantine S. Mihas
Name: Constantine S. Mihas
Its: Principal

GTCR CO-INVEST XI LP

By: GTCR Investment XI LLC
Its: General Partner

By: /s/ Constantine S. Mihas
Name: Constantine S. Mihas
Its: Principal