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As filed with the Securities and Exchange Commission on June 13, 2018

Registration No. 333-

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

FORM S-3
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

AMAG PHARMACEUTICALS, INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

04-2742593
(I.R.S. Employer
Identification Number)

**1100 Winter Street
Waltham, Massachusetts 02451
(617) 498-3300**

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

William K. Heiden
President, Chief Executive Officer
1100 Winter Street
Waltham, Massachusetts 02451
(617) 498-3300

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

**Stuart M. Cable, Esq.
Ettore A. Santucci, Esq.
Goodwin Procter LLP
100 Northern Avenue
Boston, MA 02210
(617) 570-1000**

**Approximate date of commencement of proposed sale to the public:
From time to time after the effective date of this Registration Statement.**

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box:

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, or the Securities Act, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box:

If this Form is filed to register 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 registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a 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. (Check one):

Large accelerated filer

Accelerated filer

Non-accelerated filer
(Do not check if a
smaller reporting company)

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.

CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered	Amount to be registered(1)	Proposed maximum offering price per unit(1)(2)	Proposed maximum aggregate offering price(1)(2)	Amount of registration fee(3)
Common Stock (\$.01 par value)(4)	—	—	—	—
Preferred Stock (\$.01 par value)	—	—	—	—
Debt Securities	—	—	—	—
Warrants	—	—	—	—
Units	—	—	—	—
Total(5)	—	—	—	—

- (1) An indeterminate number of or aggregate principal amount of the securities of each identified class is being registered as may at various times be issued at indeterminate prices.
- (2) Not applicable pursuant to General Instruction II.E of Form S-3 under the Securities Act.
- (3) In accordance with Rules 456(b) and 457(r) under the Securities Act, the registrant is deferring payment of all of the registration fee. Any registration fees will be paid subsequently on a pay-as-you-go basis in accordance with Rule 457(r).
- (4) In addition to any securities that may be registered hereunder, we are also registering an indeterminate number of shares of common stock as may be issued upon conversion or exercise of the securities issued directly hereunder. No separate consideration will be received for any shares of common stock so issued upon conversion or exercise.
- (5) The securities registered hereunder may be sold separately or in a combination with other securities registered hereby.

PROSPECTUS



**Common Stock
Preferred Stock
Warrants
Units
Debt Securities**

By this prospectus, we or any selling stockholder may offer and sell from time to time, in one or more offerings, our common stock, preferred stock, warrants, units, debt securities, or any combination thereof described in this prospectus. The warrants may be convertible into or exercisable or exchangeable for common stock or preferred stock, the preferred stock may be convertible into or exchangeable for common stock and the debt securities may be convertible into or exchangeable for common stock or preferred stock. Each time securities are offered pursuant to this prospectus, we will indicate the particular securities being offered and their specific terms in a supplement to this prospectus. In each case, we will describe the type and amount of securities being offered, the public offering price, the net proceeds we expect to receive and the other terms of the offering.

You should carefully read this prospectus, any prospectus supplement and any free writing prospectus, as well as any documents incorporated in any of the foregoing by reference, before you invest in our securities. This prospectus may not be used to sell our securities unless accompanied by a prospectus supplement. The prospectus supplement or any related free writing prospectus may also add to, update, supplement or clarify information contained in this prospectus.

We or any selling stockholder may offer and sell our securities to or through one or more agents, underwriters, dealers or other third parties or directly to one or more purchasers on a continuous or delayed basis. If agents, underwriters or dealers are used to sell our securities, we or any selling stockholder will name them and describe their compensation in a prospectus supplement. The price to the public of our securities and the net proceeds we expect to receive from the sale of such securities will also be set forth in a prospectus supplement. We will not receive any proceeds from the sale of securities by selling stockholders.

Our common stock is listed on the NASDAQ Global Select Market under the symbol "AMAG." On June 12, 2018, the last reported sale price of our common stock on the NASDAQ Global Select Market was \$23.95 per share.

INVESTING IN OUR SECURITIES INVOLVES RISKS. YOU SHOULD REVIEW CAREFULLY THE RISKS AND UNCERTAINTIES DESCRIBED UNDER THE HEADING "RISK FACTORS" BEGINNING ON PAGE 6 AND CONTAINED IN THE APPLICABLE PROSPECTUS SUPPLEMENT AND ANY RELATED FREE WRITING PROSPECTUS, AND UNDER SIMILAR HEADINGS IN THE OTHER DOCUMENTS THAT ARE INCORPORATED BY REFERENCE HEREIN.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or the accuracy of this prospectus. Any representation to the contrary is a criminal offense.

Our principal executive office is at 1100 Winter Street, Waltham, Massachusetts 02451, and our telephone number is (617) 498-3300.

The date of this prospectus is June 13, 2018.

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ABOUT THIS PROSPECTUS

This prospectus is part of an automatic shelf registration statement that we filed with the Securities and Exchange Commission, or the SEC, as a "well-known seasoned issuer" as defined in Rule 405 under the Securities Act of 1933, as amended, or the Securities Act. Under this shelf registration, we and/or selling stockholders may offer shares of our common stock and preferred stock, various series of warrants to purchase common stock or preferred stock, debt securities, or any combination thereof, from time to time in one or more offerings. This prospectus only provides you with a general description of the securities we and/or selling stockholders may offer. Each time we and/or selling stockholders offer a type or series of securities under this prospectus, we will provide a prospectus supplement that will contain more specific information about the specific terms of the offering. We may also authorize one or more free writing prospectuses to be provided to you that may contain material information relating to these offerings. This prospectus may not be used to sell our securities unless accompanied by a prospectus supplement. Each such prospectus supplement and any free writing prospectus that we may authorize to be provided to you may also add, update or change information contained in this prospectus or in documents incorporated by reference into this prospectus. **We urge you to carefully read this prospectus, any applicable prospectus supplement and any related free writing prospectus, together with the information incorporated herein by reference as described under the headings "Where You Can Find More Information" and "Documents Incorporated by Reference" before you invest in our securities.**

We have not authorized anyone to provide any information other than that contained or incorporated by reference in this prospectus or in any related prospectus supplement or free writing prospectus prepared by or on behalf of us or to which we have referred you. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. We take no responsibility for, and can provide no assurances as to the reliability of, any information not contained in this prospectus, any applicable prospectus supplement or any related free writing prospectus that we or a selling stockholder may authorize to be provided to you. This prospectus is an offer to sell only the securities offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. You should assume that the information in this prospectus, any applicable prospectus supplement or any related free writing prospectus is accurate only as of the date on the front of the document and that any information incorporated by reference is accurate only as of the date of the document incorporated by reference, regardless of the time of delivery of this prospectus, any applicable prospectus supplement or any related free writing prospectus, or any sale of a security.

This prospectus contains summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. Copies of some of the documents referred to herein have been filed, will be filed or will be incorporated by reference as exhibits to the registration statement of which this prospectus is a part, and you may obtain copies of those documents as described below under the heading "Where You Can Find More Information."

References in this prospectus to the terms "AMAG Pharmaceuticals," "company," "we," "our" or "us" or other similar terms means AMAG Pharmaceuticals, Inc.

AMAG Pharmaceuticals® and Feraheme® are registered trademarks of AMAG Pharmaceuticals, Inc. MuGard® is a registered trademark of Aboena Therapeutics, Inc. Makena® is a registered trademark of AMAG Pharma USA, Inc. Cord Blood Registry® and CBR® are registered trademarks of Cbr Systems, Inc. Intrarosa® is a registered trademark of Endoceutics, Inc.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

Any statements in this prospectus or the applicable prospectus supplement or free writing prospectus, including the documents that we incorporate by reference herein, about our expectations, beliefs, plans, objectives, assumptions or future events or performance are not historical facts and are forward-looking statements within the meaning of Section 27A of the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. You can identify these forward-looking statements by the use of words or phrases such as "believe," "may," "could," "will," "estimate," "continue," "anticipate," "intend," "seek," "plan," "expect," "potential," "predict," "project," "should," or "would." Among the factors that could cause actual results to differ materially from those indicated in the forward-looking statements are risks and uncertainties inherent in our business including, without limitation: (1) expectations regarding our future sales of Feraheme, Intrarosa and Makena; (2) our plans to continue to expand the impact of our current and future products and services for patients by delivering on our growth strategy, which includes the pursuit of additional products and companies; (3) beliefs that healthcare professionals and patients will prefer the Makena auto-injector over the intramuscular administration; (4) expectations of the timing of entry of a Makena generic to the market; (5) expectations regarding the iron deficiency anemia, or IDA, patient population; (6) beliefs regarding the growth opportunities for Feraheme in the intravenous iron market; (7) our expected investment in label expansion for Intrarosa and plans to raise awareness and education of dyspareunia and vulvar vaginal atrophy and the results of such efforts; (8) the timing and amounts of milestone and royalty payments, including payments to former Lumara Health security holders, Palatin and Endoceutics; (9) expectations and plans as to regulatory and commercial developments and activities, including requirements and initiatives for clinical trials and post-approval commitments for our products; (10) expected results of our strategic commercialization efforts; (11) expectations as to what impact recent and upcoming regulatory developments will have on our business and competition; (12) our expected timing for filing an sNDA for the treatment of hypoactive sexual desire disorder in post-menopausal women with Intrarosa; (13) anticipated clinical, developmental, regulatory and other undertakings and cooperation efforts by our licensing parties; (14) expectations regarding our intellectual property, including patent protection and related litigation, and the impact generics and other competition could have on each of our products and our business generally, including the timing and number of generic entrants; (15) beliefs regarding the intellectual property of our licensing and collaboration partners, and our rights to such property; (16) the market opportunities for each of our products and services; (17) expectations regarding third-party reimbursement and the behaviors of payers, healthcare providers and other industry participants; (18) plans regarding our sales and marketing initiatives, including our contracting, pricing and discounting strategies and efforts to increase patient compliance and access; (19) beliefs that newborn stem cells have the potential to play a valuable role in the development of regenerative medicine; (20) our expectations that we will have sufficient supply of the Makena intramuscular injection to meet demands; (21) beliefs that our efforts to increase new enrollments for the CBR services will increase services revenues for the remainder of 2018; (22) the impact of our license and collaboration agreements on our results of operations; (23) our expectation of costs to be incurred in connection with, and revenue sources (including the contribution of revenues from our products or services) to fund, our future operations; (24) expectations regarding the manufacture of all drug substances, drug products and key materials at our third-party manufacturers or suppliers; (25) our inventory levels and the availability of raw materials; (26) the strategic fit of Intrarosa and bremelanotide in our product portfolio; (27) our expectations regarding customer returns and other revenue-related reserves and accruals; (28) the impact of recent tax reform legislation; (29) estimates regarding our effective tax rate and our ability to realize our net operating loss carryforwards and other tax attributes; (30) the impact of accounting pronouncements; (31) the effect of product price increases; (32) expected expenses, efforts and challenges in research and development and the timing of our planned research and development projects; (33) the impact on our business in connection with the expansion of our

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commercial team; (34) expectations regarding our financial results, including revenues, product sales allowances and accruals, cost of product sales and services, research and development expenses, selling, general and administrative expenses, goodwill, impairment, amortization and other income (expense); (35) estimates, beliefs and judgments related to our impairment analysis; (36) our investing activities and the impact of our operations on our cash, cash equivalents and marketable securities balances; (37) our expectations that cash, cash equivalents and investments will be positively impacted by cash from operations for the remainder of 2018; (38) our belief that we will fund our current and planned operating requirements through our existing cash, cash equivalents, investments and our cash flow from operations; (39) our belief that our cash, cash equivalents and marketable securities as of March 31, 2018, and the cash we currently expect to receive, will be sufficient to satisfy our cash flow needs for the foreseeable future (including the remainder of 2018); (40) estimates and beliefs related to our debt, including our 2023 Senior Notes, the 2022 Convertible Notes and the 2019 Convertible Notes; (41) the impact of volume-based and other rebates and incentives; (42) the valuation of certain intangible assets, goodwill, contingent consideration, debt and other assets and liabilities, including our methodology and assumptions regarding fair value measurements; (43) our expectations regarding competitive pressures and the impact on growth of our product revenues; (44) the timing and amounts (if any) of share repurchases; (45) other risks identified in our filings with the SEC, including our Annual Report on Form 10-K for the fiscal year ended December 31, 2017, our Quarterly Report on Form 10-Q for the quarter period ended March 31, 2018 and subsequent filings with the SEC. Any of the above risks and uncertainties could materially and adversely affect our results of operations, our profitability and our cash flows, which would, in turn, have a significant and adverse impact on our stock price. Use of the term "including" in the two paragraphs above shall mean in each case "including, but not limited to." We caution you not to place undue reliance on any forward-looking statements, which speak only as of the date they are made.

You should understand that our actual future results may be materially different from what we expect. We qualify all of the forward-looking statements in the foregoing documents by these cautionary statements.

Although we believe that the expectations reflected in our forward-looking statements are reasonable, we cannot guarantee future results, events, levels of activity, performance or achievement. Given these uncertainties, you should not place undue reliance on these forward-looking statements. We undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, unless required by law. Before deciding to purchase our securities, you should carefully consider the risk factors incorporated herein by reference, in addition to the other information set forth in this prospectus, any accompanying prospectus supplement, any free writing prospectus and in the documents incorporated by reference.

OUR COMPANY

This business overview highlights information contained in certain documents incorporated by reference into this prospectus. This business overview does not contain all of the information that you should consider before investing in our securities. You should read the entire prospectus carefully, including the "Risk Factors" section and the financial statements and the notes to those statements incorporated herein by reference, before making an investment decision.

AMAG Pharmaceuticals, Inc., a Delaware corporation, was founded in 1981. We are a biopharmaceutical company focused on developing and delivering important therapeutics, conducting clinical research in areas of unmet need and creating education and support programs for the patients and families we serve. Our currently marketed products support the health of patients in the areas of maternal and women's health, anemia management and cancer supportive care, including Makena® (hydroxyprogesterone caproate injection), Feraheme® (ferumoxytol injection) for intravenous use, Intrarosa® (prasterone) vaginal inserts, and MuGard® Mucoadhesive Oral Wound Rinse. In addition, Cord Blood Registry®, or CBR, operates services related to the preservation of umbilical cord blood stem cell and cord tissue units, or the CBR Services.

Makena is currently the only FDA-approved drug indicated to reduce the risk of preterm birth in women pregnant with a single baby who have a history of singleton spontaneous preterm birth. We acquired the rights to Makena in connection with our acquisition of Lumara Health Inc. in November 2014. Makena was approved by the U.S. Food and Drug Administration, or the FDA, in February 2011 as an intramuscular injection, or the Makena IM product, packaged in a multi-dose vial and in February 2016 as a single-dose preservative-free vial. The orphan drug exclusivity period that was granted to the Makena IM product in 2011 expired in February 2018, and the Makena IM product is now subject to generic competition. In February 2018, Makena was also approved by the FDA for administration via a pre-filled subcutaneous auto-injector, a drug-device combination product.

CBR is a newborn stem cell bank, which we acquired in August 2015 and offers pregnant women and their families the ability to preserve their newborns' umbilical cord blood and cord tissue for potential future use. Through the CBR Services, we help families to preserve newborn stem cells, which are used today in transplant medicine for certain cancers and blood, immune and metabolic disorders, and which we believe have the potential to play a valuable role in the ongoing development of regenerative medicine.

Feraheme was approved for marketing by the FDA in June 2009 for the treatment of IDA in adult patients with chronic kidney disease, or CKD, and was commercially launched shortly thereafter. In February 2018, we received FDA approval to expand the Feraheme label to treat all eligible adult IDA patients who have intolerance to oral iron or have had unsatisfactory response to oral iron in addition to patients who have CKD.

Intrarosa was approved by the FDA in November 2016 and was commercially launched in July 2017. Intrarosa is the only FDA-approved, vaginally administered, daily non-estrogen steroid, which is prescribed for the treatment of moderate to severe dyspareunia (pain during sexual intercourse), a symptom of vulvar and vaginal atrophy, due to menopause.

In addition, we have the North American rights to research, develop and commercialize brexelanotide. In June 2018, the FDA accepted our New Drug Application for the treatment of hypoactive sexual desire disorder, the most common type of female sexual dysfunction, in pre-menopausal women. The Prescription Drug User Fee Act, or PDUFA, date for completion of FDA review of the brexelanotide NDA is March 23, 2019.

We intend to expand the impact of these and future products and services for patients by delivering on our growth strategy, which includes organic growth, as well as the pursuit of additional products and companies that align with our existing therapeutic areas or that could benefit from our

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proven core competencies. Currently, our primary sources of revenue are from product sales of Makena, Feraheme and Intrarosa and service revenue from the CBR Services.

Our common stock trades on the NASDAQ Global Select Market under the trading symbol "AMAG."

Our principal offices are located at 1100 Winter Street, Waltham, Massachusetts 02451, and our telephone number is (617) 498-3300. Our website address is www.amagpharma.com. Information found on, or accessible through, our website is not a part of, and is not incorporated into, this prospectus, and you should not consider it part of this prospectus or part of any prospectus supplement. Our website address is included in this document as an inactive textual reference only.

RISK FACTORS

An investment in our securities involves a high degree of risk. In addition to the other information included in, or incorporated by reference into, this prospectus, the applicable prospectus supplement and any related free writing prospectus, you should carefully consider the risk factors incorporated by reference to our Annual Report on Form 10-K for the year ended December 31, 2017 and in our Quarterly Report on Form 10-Q for the quarter ended March 31, 2018, as the same may be updated from time to time by our future filings under the Exchange Act, when determining whether or not to purchase the securities offered under this prospectus and the prospectus supplement.

SECURITIES WE MAY OFFER

We and/or any selling stockholder may offer shares of our common stock and preferred stock, various series of warrants to purchase common stock or preferred stock, debt securities, in one or more series, as either senior or subordinated debt or as senior or subordinated convertible debt, or any combination thereof from time to time in one or more offerings under this prospectus at prices and on terms to be determined at the time of any offering. This prospectus provides you with a general description of the securities we and/or any selling stockholder may offer. Each time we and/or any selling stockholder offer a type or series of securities under this prospectus, we will provide a prospectus supplement and/or free writing prospectus that will describe the specific amounts, prices and other important terms of the securities.

DESCRIPTION OF OUR COMMON STOCK

We and/or any selling stockholder may issue and/or sell, as applicable, shares of our common stock from time to time. Holders of shares of our common stock are entitled to one vote for each share held of record on all matters to be voted on by stockholders and do not have cumulative voting rights. Subject to the preferences that may be applicable to any then outstanding preferred stock, the holders of our outstanding shares of common stock are entitled to receive dividends, if any, as may be declared from time to time by our board of directors out of legally available funds. In the event of our liquidation, dissolution or winding up, holders of our common stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities, subject to the satisfaction of any liquidation preference granted to the holders of any outstanding shares of preferred stock.

DESCRIPTION OF OUR PREFERRED STOCK

We may issue shares of our preferred stock from time to time, in one or more series. Our board of directors will determine the rights, preferences and privileges of the shares of each wholly unissued series, and any qualifications, limitations or restrictions thereon, including dividend rights, conversion rights, preemptive rights, terms of redemption or repurchase, liquidation preferences, sinking fund terms and the number of shares constituting any series or the designation of any series. Convertible preferred stock will be convertible into our common stock or exchangeable for other securities. Conversion may be mandatory or at the holder's option and would be at prescribed conversion rates.

If we sell any series of preferred stock under this prospectus, we will fix the rights, preferences and privileges of the preferred stock of such series, as well as any qualifications, limitations or restrictions thereon, in the certificate of designation relating to that series. We will file as an exhibit to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of any certificate of designation that describes the terms of the series of preferred stock we are offering before the issuance of that series of preferred stock. We urge you to read the applicable prospectus supplement and any free writing prospectus that we may

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authorize to be provided to you related to the series of preferred stock being offered, as well as the complete certificate of designation that contains the terms of the applicable series of preferred stock.

DESCRIPTION OF OUR WARRANTS

We may issue warrants for the purchase of common stock and/or preferred stock in one or more series. We may issue warrants independently or together with common stock and/or preferred stock, and the warrants may be attached to or separate from these securities. We urge you to read the applicable prospectus supplement and any free writing prospectus that we may authorize to be provided to you related to the particular series of warrants being offered, as well as the complete warrant agreements and warrant certificates that contain the terms of the warrants. Forms of the warrant agreements and forms of warrant certificates containing the terms of the warrants being offered will be filed as exhibits to the registration statement of which this prospectus is a part or will be incorporated by reference from reports that we file with the SEC.

We will evidence each series of warrants by warrant certificates that we will issue. Warrants may be issued under an applicable warrant agreement that we enter into with a warrant agent. We will indicate the name and address of the warrant agent, if applicable, in the prospectus supplement relating to the particular series of warrants being offered.

DESCRIPTION OF OUR UNITS

We may issue, in one or more series, units consisting of common stock, preferred stock, and/or warrants for the purchase of common stock and/or preferred stock in any combination. We urge you to read the applicable prospectus supplement and any free writing prospectus that we may authorize to be provided to you related to the series of units being offered, as well as the complete unit agreement that contains the terms of the units. We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of unit agreement and any supplemental agreements that describe the terms of the series of units we are offering before the issuance of the related series of units.

We will evidence each series of units by unit certificates that we will issue. Units may be issued under a unit agreement that we enter into with a unit agent. We will indicate the name and address of the unit agent, if applicable, in the prospectus supplement relating to the particular series of units being offered.

DESCRIPTION OF OUR DEBT SECURITIES

We may issue debt securities, in one or more series, as either senior or subordinated debt or as senior or subordinated convertible debt. In this prospectus, we have summarized certain general features of the debt securities. We urge you, however, to read the applicable prospectus supplement and any free writing prospectus that we may authorize to be provided to you related to the particular series of debt securities being offered, as well as the complete indenture that contains the terms of the debt securities. We will file as exhibits to the registration statement of which this prospectus is a part, the form of indenture and any supplemental agreements that describe the terms of the series of debt securities we are offering before the issuance of the related series of debt securities.

We may evidence each series of debt securities we will issue by an indenture that we enter into with a trustee. We will indicate the name and address of the trustee, if applicable, in the prospectus supplement relating to the particular series of debt securities being offered.

Unless otherwise specified in the applicable prospectus supplement, we will issue any senior debt securities issued under an indenture, or the senior indenture, dated as of May 10, 2017, between us and Wilmington Trust, National Association, as trustee, which is included as an exhibit to the registration

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statement of which this prospectus forms a part. The terms of the senior debt securities will include those stated in the senior indenture and any supplemental indentures that specify the terms of a particular series of senior debt securities. The senior indenture has been qualified under the Trust Indenture Act of 1939, as amended, or the Trust Indenture Act.

We will issue any subordinated debt securities under a subordinated indenture that we will enter into with the trustee named in the subordinated indenture. We have filed a form of subordinated indenture as an exhibit to the registration statement of which this prospectus is a part, and supplemental indentures and forms of debt securities containing the terms of the debt securities being offered will be filed as exhibits to the registration statement of which this prospectus is a part or will be incorporated by reference from reports that we file with the SEC. The subordinated indenture will be qualified under the Trust Indenture Act.

We use the term "trustee" to refer to either the trustee under the senior indenture or the trustee under the subordinated indenture, as applicable. Unless the context requires otherwise, whenever we refer to the "indentures" we are referring to any supplemental indentures that specify the terms of a particular series of debt securities.

The following summaries of material provisions of the senior debt securities, the subordinated debt securities and the indentures are subject to, and qualified in their entirety by reference to, all of the provisions of the indenture applicable to a particular series of debt securities. We urge you to read the applicable prospectus supplement or free writing prospectus and any related free writing prospectuses related to the debt securities that we may offer under this prospectus, as well as the complete applicable indenture that contains the terms of the debt securities.

General

We will describe in the applicable prospectus supplement or free writing prospectus the terms of the series of debt securities being offered, including:

- the title;
- the principal amount being offered, and if a series, the total amount authorized and the total amount outstanding;
- any limit on the amount that may be issued;
- whether or not we will issue the series of debt securities in global form, and, if so, the terms and who the depository will be;
- the maturity date;
- whether and under what circumstances, if any, we will pay additional amounts on any debt securities held by a person who is not a United States person for tax purposes, and whether we can redeem the debt securities if we have to pay such additional amounts;
- the annual interest rate, which may be fixed or variable, or the method for determining the rate and the date interest will begin to accrue, the dates interest will be payable and the regular record dates for interest payment dates or the method for determining such dates;
- whether or not the debt securities will be secured or unsecured, and the terms of any secured debt;
- the terms of the subordination of any series of subordinated debt;
- the place where payments will be payable;
- restrictions on transfer, sale or other assignment, if any;

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- our right, if any, to defer payment of interest and the maximum length of any such deferral period;
- the date, if any, after which, the conditions upon which, and the price at which, we may, at our option, redeem the series of debt securities pursuant to any optional or provisional redemption provisions and the terms of those redemption provisions;
- the date, if any, on which, and the price at which we are obligated, pursuant to any mandatory sinking fund or analogous fund provisions or otherwise, to redeem, or at the holder's option, to purchase, the series of debt securities and the currency or currency unit in which the debt securities are payable;
- whether the indenture will restrict our ability or the ability of our subsidiaries to:
 - incur additional indebtedness;
 - issue additional securities;
 - create liens;
 - pay dividends or make distributions in respect of our capital stock or the capital stock of our subsidiaries;
 - redeem capital stock;
 - place restrictions on our subsidiaries' ability to pay dividends, make distributions or transfer assets;
 - make investments or other restricted payments;
 - sell or otherwise dispose of assets;
 - enter into sale-leaseback transactions;
 - engage in transactions with stockholders or affiliates;
 - issue or sell stock of our subsidiaries; or
 - effect a consolidation or merger;
- whether the indenture will require us to maintain any interest coverage, fixed charge, cash flow-based, asset-based or other financial ratios;
- a discussion of certain material or special United States federal income tax considerations applicable to the debt securities;
- information describing any book-entry features;
- provisions for a sinking fund purchase or other analogous fund, if any;
- the applicability of the provisions in the indenture on discharge;
- whether the debt securities are to be offered at a price such that they will be deemed to be offered at an "original issue discount" as defined in paragraph (a) of Section 1273 of the Internal Revenue Code of 1986, as amended;
- the denominations in which we will issue the series of debt securities, if other than denominations of \$1,000 and any integral multiple thereof (or, in the case of senior debt securities, if other than minimum denominations of \$1,000 or any integral multiple of \$1,000 thereof);

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- the currency of payment of debt securities if other than U.S. dollars and the manner of determining the equivalent amount in U.S. dollars; and
- any other specific terms, preferences, rights or limitations of, or restrictions on, the debt securities, including any additional events of default or covenants provided with respect to the debt securities, and any terms that may be required by us or advisable under applicable laws or regulations or advisable in connection with the marketing of the debt securities.

Conversion or Exchange Rights

We will set forth in the applicable prospectus supplement or free writing prospectus the terms on which a series of debt securities may be convertible into or exchangeable for our common stock, our preferred stock or other securities (including securities of a third-party). We will include provisions as to whether conversion or exchange is mandatory, at the option of the holder or at our option. We may include provisions pursuant to which the number of shares of our common stock, our preferred stock or other securities (including securities of a third-party) that the holders of the series of debt securities receive would be subject to adjustment.

Consolidation, Merger or Sale

Unless we provide otherwise in the prospectus supplement or free writing prospectus applicable to a particular series of debt securities, the indentures will not contain any covenant that restricts our ability to merge or consolidate, or sell, convey, transfer or otherwise dispose of all or substantially all of our assets. However, any successor to or acquirer of such assets must assume all of our obligations under the indentures or the debt securities, as appropriate. If the debt securities are convertible into or exchangeable for other securities of ours or securities of other entities, the person with whom we consolidate or merge or to whom we sell all of our property must make provisions for the conversion of the debt securities into securities that the holders of the debt securities would have received if they had converted the debt securities before the consolidation, merger or sale.

Events of Default Under the Indentures

Unless we provide otherwise in the prospectus supplement or free writing prospectus applicable to a particular series of debt securities, the following are events of default under the indentures with respect to any series of debt securities that we may issue:

- if we fail to pay interest when due and payable and our failure continues for 90 days and the time for payment has not been extended;
- if we fail to pay the principal, premium or sinking fund payment, if any, when due and payable at maturity, upon redemption or repurchase or otherwise, and the time for payment has not been extended;
- if we fail to observe or perform any other covenant contained in the debt securities or the indentures, other than a covenant specifically relating to another series of debt securities, and our failure continues for 90 days after we receive notice from the trustee or holders of at least 25% in aggregate principal amount of the outstanding debt securities of the applicable series; and
- if specified events of bankruptcy, insolvency or reorganization occur.

We will describe in each applicable prospectus supplement or free writing prospectus any additional events of default relating to the relevant series of debt securities.

If an event of default with respect to debt securities of any series occurs and is continuing, other than an event of default specified in the last bullet point above, the trustee or the holders of at

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least 25% in aggregate principal amount of the outstanding debt securities of that series, by notice to us in writing, and to the trustee if notice is given by such holders, may declare the unpaid principal, premium, if any, and accrued interest, if any, due and payable immediately. If an event of default specified in the last bullet point above occurs with respect to us, the unpaid principal, premium, if any, and accrued interest, if any, of each issue of debt securities then outstanding shall be due and payable without any notice or other action on the part of the trustee or any holder.

The holders of a majority in principal amount of the outstanding debt securities of an affected series may waive any default or event of default with respect to the series and its consequences, except defaults or events of default regarding payment of principal, premium, if any, or interest, unless we have cured the default or event of default in accordance with the indenture. Any waiver shall cure the default or event of default.

Subject to the terms of the indentures, if an event of default under an indenture shall occur and be continuing, the trustee will be under no obligation to exercise any of its rights or powers under such indenture at the request or direction of any of the holders of the applicable series of debt securities, unless such holders have offered the trustee reasonable indemnity or security satisfactory to it against any loss, liability or expense. The holders of a majority in principal amount of the outstanding debt securities of any series will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee, or exercising any trust or power conferred on the trustee, with respect to the debt securities of that series, provided that:

- the direction so given by the holder is not in conflict with any law or the applicable indenture; and
- subject to its duties under the Trust Indenture Act, the trustee need not take any action that might involve it in personal liability or might be unduly prejudicial to the holders not involved in the proceeding.

A holder of the debt securities of any series will have the right to institute a proceeding under the indentures or to appoint a receiver or trustee, or to seek other remedies if:

- the holder has given written notice to the trustee of a continuing event of default with respect to that series;
- the holders of at least 25% in aggregate principal amount of the outstanding debt securities of that series have made written request, and such holders have offered reasonable indemnity to the trustee or security satisfactory to it against any loss, liability or expense or to be incurred in compliance with instituting the proceeding as trustee; and
- the trustee does not institute the proceeding, and does not receive from the holders of a majority in aggregate principal amount of the outstanding debt securities of that series other conflicting directions within 90 days after the notice, request and offer.

These limitations do not apply to a suit instituted by a holder of debt securities if we default in the payment of the principal, premium, if any, or interest on, the debt securities, or other defaults that may be specified in the applicable prospectus supplement or free writing prospectus.

We will periodically file statements with the trustee regarding our compliance with specified covenants in the indentures.

Modification of Indentures; Waiver

Subject to the terms of the applicable indenture for any series of debt securities that we may issue, we and the trustee may change an indenture without the consent of any holders with respect to the following specific matters:

- to fix any ambiguity, defect or inconsistency in such indenture;
- to comply with the provisions described above under "Description of Our Debt Securities—Consolidation, Merger or Sale;"
- to comply with any requirements of the SEC in connection with the qualification of such indenture under the Trust Indenture Act;
- to add to, delete from or revise the conditions, limitations, and restrictions on the authorized amount, terms, or purposes of issue, authentication and delivery of debt securities, as set forth in such indenture;
- to provide for the issuance of and establish the form and terms and conditions of the debt securities of any series as provided under "Description of Our Debt Securities—General," to establish the form of any certifications required to be furnished pursuant to the terms of such indenture or any series of debt securities, or to add to the rights of the holders of any series of debt securities;
- to evidence and provide for the acceptance of appointment hereunder by a successor trustee;
- to provide for uncertificated debt securities and to make all appropriate changes for such purpose;
- to add to our covenants such new covenants, restrictions, conditions or provisions for the benefit of the holders, to make the occurrence, or the occurrence and the continuance, of a default in any such additional covenants, restrictions, conditions or provisions an event of default or to surrender any right or power conferred to us in such indenture; or
- to change anything that does not materially adversely affect the interests of any holder of debt securities of any series.

In addition, under the indentures, the rights of holders of a series of debt securities may be changed by us and the trustee with the written consent of the holders of at least a majority in aggregate principal amount of the outstanding debt securities of each series that is affected. However, subject to the terms of the applicable indenture for any series of debt securities that we may issue or as otherwise provided in the prospectus supplement or free writing prospectus applicable to a particular series of debt securities, we and the trustee may make the following changes only with the consent of each holder of any outstanding debt securities affected:

- extending the stated maturity of the series of debt securities;
- reducing the principal amount, reducing the rate of or extending the time of payment of interest, or reducing any premium payable upon the redemption or repurchase of any debt securities; or
- reducing the percentage of debt securities, the holders of which are required to consent to any amendment, supplement, modification or waiver.

Discharge

Each indenture provides that, subject to the terms of such indenture and any limitation otherwise provided in the prospectus supplement or free writing prospectus applicable to a particular series of

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debt securities, we can elect to be discharged from our obligations with respect to one or more series of debt securities, except for specified obligations, including obligations to:

- register the transfer or exchange of debt securities of the series;
- replace stolen, lost or mutilated debt securities of the series;
- maintain paying agencies;
- hold monies for payment in trust;
- recover excess money held by the trustee;
- compensate and indemnify the trustee; and
- appoint any successor trustee.

In order to exercise our rights to be discharged, we must deposit with the trustee money or government obligations sufficient to pay all the principal of, any premium and interest on, the debt securities of the series on the dates payments are due.

Form, Exchange and Transfer

We will issue the debt securities of each series only in fully registered form without coupons and, unless we otherwise specify in the applicable prospectus supplement or free writing prospectus, in denominations of \$1,000 and any integral multiple thereof (or, in the case of senior debt securities, in minimum denominations of \$1,000 or any integral multiple of \$1,000 thereof). The indentures provide that we may issue debt securities of a series in temporary or permanent global form and as book-entry securities that will be deposited with, or on behalf of, The Depository Trust Company or another depository named by us and identified in a prospectus supplement or free writing prospectus with respect to that series.

At the option of the holder, subject to the terms of the indentures and the limitations applicable to global securities described in the applicable prospectus supplement or free writing prospectus, the holder of the debt securities of any series can exchange the debt securities for other debt securities of the same series, in any authorized denomination and of like tenor and aggregate principal amount.

Subject to the terms of the indentures and the limitations applicable to global securities set forth in the applicable prospectus supplement or free writing prospectus, holders of the debt securities may present the debt securities for exchange or for registration of transfer, duly endorsed or with the form of transfer endorsed thereon duly executed if so required by us or the security registrar, at the office of the security registrar or at the office of any transfer agent designated by us for this purpose. Unless otherwise provided in the debt securities that the holder presents for transfer or exchange, we will make no service charge for any registration of transfer or exchange, but we may require payment of any taxes or other governmental charges.

We will name in the applicable prospectus supplement or free writing prospectus the security registrar, and any transfer agent in addition to the security registrar, that we initially designate for any debt securities. We may at any time designate additional transfer agents or rescind the designation of any transfer agent or approve a change in the office through which any transfer agent acts, except that we will be required to maintain a transfer agent in each place of payment for the debt securities of each series.

If we elect to redeem the debt securities of any series, we will not be required to:

- issue, register the transfer of, or exchange any debt securities of that series during a period beginning at the opening of business 15 days before the day of mailing of a notice of redemption

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of any debt securities that may be selected for redemption and ending at the close of business on the day of the mailing; or

- register the transfer of or exchange any debt securities so selected for redemption, in whole or in part, except the unredeemed portion of any debt securities we are redeeming in part.

Information Concerning the Trustee

The trustee, other than during the occurrence and continuance of an event of default under an indenture, undertakes to perform only those duties as are specifically set forth in the applicable indenture. Upon an event of default under an indenture, the trustee must use the same degree of care as a prudent person would exercise or use in the conduct of his or her own affairs.

Subject to this provision, the trustee is under no obligation to exercise any of the powers given it by the indentures at the request of any holder of debt securities unless it is offered reasonable security and indemnity against the costs, expenses and liabilities that it might incur.

Payment and Paying Agents

Unless we otherwise indicate in the applicable prospectus supplement or free writing prospectus, we will make payment of the interest on any debt securities on any interest payment date to the person in whose name the debt securities, or one or more predecessor securities, are registered at the close of business on the regular record date for the interest.

We will pay principal of and any premium and interest on the debt securities of a particular series at the office of the paying agents designated by us, except that unless we otherwise indicate in the applicable prospectus supplement or free writing prospectus, we will make interest payments by check that we will mail to the holder or by wire transfer to certain holders. Unless we otherwise indicate in the applicable prospectus supplement or free writing prospectus, we will designate the corporate trust office of the trustee as our sole paying agent for payments with respect to debt securities of each series. We will name in the applicable prospectus supplement or free writing prospectus any other paying agents that we initially designate for the debt securities of a particular series. We will maintain a paying agent in each place of payment for the debt securities of a particular series.

All money we pay to a paying agent or the trustee for the payment of the principal of or any premium or interest on any debt securities that remains unclaimed at the end of two years after such principal, premium or interest has become due and payable will be repaid to us, and the holder of the debt security thereafter may look only to us for payment thereof.

Governing Law

The indentures and the debt securities will be governed by and construed in accordance with the laws of the State of New York, except to the extent that the Trust Indenture Act is applicable.

Ranking of Debt Securities

The subordinated debt securities will be subordinate and junior in priority of payment to certain of our other indebtedness to the extent described in a prospectus supplement or free writing prospectus. The subordinated indenture does not limit the amount of subordinated debt securities that we may issue. It also does not limit us from issuing any other secured or unsecured debt.

The senior debt securities will rank equally in right of payment to all our other senior unsecured debt. The senior indenture does not limit the amount of senior debt securities that we may issue. It also does not limit us from issuing any other secured or unsecured debt.

RATIO OF EARNINGS TO FIXED CHARGES

The following table sets forth our ratio of earnings to fixed charges for the periods indicated. You should read this table in conjunction with the financial statements and notes incorporated by reference in this prospectus. We paid no dividends on preferred shares during the periods indicated. Therefore, the ratios of earnings to combined fixed charges and preferred stock dividends are the same as the ratios of earnings to fixed charges presented below.

	Three Months Ended March 31, 2018	Years Ended December 31,				
		2017	2016	2015	2014	2013
Ratio of earnings to fixed charges	—	—	1.12x	1.73x	—	—

The ratio of earnings to fixed charges is calculated pursuant to the instructions of Item 503 of Regulation S-K by dividing earnings by fixed charges. For this purpose, "earnings" are determined by adding fixed charges to our income (loss) before income taxes, and "fixed charges" consists of interest expense on our indebtedness as well as the estimated interest component of rental expense (one-third of rent expense, a reasonable approximation of the interest factor) under our operating leases.

For the three months ended March 31, 2018 and for the years ended December 31, 2017, 2014 and 2013, earnings were insufficient to cover fixed charges and we are unable to disclose a ratio of earnings to fixed charges for such periods. The dollar amount of the deficiency in earnings to cover fixed charges for the three months ended March 31, 2018 and for the years ended December 31, 2017, 2014 and 2013 were \$60.2 million, \$370.1 million, \$17.3 million and \$9.6 million, respectively.

USE OF PROCEEDS

Unless otherwise described in a prospectus supplement or related free writing prospectus, we intend to use the net proceeds from the sale of the offered securities for general corporate purposes, which may include, but are not limited to, working capital, strategic acquisitions and other potential business development activities, ongoing research and development activities and capital expenditures. Pending any specific utilization, the proceeds from the sale of the offered securities may be invested in a manner designed to ensure levels of liquidity which correspond to our current and foreseeable cash needs. Such investments may include, but may not be limited to, short-term investments, including government bonds, or other interest-bearing investments. From time to time, we may engage in additional public or private financings of a character and amount which we may deem appropriate. Unless otherwise set forth in a prospectus supplement, we will not receive any proceeds from the sale of securities by any selling stockholder.

SELLING STOCKHOLDERS

Selling stockholders are persons or entities that, directly or indirectly, have acquired or will from time to time acquire from us, our securities. Such selling stockholders may be parties to registration rights agreements with us, or we otherwise may have agreed or will agree to register their securities for resale. The initial purchasers of our securities, as well as their transferees, pledges, donees or successors, all of whom we refer to as "selling stockholders," may from time to time offer and sell our securities pursuant to this prospectus and any applicable prospectus supplement.

The applicable prospectus supplement will set forth the name of each of the selling stockholders and the number of securities beneficially owned by such selling stockholder that are covered by such prospectus supplement. The applicable prospectus supplement will also disclose whether any of the selling stockholders has held any position or office with, has been employed by or otherwise has had a material relationship with us during the three years prior to the date of the applicable prospectus supplement.

PLAN OF DISTRIBUTION

We and/or any selling stockholder may sell our securities from time to time in one or more transactions. We and/or any selling stockholder may sell our securities to or through agents, underwriters, dealers, remarketing firms or other third parties or directly to one or more purchasers or through a combination of any of these methods. In some cases, we and/or any selling stockholder or dealers acting with us and/or any selling stockholder or on behalf of us and/or any selling stockholder may also purchase our securities and reoffer them to the public. We and/or any selling stockholder may also offer and sell, or agree to deliver, our securities pursuant to, or in connection with, any option agreement or other contractual arrangement.

Agents whom we designate may solicit offers to purchase our securities.

- We and/or any selling stockholder will name any agent involved in offering or selling our securities, and disclose any commissions that we will pay to the agent, in the applicable prospectus supplement.
- Unless we and/or any selling stockholder indicate otherwise in the applicable prospectus supplement, agents will act on a best efforts basis for the period of their appointment.
- Agents may be deemed to be underwriters under the Securities Act of any of our securities that they offer or sell.

We and/or any selling stockholder may use an underwriter or underwriters in the offer or sale of our securities.

- If we and/or any selling stockholder use an underwriter or underwriters, we will execute an underwriting agreement with the underwriter or underwriters at the time that we reach an agreement for the sale of our securities.
- We and/or any selling stockholder will include the names of the specific managing underwriter or underwriters, as well as the names of any other underwriters, and the terms of the transactions, including the compensation the underwriters and dealers will receive, in the applicable prospectus supplement.
- The underwriters will use the applicable prospectus supplement, together with the prospectus, to sell our securities.

We may use a dealer to sell our securities.

- If we and/or any selling stockholder use a dealer, we will sell our securities to the dealer, as principal.
- The dealer will then sell our securities to the public at varying prices that the dealer will determine at the time it sells our securities.
- We and/or any selling stockholder will include the name of the dealer and the terms of the transactions with the dealer in the applicable prospectus supplement.

We and/or any selling stockholder may solicit directly offers to purchase our securities, and we may directly sell our securities to institutional or other investors. We and/or any selling stockholder will describe the terms of direct sales in the applicable prospectus supplement.

We and/or any selling stockholder may engage in at the market offerings into an existing trading market in accordance with Rule 415(a)(4) of the Securities Act.

We and/or any selling stockholder will indemnify agents, underwriters and dealers against certain liabilities, including liabilities under the Securities Act. Agents, underwriters and dealers, or their

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affiliates, may be customers of, engage in transactions with or perform services for us or our respective affiliates, in the ordinary course of business.

We and/or any selling stockholder may authorize agents and underwriters to solicit offers by certain institutions to purchase our securities at the public offering price under delayed delivery contracts.

- If we and/or any selling stockholder use delayed delivery contracts, we will disclose that we are using them in the prospectus supplement and will tell you when we will demand payment and when delivery of our securities will be made under the delayed delivery contracts.
- These delayed delivery contracts will be subject only to the conditions that we describe in the prospectus supplement.
- We and/or any selling stockholder will describe in the applicable prospectus supplement the commission that underwriters and agents soliciting purchases of our securities under delayed delivery contracts will be entitled to receive.

Unless otherwise specified in connection with a particular underwritten offering of our securities, the underwriters will not be obligated to purchase offered securities unless specified conditions are satisfied, and if the underwriters do purchase any offered securities, they will purchase all offered securities.

In connection with underwritten offerings of the offered securities and in accordance with applicable law and industry practice, the underwriters in certain circumstances are permitted to engage in certain transactions that stabilize the price of our securities. Such transactions consist of bids or purchases for the purpose of pegging, fixing or maintaining the price of our securities. If the underwriters create a short position in our securities in connection with the offering (i.e., if they sell more securities than are set forth on the cover page of the applicable prospectus supplement), the underwriters may reduce that short position by purchasing our securities in the open market or as otherwise provided in the applicable prospectus supplement. The underwriters may also impose a penalty bid, whereby selling concessions allowed to dealers participating in the offering may be reclaimed if the securities sold by them are repurchased in connection with stabilization transactions. In general, purchases of a security for the purpose of stabilization or to reduce a short position could cause the price of the security to be higher than it might be in the absence of such purchases. The imposition of a penalty bid might also have an effect on the price of our securities to the extent that it were to discourage resales of our securities. The underwriters are not required to engage in these activities and may end any of these activities at any time.

We and/or any selling stockholder may effect sales of securities in connection with forward sale, option or other types of agreements with third parties. Any distribution of securities pursuant to any forward sale agreement may be effected from time to time in one or more transactions that may take place through a stock exchange, including block trades or ordinary broker's transactions, or through broker-dealers acting either as principal or agent, or through privately-negotiated transactions, or through an underwritten public offering, or through a combination of any such methods of sale, at market prices prevailing at the time of sale, prices relating to such prevailing market prices or at negotiated or fixed prices.

The specific terms of the lock-up provisions, if any, in respect of any given offering will be described in the applicable prospectus supplement.

LEGAL MATTERS

Certain legal matters with respect to the securities offered hereby have been passed upon by Goodwin Procter LLP, Boston, Massachusetts.

EXPERTS

The financial statements and management's assessment of the effectiveness of internal control over financial reporting (which is included in "Management's Annual Report on Internal Control over Financial Reporting") incorporated in this Prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 2017 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

DOCUMENTS INCORPORATED BY REFERENCE

The SEC allows us to "incorporate by reference" the information we file with it, which means that we can disclose important information to you by referring you to those documents. The information we incorporate by reference is considered part of this prospectus. Statements in this prospectus regarding the contents of any contract or other document may not be complete. You should refer to the copy of the contract or other document filed as an exhibit to the registration statement. Later information filed with the SEC will update and supersede information we have included or incorporated by reference in this prospectus.

We incorporate by reference the documents listed below, which have been filed with the SEC (other than Current Reports or portions thereof furnished under Item 2.02 or Item 7.01 of Form 8-K):

1. Our Annual Report on Form 10-K for the fiscal year ended December 31, 2017, as filed on March 1, 2018;
2. Our definitive Proxy Statement on Schedule 14A, as filed on April 25, 2018 (solely with respect to those portions specifically incorporated by reference into our Annual Report on Form 10-K for the fiscal year ended December 31, 2017);
3. Our Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2018, as filed on May 4, 2018;
4. Our Current Report on Form 8-K, as filed on June 8, 2018 (except that, with respect to the foregoing Current Report, any portions thereof which are furnished and not filed shall not be deemed incorporated by reference); and
5. The description of our common stock, which is registered under Section 12 of the Exchange Act, contained under Item 8.01 of our Current Report on Form 8-K, as filed on August 1, 2013, including any amendment or report filed for the purpose of updating such descriptions.

We also incorporate by reference any filings made after the date of effectiveness of the registration statement with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, except as to any portion of any future report or document that is not deemed filed under such provisions, until the offering of the securities made by this prospectus is completed or terminated.

We will provide without charge to each person, including any beneficial owner, to whom this prospectus is delivered, upon the written or oral request of that person, a copy of any and all of the information that has been incorporated in this prospectus by reference other than exhibits unless those exhibits are specifically incorporated by reference into the documents. Requests for these copies should be directed to our investor relations department at the following address and telephone number: AMAG Pharmaceuticals, Inc., 1100 Winter Street, Waltham, Massachusetts, 02451; (617) 498-3300.

WHERE YOU CAN FIND MORE INFORMATION

We file reports, proxy statements and other information with the SEC. You may read and copy the reports, proxy statements and other information that we file with the SEC at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for information about the operation of its Public Reference Room and for its prescribed rates to obtain copies of such material. The SEC also maintains an Internet site that contains reports, proxy and information statements and other information regarding registrants, like us, that file electronically with the SEC. The address of the SEC's Internet site is <http://www.sec.gov>. Our Internet site is <http://www.amagpharma.com>. Information contained on our Internet site is not a part of this prospectus.

This prospectus provides you with a general description of the common stock, preferred stock, debt securities, warrants, and units being registered. This prospectus is part of a registration statement that we have filed with the SEC. To see more detail, you should read the registration statement and the exhibits and schedules filed with, or incorporated by reference into, our registration statement.

This registration statement, including the exhibits contained or incorporated by reference therein, can be read at the SEC web site or at the SEC office referred to above. Any statement made or incorporated by reference in this prospectus concerning the contents of any contract, agreement or other document is only a summary of the actual contract, agreement or other document. If we have filed or incorporated by reference any contract, agreement or other document as an exhibit to the registration statement, you should read the exhibit for a more complete understanding of the document or matter involved. Each statement regarding a contract, agreement or other document is qualified in its entirety by reference to the actual document.

PART II
INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution.

The following table sets forth the various expenses to be incurred in connection with the sale and distribution of the securities being registered hereby, all of which will be borne by AMAG Pharmaceuticals:

SEC Registration Fee	\$	*
NASDAQ Fees		**
Transfer Agent Fees		**
Legal Fees and Expenses		**
Accounting Fees and Expenses		**
Printing and Miscellaneous Fees		**
Total	\$	**

* Deferred in reliance on Rules 456(b) and 457(r) under the Securities Act.

** These fees are calculated based on the securities offered and the number of issuances and, accordingly, cannot be estimated at this time.

Item 15. Indemnification of Directors and Officers.

Section 145 of the General Corporation Law of Delaware, or the DGCL, empowers a corporation to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that he or she is or was a director, officer, employee or agent of the corporation or another enterprise if serving at the request of the corporation. Depending on the character of the proceeding, a corporation may indemnify against expenses (including attorney's fees), judgments, fines and amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding if the person indemnified acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful. In the case of an action by or in the right of the corporation, no indemnification may be made in respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or the court in which such action or suit was brought shall determine that despite the adjudication of liability, but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses that the court shall deem proper. Section 145 further provides that to the extent a present or former director or officer of a corporation has been successful in the defense of any action, suit or proceeding referred to above, or in defense of any claim, issue or matter therein, he or she shall be indemnified against expenses (including attorney's fees) actually and reasonably incurred by him or her in connection therewith.

The registrant's certificate of incorporation, as amended, provides that the registrant shall, to the fullest extent permitted by the DGCL, indemnify any director or officer which it shall have the power to indemnify under the DGCL against any expenses, liabilities, or other matters referred to in or covered by Section 145 of the DGCL. This indemnification continues after such person ceases to be a director or officer and inures to the benefit of the heirs, executors and administrators of said person. The registrant shall not be required to indemnify a person in connection with such action, suit or proceeding initiated by such person if it was not authorized by the registrant's board except under limited circumstances. The certificate of incorporation also provides that the right to indemnification

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includes the right to be paid by the registrant for the expenses incurred in defending any such proceeding in advance of its final disposition; provided, however, that the payment of such expenses incurred by a director or officer in advance of the final disposition of a proceeding shall be made only upon delivery by the registrant of an undertaking, by or on behalf of such director or officer, to repay all amounts so advanced if it shall ultimately be determined that such director or officer is not entitled to be indemnified under the certificate of incorporation or otherwise. The certificate of incorporation provides that the registrant, by action of its board, may provide indemnification to employees and agents of the registrant with the same scope and effect as the indemnification of directors and officers. The certificate of incorporation also contains a provision eliminating the liability of directors of the registrant to the registrant or its stockholders for monetary damage, to the fullest extent permitted by law. The certificate of incorporation also permits the registrant to purchase and maintain insurance to protect itself and any director, officer, employee or agent against any expense, liability, or loss incurred by him or her if the registrant would have the power to indemnify such persons against such expense, liability or loss under the DGCL. The certificate of incorporation also permits the registrant to enter into agreements with any director, officer, employee or agent providing for indemnification rights equivalent to or greater than the indemnification rights set forth in the certificate of incorporation. The registrant has entered into indemnification agreements with all of its directors and executive officers and maintains insurance for each director and executive officer.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers or persons controlling the registrant pursuant to the foregoing provisions, the registrant has been informed that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

Item 16. Exhibits.

The following exhibits are filed as part of this registration statement:

<u>Exhibit No.</u>	<u>Description</u>
1.1*	Form of Underwriting Agreement.
3.1	Certificate of Incorporation of the Registrant, as amended and restated (incorporated herein by reference to Exhibits 3.1 and 4.1 to the registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2010).
3.2	Certificate of Amendment of Restated Certificate of Incorporation of the Registrant (incorporated herein by reference to Exhibit 3.1 to the registrant's Current Report on Form 8-K filed May 28, 2015).
3.3	Amended and Restated Bylaws, as amended to date (incorporated herein by reference to Exhibit 3.1 to the registrant's Current Report on Form 8-K filed December 17, 2015).
3.4	Amended and Restated Certificate of Designation of the Registrant's Series A Junior Participating Preferred Stock (incorporated herein by reference to Exhibit 3.1 to the registrant's Current Report on Form 8-K filed April 10, 2017).
4.1	Reference is made to Exhibits 3.1 , 3.2 , 3.3 and 3.4 .
4.2	Specimen certificate representing the Registrant's Common Stock (incorporated by reference to Exhibit 4.3 the registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2009).
4.3*	Form of Certificate of Designation of Preferred Stock.
4.4*	Form of Preferred Stock Certificate.

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<u>Exhibit No.</u>	<u>Description</u>
4.5	Indenture, dated as of May 10, 2017, by and between AMAG Pharmaceuticals, Inc. and Wilmington Trust, National Association (incorporated herein by reference to Exhibit 4.1 to the registrant's Current Report on Form 8-K filed May 15, 2017).
4.6+	Form of Subordinated Indenture between the Registrant and one or more trustees to be named.
4.7*	Form of Senior Debt Security.
4.8*	Form of Subordinated Debt Security.
4.9*	Form of Common Stock Warrant Agreement and Warrant Certificate.
4.10*	Form of Preferred Stock Warrant Agreement and Warrant Certificate.
4.11*	Form of Debt Securities Warrant Agreement and Warrant Certificate.
4.12*	Form of Unit Certificate.
5.1+	Opinion of Goodwin Procter LLP as to the legality of the securities being registered.
12.1+	Statement Regarding Computation of Ratio of Earnings to Fixed Charges.
23.1+	Consent of PricewaterhouseCoopers LLP, independent registered public accounting firm.
23.2+	Consent of Goodwin Procter LLP (included in Exhibit 5.1).
24+	Powers of Attorney (included in the signature pages of this registration statement).
25.1+	Statement of Eligibility of Trustee on Form T-1 for Wilmington Trust, National Association for the Senior Indenture.
25.2**	Statement of Eligibility of Trustee on Form T-1 under the Subordinated Indenture.

+ Filed herewith.

* To be filed, if necessary, subsequent to the effectiveness of this registration statement by amendment or incorporated by reference to a Current Report on Form 8-K in connection with the offering of any securities, as appropriate.

** To be filed pursuant to Section 305(b)(2) of the Trust Indenture Act of 1939.

Item 17. Undertakings.

(a) The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no

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more than a 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement;

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that paragraphs (1)(i), (1)(ii) and (1)(iii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the SEC by the registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is a part of the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability under the Securities Act to any purchaser:

(i) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement or in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof. *Provided, however*, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract or sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

(5) That, for the purpose of determining liability of the registrant under the Securities Act to any purchaser in the initial distribution of the securities:

The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be

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a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

- (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
- (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
- (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
- (iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(c) The undersigned registrant hereby undertakes that:

(1) For purposes of determining 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 a 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.

(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 that time shall be deemed to be the initial *bona fide* offering thereof.

(d) The undersigned registrant hereby undertakes to file an application for the purpose of determining the eligibility of the trustee to act under subsection (a) of Section 310 of the Trust Indenture Act, or the Act, in accordance with the rules and regulations prescribed by the SEC under Section 305(b) (2) of the Act.

(e) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling person of the registrant pursuant to Item 15, 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, 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.

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<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ ROBERT J. PEREZ</u> Robert J. Perez	Director	June 13, 2018
<u>/s/ LESLEY RUSSELL, MB. CH.B., MRCP</u> Lesley Russell, MB. Ch.B., MRCP	Director	June 13, 2018
<u>/s/ GINO SANTINI</u> Gino Santini	Director	June 13, 2018
<u>/s/ DAVEY SCOON</u> Davey Scoon	Director	June 13, 2018
<u>/s/ JAMES SULAT</u> James Sulat	Director	June 13, 2018

AMAG PHARMACEUTICALS, INC.

Issuer

AND

[TRUSTEE],

Trustee

INDENTURE

Dated as of [•], 201[•]

Subordinated Debt Securities

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(1) This Table of Contents does not constitute part of the Indenture and shall not have any bearing on the interpretation of any of its terms or provisions.

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INDENTURE

INDENTURE, dated as of [●], 201 , among **AMAG PHARMACEUTICALS, INC.**, a Delaware corporation (the “Company”), and [TRUSTEE], as trustee (the “Trustee”):

WHEREAS, for its lawful corporate purposes, the Company has duly authorized the execution and delivery of this Indenture to provide for the issuance of subordinated debt securities (hereinafter referred to as the “Securities”), in an unlimited aggregate principal amount to be issued from time to time in one or more series as in this Indenture provided, as registered Securities without coupons, to be authenticated by the certificate of the Trustee;

WHEREAS, to provide the terms and conditions upon which the Securities are to be authenticated, issued and delivered, the Company has duly authorized the execution of this Indenture; and

WHEREAS, all things necessary to make this Indenture a valid agreement of the Company, in accordance with its terms, have been done.

NOW, THEREFORE, in consideration of the premises and the purchase of the Securities by the holders thereof, it is mutually covenanted and agreed as follows for the equal and ratable benefit of the holders of Securities:

ARTICLE 1

DEFINITIONS

Section 1.01 Definitions of Terms.

The terms defined in this Section (except as in this Indenture or any indenture supplemental hereto otherwise expressly provided or unless the context otherwise requires) for all purposes of this Indenture and of any indenture supplemental hereto shall have the respective meanings specified in this Section and shall include the plural as well as the singular. All other terms used in this Indenture that are defined in the Trust Indenture Act of 1939, as amended, or that are by reference in such Act defined in the Securities Act of 1933, as amended (except as herein or any indenture supplemental hereto otherwise expressly provided or unless the context otherwise requires), shall have the meanings assigned to such terms in said Trust Indenture Act and in said Securities Act as in force at the date of the execution of this instrument.

“**Authenticating Agent**” means an authenticating agent with respect to all or any of the series of Securities appointed by the Trustee pursuant to Section 2.10.

“**Bankruptcy Law**” means Title 11, U.S. Code, or any similar federal or state law for the relief of debtors.

“**Board of Directors**” means the Board of Directors (or the functional equivalent thereof) of the Company or any duly authorized committee of such Board.

“Board Resolution” means a copy of a resolution certified by the Secretary or an Assistant Secretary of the Company to have been duly adopted by the Board of Directors and to be in full force and effect on the date of such certification.

“Business Day” means, with respect to any series of Securities, any day other than a day on which federal or state banking institutions in the Borough of Manhattan, the City of New York, or in the city of the Corporate Trust Office of the Trustee, are authorized or obligated by law, executive order or regulation to close.

“Certificate” means a certificate signed by any Officer. The Certificate need not comply with the provisions of Section 13.07.

“Commission” means the Securities and Exchange Commission, as from time to time constituted, created under the Exchange Act, or, if at any time after the execution of this instrument such Commission is not existing and performing the duties now assigned to it under the Trust Indenture Act, then the body performing such duties at such time.

“Company” means AMAG Pharmaceuticals, Inc., a corporation duly organized and existing under the laws of the State of Delaware, and, subject to the provisions of Article Ten, shall also include its successors and assigns.

“Corporate Trust Office” means the office of the Trustee at which, at any particular time, its corporate trust business shall be principally administered, which office at the date hereof is located at

“Custodian” means any receiver, trustee, assignee, liquidator or similar official under any Bankruptcy Law.

“Defaulted Interest” has the meaning set forth in Section 2.03.

“Depository” means, with respect to Securities of any series for which the Company shall determine that such Securities will be issued as a Global Security, The Depository Trust Company, another clearing agency, or any successor registered as a clearing agency under the Exchange Act, or other applicable statute or regulation, which, in each case, shall be designated by the Company pursuant to either Section 2.01 or 2.11.

“Event of Default” means, with respect to Securities of a particular series, any event specified in Section 6.01, continued for the period of time, if any, therein designated.

“Exchange Act” means the United States Securities and Exchange Act of 1934, as amended, and the rules and regulations promulgated by the Commission thereunder.

“Global Security” means a Security issued to evidence all or a part of any series of Securities which is executed by the Company and authenticated and delivered by the Trustee to the Depository or pursuant to the Depository’s instruction, all in accordance with the Indenture, which shall be registered in the name of the Depository or its nominee.

“Governmental Obligations” means securities that are (a) direct obligations of the United States of America for the payment of which its full faith and credit is pledged or (b) obligations of a Person controlled or supervised by and acting as an agency or instrumentality of the United States of America, the payment of which is unconditionally guaranteed as a full faith and credit obligation by the United States of America that, in either case, are not callable or redeemable at the option of the issuer thereof at any time prior to the stated maturity of the Securities, and shall also include a depositary receipt issued by a bank or trust company as custodian with respect to any such Governmental Obligation or a specific payment of principal of or interest on any such Governmental Obligation held by such custodian for the account of the holder of such depositary receipt; provided, however, that (except as required by law) such custodian is not authorized to make any deduction from the amount payable to the holder of such depositary receipt from any amount received by the custodian in respect of the Governmental Obligation or the specific payment of principal of or interest on the Governmental Obligation evidenced by such depositary receipt.

“herein”, “hereof” and “hereunder”, and other words of similar import, refer to this Indenture as a whole and not to any particular Article, Section or other subdivision.

“Indenture” means this instrument as originally executed or as it may from time to time be supplemented or amended by one or more indentures supplemental hereto entered into in accordance with the terms hereof and shall include the terms of particular series of Securities established as contemplated by Section 2.01.

“Interest Payment Date”, when used with respect to any installment of interest on a Security of a particular series, means the date specified in such Security or in a Board Resolution or in an indenture supplemental hereto with respect to such series as the fixed date on which an installment of interest with respect to Securities of that series is due and payable.

“Officer” means, with respect to the Company, the chairman of the Board of Directors, a chief executive officer, a president, a chief financial officer, a chief operating officer, any executive vice president, any senior vice president, any vice president, the treasurer or any assistant treasurer, the controller or any assistant controller or the secretary or any assistant secretary.

“Officer’s Certificate” means a certificate signed by any Officer. Each such certificate shall include the statements provided for in Section 13.07, if and to the extent required by the provisions thereof.

“Opinion of Counsel” means an opinion in writing subject to customary exceptions of legal counsel, who may be an employee of or counsel for the Company, that is delivered to the Trustee in accordance with the terms hereof. Each such opinion shall include the statements provided for in Section 13.07, if and to the extent required by the provisions thereof.

“Outstanding”, when used with reference to Securities of any series, means, subject to the provisions of Section 8.04, as of any particular time, all Securities of that series theretofore authenticated and delivered by the Trustee under this Indenture, except (a) Securities theretofore canceled by the Trustee or any paying agent, or delivered to the Trustee or any paying agent for

cancellation or that have previously been canceled; (b) Securities or portions thereof for the payment or redemption of which moneys or Governmental Obligations in the necessary amount shall have been deposited in trust with the Trustee or with any paying agent (other than the Company) or shall have been set aside and segregated in trust by the Company (if the Company shall act as its own paying agent); provided, however, that if such Securities or portions of such Securities are to be redeemed prior to the maturity thereof, notice of such redemption shall have been given as provided in Article Three, or provision satisfactory to the Trustee shall have been made for giving such notice; and (c) Securities in lieu of or in substitution for which other Securities shall have been authenticated and delivered pursuant to the terms of Section 2.07.

“**Person**” means any individual, corporation, partnership, joint venture, joint-stock company, limited liability company, association, trust, unincorporated organization, any other entity or organization, including a government or political subdivision or an agency or instrumentality thereof.

“**Predecessor Security**” of any particular Security means every previous Security evidencing all or a portion of the same debt as that evidenced by such particular Security; and, for the purposes of this definition, any Security authenticated and delivered under Section 2.07 in lieu of a lost, destroyed or stolen Security shall be deemed to evidence the same debt as the lost, destroyed or stolen Security.

“**Responsible Officer**” when used with respect to the Trustee means any officer of the Trustee assigned by the Trustee to administer its corporate trust matters with respect to this Indenture (which, for the avoidance of doubt, includes without limitation any supplemental indenture hereto).

“**Securities**” has the meaning stated in the first recital of this Indenture and more particularly means any Securities authenticated and delivered under this Indenture.

“**Securityholder**”, “**holder of Securities**”, “**registered holder**”, or other similar term, means the Person or Persons in whose name or names a particular Security is registered on the Security Register kept for that purpose in accordance with the terms of this Indenture.

“**Security Register**” and “**Security Registrar**” shall have the meanings as set forth in Section 2.05.

“**Subsidiary**” means, with respect to any Person:

(1) any corporation or company a majority of whose capital stock with voting power, under ordinary circumstances, to elect directors is, at the date of determination, directly or indirectly, owned by such Person (a “**subsidiary**”), by one or more subsidiaries of such Person or by such Person and one or more subsidiaries of such Person;

(2) a partnership in which such Person or a subsidiary of such Person is, at the date of determination, a general partner of such partnership; or

(3) any partnership, limited liability company or other Person in which such Person, a subsidiary of such Person or such Person and one or more subsidiaries of such Person, directly or indirectly, at the date of determination, have (x) at least a majority ownership interest or (y) the power to elect or appoint or direct the election or appointment of the managing partner or member of such Person or, if applicable, a majority of the directors or other governing body of such Person.

“*Trustee*” means _____, and, subject to the provisions of Article Seven, shall also include its successors and assigns, and, if at any time there is more than one Person acting in such capacity hereunder, “Trustee” shall mean each such Person. The term “Trustee” as used with respect to a particular series of the Securities shall mean the trustee with respect to that series.

“*Trust Indenture Act*” means the Trust Indenture Act of 1939, as amended.

ARTICLE 2

ISSUE, DESCRIPTION, TERMS, EXECUTION, REGISTRATION AND EXCHANGE OF SECURITIES

Section 2.01 Designation and Terms of Securities.

(a) The aggregate principal amount of Securities that may be authenticated and delivered under this Indenture is unlimited. The Securities may be issued in one or more series up to the aggregate principal amount of Securities of that series from time to time authorized by or pursuant to a Board Resolution or pursuant to one or more indentures supplemental hereto. Prior to the initial issuance of Securities of any series, there shall be established in or pursuant to a Board Resolution, and set forth in an Officer’s Certificate, or established in one or more indentures supplemental hereto:

(1) the title of the Securities of the series (which shall distinguish the Securities of that series from all other Securities);

(2) any limit upon the aggregate principal amount of the Securities of that series which may be authenticated and delivered under this Indenture (except for Securities authenticated and delivered upon registration of transfer of, or in exchange for, or in lieu of, other Securities of that series);

(3) the date or dates on which the principal of the Securities of the series is payable;

(4) if the price (expressed as a percentage of the aggregate principal amount thereof) at which such Securities will be issued is a price other than the principal amount thereof, the portion of the principal amount thereof payable upon declaration of acceleration of the maturity thereof, or if applicable, the portion of the principal amount of such Securities that is convertible into another security or the method by which any such portion shall be determined;

(5) the rate or rates at which the Securities of the series shall bear interest or the manner of calculation of such rate or rates, if any;

(6) the date or dates from which such interest shall accrue, the Interest Payment Dates on which such interest will be payable or the manner of determination of such Interest Payment Dates, the place(s) of payment, and the record date for the determination of holders to whom interest is payable on any such Interest Payment Dates or the manner of determination of such record dates;

(7) the right, if any, to extend the interest payment periods and the duration of such extension;

(8) the period or periods within which, the price or prices at which and the terms and conditions upon which Securities of the series may be redeemed, converted or exchanged, in whole or in part;

(9) the obligation, if any, of the Company to redeem or purchase Securities of the series pursuant to any sinking fund, mandatory redemption, or analogous provisions (including payments made in cash in satisfaction of future sinking fund obligations) or at the option of a holder thereof and the period or periods within which, the price or prices at which, and the terms and conditions upon which, Securities of the series shall be redeemed or purchased, in whole or in part, pursuant to such obligation;

(10) the form of the Securities of the series including the form of the Certificate of Authentication for such series;

(11) if other than denominations of one thousand U.S. dollars (\$1,000) or any integral multiple thereof, the denominations in which the Securities of the series shall be issuable;

(12) any and all other terms (including terms, to the extent applicable, relating to any auction or remarketing of the Securities of that series and any security for the obligations of the Company with respect to such Securities) with respect to such series (which terms shall not be inconsistent with the terms of this Indenture, as amended by any supplemental indenture) including any terms which may be required by or advisable under United States laws or regulations or advisable in connection with the marketing of Securities of that series;

(13) whether the Securities of the series shall be issued in whole or in part in the form of a Global Security or Securities; the terms and conditions, if any, upon which such Global Security or Securities may be exchanged in whole or in part for other individual Securities; and the Depositary for such Global Security or Securities;

(14) whether the Securities will be convertible into or exchangeable for shares of common stock, preferred stock or other securities of the Company or any other Person and, if so, the terms and conditions upon which such Securities will be so convertible or exchangeable, including the conversion or exchange price, as applicable, or how it will be calculated and may be adjusted, any mandatory or optional (at the Company's option or the

holders' option) conversion or exchange features, and the applicable conversion or exchange period;

(15) if other than the full principal amount thereof, the portion of the principal amount of Securities of the series which shall be payable upon declaration of acceleration of the maturity thereof pursuant to Section 6.01;

(16) any additional or alternative events of default;

(17) additional or alternative covenants (which may include, among other restrictions, restrictions on the Company's ability or the ability of the Company's Subsidiaries to: incur additional indebtedness; issue additional securities; create liens; pay dividends or make distributions in respect of the capital stock of the Company or the Company's Subsidiaries; redeem capital stock; place restrictions on the Company's Subsidiaries' ability to pay dividends, make distributions or transfer assets; make investments or other restricted payments; sell or otherwise dispose of assets; enter into sale-leaseback transactions; engage in transactions with stockholders or affiliates; issue or sell stock of the Company's Subsidiaries; or effect a consolidation or merger) or financial covenants (which may include, among other financial covenants, financial covenants that require the Company and its Subsidiaries to maintain specified interest coverage, fixed charge, cash flow-based, asset-based or other financial ratios) provided for with respect to the Securities of the series;

(18) the currency or currencies, including composite currencies, in which payment of the principal of (and premium, if any) and interest, if any, on such Securities shall be payable (if other than the currency of the United States of America), which unless otherwise specified shall be the currency of the United States of America as at the time of payment is legal tender for payment of public or private debts;

(19) if the principal of (and premium, if any) or interest, if any, on such Securities is to be payable, at the election of the Company or any Holder thereof, in a coin or currency other than that in which such Securities are stated to be payable, then the period or periods within which, and the terms and conditions upon which, such election may be made;

(20) whether interest will be payable in cash or additional Securities at the Company's or the Securityholders' option and the terms and conditions upon which the election may be made;

(21) the terms and conditions, if any, upon which the Company shall pay amounts in addition to the stated interest, premium, if any and principal amounts of the Securities of the series to any Securityholder that is not a "United States person" for federal tax purposes;

(22) additional or alternative provisions, if any, related to defeasance and discharge of the offered Securities;

(23) the applicability of any guarantees;

- (24) any restrictions on transfer, sale or assignment of the Securities of the series;
- (25) any other terms of the series; and
- (26) the subordination terms of the Securities of the series.

All Securities of any one series shall be substantially identical except as may otherwise be provided in or pursuant to any such Board Resolution or in any indentures supplemental hereto.

If any of the terms of the series are established by action taken pursuant to a Board Resolution of the Company, a copy of an appropriate record of such action shall be certified by the secretary or an assistant secretary of the Company and delivered to the Trustee at or prior to the delivery of the Officer's Certificate of the Company setting forth the terms of the series.

Securities of any particular series may be issued at various times, with different dates on which the principal or any installment of principal is payable, with different rates of interest, if any, or different methods by which rates of interest may be determined, with different dates on which such interest may be payable and with different redemption dates.

Section 2.02 Form of Securities and Trustee's Certificate.

The Securities of any series and the Trustee's certificate of authentication to be borne by such Securities shall be substantially of the tenor and purport as set forth in one or more indentures supplemental hereto or as provided in a Board Resolution, and set forth in an Officer's Certificate, and they may have such letters, numbers or other marks of identification or designation and such legends or endorsements printed, lithographed or engraved thereon as the Company may deem appropriate and as are not inconsistent with the provisions of this Indenture, or as may be required to comply with any law or with any rule or regulation made pursuant thereto or with any rule or regulation of any securities exchange on which Securities of that series may be listed, or to conform to usage.

Section 2.03 Denominations: Provisions for Payment.

The Securities shall be issuable as registered Securities and in the denominations of one thousand U.S. dollars (\$1,000) or any integral multiple thereof, subject to Section 2.01(a)(10). The Securities of a particular series shall bear interest payable on the dates and at the rate specified with respect to that series. Subject to Section 2.01(a)(16), the principal of and the interest on the Securities of any series, as well as any premium thereon in case of redemption thereof prior to maturity, shall be payable in the coin or currency of the United States of America that at the time is legal tender for public and private debt, at the office or agency of the Company maintained for that purpose. Each Security shall be dated the date of its authentication. Interest on the Securities shall be computed on the basis of a 360-day year composed of twelve 30-day months.

The interest installment on any Security that is payable, and is punctually paid or duly provided for, on any Interest Payment Date for Securities of that series shall be paid to the Person

in whose name said Security (or one or more Predecessor Securities) is registered at the close of business on the regular record date for such interest installment. In the event that any Security of a particular series or portion thereof is called for redemption and the redemption date is subsequent to a regular record date with respect to any Interest Payment Date and prior to such Interest Payment Date, interest on such Security will be paid upon presentation and surrender of such Security as provided in Section 3.03.

Any interest on any Security that is payable, but is not punctually paid or duly provided for, on any Interest Payment Date for Securities of the same series (herein called "Defaulted Interest") shall forthwith cease to be payable to the registered holder on the relevant regular record date by virtue of having been such holder; and such Defaulted Interest shall be paid by the Company, at its election, as provided in clause (1) or clause (2) below:

(1) The Company may make payment of any Defaulted Interest on Securities to the Persons in whose names such Securities (or their respective Predecessor Securities) are registered at the close of business on a special record date for the payment of such Defaulted Interest, which shall be fixed in the following manner: the Company shall notify the Trustee in writing of the amount of Defaulted Interest proposed to be paid on each such Security and the date of the proposed payment, and at the same time the Company shall deposit with the Trustee an amount of money equal to the aggregate amount proposed to be paid in respect of such Defaulted Interest or shall make arrangements satisfactory to the Trustee for such deposit prior to the date of the proposed payment, such money when deposited to be held in trust for the benefit of the Persons entitled to such Defaulted Interest as in this clause provided. Thereupon the Trustee shall fix a special record date for the payment of such Defaulted Interest which shall not be more than 15 nor less than 10 days prior to the date of the proposed payment and not less than 10 days after the receipt by the Trustee of the notice of the proposed payment. The Trustee shall promptly notify the Company of such special record date and, in the name and at the expense of the Company, shall cause notice of the proposed payment of such Defaulted Interest and the special record date therefor to be mailed, first class postage prepaid, to each Securityholder at his or her address as it appears in the Security Register (as hereinafter defined), not less than 10 days prior to such special record date. Notice of the proposed payment of such Defaulted Interest and the special record date therefor having been mailed as aforesaid, such Defaulted Interest shall be paid to the Persons in whose names such Securities (or their respective Predecessor Securities) are registered on such special record date.

(2) The Company may make payment of any Defaulted Interest on any Securities in any other lawful manner not inconsistent with the requirements of any securities exchange on which such Securities may be listed, and upon such notice as may be required by such exchange, if, after notice given by the Company to the Trustee of the proposed payment pursuant to this clause, such manner of payment shall be deemed practicable by the Trustee.

Unless otherwise set forth in a Board Resolution or one or more indentures supplemental hereto establishing the terms of any series of Securities pursuant to Section 2.01 hereof, the term "regular record date" as used in this Section with respect to a series of Securities and any Interest Payment Date for such series shall mean either the fifteenth day of the month immediately preceding the month in which an Interest Payment Date established for such series pursuant to Section 2.01 hereof shall occur, if such Interest Payment Date is the first day of a month, or the

first day of the month in which an Interest Payment Date established for such series pursuant to Section 2.01 hereof shall occur, if such Interest Payment Date is the fifteenth day of a month, whether or not such date is a Business Day.

Subject to the foregoing provisions of this Section, each Security of a series delivered under this Indenture upon transfer of or in exchange for or in lieu of any other Security of such series shall carry the rights to interest accrued and unpaid, and to accrue, that were carried by such other Security.

Section 2.04 Execution and Authentications.

The Securities shall be signed on behalf of the Company by one of its Officers. Signatures may be in the form of a manual or facsimile signature.

The Company may use the facsimile signature of any Person who shall have been an Officer, notwithstanding the fact that at the time the Securities shall be authenticated and delivered or disposed of such Person shall have ceased to be such an officer of the Company. The Securities may contain such notations, legends or endorsements required by law, stock exchange rule or usage. Each Security shall be dated the date of its authentication by the Trustee.

A Security shall not be valid until authenticated manually by an authorized signatory of the Trustee, or by an Authenticating Agent. Such signature shall be conclusive evidence that the Security so authenticated has been duly authenticated and delivered hereunder and that the holder is entitled to the benefits of this Indenture. At any time and from time to time after the execution and delivery of this Indenture, the Company may deliver Securities of any series executed by the Company to the Trustee for authentication, together with a written order of the Company for the authentication and delivery of such Securities, signed by an Officer, and the Trustee in accordance with such written order shall authenticate and deliver such Securities.

In authenticating such Securities and accepting the additional responsibilities under this Indenture in relation to such Securities, the Trustee shall be entitled to receive, if requested, and (subject to Section 7.01) shall be fully protected in relying upon, an Opinion of Counsel stating that the form and terms thereof have been established in conformity with the provisions of this Indenture.

The Trustee shall not be required to authenticate such Securities if the issue of such Securities pursuant to this Indenture will affect the Trustee's own rights, duties or immunities under the Securities and this Indenture or otherwise in a manner that is not reasonably acceptable to the Trustee.

Section 2.05 Registration of Transfer and Exchange.

(a) Securities of any series may be exchanged upon presentation thereof at the office or agency of the Company designated for such purpose, for other Securities of such series of authorized denominations, and for a like aggregate principal amount, upon payment of a sum sufficient to cover any tax or other governmental charge in relation thereto, all as provided in this Section. In respect of any Securities so surrendered for exchange, the Company shall execute,

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the Trustee shall authenticate and such office or agency shall deliver in exchange therefor the Security or Securities of the same series that the Securityholder making the exchange shall be entitled to receive, bearing numbers not contemporaneously outstanding.

(b) The Company shall keep, or cause to be kept, at its office or agency designated for such purpose a register or registers (herein referred to as the "Security Register") in which, subject to such reasonable regulations as it may prescribe, the Company shall register the Securities and the transfers of Securities as in this Article provided and which at all reasonable times shall be open for inspection by the Trustee. The registrar for the purpose of registering Securities and transfer of Securities as herein provided shall be appointed as authorized by Board Resolution (the "Security Registrar").

Upon surrender for transfer of any Security at the office or agency of the Company designated for such purpose, the Company shall execute, the Trustee shall authenticate and such office or agency shall deliver in the name of the transferee or transferees a new Security or Securities of the same series as the Security presented for a like aggregate principal amount.

All Securities presented or surrendered for exchange or registration of transfer, as provided in this Section, shall be accompanied (if so required by the Company or the Security Registrar) by a written instrument or instruments of transfer, in form satisfactory to the Company or the Security Registrar, duly executed by the registered holder or by such holder's duly authorized attorney in writing.

(c) Except as provided pursuant to Section 2.01 pursuant to a Board Resolution, and set forth in an Officer's Certificate, or established in one or more indentures supplemental to this Indenture, no service charge shall be made for any exchange or registration of transfer of Securities, or issue of new Securities in case of partial redemption of any series, but the Company may require payment of a sum sufficient to cover any tax or other governmental charge in relation thereto, other than exchanges pursuant to Section 2.06, Section 3.03(b) and Section 9.04 not involving any transfer.

(d) The Company shall not be required (i) to issue, exchange or register the transfer of any Securities during a period beginning at the opening of business 15 days before the day of the mailing of a notice of redemption of less than all the Outstanding Securities of the same series and ending at the close of business on the day of such mailing, nor (ii) to register the transfer of or exchange any Securities of any series or portions thereof called for redemption, other than the unredeemed portion of any such Securities being redeemed in part. The provisions of this Section 2.05 are, with respect to any Global Security, subject to Section 2.11 hereof.

The Trustee shall have no obligation or duty to monitor, determine or inquire as to compliance with any restrictions on transfer imposed under this Indenture or under applicable law with respect to any transfer of any interest in any Security (including any transfers between or among depository participants or beneficial owners of interests in any Global Security) other than to require delivery of such certificates and other documentation or evidence as are expressly required by, and to do so if and when expressly required by the terms of, this Indenture, and to examine the same to determine substantial compliance as to form with the express requirements hereof.

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Section 2.06 Temporary Securities.

Pending the preparation of definitive Securities of any series, the Company may execute, and the Trustee shall authenticate and deliver, temporary Securities (printed, lithographed or typewritten) of any authorized denomination. Such temporary Securities shall be substantially in the form of the definitive Securities in lieu of which they are issued, but with such omissions, insertions and variations as may be appropriate for temporary Securities, all as may be determined by the Company. Every temporary Security of any series shall be executed by the Company and be authenticated by the Trustee upon the same conditions and in substantially the same manner, and with like effect, as the definitive Securities of such series. Without unnecessary delay the Company will execute and will furnish definitive Securities of such series and thereupon any or all temporary Securities of such series may be surrendered in exchange therefor (without charge to the holders), at the office or agency of the Company designated for the purpose, and the Trustee shall authenticate and such office or agency shall deliver in exchange for such temporary Securities an equal aggregate principal amount of definitive Securities of such series, unless the Company advises the Trustee to the effect that definitive Securities need not be executed and furnished until further notice from the Company. Until so exchanged, the temporary Securities of such series shall be entitled to the same benefits under this Indenture as definitive Securities of such series authenticated and delivered hereunder.

Section 2.07 Mutilated, Destroyed, Lost or Stolen Securities.

In case any temporary or definitive Security shall become mutilated or be destroyed, lost or stolen, the Company (subject to the next succeeding sentence) shall execute, and upon the Company's request the Trustee (subject as aforesaid) shall authenticate and deliver, a new Security of the same series, bearing a number not contemporaneously outstanding, in exchange and substitution for the mutilated Security, or in lieu of and in substitution for the Security so destroyed, lost or stolen. In every case the applicant for a substituted Security shall furnish to the Company and the Trustee such security or indemnity as may be required by them to save each of them harmless, and, in every case of destruction, loss or theft, the applicant shall also furnish to the Company and the Trustee evidence to their satisfaction of the destruction, loss or theft of the applicant's Security and of the ownership thereof. The Trustee may authenticate any such substituted Security and deliver the same upon the written request or authorization of any officer of the Company. Upon the issuance of any substituted Security, the Company may require the payment of a sum sufficient to cover any tax or other governmental charge that may be imposed in relation thereto and any other expenses (including the fees and expenses of the Trustee) connected therewith.

In case any Security that has matured or is about to mature shall become mutilated or be destroyed, lost or stolen, the Company may, instead of issuing a substitute Security, pay or authorize the payment of the same (without surrender thereof except in the case of a mutilated Security) if the applicant for such payment shall furnish to the Company and the Trustee such security or indemnity as they may require to save them harmless, and, in case of destruction, loss or theft, evidence to the satisfaction of the Company and the Trustee of the destruction, loss or theft of such Security and of the ownership thereof.

Every replacement Security issued pursuant to the provisions of this Section shall constitute an additional contractual obligation of the Company whether or not the mutilated, destroyed, lost or stolen Security shall be found at any time, or be enforceable by anyone, and shall be entitled to all the benefits of this Indenture equally and proportionately with any and all other Securities of the same series duly issued hereunder. All Securities shall be held and owned upon the express condition that the foregoing provisions are exclusive with respect to the replacement or payment of mutilated, destroyed, lost or stolen Securities, and shall preclude (to the extent lawful) any and all other rights or remedies, notwithstanding any law or statute existing or hereafter enacted to the contrary with respect to the replacement or payment of negotiable instruments or other securities without their surrender.

Section 2.08 Cancellation.

All Securities surrendered for the purpose of payment, redemption, exchange or registration of transfer shall, if surrendered to the Company or any paying agent, be delivered to the Trustee for cancellation, or, if surrendered to the Trustee, shall be cancelled by it, and no Securities shall be issued in lieu thereof except as expressly required or permitted by any of the provisions of this Indenture. On request of the Company at the time of such surrender, the Trustee shall deliver to the Company canceled Securities held by the Trustee. In the absence of such request the Trustee may dispose of canceled Securities in accordance with its standard procedures and deliver a certificate of disposition to the Company. If the Company shall otherwise acquire any of the Securities, however, such acquisition shall not operate as a redemption or satisfaction of the indebtedness represented by such Securities unless and until the same are delivered to the Trustee for cancellation.

Section 2.09 Benefits of Indenture.

Nothing in this Indenture or in the Securities, express or implied, shall give or be construed to give to any Person, other than the parties hereto and the holders of the Securities (and, with respect to the provisions of Article Fourteen, the holders of any indebtedness of the Company to which the Securities of any series are subordinated) any legal or equitable right, remedy or claim under or in respect of this Indenture, or under any covenant, condition or provision herein contained; all such covenants, conditions and provisions being for the sole benefit of the parties hereto and of the holders of the Securities (and, with respect to the provisions of Article Fourteen, the holders of any indebtedness of the Company to which the Securities of any series are subordinated).

Section 2.10 Authenticating Agent.

So long as any of the Securities of any series remain Outstanding there may be an Authenticating Agent for any or all such series of Securities which the Trustee shall have the right to appoint. Said Authenticating Agent shall be authorized to act on behalf of the Trustee to authenticate Securities of such series issued upon exchange, transfer or partial redemption thereof, and Securities so authenticated shall be entitled to the benefits of this Indenture and shall be valid and obligatory for all purposes as if authenticated by the Trustee hereunder. All references in this Indenture to the authentication of Securities by the Trustee shall be deemed to include authentication by an Authenticating Agent for such series. Each Authenticating Agent

shall be acceptable to the Company and shall be a corporation that has a combined capital and surplus, as most recently reported or determined by it, sufficient under the laws of any jurisdiction under which it is organized or in which it is doing business to conduct a trust business, and that is otherwise authorized under such laws to conduct such business and is subject to supervision or examination by federal or state authorities. If at any time any Authenticating Agent shall cease to be eligible in accordance with these provisions, it shall resign immediately.

Any Authenticating Agent may at any time resign by giving written notice of resignation to the Trustee and to the Company. The Trustee may at any time (and upon request by the Company shall) terminate the agency of any Authenticating Agent by giving written notice of termination to such Authenticating Agent and to the Company. Upon resignation, termination or cessation of eligibility of any Authenticating Agent, the Trustee may appoint an eligible successor Authenticating Agent acceptable to the Company. Any successor Authenticating Agent, upon acceptance of its appointment hereunder, shall become vested with all the rights, powers and duties of its predecessor hereunder as if originally named as an Authenticating Agent pursuant hereto.

Section 2.11 Global Securities.

(a) If the Company shall establish pursuant to Section 2.01 that the Securities of a particular series are to be issued as a Global Security, then the Company shall execute and the Trustee shall, in accordance with Section 2.04, authenticate and deliver, a Global Security that (i) shall represent, and shall be denominated in an amount equal to the aggregate principal amount of, all of the Outstanding Securities of such series, (ii) shall be registered in the name of the Depository or its nominee, (iii) shall be delivered by the Trustee to the Depository or pursuant to the Depository's instruction and (iv) shall bear a legend substantially to the following effect: "Except as otherwise provided in Section 2.11 of the Indenture, this Security may be transferred, in whole but not in part, only to another nominee of the Depository or to a successor Depository or to a nominee of such successor Depository."

(b) Notwithstanding the provisions of Section 2.05, the Global Security of a series may be transferred, in whole but not in part and in the manner provided in Section 2.05, only to another nominee of the Depository for such series, or to a successor Depository for such series selected or approved by the Company or to a nominee of such successor Depository.

(c) If at any time the Depository for a series of the Securities notifies the Company that it is unwilling or unable to continue as Depository for such series or if at any time the Depository for such series shall no longer be registered or in good standing under the Exchange Act, or other applicable statute or regulation, and a successor Depository for such series is not appointed by the Company within 90 days after the Company receives such notice or becomes aware of such condition, as the case may be, or if an Event of Default has occurred and is continuing and the Company has received a request from the Depository or from the Trustee, this Section 2.11 shall no longer be applicable to the Securities of such series and the Company will execute, and subject to Section 2.04, the Trustee will authenticate and deliver the Securities of such series in definitive registered form without coupons, in authorized denominations, and in an aggregate principal amount equal to the principal amount of the Global Security of such series

in exchange for such Global Security. In addition, the Company may at any time determine that the Securities of any series shall no longer be represented by a Global Security and that the provisions of this Section 2.11 shall no longer apply to the Securities of such series. In such event the Company will execute and, subject to Section 2.04, the Trustee, upon receipt of an Officer's Certificate evidencing such determination by the Company, will authenticate and deliver the Securities of such series in definitive registered form without coupons, in authorized denominations, and in an aggregate principal amount equal to the principal amount of the Global Security of such series in exchange for such Global Security. Upon the exchange of the Global Security for such Securities in definitive registered form without coupons, in authorized denominations, the Global Security shall be canceled by the Trustee. Such Securities in definitive registered form issued in exchange for the Global Security pursuant to this Section 2.11(c) shall be registered in such names and in such authorized denominations as the Depository, pursuant to instructions from its direct or indirect participants or otherwise, shall instruct the Trustee. The Trustee shall deliver such Securities to the Depository for delivery to the Persons in whose names such Securities are so registered.

ARTICLE 3

REDEMPTION OF SECURITIES AND SINKING FUND PROVISIONS

Section 3.01 Redemption.

The Company may redeem the Securities of any series issued hereunder on and after the dates and in accordance with the terms established for such series pursuant to Section 2.01 hereof.

Section 3.02 Notice of Redemption.

(a) In case the Company shall desire to exercise such right to redeem all or, as the case may be, a portion of the Securities of any series in accordance with any right the Company reserved for itself to do so pursuant to Section 2.01 hereof, the Company shall, or shall cause the Trustee to, give notice of such redemption to holders of the Securities of such series to be redeemed by mailing, first class postage prepaid, a notice of such redemption not less than 30 days and not more than 90 days before the date fixed for redemption of that series to such holders at their last addresses as they shall appear upon the Security Register, unless a shorter period is specified in the Securities to be redeemed. Any notice that is mailed in the manner herein provided shall be conclusively presumed to have been duly given, whether or not the registered holder receives the notice. In any case, failure duly to give such notice to the holder of any Security of any series designated for redemption in whole or in part, or any defect in the notice, shall not affect the validity of the proceedings for the redemption of any other Securities of such series or any other series. In the case of any redemption of Securities prior to the expiration of any restriction on such redemption provided in the terms of such Securities or elsewhere in this Indenture, the Company shall furnish the Trustee with an Officer's Certificate evidencing compliance with any such restriction.

Each such notice of redemption shall specify the date fixed for redemption and the redemption price at which Securities of that series are to be redeemed, and shall state that

payment of the redemption price of such Securities to be redeemed will be made at the office or agency of the Company, upon presentation and surrender of such Securities, that interest accrued to the date fixed for redemption will be paid as specified in said notice, that from and after said date interest will cease to accrue and that the redemption is from a sinking fund, if such is the case. If less than all the Securities of a series are to be redeemed, the notice to the holders of Securities of that series to be redeemed in part shall specify the particular Securities to be so redeemed.

In case any Security is to be redeemed in part only, the notice that relates to such Security shall state the portion of the principal amount thereof to be redeemed, and shall state that on and after the redemption date, upon surrender of such Security, a new Security or Securities of such series in principal amount equal to the unredeemed portion thereof will be issued.

(b) If less than all the Securities of a series are to be redeemed, the Company shall give the Trustee at least 45 days' notice (unless a shorter notice shall be satisfactory to the Trustee) in advance of the date fixed for redemption as to the aggregate principal amount of Securities of the series to be redeemed, and thereupon the Trustee shall select, by lot or in such other manner as it shall deem appropriate and fair in its discretion and that may provide for the selection of a portion or portions (equal to one thousand U.S. dollars (\$1,000) or any integral multiple thereof) of the principal amount of such Securities of a denomination larger than \$1,000, the Securities to be redeemed and shall thereafter promptly notify the Company in writing of the numbers of the Securities to be redeemed, in whole or in part. The Company may, if and whenever it shall so elect, by delivery of instructions signed on its behalf by an Officer, instruct the Trustee or any paying agent to call all or any part of the Securities of a particular series for redemption and to give notice of redemption in the manner set forth in this Section, such notice to be in the name of the Company or its own name as the Trustee or such paying agent may deem advisable. In any case in which notice of redemption is to be given by the Trustee or any such paying agent, the Company shall deliver or cause to be delivered to, or permit to remain with, the Trustee or such paying agent, as the case may be, such Security Register, transfer books or other records, or suitable copies or extracts therefrom, sufficient to enable the Trustee or such paying agent to give any notice by mail that may be required under the provisions of this Section.

Section 3.03 Payment Upon Redemption.

(a) If the giving of notice of redemption shall have been completed as above provided, the Securities or portions of Securities of the series to be redeemed specified in such notice shall become due and payable on the date and at the place stated in such notice at the applicable redemption price, together with interest accrued to the date fixed for redemption and interest on such Securities or portions of Securities shall cease to accrue on and after the date fixed for redemption, unless the Company shall default in the payment of such redemption price and accrued interest with respect to any such Security or portion thereof. On presentation and surrender of such Securities on or after the date fixed for redemption at the place of payment specified in the notice, said Securities shall be paid and redeemed at the applicable redemption price for such series, together with interest accrued thereon to the date fixed for redemption (but if the date fixed for redemption is an interest payment date, the interest installment payable on such date shall be payable to the registered holder at the close of business on the applicable record date pursuant to Section 2.03).

(b) Upon presentation of any Security of such series that is to be redeemed in part only, the Company shall execute and the Trustee shall authenticate and the office or agency where the Security is presented shall deliver to the holder thereof, at the expense of the Company, a new Security of the same series of authorized denominations in principal amount equal to the unredeemed portion of the Security so presented.

Section 3.04 Sinking Fund.

The provisions of Sections 3.04, 3.05 and 3.06 shall be applicable to any sinking fund for the retirement of Securities of a series, except as otherwise specified as contemplated by Section 2.01 for Securities of such series.

The minimum amount of any sinking fund payment provided for by the terms of Securities of any series is herein referred to as a “mandatory sinking fund payment,” and any payment in excess of such minimum amount provided for by the terms of Securities of any series is herein referred to as an “optional sinking fund payment”. If provided for by the terms of Securities of any series, the cash amount of any sinking fund payment may be subject to reduction as provided in Section 3.05. Each sinking fund payment shall be applied to the redemption of Securities of any series as provided for by the terms of Securities of such series.

Section 3.05 Satisfaction of Sinking Fund Payments with Securities.

The Company (i) may deliver Outstanding Securities of a series and (ii) may apply as a credit Securities of a series that have been redeemed either at the election of the Company pursuant to the terms of such Securities or through the application of permitted optional sinking fund payments pursuant to the terms of such Securities, in each case in satisfaction of all or any part of any sinking fund payment with respect to the Securities of such series required to be made pursuant to the terms of such Securities as provided for by the terms of such series, provided that such Securities have not been previously so credited. Such Securities shall be received and credited for such purpose by the Trustee at the redemption price specified in such Securities for redemption through operation of the sinking fund and the amount of such sinking fund payment shall be reduced accordingly.

Section 3.06 Redemption of Securities for Sinking Fund.

Not less than 45 days prior to each sinking fund payment date for any series of Securities (unless a shorter period shall be satisfactory to the Trustee), the Company will deliver to the Trustee an Officer's Certificate specifying the amount of the next ensuing sinking fund payment for that series pursuant to the terms of the series, the portion thereof, if any, that is to be satisfied by delivering and crediting Securities of that series pursuant to Section 3.05 and the basis for such credit and will, together with such Officer's Certificate, deliver to the Trustee any Securities to be so delivered. Not less than 30 days before each such sinking fund payment date the Trustee shall select the Securities to be redeemed upon such sinking fund payment date in the manner specified in Section 3.02 and cause notice of the redemption thereof to be given in the name of and at the expense of the Company in the manner provided in Section 3.02. Such notice having been duly given, the redemption of such Securities shall be made upon the terms and in the manner stated in Section 3.03.

ARTICLE 4

COVENANTS

Section 4.01 Payment of Principal, Premium and Interest.

The Company will duly and punctually pay or cause to be paid the principal of (and premium, if any) and interest on the Securities of that series at the time and place and in the manner provided herein and established with respect to such Securities. Payments of principal on the Securities may be made at the time provided herein and established with respect to such Securities by U.S. dollar check drawn on and mailed to the address of the Securityholder entitled thereto as such address shall appear in the Security Register, or U.S. dollar wire transfer to, a U.S. dollar account if such Securityholder shall have furnished wire instructions to the Trustee no later than 15 days prior to the relevant payment date. Payments of interest on the Securities may be made at the time provided herein and established with respect to such Securities by U.S. dollar check mailed to the address of the Securityholder entitled thereto as such address shall appear in the Security Register, or U.S. dollar wire transfer to, a U.S. dollar account if such Securityholder shall have furnished wire instructions in writing to the Security Registrar and the Trustee no later than 15 days prior to the relevant payment date.

Section 4.02 Maintenance of Office or Agency.

So long as any series of the Securities remain Outstanding, the Company agrees to maintain an office or agency with respect to each such series and at such other location or locations as may be designated as provided in this Section 4.02, where (i) Securities of that series may be presented for payment, (ii) Securities of that series may be presented as herein above authorized for registration of transfer and exchange, and (iii) notices and demands to or upon the Company in respect of the Securities of that series and this Indenture may be given or served, such designation to continue with respect to such office or agency until the Company shall, by written notice signed by any officer authorized to sign an Officer's Certificate and delivered to the Trustee, designate some other office or agency for such purposes or any of them. If at any time the Company shall fail to maintain any such required office or agency or shall fail to furnish the Trustee with the address thereof, such presentations, notices and demands may be made or served at the Corporate Trust Office of the Trustee, and the Company hereby appoints the Trustee as its agent to receive all such presentations, notices and demands. The Company initially appoints the Corporate Trust Office of the Trustee as its paying agent with respect to the Securities.

Section 4.03 Paying Agents.

(a) If the Company shall appoint one or more paying agents for all or any series of the Securities, other than the Trustee, the Company will cause each such paying agent to execute and deliver to the Trustee an instrument in which such agent shall agree with the Trustee, subject to the provisions of this Section:

(1) that it will hold all sums held by it as such agent for the payment of the principal of (and premium, if any) or interest on the Securities of that series (whether such

sums have been paid to it by the Company or by any other obligor of such Securities) in trust for the benefit of the Persons entitled thereto;

(2) that it will give the Trustee notice of any failure by the Company (or by any other obligor of such Securities) to make any payment of the principal of (and premium, if any) or interest on the Securities of that series when the same shall be due and payable;

(3) that it will, at any time during the continuance of any failure referred to in the preceding paragraph (a)(2) above, upon the written request of the Trustee, forthwith pay to the Trustee all sums so held in trust by such paying agent; and

(4) that it will perform all other duties of paying agent as set forth in this Indenture.

(b) If the Company shall act as its own paying agent with respect to any series of the Securities, it will on or before each due date of the principal of (and premium, if any) or interest on Securities of that series, set aside, segregate and hold in trust for the benefit of the Persons entitled thereto a sum sufficient to pay such principal (and premium, if any) or interest so becoming due on Securities of that series until such sums shall be paid to such Persons or otherwise disposed of as herein provided and will promptly notify the Trustee of such action, or any failure (by it or any other obligor on such Securities) to take such action. Whenever the Company shall have one or more paying agents for any series of Securities, it will, prior to each due date of the principal of (and premium, if any) or interest on any Securities of that series, deposit with the paying agent a sum sufficient to pay the principal (and premium, if any) or interest so becoming due, such sum to be held in trust for the benefit of the Persons entitled to such principal, premium or interest, and (unless such paying agent is the Trustee) the Company will promptly notify the Trustee of this action or failure so to act.

(c) Notwithstanding anything in this Section to the contrary, (i) the agreement to hold sums in trust as provided in this Section is subject to the provisions of Section 11.05, and (ii) the Company may at any time, for the purpose of obtaining the satisfaction and discharge of this Indenture or for any other purpose, pay, or direct any paying agent to pay, to the Trustee all sums held in trust by the Company or such paying agent, such sums to be held by the Trustee upon the same terms and conditions as those upon which such sums were held by the Company or such paying agent; and, upon such payment by the Company or any paying agent to the Trustee, the Company or such paying agent shall be released from all further liability with respect to such money.

Section 4.04 Appointment to Fill Vacancy in Office of Trustee.

The Company, whenever necessary to avoid or fill a vacancy in the office of Trustee, will appoint, in the manner provided in Section 7.10, a Trustee, so that there shall at all times be a Trustee hereunder.

Section 4.05 Compliance with Consolidation Provisions.

The Company will not, while any of the Securities remain Outstanding, consolidate with or merge into any other Person, in either case where the Company is not the survivor of such transaction, or sell or convey all or substantially all of its property to any other Person unless the provisions of Article Ten hereof are complied with.

ARTICLE 5

SECURITYHOLDERS' LISTS AND REPORTS BY THE COMPANY AND THE TRUSTEE

Section 5.01 Company to Furnish Trustee Names and Addresses of Securityholders.

The Company will furnish or cause to be furnished to the Trustee (a) within 15 days after each regular record date (as defined in Section 2.03) a list, in such form as the Trustee may reasonably require, of the names and addresses of the holders of each series of Securities as of such regular record date, provided that the Company shall not be obligated to furnish or cause to furnish such list at any time that the list shall not differ in any respect from the most recent list furnished to the Trustee by the Company and (b) at such other times as the Trustee may request in writing within 30 days after the receipt by the Company of any such request, a list of similar form and content as of a date not more than 15 days prior to the time such list is furnished; provided, however, that, in either case, no such list need be furnished for any series for which the Trustee shall be the Security Registrar.

Section 5.02 Preservation Of Information; Communications With Securityholders.

(a) The Trustee shall preserve, in as current a form as is reasonably practicable, all information as to the names and addresses of the holders of Securities contained in the most recent list furnished to it as provided in Section 5.01 and as to the names and addresses of holders of Securities received by the Trustee in its capacity as Security Registrar (if acting in such capacity).

(b) The Trustee may destroy any list furnished to it as provided in Section 5.01 upon receipt of a new list so furnished.

(c) Securityholders may communicate as provided in Section 312(b) of the Trust Indenture Act with other Securityholders with respect to their rights under this Indenture or under the Securities, and, in connection with any such communications, the Trustee shall satisfy its obligations under Section 312(b) of the Trust Indenture Act in accordance with the provisions of Section 312(b) of the Trust Indenture Act.

Section 5.03 Reports by the Company.

(a) The Company covenants and agrees to provide (which delivery may be via electronic mail) to the Trustee within 30 days, after the Company files the same with the

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Commission, copies of the annual reports and of the information, documents and other reports (or copies of such portions of any of the foregoing as the Commission may from time to time by rules and regulations prescribe) that the Company is required to file with the Commission pursuant to Section 13 or Section 15(d) of the Exchange Act; provided, however, the Company shall not be required to deliver to the Trustee any materials for which the Company has sought and received confidential treatment by the Commission; and provided further, that so long as such filings by the Company are available on the Commission's Electronic Data Gathering, Analysis and Retrieval System (EDGAR), or Interactive Data Electronic Applications (IDEA), or any successor system, such filings shall be deemed to have been filed with the Trustee for purposes hereof without any further action required by the Company; provided that an electronic link to such filing, together with an electronic notice of such filing have been sent to the Trustee. For the avoidance of doubt, a failure by the Company to file annual reports, information and other reports with the SEC within the time period prescribed thereof by the Commission shall not be deemed a breach of this Section 5.03.

(b) Delivery of reports, information and documents to the Trustee under Section 5.03 is for informational purposes only and the information and the Trustee's receipt of the foregoing shall not constitute constructive notice of any information contained therein, or determinable from information contained therein including the Company's compliance with any of their covenants thereunder (as to which the Trustee is entitled to rely exclusively on an Officer's Certificate).

Section 5.04 Reports by the Trustee.

(a) If required by Section 313(a) of the Trust Indenture Act, the Trustee, within sixty (60) days after each May 1, shall transmit by mail, first class postage prepaid, to the Securityholders, as their names and addresses appear upon the Security Register, a brief report dated as of such May 1, which complies with Section 313(a) of the Trust Indenture Act.

(b) The Trustee shall comply with Section 313(b) and 313(c) of the Trust Indenture Act.

(c) A copy of each such report shall, at the time of such transmission to Securityholders, be filed by the Trustee with the Company, with each securities exchange upon which any Securities are listed (if so listed) and also with the Commission. The Company agrees to notify the Trustee when any Securities become listed on any securities exchange.

ARTICLE 6

REMEDIES OF THE TRUSTEE AND SECURITYHOLDERS ON EVENT OF DEFAULT

Section 6.01 Events of Default.

(a) Whenever used herein with respect to Securities of a particular series, "Event of Default" means any one or more of the following

events that has occurred and is continuing:

(1) the Company defaults in the payment of any installment of interest upon any of the Securities of that series, as and when the same shall become due and payable, and such default continues for a period of 90 days; provided, however, that a valid extension of an interest payment period by the Company in accordance with the terms of any indenture supplemental hereto shall not constitute a default in the payment of interest for this purpose;

(2) the Company defaults in the payment of the principal of (or premium, if any, on) any of the Securities of that series as and when the same shall become due and payable whether at maturity, upon redemption, by declaration or otherwise, or in any payment required by any sinking or analogous fund established with respect to that series; provided, however, that a valid extension of the maturity of such Securities in accordance with the terms of any indenture supplemental hereto shall not constitute a default in the payment of principal or premium, if any;

(3) the Company fails to observe or perform any other of its covenants or agreements with respect to that series contained in this Indenture or otherwise established with respect to that series of Securities pursuant to Section 2.01 hereof (other than a covenant or agreement that has been expressly included in this Indenture solely for the benefit of one or more series of Securities other than such series) for a period of 90 days after the date on which written notice of such failure, requiring the same to be remedied and stating that such notice is a "Notice of Default" hereunder, shall have been given to the Company by the Trustee, by registered or certified mail, or to the Company and the Trustee by the holders of at least 25% in principal amount of the Securities of that series at the time Outstanding;

(4) the Company pursuant to or within the meaning of any Bankruptcy Law (i) commences a voluntary case, (ii) consents to the entry of an order for relief against it in an involuntary case, (iii) consents to the appointment of a Custodian of it or for all or substantially all of its property or (iv) makes a general assignment for the benefit of its creditors; or

(5) a court of competent jurisdiction enters an order under any Bankruptcy Law that (i) is for relief against the Company in an involuntary case, (ii) appoints a Custodian of the Company for all or substantially all of its property or (iii) orders the liquidation of the Company, and the order or decree remains unstayed and in effect for 90 days.

(b) In each and every such case (other than an Event of Default specified in clause (4) or clause (5) above), unless the principal of all the Securities of that series shall have already become due and payable, either the Trustee or the holders of not less than 25% in aggregate principal amount of the Securities of that series then Outstanding hereunder, by notice in writing to the Company (and to the Trustee if given by such Securityholders), may declare the principal of (and premium, if any, on) and accrued and unpaid interest on all the Securities of that series to be due and payable immediately, and upon any such declaration the same shall become and shall be immediately due and payable. If an Event of Default specified in clause (4) or clause (5) above occurs, the principal of and accrued and unpaid interest on all the Securities of that series shall automatically be immediately due and payable without any declaration or other act on the part of the Trustee or the holders of the Securities.

(c) At any time after the principal of (and premium, if any, on) and accrued and unpaid interest on the Securities of that series shall have been so declared due and payable, and before any judgment or decree for the payment of the moneys due shall have been obtained or entered as hereinafter provided, the holders of a majority in aggregate principal amount of the Securities of that series then Outstanding hereunder, by written notice to the Company and the Trustee, may rescind and annul such declaration and its consequences if: (i) the Company has paid or deposited with the Trustee a sum sufficient to pay all matured installments of interest upon all the Securities of that series and the principal of (and premium, if any, on) any and all Securities of that series that shall have become due otherwise than by acceleration (with interest upon such principal and premium, if any, and, to the extent that such payment is enforceable under applicable law, upon overdue installments of interest, at the rate per annum expressed in the Securities of that series to the date of such payment or deposit) and the amount payable to the Trustee under Section 7.06, and (ii) any and all Events of Default under the Indenture with respect to such series, other than the nonpayment of principal on (and premium, if any, on) and accrued and unpaid interest on Securities of that series that shall not have become due by their terms, shall have been remedied or waived as provided in Section 6.06.

No such rescission and annulment shall extend to or shall affect any subsequent default or impair any right consequent thereon.

(d) In case the Trustee shall have proceeded to enforce any right with respect to Securities of that series under this Indenture and such proceedings shall have been discontinued or abandoned because of such rescission or annulment or for any other reason or shall have been determined adversely to the Trustee, then and in every such case, subject to any determination in such proceedings, the Company and the Trustee shall be restored respectively to their former positions and rights hereunder, and all rights, remedies and powers of the Company and the Trustee shall continue as though no such proceedings had been taken.

Section 6.02 Collection of Indebtedness and Suits for Enforcement by Trustee.

(a) The Company covenants that (i) in case it shall default in the payment of any installment of interest on any of the Securities of a series, or in any payment required by any sinking or analogous fund established with respect to that series as and when the same shall have become due and payable, and such default shall have continued for a period of 90 days, or (ii) in case it shall default in the payment of the principal of (or premium, if any, on) any of the Securities of a series when the same shall have become due and payable, whether upon maturity of the Securities of a series or upon redemption or upon declaration or otherwise then, upon demand of the Trustee, the Company will pay to the Trustee, for the benefit of the holders of the Securities of that series, the whole amount that then shall have been become due and payable on all such Securities for principal (and premium, if any) or interest, or both, as the case may be, with interest upon the overdue principal (and premium, if any) and (to the extent that payment of such interest is enforceable under applicable law) upon overdue installments of interest at the rate per annum expressed in the Securities of that series; and, in addition thereto, such further amount as shall be sufficient to cover the costs and expenses of collection, and the amount payable to the Trustee under Section 7.06.

(b) If the Company shall fail to pay such amounts forthwith upon such demand, the Trustee, in its own name and as trustee of an express trust, shall be entitled and empowered to institute any action or proceedings at law or in equity for the collection of the sums so due and unpaid, and may prosecute any such action or proceeding to judgment or final decree, and may enforce any such judgment or final decree against the Company or other obligor upon the Securities of that series and collect the moneys adjudged or decreed to be payable in the manner provided by law or equity out of the property of the Company or other obligor upon the Securities of that series, wherever situated.

(c) In case of any receivership, insolvency, liquidation, bankruptcy, reorganization, readjustment, arrangement, composition or judicial proceedings affecting the Company, or its creditors or property, the Trustee shall have power to intervene in such proceedings and take any action therein that may be permitted by the court and shall (except as may be otherwise provided by law) be entitled to file such proofs of claim and other papers and documents as may be necessary or advisable in order to have the claims of the Trustee and of the holders of Securities of such series allowed for the entire amount due and payable by the Company under the Indenture at the date of institution of such proceedings and for any additional amount that may become due and payable by the Company after such date, and to collect and receive any moneys or other property payable or deliverable on any such claim, and to distribute the same after the deduction of the amount payable to the Trustee under Section 7.06; and any receiver, assignee or trustee in bankruptcy or reorganization is hereby authorized by each of the holders of Securities of such series to make such payments to the Trustee, and, in the event that the Trustee shall consent to the making of such payments directly to such Securityholders, to pay to the Trustee any amount due it under Section 7.06.

(d) All rights of action and of asserting claims under this Indenture, or under any of the terms established with respect to Securities of that series, may be enforced by the Trustee without the possession of any of such Securities, or the production thereof at any trial or other proceeding relative thereto, and any such suit or proceeding instituted by the Trustee shall be brought in its own name as trustee of an express trust, and any recovery of judgment shall, after provision for payment to the Trustee of any amounts due under Section 7.06, be for the ratable benefit of the holders of the Securities of such series.

In case of an Event of Default hereunder, the Trustee may in its discretion proceed to protect and enforce the rights vested in it by this Indenture by such appropriate judicial proceedings as the Trustee shall deem most effectual to protect and enforce any of such rights, either at law or in equity or in bankruptcy or otherwise, whether for the specific enforcement of any covenant or agreement contained in the Indenture or in aid of the exercise of any power granted in this Indenture, or to enforce any other legal or equitable right vested in the Trustee by this Indenture or by law.

Nothing contained herein shall be deemed to authorize the Trustee to authorize or consent to or accept or adopt on behalf of any Securityholder any plan of reorganization, arrangement, adjustment or composition affecting the Securities of that series or the rights of any holder thereof or to authorize the Trustee to vote in respect of the claim of any Securityholder in any such proceeding.

Section 6.03 Application of Moneys Collected.

Any moneys collected by the Trustee pursuant to this Article with respect to a particular series of Securities shall be applied in the following order, at the date or dates fixed by the Trustee and, in case of the distribution of such moneys on account of principal (or premium, if any) or interest, upon presentation of the Securities of that series, and notation thereon of the payment, if only partially paid, and upon surrender thereof if fully paid:

FIRST: To the payment of all indebtedness of the Company to which such series of Securities is subordinated to the extent required by Section 7.06 and any subordination terms of the series specified as contemplated by Article Fourteen;

SECOND: To the payment of the amounts then due and unpaid upon Securities of such series for principal (and premium, if any) and interest, in respect of which or for the benefit of which such money has been collected, ratably, without preference or priority of any kind, according to the amounts due and payable on such Securities for principal (and premium, if any) and interest, respectively; and

THIRD: To the payment of the remainder, if any, to the Company or any other Person lawfully entitled thereto.

Section 6.04 Limitation on Suits.

No holder of any Security of any series shall have any right by virtue or by availing of any provision of this Indenture to institute any suit, action or proceeding in equity or at law upon or under or with respect to this Indenture or for the appointment of a receiver or trustee, or for any other remedy hereunder, unless (i) such holder previously shall have given to the Trustee written notice of an Event of Default and of the continuance thereof with respect to the Securities of such series specifying such Event of Default, as hereinbefore provided; (ii) the holders of not less than 25% in aggregate principal amount of the Securities of such series then Outstanding shall have made written request upon the Trustee to institute such action, suit or proceeding in its own name as Trustee hereunder; (iii) such holder or holders shall have offered to the Trustee such reasonable indemnity as it may require against the costs, expenses and liabilities to be incurred therein or thereby; (iv) the Trustee for 90 days after its receipt of such notice, request and offer of indemnity, shall have failed to institute any such action, suit or proceeding and (v) during such 90 day period, the holders of a majority in principal amount of the Securities of that series do not give the Trustee a direction inconsistent with the request.

Notwithstanding anything contained herein to the contrary or any other provisions of this Indenture, the right of any holder of any Security to receive payment of the principal of (and premium, if any) and interest on such Security, as therein provided, on or after the respective due dates expressed in such Security (or in the case of redemption, on the redemption date), or to institute suit for the enforcement of any such payment on or after such respective dates or redemption date, shall not be impaired or affected without the consent of such holder and by accepting a Security hereunder it is expressly understood, intended and covenanted by the taker and holder of every Security of such series with every other such taker and holder and the Trustee, that no one or more holders of Securities of such series shall have any right in any

manner whatsoever by virtue or by availing of any provision of this Indenture to affect, disturb or prejudice the rights of the holders of any other of such Securities, or to obtain or seek to obtain priority over or preference to any other such holder, or to enforce any right under this Indenture, except in the manner herein provided and for the equal, ratable and common benefit of all holders of Securities of such series. For the protection and enforcement of the provisions of this Section, each and every Securityholder and the Trustee shall be entitled to such relief as can be given either at law or in equity.

Section 6.05 Rights and Remedies Cumulative; Delay or Omission Not Waiver.

(a) Except as otherwise provided in Section 2.07, all powers and remedies given by this Article to the Trustee or to the Securityholders shall, to the extent permitted by law, be deemed cumulative and not exclusive of any other powers and remedies available to the Trustee or the holders of the Securities, by judicial proceedings or otherwise, to enforce the performance or observance of the covenants and agreements contained in this Indenture or otherwise established with respect to such Securities.

(b) No delay or omission of the Trustee or of any holder of any of the Securities to exercise any right or power accruing upon any Event of Default occurring and continuing as aforesaid shall impair any such right or power, or shall be construed to be a waiver of any such default or an acquiescence therein; and, subject to the provisions of Section 6.04, every power and remedy given by this Article or by law to the Trustee or the Securityholders may be exercised from time to time, and as often as shall be deemed expedient, by the Trustee or by the Securityholders.

Section 6.06 Control by Securityholders.

The holders of a majority in aggregate principal amount of the Securities of any series at the time Outstanding, determined in accordance with Section 8.04, shall have the right to direct the time, method and place of conducting any proceeding for any remedy available to the Trustee, or exercising any trust or power conferred on the Trustee with respect to such series; provided, however, that such direction shall not be in conflict with any rule of law or with this Indenture or subject the Trustee in its sole discretion to personal liability. Subject to the provisions of Section 7.01, the Trustee shall have the right to decline to follow any such direction if the Trustee in good faith shall, by a Responsible Officer or officers of the Trustee, determine that the proceeding so directed, subject to the Trustee's duties under the Trust Indenture Act, would involve the Trustee in personal liability or might be unduly prejudicial to the Securityholders not involved in the proceeding. The holders of a majority in aggregate principal amount of the Securities of any series at the time Outstanding affected thereby, determined in accordance with Section 8.04, may on behalf of the holders of all of the Securities of such series waive any past default in the performance of any of the covenants contained herein or established pursuant to Section 2.01 with respect to such series and its consequences, except a default in the payment of the principal of, or premium, if any, or interest on, any of the Securities of that series as and when the same shall become due by the terms of such Securities otherwise than by acceleration (unless such default has been cured and a sum sufficient to pay all matured installments of interest and principal and any premium has been deposited with the Trustee (in accordance with Section 6.01(c)). Upon any such waiver, the default covered thereby shall be deemed to be cured

for all purposes of this Indenture and the Company, the Trustee and the holders of the Securities of such series shall be restored to their former positions and rights hereunder, respectively; but no such waiver shall extend to any subsequent or other default or impair any right consequent thereon.

Section 6.07 Undertaking to Pay Costs.

All parties to this Indenture agree, and each holder of any Securities by such holder's acceptance thereof shall be deemed to have agreed, that any court may in its discretion require, in any suit for the enforcement of any right or remedy under this Indenture, or in any suit against the Trustee for any action taken or omitted by it as Trustee, the filing by any party litigant in such suit of an undertaking to pay the costs of such suit, and that such court may in its discretion assess reasonable costs, including reasonable attorneys' fees, against any party litigant in such suit, having due regard to the merits and good faith of the claims or defenses made by such party litigant; but the provisions of this Section shall not apply to any suit instituted by the Trustee, to any suit instituted by any Securityholder, or group of Securityholders, holding more than 10% in aggregate principal amount of the Outstanding Securities of any series, or to any suit instituted by any Securityholder for the enforcement of the payment of the principal of (or premium, if any) or interest on any Security of such series, on or after the respective due dates expressed in such Security or established pursuant to this Indenture.

ARTICLE 7

CONCERNING THE TRUSTEE

Section 7.01 Certain Duties and Responsibilities of Trustee.

(a) The Trustee, prior to the occurrence of an Event of Default with respect to the Securities of a series and after the curing of all Events of Default with respect to the Securities of that series that may have occurred, shall undertake to perform with respect to the Securities of such series such duties and only such duties as are specifically set forth in this Indenture, and no implied covenants shall be read into this Indenture against the Trustee. In case an Event of Default with respect to the Securities of a series has occurred (that has not been cured or waived), the Trustee shall exercise with respect to Securities of that series such of the rights and powers vested in it by this Indenture, and use the same degree of care and skill in their exercise, as a prudent man would exercise or use under the circumstances in the conduct of his own affairs.

(b) No provision of this Indenture shall be construed to relieve the Trustee from liability for its own negligent action, its own negligent failure to act, or its own willful misconduct, except that:

(i) prior to the occurrence of an Event of Default with respect to the Securities of a series and after the curing or waiving of all such Events of Default with respect to that series that may have occurred:

(A) the duties and obligations of the Trustee shall with respect to the Securities of such series be determined solely by the express provisions of this Indenture, and the Trustee shall not be liable with respect to the Securities of such series except for the performance of such duties and obligations as are specifically set forth in this Indenture, and no implied covenants or obligations shall be read into this Indenture against the Trustee; and

(B) in the absence of bad faith on the part of the Trustee, the Trustee may with respect to the Securities of such series conclusively rely, as to the truth of the statements and the correctness of the opinions expressed therein, upon any certificates or opinions furnished to the Trustee and conforming to the requirements of this Indenture; but in the case of any such certificates or opinions that by any provision hereof are specifically required to be furnished to the Trustee, the Trustee shall be under a duty to examine the same to determine whether or not they conform to the requirements of this Indenture;

(ii) the Trustee shall not be liable for any error of judgment made in good faith by a Responsible Officer or Responsible Officers of the Trustee, unless it shall be proved that the Trustee was negligent in ascertaining the pertinent facts;

(iii) the Trustee shall not be liable with respect to any action taken or omitted to be taken by it in good faith in accordance with the direction of the holders of not less than a majority in principal amount of the Securities of any series at the time Outstanding relating to the time, method and place of conducting any proceeding for any remedy available to the Trustee, or exercising any trust or power conferred upon the Trustee under this Indenture with respect to the Securities of that series; and

(iv) none of the provisions contained in this Indenture shall require the Trustee to expend or risk its own funds or otherwise incur personal financial liability in the performance of any of its duties or in the exercise of any of its rights or powers if there is reasonable ground for believing that the repayment of such funds or liability is not reasonably assured to it under the terms of this Indenture or adequate indemnity against such risk is not reasonably assured to it.

Section 7.02 Certain Rights of Trustee.

Except as otherwise provided in Section 7.01:

(a) The Trustee may rely and shall be protected in acting or refraining from acting upon any resolution, certificate, statement, instrument, opinion, report, notice, request, consent, order, approval, bond, security or other paper or document believed by it to be genuine and to have been signed or presented by the proper party or parties;

(b) Any request, direction, order or demand of the Company mentioned herein shall be sufficiently evidenced by a Board Resolution or an instrument signed in the name of the Company by any authorized officer of the Company (unless other evidence in respect thereof is specifically prescribed herein);

(c) The Trustee may consult with counsel and the written advice of such counsel or, if requested, any Opinion of Counsel shall be full and complete authorization and

protection in respect of any action taken or suffered or omitted hereunder in good faith and in reliance thereon;

(d) The Trustee shall be under no obligation to exercise any of the rights or powers vested in it by this Indenture at the request, order or direction of any of the Securityholders pursuant to the provisions of this Indenture, unless such Securityholders shall have offered to the Trustee reasonable security or indemnity against the costs, expenses and liabilities that may be incurred therein or thereby; nothing contained herein shall, however, relieve the Trustee of the obligation, upon the occurrence of an Event of Default with respect to a series of the Securities (that has not been cured or waived), to exercise with respect to Securities of that series such of the rights and powers vested in it by this Indenture, and to use the same degree of care and skill in their exercise, as a prudent man would exercise or use under the circumstances in the conduct of his own affairs;

(e) The Trustee shall not be liable for any action taken or omitted to be taken by it in good faith and believed by it to be authorized or within the discretion or rights or powers conferred upon it by this Indenture;

(f) The Trustee shall not be bound to make any investigation into the facts or matters stated in any resolution, certificate, statement, instrument, opinion, report, notice, request, consent, order, approval, bond, security, or other papers or documents, unless requested in writing so to do by the holders of not less than a majority in principal amount of the Outstanding Securities of the particular series affected thereby (determined as provided in Section 8.04); provided, however, that if the payment within a reasonable time to the Trustee of the costs, expenses or liabilities likely to be incurred by it in the making of such investigation is, in the opinion of the Trustee, not reasonably assured to the Trustee by the security afforded to it by the terms of this Indenture, the Trustee may require reasonable indemnity against such costs, expenses or liabilities as a condition to so proceeding. The reasonable expense of every such examination shall be paid by the Company or, if paid by the Trustee, shall be repaid by the Company upon demand;

(g) The Trustee may execute any of the trusts or powers hereunder or perform any duties hereunder either directly or by or through agents or attorneys and the Trustee shall not be responsible for any misconduct or negligence on the part of any agent or attorney appointed with due care by it hereunder;

(h) In no event shall the Trustee be responsible or liable for any failure or delay in the performance of its obligations hereunder arising out of or caused by, directly or indirectly, forces beyond its control, including, without limitation, strikes, work stoppages, accidents, acts of war or terrorism, civil or military disturbances, nuclear or natural catastrophes or acts of God, and interruptions, loss or malfunctions of utilities, communications or computer (software and hardware) services; it being understood that the Trustee shall use reasonable efforts which are consistent with accepted practices in the banking industry to resume performance as soon as practicable under the circumstances;

(i) In no event shall the Trustee be responsible or liable for special, indirect, or consequential loss or damage of any kind whatsoever (including, but not limited to, loss of

profit) irrespective of whether the Trustee has been advised of the likelihood of such loss or damage and regardless of the form of action; and

(j) The Trustee agrees to accept and act upon instructions or directions pursuant to this Indenture sent by unsecured e-mail, facsimile transmission or other similar unsecured electronic methods; provided, however, that (a) the party providing such written instructions, subsequent to such transmission of written instructions, shall provide the originally executed instructions or directions to the Trustee in a timely manner, and (b) such originally executed instructions or directions shall be signed by an authorized representative of the party providing such instructions or directions. If the party elects to give the Trustee e-mail or facsimile instructions (or instructions by a similar electronic method) and the Trustee in its discretion elects to act upon such instructions, the Trustee's understanding of such instructions shall be deemed controlling. The Trustee shall not be liable for any losses, costs or expenses arising directly or indirectly from the Trustee's reliance upon and compliance with such instructions notwithstanding such instructions conflict or are inconsistent with a subsequent written instruction. The party providing electronic instructions agrees to assume all risks arising out of the use of such electronic methods to submit instructions and directions to the Trustee, including without limitation the risk of the Trustee acting on unauthorized instructions, and the risk or interception and misuse by third parties.

In addition, the Trustee shall not be deemed to have knowledge of any Default or Event of Default until the Trustee shall have received written notification in the manner set forth in this Indenture or a Responsible Officer of the Trustee shall have obtained actual knowledge.

Section 7.03 Trustee Not Responsible for Recitals or Issuance or Securities.

(a) The recitals contained herein and in the Securities shall be taken as the statements of the Company, and the Trustee assumes no responsibility for the correctness of the same.

(b) The Trustee makes no representations as to the validity or sufficiency of this Indenture or of the Securities.

(c) The Trustee shall not be accountable for the use or application by the Company of any of the Securities or of the proceeds of such Securities, or for the use or application of any moneys paid over by the Trustee in accordance with any provision of this Indenture or established pursuant to Section 2.01, or for the use or application of any moneys received by any paying agent other than the Trustee.

Section 7.04 May Hold Securities.

The Trustee or any paying agent or Security Registrar, in its individual or any other capacity, may become the owner or pledgee of Securities with the same rights it would have if it were not Trustee, paying agent or Security Registrar.

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Section 7.05 Moneys Held in Trust.

Subject to the provisions of Section 11.05, all moneys received by the Trustee shall, until used or applied as herein provided, be held in trust for the purposes for which they were received, but need not be segregated from other funds except to the extent required by law. The Trustee shall be under no liability for interest on any moneys received by it hereunder except such as it may agree with the Company to pay thereon.

Section 7.06 Compensation and Reimbursement.

(a) The Company covenants and agrees to pay to the Trustee, and the Trustee shall be entitled to, such reasonable compensation (which shall not be limited by any provision of law in regard to the compensation of a trustee of an express trust) as the Company and the Trustee may from time to time agree in writing, for all services rendered by it in the execution of the trusts hereby created and in the exercise and performance of any of the powers and duties hereunder of the Trustee, and, except as otherwise expressly provided herein, the Company will pay or reimburse the Trustee upon its request for all reasonable expenses, disbursements and advances incurred or made by the Trustee in accordance with any of the provisions of this Indenture (including the reasonable compensation and the expenses and disbursements of its counsel and of all Persons not regularly in its employ), except any such expense, disbursement or advance as may arise from its negligence or bad faith and except as the Company and Trustee may from time to time agree in writing. The Company also covenants to indemnify the Trustee (and its officers, agents, directors and employees) for, and to hold it harmless against, any loss, liability or expense incurred without negligence or bad faith on the part of the Trustee and arising out of or in connection with the acceptance or administration of this trust, including the reasonable costs and expenses of defending itself against any claim of liability in the premises.

(b) The obligations of the Company under this Section to compensate and indemnify the Trustee and to pay or reimburse the Trustee for reasonable expenses, disbursements and advances shall constitute indebtedness of the Company to which the Securities are subordinated. Such additional indebtedness shall be secured by a lien prior to that of the Securities upon all property and funds held or collected by the Trustee as such, except funds held in trust for the benefit of the holders of particular Securities.

(c) To ensure the Company's payment obligations in this Section, the Trustee shall have a lien prior to the Securities on all funds or property held or collected by the Trustee, except that held in trust to pay principal of or interest on particular Securities. When the Trustee incurs expenses or renders services in connection with an Event of Default specified in Section 6.01(4) or (5), the expenses (including the reasonable fees and expenses of its counsel) and the compensation for services in connection therewith are to constitute expenses of administration under any bankruptcy law. The provisions of this Section 7.06 shall survive the termination of this Indenture and the resignation or removal of the Trustee.

Section 7.07 Reliance on Officer's Certificate.

Except as otherwise provided in Section 7.01, whenever in the administration of the provisions of this Indenture the Trustee shall deem it reasonably necessary or desirable that a

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matter be proved or established prior to taking or suffering or omitting to take any action hereunder, such matter (unless other evidence in respect thereof be herein specifically prescribed) may, in the absence of negligence or bad faith on the part of the Trustee, be deemed to be conclusively proved and established by an Officer's Certificate delivered to the Trustee and such certificate, in the absence of negligence or bad faith on the part of the Trustee, shall be full warrant to the Trustee for any action taken, suffered or omitted to be taken by it under the provisions of this Indenture upon the faith thereof.

Section 7.08 Disqualification; Conflicting Interests.

If the Trustee has or shall acquire any "conflicting interest" within the meaning of Section 310(b) of the Trust Indenture Act, the Trustee and the Company shall in all respects comply with the provisions of Section 310(b) of the Trust Indenture Act.

Section 7.09 Corporate Trustee Required; Eligibility.

There shall at all times be a Trustee with respect to the Securities issued hereunder which shall at all times be a corporation organized and doing business under the laws of the United States of America or any state or territory thereof or of the District of Columbia, or a corporation or other Person permitted to act as trustee by the Commission, authorized under such laws to exercise corporate trust powers, having a combined capital and surplus of at least fifty million U.S. dollars (\$50,000,000), and subject to supervision or examination by federal, state, territorial, or District of Columbia authority.

If such corporation or other Person publishes reports of condition at least annually, pursuant to law or to the requirements of the aforesaid supervising or examining authority, then for the purposes of this Section, the combined capital and surplus of such corporation or other Person shall be deemed to be its combined capital and surplus as set forth in its most recent report of condition so published. The Company may not, nor may any Person directly or indirectly controlling, controlled by, or under common control with the Company, serve as Trustee. In case at any time the Trustee shall cease to be eligible in accordance with the provisions of this Section, the Trustee shall resign immediately in the manner and with the effect specified in Section 7.10.

Section 7.10 Resignation and Removal; Appointment of Successor.

(a) The Trustee or any successor hereafter appointed may at any time resign with respect to the Securities of one or more series by giving written notice thereof to the Company and by transmitting notice of resignation by mail, first class postage prepaid, to the Securityholders of such series, as their names and addresses appear upon the Security Register. Upon receiving such notice of resignation, the Company shall promptly appoint a successor trustee with respect to Securities of such series by written instrument, in duplicate, executed by order of the Board of Directors, one copy of which instrument shall be delivered to the resigning Trustee and one copy to the successor trustee. If no successor trustee shall have been so appointed and have accepted appointment within 30 days after the mailing of such notice of resignation, the resigning Trustee may petition any court of competent jurisdiction for the appointment of a successor trustee with respect to Securities of such series, or any Securityholder

of that series who has been a bona fide holder of a Security or Securities for at least six months may on behalf of himself and all others similarly situated, petition any such court for the appointment of a successor trustee. Such court may thereupon after such notice, if any, as it may deem proper and prescribe, appoint a successor trustee.

(b) In case at any time any one of the following shall occur:

(i) the Trustee shall fail to comply with the provisions of Section 7.08 after written request therefor by the Company or by any Securityholder who has been a bona fide holder of a Security or Securities for at least six months; or

(ii) the Trustee shall cease to be eligible in accordance with the provisions of Section 7.09 and shall fail to resign after written request therefor by the Company or by any such Securityholder; or

(iii) the Trustee shall become incapable of acting, or shall be adjudged a bankrupt or insolvent, or commence a voluntary bankruptcy proceeding, or a receiver of the Trustee or of its property shall be appointed or consented to, or any public officer shall take charge or control of the Trustee or of its property or affairs for the purpose of rehabilitation, conservation or liquidation;

then, in any such case, the Company may remove the Trustee with respect to all Securities and appoint a successor trustee by written instrument, in duplicate, executed by order of the Board of Directors, one copy of which instrument shall be delivered to the Trustee so removed and one copy to the successor trustee, or any Securityholder who has been a bona fide holder of a Security or Securities for at least six months may, on behalf of that holder and all others similarly situated, petition any court of competent jurisdiction for the removal of the Trustee and the appointment of a successor trustee. Such court may thereupon after such notice, if any, as it may deem proper and prescribe, remove the Trustee and appoint a successor trustee.

(c) The holders of a majority in aggregate principal amount of the Securities of any series at the time Outstanding may at any time remove the Trustee with respect to such series by so notifying the Trustee and the Company and may appoint a successor Trustee for such series with the consent of the Company.

(d) Any resignation or removal of the Trustee and appointment of a successor trustee with respect to the Securities of a series pursuant to any of the provisions of this Section shall become effective upon acceptance of appointment by the successor trustee as provided in Section 7.11.

(e) Any successor trustee appointed pursuant to this Section may be appointed with respect to the Securities of one or more series or all of such series, and at any time there shall be only one Trustee with respect to the Securities of any particular series.

Section 7.11 Acceptance of Appointment By Successor.

(a) In case of the appointment hereunder of a successor trustee with respect to all Securities, every such successor trustee so appointed shall execute, acknowledge and deliver to the Company and to the retiring Trustee an instrument accepting such appointment, and thereupon the resignation or removal of the retiring Trustee shall become effective and such successor trustee, without any further act, deed or conveyance, shall become vested with all the rights, powers, trusts and duties of the retiring Trustee; but, on the request of the Company or the successor trustee, such retiring Trustee shall, upon payment of its charges, execute and deliver an instrument transferring to such successor trustee all the rights, powers, and trusts of the retiring Trustee and shall duly assign, transfer and deliver to such successor trustee all property and money held by such retiring Trustee hereunder.

(b) In case of the appointment hereunder of a successor trustee with respect to the Securities of one or more (but not all) series, the Company, the retiring Trustee and each successor trustee with respect to the Securities of one or more series shall execute and deliver an indenture supplemental hereto wherein each successor trustee shall accept such appointment and which (i) shall contain such provisions as shall be necessary or desirable to transfer and confirm to, and to vest in, each successor trustee all the rights, powers, trusts and duties of the retiring Trustee with respect to the Securities of that or those series to which the appointment of such successor trustee relates, (ii) shall contain such provisions as shall be deemed necessary or desirable to confirm that all the rights, powers, trusts and duties of the retiring Trustee with respect to the Securities of that or those series as to which the retiring Trustee is not retiring shall continue to be vested in the retiring Trustee, and (iii) shall add to or change any of the provisions of this Indenture as shall be necessary to provide for or facilitate the administration of the trusts hereunder by more than one Trustee, it being understood that nothing herein or in such supplemental indenture shall constitute such Trustees co-trustees of the same trust, that each such Trustee shall be trustee of a trust or trusts hereunder separate and apart from any trust or trusts hereunder administered by any other such Trustee and that no Trustee shall be responsible for any act or failure to act on the part of any other Trustee hereunder; and upon the execution and delivery of such supplemental indenture the resignation or removal of the retiring Trustee shall become effective to the extent provided therein, such retiring Trustee shall with respect to the Securities of that or those series to which the appointment of such successor trustee relates have no further responsibility for the exercise of rights and powers or for the performance of the duties and obligations vested in the Trustee under this Indenture, and each such successor trustee, without any further act, deed or conveyance, shall become vested with all the rights, powers, trusts and duties of the retiring Trustee with respect to the Securities of that or those series to which the appointment of such successor trustee relates; but, on request of the Company or any successor trustee, such retiring Trustee shall duly assign, transfer and deliver to such successor trustee, to the extent contemplated by such supplemental indenture, the property and money held by such retiring Trustee hereunder with respect to the Securities of that or those series to which the appointment of such successor trustee relates.

(c) Upon request of any such successor trustee, the Company shall execute any and all instruments for more fully and certainly vesting in and confirming to such successor

trustee all such rights, powers and trusts referred to in paragraph (a) or (b) of this Section, as the case may be.

(d) No successor trustee shall accept its appointment unless at the time of such acceptance such successor trustee shall be qualified and eligible under this Article.

(e) Upon acceptance of appointment by a successor trustee as provided in this Section, the Company shall transmit notice of the succession of such trustee hereunder by mail, first class postage prepaid, to the Securityholders, as their names and addresses appear upon the Security Register. If the Company fails to transmit such notice within ten days after acceptance of appointment by the successor trustee, the successor trustee shall cause such notice to be transmitted at the expense of the Company.

Section 7.12 Merger, Conversion, Consolidation or Succession to Business.

Any corporation into which the Trustee may be merged or converted or with which it may be consolidated, or any corporation resulting from any merger, conversion or consolidation to which the Trustee shall be a party, or any corporation succeeding to the corporate trust business of the Trustee, including the administration of the trust created by this Indenture, shall be the successor of the Trustee hereunder, provided that such corporation shall be qualified under the provisions of Section 7.08 and eligible under the provisions of Section 7.09, without the execution or filing of any paper or any further act on the part of any of the parties hereto, anything herein to the contrary notwithstanding. In case any Securities shall have been authenticated, but not delivered, by the Trustee then in office, any successor by merger, conversion or consolidation to such authenticating Trustee may adopt such authentication and deliver the Securities so authenticated with the same effect as if such successor Trustee had itself authenticated such Securities.

Section 7.13 Preferential Collection of Claims Against the Company.

The Trustee shall comply with Section 311(a) of the Trust Indenture Act, excluding any creditor relationship described in Section 311(b) of the Trust Indenture Act. A Trustee who has resigned or been removed shall be subject to Section 311(a) of the Trust Indenture Act to the extent included therein.

Section 7.14 Notice of Default

If any Event of Default occurs and is continuing and if such Event of Default is known to a Responsible Officer of the Trustee, the Trustee shall mail to each Securityholder in the manner and to the extent provided in Section 313(c) of the Trust Indenture Act notice of the Event of Default within the earlier of 90 days after it occurs and 30 days after it is known to a Responsible Officer of the Trustee or written notice of it is received by the Trustee, unless such Event of Default has been cured; *provided, however*, that, except in the case of a default in the payment of the principal of (or premium, if any) or interest on any Security, the Trustee shall be protected in withholding such notice if and so long as the board of directors, the executive committee or a trust committee of directors and/or Responsible Officers of the Trustee in good faith determine that the withholding of such notice is in the interest of the Securityholders.

ARTICLE 8

CONCERNING THE SECURITYHOLDERS

Section 8.01 Evidence of Action by Securityholders.

Whenever in this Indenture it is provided that the holders of a majority or specified percentage in aggregate principal amount of the Securities of a particular series may take any action (including the making of any demand or request, the giving of any notice, consent or waiver or the taking of any other action), the fact that at the time of taking any such action the holders of such majority or specified percentage of that series have joined therein may be evidenced by any instrument or any number of instruments of similar tenor executed by such holders of Securities of that series in person or by agent or proxy appointed in writing.

If the Company shall solicit from the Securityholders of any series any request, demand, authorization, direction, notice, consent, waiver or other action, the Company may, at its option, as evidenced by an Officer's Certificate, fix in advance a record date for such series for the determination of Securityholders entitled to give such request, demand, authorization, direction, notice, consent, waiver or other action, but the Company shall have no obligation to do so. If such a record date is fixed, such request, demand, authorization, direction, notice, consent, waiver or other action may be given before or after the record date, but only the Securityholders of record at the close of business on the record date shall be deemed to be Securityholders for the purposes of determining whether Securityholders of the requisite proportion of Outstanding Securities of that series have authorized or agreed or consented to such request, demand, authorization, direction, notice, consent, waiver or other action, and for that purpose the Outstanding Securities of that series shall be computed as of the record date; provided, however, that no such authorization, agreement or consent by such Securityholders on the record date shall be deemed effective unless it shall become effective pursuant to the provisions of this Indenture not later than six months after the record date.

Section 8.02 Proof of Execution by Securityholders.

Subject to the provisions of Section 7.01, proof of the execution of any instrument by a Securityholder (such proof will not require notarization) or his agent or proxy and proof of the holding by any Person of any of the Securities shall be sufficient if made in the following manner:

- (a) The fact and date of the execution by any such Person of any instrument may be proved in any reasonable manner acceptable to the Trustee.
- (b) The ownership of Securities shall be proved by the Security Register of such Securities or by a certificate of the Security Registrar thereof.

The Trustee may require such additional proof of any matter referred to in this Section as it shall deem necessary.

Section 8.03 Who May be Deemed Owners.

Prior to the due presentment for registration of transfer of any Security, the Company, the Trustee, any paying agent and any Security Registrar may deem and treat the Person in whose name such Security shall be registered upon the books of the Company as the absolute owner of such Security (whether or not such Security shall be overdue and notwithstanding any notice of ownership or writing thereon made by anyone other than the Security Registrar) for the purpose of receiving payment of or on account of the principal of, premium, if any, and (subject to Section 2.03) interest on such Security and for all other purposes; and neither the Company nor the Trustee nor any paying agent nor any Security Registrar shall be affected by any notice to the contrary.

Section 8.04 Certain Securities Owned by Company Disregarded.

In determining whether the holders of the requisite aggregate principal amount of Securities of a particular series have concurred in any direction, consent or waiver under this Indenture, the Securities of that series that are owned by the Company or any other obligor on the Securities of that series or by any Person directly or indirectly controlling or controlled by or under common control with the Company or any other obligor on the Securities of that series shall be disregarded and deemed not to be Outstanding for the purpose of any such determination, except that for the purpose of determining whether the Trustee shall be protected in relying on any such direction, consent or waiver, only Securities of such series that the Trustee actually knows are so owned shall be so disregarded. The Securities so owned that have been pledged in good faith may be regarded as Outstanding for the purposes of this Section, if the pledgee shall establish to the satisfaction of the Trustee the pledgee's right so to act with respect to such Securities and that the pledgee is not a Person directly or indirectly controlling or controlled by or under direct or indirect common control with the Company or any such other obligor. In case of a dispute as to such right, any decision by the Trustee taken upon the advice of counsel shall be full protection to the Trustee.

Section 8.05 Actions Binding on Future Securityholders.

At any time prior to (but not after) the evidencing to the Trustee, as provided in Section 8.01, of the taking of any action by the holders of the majority or percentage in aggregate principal amount of the Securities of a particular series specified in this Indenture in connection with such action, any holder of a Security of that series that is shown by the evidence to be included in the Securities the holders of which have consented to such action may, by filing written notice with the Trustee, and upon proof of holding as provided in Section 8.02, revoke such action so far as concerns such Security. Except as aforesaid any such action taken by the holder of any Security shall be conclusive and binding upon such holder and upon all future holders and owners of such Security, and of any Security issued in exchange therefor, on registration of transfer thereof or in place thereof, irrespective of whether or not any notation in regard thereto is made upon such Security. Any action taken by the holders of the majority or percentage in aggregate principal amount of the Securities of a particular series specified in this Indenture in connection with such action shall be conclusively binding upon the Company, the Trustee and the holders of all the Securities of that series.

ARTICLE 9

SUPPLEMENTAL INDENTURES

Section 9.01 Supplemental Indentures Without the Consent of Securityholders.

In addition to any supplemental indenture otherwise authorized by this Indenture, the Company and the Trustee may from time to time and at any time enter into an indenture or indentures supplemental hereto (which shall conform to the provisions of the Trust Indenture Act as then in effect), without the consent of the Securityholders, for one or more of the following purposes:

- (a) to cure any ambiguity, defect, or inconsistency herein or in the Securities of any series;
- (b) to comply with Article Ten;
- (c) to provide for uncertificated Securities in addition to or in place of certificated Securities;
- (d) to add to the covenants, restrictions, conditions or provisions relating to the Company for the benefit of the holders of all or any series of Securities (and if such covenants, restrictions, conditions or provisions are to be for the benefit of less than all series of Securities, stating that such covenants, restrictions, conditions or provisions are expressly being included solely for the benefit of such series), to make the occurrence, or the occurrence and the continuance, of a default in any such additional covenants, restrictions, conditions or provisions an Event of Default, or to surrender any right or power herein conferred upon the Company;
- (e) to add to, delete from, or revise the conditions, limitations, and restrictions on the authorized amount, terms, or purposes of issue, authentication, and delivery of Securities, as herein set forth;
- (f) to make any change that does not adversely affect the rights of any Securityholder in any material respect;
- (g) to provide for the issuance of and establish the form and terms and conditions of the Securities of any series as provided in Section 2.01, to establish the form of any certifications required to be furnished pursuant to the terms of this Indenture or any series of Securities, or to add to the rights of the holders of any series of Securities;
- (h) to evidence and provide for the acceptance of appointment hereunder by a successor trustee; or
- (i) to comply with any requirements of the Commission or any successor in connection with the qualification of this Indenture under the Trust Indenture Act.

The Trustee is hereby authorized to join with the Company in the execution of any such supplemental indenture, and to make any further appropriate agreements and stipulations that

may be therein contained, but the Trustee shall not be obligated to enter into any such supplemental indenture that affects the Trustee's own rights, duties or immunities under this Indenture or otherwise.

Any supplemental indenture authorized by the provisions of this Section may be executed by the Company and the Trustee without the consent of the holders of any of the Securities at the time Outstanding, notwithstanding any of the provisions of Section 9.02.

Section 9.02 Supplemental Indentures With Consent of Securityholders.

With the consent (evidenced as provided in Section 8.01) of the holders of not less than a majority in aggregate principal amount of the Securities of each series affected by such supplemental indenture or indentures at the time Outstanding, the Company, when authorized by a Board Resolution, and the Trustee may from time to time and at any time enter into an indenture or indentures supplemental hereto (which shall conform to the provisions of the Trust Indenture Act as then in effect) for the purpose of adding any provisions to or changing in any manner or eliminating any of the provisions of this Indenture or of any supplemental indenture or of modifying in any manner not covered by Section 9.01 the rights of the holders of the Securities of such series under this Indenture; provided, however, that no such supplemental indenture shall, without the consent of the holders of each Security then Outstanding and affected thereby, (a) extend the fixed maturity of any Securities of any series, or reduce the principal amount thereof, or reduce the rate or extend the time of payment of interest thereon, or reduce any premium payable upon the redemption thereof or (b) reduce the aforesaid percentage of Securities, the holders of which are required to consent to any such supplemental indenture.

It shall not be necessary for the consent of the Securityholders of any series affected thereby under this Section to approve the particular form of any proposed supplemental indenture, but it shall be sufficient if such consent shall approve the substance thereof.

Section 9.03 Effect of Supplemental Indentures.

Upon the execution of any supplemental indenture pursuant to the provisions of this Article or of Section 10.01, this Indenture shall, with respect to such series, be and be deemed to be modified and amended in accordance therewith and the respective rights, limitations of rights, obligations, duties and immunities under this Indenture of the Trustee, the Company and the holders of Securities of the series affected thereby shall thereafter be determined, exercised and enforced hereunder subject in all respects to such modifications and amendments, and all the terms and conditions of any such supplemental indenture shall be and be deemed to be part of the terms and conditions of this Indenture for any and all purposes.

Section 9.04 Securities Affected by Supplemental Indentures.

Securities of any series affected by a supplemental indenture, authenticated and delivered after the execution of such supplemental indenture pursuant to the provisions of this Article or of Section 10.01, may bear a notation in form approved by the Company, provided such form meets the requirements of any securities exchange upon which such series may be listed, as to any matter provided for in such supplemental indenture. If the Company shall so determine, new

Securities of that series so modified as to conform, in the opinion of the Board of Directors, to any modification of this Indenture contained in any such supplemental indenture may be prepared by the Company, authenticated by the Trustee and delivered in exchange for the Securities of that series then Outstanding.

Section 9.05 Execution of Supplemental Indentures.

Upon the request of the Company, accompanied by its Board Resolutions authorizing the execution of any such supplemental indenture, and upon the filing with the Trustee of evidence of the consent of Securityholders required to consent thereto as aforesaid, the Trustee shall join with the Company in the execution of such supplemental indenture unless such supplemental indenture affects the Trustee's own rights, duties or immunities under this Indenture or otherwise, in which case the Trustee may in its discretion but shall not be obligated to enter into such supplemental indenture. The Trustee, subject to the provisions of Section 7.01, shall receive an Officer's Certificate or an Opinion of Counsel as conclusive evidence that any supplemental indenture executed pursuant to this Article is authorized or permitted by the terms of this Article and that all conditions precedent to the execution of the supplemental indenture have been complied with; provided, however, that such Officer's Certificate or Opinion of Counsel need not be provided in connection with the execution of a supplemental indenture that establishes the terms of a series of Securities pursuant to Section 2.01 hereof.

Promptly after the execution by the Company and the Trustee of any supplemental indenture pursuant to the provisions of this Section, the Company shall (or shall direct the Trustee to) transmit by mail, first class postage prepaid, a notice, setting forth in general terms the substance of such supplemental indenture, to the Securityholders of all series affected thereby as their names and addresses appear upon the Security Register. Any failure of the Company to mail, or cause the mailing of, such notice, or any defect therein, shall not, however, in any way impair or affect the validity of any such supplemental indenture.

ARTICLE 10

SUCCESSOR ENTITY

Section 10.01 Company May Consolidate, Etc.

Nothing contained in this Indenture shall prevent any consolidation or merger of the Company with or into any other Person (whether or not affiliated with the Company) or successive consolidations or mergers in which the Company or its successor or successors shall be a party or parties, or shall prevent any sale, conveyance, transfer or other disposition of the property of the Company or its successor or successors as an entirety, or substantially as an entirety, to any other corporation (whether or not affiliated with the Company or its successor or successors) authorized to acquire and operate the same; provided, however, (a) the Company hereby covenants and agrees that, upon any such consolidation or merger (in each case, if the Company is not the survivor of such transaction), sale, conveyance, transfer or other disposition, the due and punctual payment of the principal of (premium, if any) and interest on all of the Securities of all series in accordance with the terms of each series, according to their tenor, and the due and punctual performance and observance of all the covenants and conditions of this

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Indenture with respect to each series or established with respect to such series pursuant to Section 2.01 to be kept or performed by the Company shall be expressly assumed, by supplemental indenture (which shall conform to the provisions of the Trust Indenture Act, as then in effect) reasonably satisfactory in form to the Trustee executed and delivered to the Trustee by the entity formed by such consolidation, or into which the Company shall have been merged, or by the entity which shall have acquired such property and (b) in the event that the Securities of any series then Outstanding are convertible into or exchangeable for shares of common stock or other securities of the Company, such entity shall, by such supplemental indenture, make provision so that the Securityholders of Securities of that series shall thereafter be entitled to receive upon conversion or exchange of such Securities the number of securities or property to which a holder of the number of shares of common stock or other securities of the Company deliverable upon conversion or exchange of those Securities would have been entitled had such conversion or exchange occurred immediately prior to such consolidation, merger, sale, conveyance, transfer or other disposition.

Section 10.02 Successor Entity Substituted.

(a) In case of any such consolidation, merger, sale, conveyance, transfer or other disposition and upon the assumption by the successor entity by supplemental indenture, executed and delivered to the Trustee and satisfactory in form to the Trustee, of the obligations set forth under Section 10.01 on all of the Securities of all series Outstanding, such successor entity shall succeed to and be substituted for the Company with the same effect as if it had been named as the Company herein, and thereupon the predecessor corporation shall be relieved of all obligations and covenants under this Indenture and the Securities.

(b) In case of any such consolidation, merger, sale, conveyance, transfer or other disposition, such changes in phraseology and form (but not in substance) may be made in the Securities thereafter to be issued as may be appropriate.

(c) Nothing contained in this Article shall require any action by the Company in the case of a consolidation or merger of any Person into the Company where the Company is the survivor of such transaction, or the acquisition by the Company, by purchase or otherwise, of all or any part of the property of any other Person (whether or not affiliated with the Company).

ARTICLE 11

SATISFACTION AND DISCHARGE

Section 11.01 Satisfaction and Discharge of Indenture.

If at any time: (a) the Company shall have delivered to the Trustee for cancellation all Securities of a series theretofore authenticated and not delivered to the Trustee for cancellation (other than any Securities that shall have been destroyed, lost or stolen and that shall have been replaced or paid as provided in Section 2.07 and Securities for whose payment money or Governmental Obligations have theretofore been deposited in trust or segregated and

held in trust by the Company and thereupon repaid to the Company or discharged from such trust, as provided in Section 11.05); or (b) all such Securities of a particular series not theretofore delivered to the

Trustee for cancellation shall have become due and payable, or are by their terms to become due and payable within one year or are to be called for redemption within one year under arrangements satisfactory to the Trustee for the giving of notice of redemption, and the Company shall deposit or cause to be deposited with the Trustee as trust funds the entire amount in moneys or Governmental Obligations or a combination thereof, sufficient in the opinion of a nationally recognized firm of independent public accountants expressed in a written certification thereof delivered to the Trustee, to pay at maturity or upon redemption all Securities of that series not theretofore delivered to the Trustee for cancellation, including principal (and premium, if any) and interest due or to become due to such date of maturity or date fixed for redemption, as the case may be, and if the Company shall also pay or cause to be paid all other sums payable hereunder with respect to such series by the Company then this Indenture shall thereupon cease to be of further effect with respect to such series except for the provisions of Sections 2.03, 2.05, 2.07, 4.01, 4.02, 4.03 and 7.10, that shall survive until the date of maturity or redemption date, as the case may be, and Sections 7.06 and 11.05, that shall survive to such date and thereafter, and the Trustee, on demand of the Company and at the cost and expense of the Company shall execute proper instruments acknowledging satisfaction of and discharging this Indenture with respect to such series.

Section 11.02 Discharge of Obligations.

If at any time all such Securities of a particular series not heretofore delivered to the Trustee for cancellation or that have not become due and payable as described in Section 11.01 shall have been paid by the Company by depositing irrevocably with the Trustee as trust funds moneys or an amount of Governmental Obligations sufficient to pay at maturity or upon redemption all such Securities of that series not theretofore delivered to the Trustee for cancellation, including principal (and premium, if any) and interest due or to become due to such date of maturity or date fixed for redemption, as the case may be, and if the Company shall also pay or cause to be paid all other sums payable hereunder by the Company with respect to such series, then after the date such moneys or Governmental Obligations, as the case may be, are deposited with the Trustee the obligations of the Company under this Indenture with respect to such series shall cease to be of further effect except for the provisions of Sections 2.03, 2.05, 2.07, 4.01, 4.02, 4.03, 7.06, 7.10 and 11.05 hereof that shall survive until such Securities shall mature and be paid.

Thereafter, Sections 7.06 and 11.05 shall survive.

Section 11.03 Deposited Moneys to be Held in Trust.

All moneys or Governmental Obligations deposited with the Trustee pursuant to Sections 11.01 or 11.02 shall be held in trust and shall be available for payment as due, either directly or through any paying agent (including the Company acting as its own paying agent), to the holders of the particular series of Securities for the payment or redemption of which such moneys or Governmental Obligations have been deposited with the Trustee.

Section 11.04 Payment of Moneys Held by Paying Agents.

In connection with the satisfaction and discharge of this Indenture all moneys or Governmental Obligations then held by any paying agent under the provisions of this Indenture shall, upon demand of the Company, be paid to the Trustee and thereupon such paying agent shall be released from all further liability with respect to such moneys or Governmental Obligations.

Section 11.05 Repayment to Company.

Any moneys or Governmental Obligations deposited with any paying agent or the Trustee, or then held by the Company, in trust for payment of principal of or premium, if any, or interest on the Securities of a particular series that are not applied but remain unclaimed by the holders of such Securities for at least two years after the date upon which the principal of (and premium, if any) or interest on such Securities shall have respectively become due and payable, or such other shorter period set forth in applicable escheat or abandoned or unclaimed property law, shall be repaid to the Company on May 31 of each year or upon the Company's request or (if then held by the Company) shall be discharged from such trust; and thereupon the paying agent and the Trustee shall be released from all further liability with respect to such moneys or Governmental Obligations, and the holder of any of the Securities entitled to receive such payment shall thereafter, as a general creditor, look only to the Company for the payment thereof.

ARTICLE 12

IMMUNITY OF INCORPORATORS, STOCKHOLDERS, OFFICERS AND DIRECTORS

Section 12.01 No Recourse.

No recourse under or upon any obligation, covenant or agreement of this Indenture, or of any Security, or for any claim based thereon or otherwise in respect thereof, shall be had against any incorporator, stockholder, officer or director, past, present or future as such, of the Company or of any predecessor or successor corporation, either directly or through the Company or any such predecessor or successor corporation, whether by virtue of any constitution, statute or rule of law, or by the enforcement of any assessment or penalty or otherwise; it being expressly understood that this Indenture and the obligations issued hereunder are solely corporate obligations, and that no such personal liability whatever shall attach to, or is or shall be incurred by, the incorporators, stockholders, officers or directors as such, of the Company or of any predecessor or successor corporation, or any of them, because of the creation of the indebtedness hereby authorized, or under or by reason of the obligations, covenants or agreements contained in this Indenture or in any of the Securities or implied therefrom; and that any and all such personal liability of every name and nature, either at common law or in equity or by constitution or statute, of, and any and all such rights and claims against, every such incorporator, stockholder, officer or director as such, because of the creation of the indebtedness hereby authorized, or under or by reason of the obligations, covenants or agreements contained in this Indenture or in any of the Securities or implied therefrom, are hereby expressly waived and released as a condition of, and as a consideration for, the execution of this Indenture and the issuance of such Securities.

ARTICLE 13

MISCELLANEOUS PROVISIONS

Section 13.01 Effect on Successors and Assigns.

All the covenants, stipulations, promises and agreements in this Indenture made by or on behalf of the Company shall bind its successors and assigns, whether so expressed or not.

Section 13.02 Actions by Successor.

Any act or proceeding by any provision of this Indenture authorized or required to be done or performed by any board, committee or officer of the Company shall and may be done and performed with like force and effect by the corresponding board, committee or officer of any corporation that shall at the time be the lawful successor of the Company.

Section 13.03 Surrender of Company Powers.

The Company by instrument in writing executed by authority of its Board of Directors and delivered to the Trustee may surrender any of the powers reserved to the Company, and thereupon such power so surrendered shall terminate both as to the Company and as to any successor corporation.

Section 13.04 Notices.

Except as otherwise expressly provided herein, any notice, request or demand that by any provision of this Indenture is required or permitted to be given, made or served by the Trustee or by the holders of Securities or by any other Person pursuant to this Indenture to or on the Company may be given or served by being deposited in first class mail, postage prepaid, addressed (until another address is filed in writing by the Company with the Trustee), as follows:

. Any notice, election, request or demand by the Company or any Securityholder or by any other Person pursuant to this Indenture to or upon the Trustee shall be deemed to have been sufficiently given or made, for all purposes, if given or made in writing at the Corporate Trust Office of the Trustee.

Section 13.05 Governing Law.

This Indenture and each Security shall be deemed to be a contract made under the internal laws of the State of New York, and for all purposes shall be construed in accordance with the laws of said State, except to the extent that the Trust Indenture Act is applicable.

Section 13.06 Treatment of Securities as Debt.

It is intended that the Securities will be treated as indebtedness and not as equity for federal income tax purposes. The provisions of this Indenture shall be interpreted to further this intention.

Section 13.07 Certificates and Opinions as to Conditions Precedent.

(a) Upon any application or demand by the Company to the Trustee to take any action under any of the provisions of this Indenture, the Company shall furnish to the Trustee an Officer's Certificate stating that all conditions precedent provided for in this Indenture (other than the certificate to be delivered pursuant to Section 13.12) relating to the proposed action have been complied with and, if requested, an Opinion of Counsel stating that in the opinion of such counsel all such conditions precedent have been complied with, except that in the case of any such application or demand as to which the furnishing of such documents is specifically required by any provision of this Indenture relating to such particular application or demand, no additional certificate or opinion need be furnished.

(b) Each certificate or opinion provided for in this Indenture and delivered to the Trustee with respect to compliance with a condition or covenant in this Indenture shall include (i) a statement that the Person making such certificate or opinion has read such covenant or condition; (ii) a brief statement as to the nature and scope of the examination or investigation upon which the statements or opinions contained in such certificate or opinion are based; (iii) a statement that, in the opinion of such Person, he has made such examination or investigation as is reasonably necessary to enable him to express an informed opinion as to whether or not such covenant or condition has been complied with; and (iv) a statement as to whether or not, in the opinion of such Person, such condition or covenant has been complied with.

Section 13.08 Payments on Business Days.

Except as provided pursuant to Section 2.01 pursuant to a Board Resolution, and set forth in an Officer's Certificate, or established in one or more indentures supplemental to this Indenture, in any case where the date of maturity of interest or principal of any Security or the date of redemption of any Security shall not be a Business Day, then payment of interest or principal (and premium, if any) may be made on the next succeeding Business Day with the same force and effect as if made on the nominal date of maturity or redemption, and no interest shall accrue for the period after such nominal date.

Section 13.09 Conflict with Trust Indenture Act.

If and to the extent that any provision of this Indenture limits, qualifies or conflicts with the duties imposed by Sections 310 to 317, inclusive, of the Trust Indenture Act, such imposed duties shall control.

Section 13.10 Counterparts.

This Indenture may be executed in any number of counterparts, each of which shall be an original, but such counterparts shall together constitute but one and the same instrument.

Section 13.11 Separability.

In case any one or more of the provisions contained in this Indenture or in the Securities of any series shall for any reason be held to be invalid, illegal or unenforceable in any respect,

such invalidity, illegality or unenforceability shall not affect any other provisions of this Indenture or of such Securities, but this Indenture and such Securities shall be construed as if such invalid or illegal or unenforceable provision had never been contained herein or therein.

Section 13.12 Compliance Certificates.

The Company shall deliver to the Trustee, within 120 days after the end of each fiscal year during which any Securities of any series were outstanding, an officer's certificate stating whether or not the signers know of any Event of Default that occurred during such fiscal year. Such certificate shall contain a certification from the principal executive officer, principal financial officer or principal accounting officer of the Company that a review has been conducted of the activities of the Company and the Company's performance under this Indenture and that the Company has complied with all conditions and covenants under this Indenture. For purposes of this Section 13.12, such compliance shall be determined without regard to any period of grace or requirement of notice provided under this Indenture. If the officer of the Company signing such certificate has knowledge of such an Event of Default, the certificate shall describe any such Event of Default and its status.

ARTICLE 14

SUBORDINATION OF SECURITIES

Section 14.01 Subordination Terms.

The payment by the Company of the principal of, premium, if any, and interest on any series of Securities issued hereunder shall be subordinated to the extent set forth in an indenture supplemental hereto relating to such series.

IN WITNESS WHEREOF, the parties hereto have caused this Indenture to be duly executed all as of the day and year first above written.

AMAG PHARMACEUTICALS, INC.

By: _____

Name: _____

Title: _____

[TRUSTEE], as Trustee

By: _____

Name: _____

Title: _____

CROSS-REFERENCE TABLE (1)

Section of Trust Indenture Act of 1939, as Amended	Section of Indenture
310(a)	7.09
310(b)	7.08
	7.10
310(c)	Inapplicable
311(a)	7.13
311(b)	7.13
311(c)	Inapplicable
312(a)	5.01
	5.02(a)
312(b)	5.02(c)
312(c)	5.02(c)
313(a)	5.04(a)
313(b)	5.04(b)
313(c)	5.04(a)
	5.04(b)
313(d)	5.04(c)
314(a)	5.03
	13.12
314(b)	Inapplicable
314(c)	13.07(a)
314(d)	Inapplicable
314(e)	13.07(b)
314(f)	Inapplicable
315(a)	7.01(a)
	7.01(b)
315(b)	7.14
315(c)	7.01
315(d)	7.01(b)
315(e)	6.07
316(a)	6.06
	8.04
316(b)	6.04
316(c)	8.01
317(a)	6.02
317(b)	4.03
318(a)	13.09

(1) This Cross-Reference Table does not constitute part of the Indenture and shall not have any bearing on the interpretation of any of its terms or provisions.

June 13, 2018

AMAG Pharmaceuticals, Inc.
1100 Winter Street
Waltham, MA 02451

Re: Securities Being Registered under Registration Statement on Form S-3

Ladies and Gentlemen:

We have acted as counsel to you in connection with your filing of a Registration Statement on Form S-3 (as amended or supplemented, the "Registration Statement") pursuant to the Securities Act of 1933, as amended (the "Securities Act"), relating to the registration of any combination of (i) common stock, par value \$0.01 per share (the "Common Stock"), of AMAG Pharmaceuticals, Inc., a Delaware corporation (the "Company"), (ii) preferred stock, par value \$0.01 per share, of the Company (the "Preferred Stock"), (iii) debt securities of the Company ("Debt Securities"), (iv) warrants to purchase Common Stock and/or Preferred Stock ("Warrants") and (v) units comprised of Common Stock, Preferred Stock and/or Warrants in any combination ("Units"). The Common Stock, Preferred Stock, Debt Securities, Warrants and Units are sometimes referred to collectively herein as the "Securities." Securities may be issued in an unspecified number (with respect to Common Stock, Preferred Stock, Warrants and Units) or in an unspecified principal amount (with respect to Debt Securities). The Registration Statement provides that the Securities may be offered separately or together, in separate series, in amounts, at prices and on terms to be set forth in one or more prospectus supplements (each a "Prospectus Supplement") to the prospectus contained in the Registration Statement.

We have reviewed such documents and made such examination of law as we have deemed appropriate to give the opinions set forth below. We have relied, without independent verification, on certificates of public officials and, as to matters of fact material to the opinions set forth below, on certificates of officers of the Company.

The opinions set forth below are limited to the Delaware General Corporation Law and the law of New York.

For purposes of the opinions set forth below, without limiting any other exceptions or qualifications set forth herein, we have assumed that after the issuance of any Securities offered pursuant to the Registration Statement, the total number of issued shares of Common Stock or Preferred Stock, as applicable, together with the total number of shares of such stock issuable upon the exercise, exchange, conversion or settlement, as the case may be, of any exercisable, exchangeable or convertible security (including without limitation any Unit), as the case may be,

then outstanding, will not exceed the total number of authorized shares of Common Stock or Preferred Stock, as applicable, available for issuance under the Company's certificate of incorporation as then in effect (the "Charter").

For purposes of the opinions set forth below, we refer to the following as the "Future Authorization and Issuance" of Securities:

- with respect to any of the Securities, (a) the authorization by the Company of the amount, terms and issuance of such Securities (the "Authorization") and (b) the issuance of such Securities in accordance with the Authorization therefor upon the receipt by the Company of the consideration (which, in the case of shares of Common Stock or Preferred Stock, is not less than the par value of such shares) to be paid therefor in accordance with the Authorization;
- with respect to Preferred Stock, (a) the establishment of the terms of such Preferred Stock by the Company in conformity with the Charter and applicable law and (b) the execution, acknowledgement and filing with the Delaware Secretary of State, and the effectiveness of, a certificate of designations to the Charter setting forth the terms of such Preferred Stock in accordance with the Charter and applicable law;
- with respect to Debt Securities, (a) the authorization, execution and delivery of the indenture or a supplemental indenture relating to such Securities by the Company and the trustee thereunder and/or (b) the establishment of the terms of such Securities by the Company in conformity with the applicable indenture or supplemental indenture and applicable law, and (c) the execution, authentication and issuance of such Securities in accordance with the applicable indenture or supplemental indenture and applicable law; and
- with respect to Warrants or Units, (a) the authorization, execution and delivery by the Company and the other parties thereto of any agreement under which such Securities are to be issued and (b) the establishment of the terms of such Securities, and the execution and delivery of such Securities, in conformity with any applicable agreement under which such Securities are to be issued and applicable law.

Based upon the foregoing, and subject to the additional qualifications set forth below, we are of the opinion that:

1. Upon the Future Authorization and Issuance of shares of Common Stock, such shares of Common Stock will be validly issued, fully paid and nonassessable.

2. Upon the Future Authorization and Issuance of shares of Preferred Stock, such shares of Preferred Stock will be validly issued, fully paid and nonassessable.
3. Upon the Future Authorization and Issuance of Debt Securities, such Debt Securities will be valid and binding obligations of the Company.
4. Upon the Future Authorization and Issuance of Warrants, such Warrants will be valid and binding obligations of the Company.
5. Upon the Future Authorization and Issuance of Units, such Units will be valid and binding obligations of the Company.

The opinions expressed above are subject to bankruptcy, insolvency, fraudulent transfer, reorganization, moratorium and other similar laws of general application affecting the rights and remedies of creditors and to general principles of equity.

This opinion letter and the opinions it contains shall be interpreted in accordance with the Legal Opinion Principles issued by the Committee on Legal Opinions of the American Bar Association's Business Law Section as published in 53 Business Lawyer 831 (May 1998).

We hereby consent to the inclusion of this opinion as Exhibit 5.1 to the Registration Statement and to the references to our firm under the caption "Legal Matters" in the Registration Statement. In giving our consent, we do not admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations thereunder.

Very truly yours,

/S/ Goodwin Procter LLP

GOODWIN PROCTER LLP

AMAG Pharmaceuticals, Inc.
Statement of Computation of Ratio of Earnings to Fixed Charges
(in thousands, except ratios)

	Three Months Ended March, 31	Year Ended December 31,				
	2018	2017	2016	2015	2014	2013
Earnings:						
Income (loss) before income taxes	\$ (60,221)	\$ (370,094)	\$ 9,055	\$ 39,844	\$ (17,342)	\$ (9,602)
Fixed Charges	12,735	56,372	74,176	54,246	15,247	657
Total earnings	<u>\$ (47,486)</u>	<u>\$ (313,722)</u>	<u>\$ 83,231</u>	<u>\$ 94,090</u>	<u>\$ (2,095)</u>	<u>\$ (8,945)</u>
Fixed Charges:						
Interest expense	\$ 12,097	\$ 53,980	\$ 73,153	\$ 53,251	\$ 14,697	\$ —
Estimated interest component of rental expense	638	2,392	1,023	995	550	657
Total fixed charges	<u>\$ 12,735</u>	<u>\$ 56,372</u>	<u>\$ 74,176</u>	<u>\$ 54,246</u>	<u>\$ 15,247</u>	<u>\$ 657</u>
Ratio of earnings to fixed charges						
(1)	<u>—(2)</u>	<u>—(3)</u>	<u>1.12x</u>	<u>1.73x</u>	<u>—(4)</u>	<u>—(5)</u>

(1) The ratio of earnings to fixed charges is calculated pursuant to the instructions of Item 503 of Regulation S-K and by dividing earnings by fixed charges. For this purpose, "earnings" are determined by adding fixed charges to our income (loss) before income taxes, and "fixed charges" consists of interest expense on our indebtedness as well as the estimated interest component of rental expense (one-third of rent expense, a reasonable approximation of the interest factor) under our operating leases.

(2) Our earnings were insufficient to cover our fixed charges during the three months ended March 31, 2018 by \$60.2 million.

(3) Our earnings were insufficient to cover our fixed charges during the year ended December 31, 2017 by \$370.1 million.

(4) Our earnings were insufficient to cover our fixed charges during the year ended December 31, 2014 by \$17.3 million.

(5) Our earnings were insufficient to cover our fixed charges during the year ended December 31, 2013 by \$9.6 million.

[QuickLinks](#) -- Click here to rapidly navigate through this document

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-3 of AMAG Pharmaceuticals, Inc. of our report dated February 28, 2018, relating to the financial statements and the effectiveness of internal control over financial reporting, which appears in AMAG Pharmaceuticals, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2017. We also consent to the reference to us under the heading "Experts" in such Registration Statement.

/s/ PricewaterhouseCoopers LLP
Boston, Massachusetts
June 13, 2018

QuickLinks

[Exhibit 23.1](#)

[CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM](#)

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM T-1

Check if an Application to Determine Eligibility of a Trustee Pursuant to Section 305(b)(2)

WILMINGTON TRUST, NATIONAL ASSOCIATION

(Exact name of trustee as specified in its charter)

16-1486454

(I.R.S. employer identification no.)

1100 North Market Street

Wilmington, DE 19890-0001

(Address of principal executive offices)

Janet V Banks

Assistant Vice President

1100 North Market Street

Wilmington, Delaware 19890-0001

(302) 636-4261

(Name, address and telephone number of agent for service)

AMAG PHARMACEUTICALS, INC.

Delaware

(State or other jurisdiction of incorporation or organization)

04-2742593

(I.R.S. Employer Identification No.)

1100 Winter Street

Waltham, Massachusetts 02451

(617) 498-3300

Debt Securities

(Title of the indenture securities)

ITEM 1. GENERAL INFORMATION.

Furnish the following information as to the trustee:

- (a) Name and address of each examining or supervising authority to which it is subject.

Comptroller of Currency, Washington, D.C.
Federal Deposit Insurance Corporation, Washington, D.C.

- (b) Whether it is authorized to exercise corporate trust powers.
The trustee is authorized to exercise corporate trust powers.

ITEM 2. AFFILIATIONS WITH THE OBLIGOR.

If the obligor is an affiliate of the trustee, describe each affiliation:

Based upon an examination of the books and records of the trustee and information available to the trustee, the obligor is not an affiliate of the trustee.

ITEM 3 – 15. Not applicable.

ITEM 16. LIST OF EXHIBITS.

Listed below are all exhibits filed as part of this Statement of Eligibility and Qualification.

1. A copy of the Charter for Wilmington Trust, National Association, attached hereto as Exhibit 1 of this Form T-1.
 2. The authority of Wilmington Trust, National Association to commence business was granted under the Charter for Wilmington Trust, National Association, incorporated herein by reference to Exhibit 1 above.
 3. The authorization to exercise corporate trust powers was granted under the Charter for Wilmington Trust, National Association, incorporated herein by reference to Exhibit 1 above.
 4. A copy of the existing By-Laws of Wilmington Trust, National Association, as now in effect, attached hereto as Exhibit 4 of this Form T-1.
 5. Not applicable.
 6. The consent of Wilmington Trust, National Association as required by Section 321(b) of the Trust Indenture Act of 1939, attached hereto as Exhibit 6 of this Form T-1.
 7. Current Report of the Condition of Wilmington Trust, National Association, published pursuant to law or the requirements of its supervising or examining authority, attached hereto as Exhibit 7 of this Form T-1.
 8. Not applicable.
 9. Not applicable.
-

SIGNATURE

Pursuant to the requirements of the Trust Indenture Act of 1939, as amended, the trustee, Wilmington Trust, National Association, a national banking association organized and existing under the laws of the United States of America, has duly caused this Statement of Eligibility to be signed on its behalf by the undersigned, thereunto duly authorized, all in the City of Minneapolis and State of Minnesota on the 13th day of June, 2018.

WILMINGTON TRUST, NATIONAL ASSOCIATION

By: /s/ Lynn M. Steiner

Name: Lynn M. Steiner

Title: Vice President

EXHIBIT 1

CHARTER OF WILMINGTON TRUST, NATIONAL ASSOCIATION

**ARTICLES OF ASSOCIATION
OF
WILMINGTON TRUST, NATIONAL ASSOCIATION**

For the purpose of organizing an association to perform any lawful activities of national banks, the undersigned do enter into the following articles of association:

FIRST. The title of this association shall be Wilmington Trust, National Association.

SECOND. The main office of the association shall be in the City of Wilmington, County of New Castle, State of Delaware. The general business of the association shall be conducted at its main office and its branches.

THIRD. The board of directors of this association shall consist of not less than five nor more than twenty-five persons, unless the OCC has exempted the bank from the 25-member limit. The exact number is to be fixed and determined from time to time by resolution of a majority of the full board of directors or by resolution of a majority of the shareholders at any annual or special meeting thereof. Each director shall own common or preferred stock of the association or of a holding company owning the association, with an aggregate par, fair market or equity value \$1,000. Determination of these values may be based as of either (i) the date of purchase or (ii) the date the person became a director, whichever value is greater. Any combination of common or preferred stock of the association or holding company may be used.

Any vacancy in the board of directors may be filled by action of a majority of the remaining directors between meetings of shareholders. The board of directors may not increase the number of directors between meetings of shareholders to a number which:

- 1) exceeds by more than two the number of directors last elected by shareholders where the number was 15 or less; or
- 2) exceeds by more than four the number of directors last elected by shareholders where the number was 16 or more, but in no event shall the number of directors exceed 25, unless the OCC has exempted the bank from the 25-member limit.

Directors shall be elected for terms of one year and until their successors are elected and qualified. Terms of directors, including directors selected to fill vacancies, shall expire at the next regular meeting of shareholders at which directors are elected, unless the directors resign or are removed from office. Despite the expiration of a director's term, the director shall continue to serve until his or her successor is elected and qualifies or until there is a decrease in the number of directors and his or her position is eliminated.

Honorary or advisory members of the board of directors, without voting power or power of final decision in matters concerning the business of the association, may be appointed by resolution of a majority of the full board of directors, or by resolution of shareholders at any annual or special meeting. Honorary or advisory directors shall not be counted to determine the number of directors of the association or the presence of a quorum in connection with any board action, and shall not be required to own qualifying shares.

FOURTH. There shall be an annual meeting of the shareholders to elect directors and transact whatever other business may be brought before the meeting. It shall be held at the main office or any

other convenient place the board of directors may designate, on the day of each year specified therefor in the bylaws, or, if that day falls on a legal holiday in the state in which the association is located, on the next following banking day. If no election is held on the day fixed, or in the event of a legal holiday on the following banking day, an election may be held on any subsequent day within 60 days of the day fixed, to be designated by the board of directors, or, if the directors fail to fix the day, by shareholders representing two-thirds of the shares issued and outstanding. In all cases at least 10 days advance notice of the time, place and purpose of a shareholders' meeting shall be given to the shareholders by first class mail, unless the OCC determines that an emergency circumstance exists. The sole shareholder of the bank is permitted to waive notice of the shareholders' meeting.

In all elections of directors, the number of votes each common shareholder may cast will be determined by multiplying the number of shares such shareholder owns by the number of directors to be elected. Those votes may be cumulated and cast for a single candidate or may be distributed among two or more candidates in the manner selected by the shareholder. If, after the first ballot, subsequent ballots are necessary to elect directors, a shareholder may not vote shares that he or she has already fully cumulated and voted in favor of a successful candidate. On all other questions, each common shareholder shall be entitled to one vote for each share of stock held by him or her.

Nominations for election to the board of directors may be made by the board of directors or by any stockholder of any outstanding class of capital stock of the association entitled to vote for election of directors. Nominations other than those made by or on behalf of the existing management shall be made in writing and be delivered or mailed to the president of the association not less than 14 days nor more than 50 days prior to any meeting of shareholders called for the election of directors; provided, however, that if less than 21 days' notice of the meeting is given to shareholders, such nominations shall be mailed or delivered to the president of the association not later than the close of business on the seventh day following the day on which the notice of meeting was mailed. Such notification shall contain the following information to the extent known to the notifying shareholder:

- 1) The name and address of each proposed nominee.
- 2) The principal occupation of each proposed nominee.
- 3) The total number of shares of capital stock of the association that will be voted for each proposed nominee.
- 4) The name and residence address of the notifying shareholder.
- 5) The number of shares of capital stock of the association owned by the notifying shareholder.

Nominations not made in accordance herewith may, in his/her discretion, be disregarded by the chairperson of the meeting, and the vote tellers may disregard all votes cast for each such nominee. No bylaw may unreasonably restrict the nomination of directors by shareholders.

A director may resign at any time by delivering written notice to the board of directors, its chairperson, or to the association, which resignation shall be effective when the notice is delivered unless the notice specifies a later effective date.

A director may be removed by shareholders at a meeting called to remove the director, when notice of the meeting stating that the purpose or one of the purposes is to remove the director is provided, if there is a failure to fulfill one of the affirmative requirements for qualification, or for cause; provided, however, that a director may not be removed if the number of votes sufficient to elect the director under cumulative voting is voted against the director's removal.

FIFTH. The authorized amount of capital stock of this association shall be ten thousand shares of common stock of the par value of one hundred dollars (\$100) each; but said capital stock may be increased or decreased from time to time, according to the provisions of the laws of the United States.

No holder of shares of the capital stock of any class of the association shall have any preemptive or preferential right of subscription to any shares of any class of stock of the association, whether now or hereafter authorized, or to any obligations convertible into stock of the association, issued, or sold, nor any right of subscription to any thereof other than such, if any, as the board of directors, in its discretion, may from time to time determine and at such price as the board of directors may from time to time fix. Preemptive rights also must be approved by a vote of holders of two-thirds of the bank's outstanding voting shares. Unless otherwise specified in these articles of association or required by law, (1) all matters requiring shareholder action, including amendments to the articles of association, must be approved by shareholders owning a majority voting interest in the outstanding voting stock, and (2) each shareholder shall be entitled to one vote per share.

Unless otherwise specified in these articles of association or required by law, all shares of voting stock shall be voted together as a class, on any matters requiring shareholder approval. If a proposed amendment would affect two or more classes or series in the same or a substantially similar way, all the classes or series so affected must vote together as a single voting group on the proposed amendment.

Shares of one class or series may be issued as a dividend for shares of the same class or series on a pro rata basis and without consideration. Shares of one class or series may be issued as share dividends for a different class or series of stock if approved by a majority of the votes entitled to be cast by the class or series to be issued, unless there are no outstanding shares of the class or series to be issued. Unless otherwise provided by the board of directors, the record date for determining shareholders entitled to a share dividend shall be the date authorized by the board of directors for the share dividend.

Unless otherwise provided in the bylaws, the record date for determining shareholders entitled to notice of and to vote at any meeting is the close of business on the day before the first notice is mailed or otherwise sent to the shareholders, provided that in no event may a record date be more than 70 days before the meeting.

If a shareholder is entitled to fractional shares pursuant to a stock dividend, consolidation or merger, reverse stock split or otherwise, the association may: (a) issue fractional shares; (b) in lieu of the issuance of fractional shares, issue script or warrants entitling the holder to receive a full share upon surrendering enough script or warrants to equal a full share; (c) if there is an established and active market in the association's stock, make reasonable arrangements to provide the shareholder with an opportunity to realize a fair price through sale of the fraction, or purchase of the additional fraction required for a full share; (d) remit the cash equivalent of the fraction to the shareholder; or (e) sell full shares representing all the fractions at public auction or to the highest bidder after having solicited and received sealed bids from at least three licensed stock brokers; and distribute the proceeds pro rata to shareholders who otherwise would be entitled to the fractional shares. The holder of a fractional share is entitled to exercise the rights for shareholder, including the right to vote, to receive dividends, and to participate in the assets of the association upon liquidation, in proportion to the fractional interest. The holder of script or warrants is not entitled to any of these rights unless the script or warrants explicitly provide for such rights. The script or warrants may be subject to such additional conditions as: (1) that the script or warrants will become void if not exchanged for full shares before a specified date; and (2) that the shares for which the script or warrants are exchangeable may be sold at the option of the association and the proceeds paid to scripsholders.

The association, at any time and from time to time, may authorize and issue debt obligations, whether or not subordinated, without the approval of the shareholders. Obligations classified as debt, whether or not subordinated, which may be issued by the association without the approval of shareholders, do not carry voting rights on any issue, including an increase or decrease in the aggregate number of the securities, or the exchange or reclassification of all or part of securities into securities of another class or series.

SIXTH. The board of directors shall appoint one of its members president of this association, and one of its members chairperson of the board and shall have the power to appoint one or more vice presidents, a secretary who shall keep minutes of the directors' and shareholders' meetings and be responsible for authenticating the records of the association, and such other officers and employees as may be required to transact the business of this association.

A duly appointed officer may appoint one or more officers or assistant officers if authorized by the board of directors in accordance with the bylaws.

The board of directors shall have the power to:

- 1) Define the duties of the officers, employees, and agents of the association.
- 2) Delegate the performance of its duties, but not the responsibility for its duties, to the officers, employees, and agents of the association.
- 3) Fix the compensation and enter into employment contracts with its officers and employees upon reasonable terms and conditions consistent with applicable law.
- 4) Dismiss officers and employees.
- 5) Require bonds from officers and employees and to fix the penalty thereof.
- 6) Ratify written policies authorized by the association's management or committees of the board.
- 7) Regulate the manner in which any increase or decrease of the capital of the association shall be made, provided that nothing herein shall restrict the power of shareholders to increase or decrease the capital of the association in accordance with law, and nothing shall raise or lower from two-thirds the percentage required for shareholder approval to increase or reduce the capital.
- 8) Manage and administer the business and affairs of the association.
- 9) Adopt initial bylaws, not inconsistent with law or the articles of association, for managing the business and regulating the affairs of the association.
- 10) Amend or repeal bylaws, except to the extent that the articles of association reserve this power in whole or in part to shareholders.
- 11) Make contracts.
- 12) Generally perform all acts that are legal for a board of directors to perform.

SEVENTH. The board of directors shall have the power to change the location of the main office to any other place within the limits of Wilmington, Delaware, without the approval of the shareholders, or with a vote of shareholders owning two-thirds of the stock of such association for a relocation outside such limits and upon receipt of a certificate of approval from the Comptroller of the Currency, to any other location within or outside the limits of Wilmington Delaware, but not more than 30 miles beyond such limits. The board of directors shall have the power to establish or change the location of any branch or branches of the association to any other location permitted under applicable law, without approval of shareholders, subject to approval by the Comptroller of the Currency.

EIGHTH. The corporate existence of this association shall continue until termination according to the laws of the United States.

NINTH. The board of directors of this association, or any one or more shareholders owning, in the aggregate, not less than 50 percent of the stock of this association, may call a special meeting of shareholders at any time. Unless otherwise provided by the bylaws or the laws of the United States, a notice of the time, place, and purpose of every annual and special meeting of the shareholders shall be given at least 10 days prior to the meeting by first-class mail, unless the OCC determines that an emergency circumstance exists. If the association is a wholly-owned subsidiary, the sole shareholder may waive notice of the shareholders' meeting. Unless otherwise provided by the bylaws or these articles, any action requiring approval of shareholders must be effected at a duly called annual or special meeting.

TENTH. For purposes of this Article Tenth, the term "institution-affiliated party" shall mean any institution-affiliated party of the association as such term is defined in 12 U.S.C. 1813(u).

Any institution-affiliated party (or his or her heirs, executors or administrators) may be indemnified or reimbursed by the association for reasonable expenses actually incurred in connection with any threatened, pending or completed actions or proceedings and appeals therein, whether civil, criminal, governmental, administrative or investigative, in accordance with and to the fullest extent permitted by law, as such law now or hereafter exists; provided, however, that when an administrative proceeding or action instituted by a federal banking agency results in a final order or settlement pursuant to which such person: (i) is assessed a civil money penalty, (ii) is removed from office or prohibited from participating in the conduct of the affairs of the association, or (iii) is required to cease and desist from or to take any affirmative action described in 12 U.S.C. 1818(b) with respect to the association, then the association shall require the repayment of all legal fees and expenses advanced pursuant to the next succeeding paragraph and may not indemnify such institution-affiliated parties (or their heirs, executors or administrators) for expenses, including expenses for legal fees, penalties or other payments incurred. The association shall provide indemnification in connection with an action or proceeding (or part thereof) initiated by an institution-affiliated party (or by his or her heirs, executors or administrators) only if such action or proceeding (or part thereof) was authorized by the board of directors.

Expenses incurred by an institution-affiliated party (or by his or her heirs, executors or administrators) in connection with any action or proceeding under 12 U.S.C. 164 or 1818 may be paid by the association in advance of the final disposition of such action or proceeding upon (a) a determination by the board of directors acting by a quorum consisting of directors who are not parties to such action or proceeding that the institution-affiliated party (or his or her heirs, executors or administrators) has a reasonable basis for prevailing on the merits, (b) a determination that the indemnified individual (or his or her heirs, executors or administrators) will have the financial capacity to reimburse the bank in the event he or she does not prevail, (c) a determination that the payment of expenses and fees by the association will not adversely affect the safety and soundness of the association, and (d) receipt of an undertaking by or on behalf of such institution-affiliated party (or by his or her heirs, executors or administrators) to repay such advancement in the event of a final order or settlement pursuant to which such person: (i) is assessed a civil money penalty, (ii) is removed from office or prohibited from participating in the conduct of the affairs of the association, or (iii) is required to cease and desist from or to take any affirmative action described in 12 U.S.C. 1818(b) with respect to the association. In all other instances, expenses incurred by an institution-affiliated party (or by his or her heirs, executors or administrators) in connection with any action or proceeding as to which indemnification may be given under these articles of association may be paid by the association in advance of the final disposition of such action or proceeding upon (a) receipt of an undertaking by or on behalf of such institution-affiliated party (or by or on behalf of his or her heirs, executors or administrators) to repay such advancement in the event that

such institution-affiliated party (or his or her heirs, executors or administrators) is ultimately found not to be entitled to indemnification as authorized by these articles of association and (b) approval by the board of directors acting by a quorum consisting of directors who are not parties to such action or proceeding or, if such a quorum is not obtainable, then approval by stockholders. To the extent permitted by law, the board of directors or, if applicable, the stockholders, shall not be required to find that the institution-affiliated party has met the applicable standard of conduct provided by law for indemnification in connection with such action or proceeding.

In the event that a majority of the members of the board of directors are named as respondents in an administrative proceeding or civil action and request indemnification, the remaining members of the board may authorize independent legal counsel to review the indemnification request and provide the remaining members of the board with a written opinion of counsel as to whether the conditions delineated in the first four paragraphs of this Article Tenth have been met. If independent legal counsel opines that said conditions have been met, the remaining members of the board of directors may rely on such opinion in authorizing the requested indemnification.

In the event that all of the members of the board of directors are named as respondents in an administrative proceeding or civil action and request indemnification, the board shall authorize independent legal counsel to review the indemnification request and provide the board with a written opinion of counsel as to whether the conditions delineated in the first four paragraphs of this Article Tenth have been met. If legal counsel opines that said conditions have been met, the board of directors may rely on such opinion in authorizing the requested indemnification.

To the extent permitted under applicable law, the rights of indemnification and to the advancement of expenses provided in these articles of association (a) shall be available with respect to events occurring prior to the adoption of these articles of association, (b) shall continue to exist after any restrictive amendment of these articles of association with respect to events occurring prior to such amendment, (c) may be interpreted on the basis of applicable law in effect at the time of the occurrence of the event or events giving rise to the action or proceeding, or on the basis of applicable law in effect at the time such rights are claimed, and (d) are in the nature of contract rights which may be enforced in any court of competent jurisdiction as if the association and the institution-affiliated party (or his or her heirs, executors or administrators) for whom such rights are sought were parties to a separate written agreement.

The rights of indemnification and to the advancement of expenses provided in these articles of association shall not, to the extent permitted under applicable law, be deemed exclusive of any other rights to which any such institution affiliated party (or his or her heirs, executors or administrators) may now or hereafter be otherwise entitled whether contained in these articles of association, the bylaws, a resolution of stockholders, a resolution of the board of directors, or an agreement providing such indemnification, the creation of such other rights being hereby expressly authorized. Without limiting the generality of the foregoing, the rights of indemnification and to the advancement of expenses provided in these articles of association shall not be deemed exclusive of any rights, pursuant to statute or otherwise, of any such institution-affiliated party (or of his or her heirs, executors or administrators) in any such action or proceeding to have assessed or allowed in his or her favor, against the association or otherwise, his or her costs and expenses incurred therein or in connection therewith or any part thereof.

If this Article Tenth or any part hereof shall be held unenforceable in any respect by a court of competent jurisdiction, it shall be deemed modified to the minimum extent necessary to make it enforceable, and the remainder of this Article Tenth shall remain fully enforceable.

The association may, upon affirmative vote of a majority of its board of directors, purchase insurance to indemnify its institution-affiliated parties to the extent that such indemnification is allowed in these articles of association; provided, however, that no such insurance shall include coverage to pay or reimburse any institution-affiliated party for the cost of any judgment or civil money penalty assessed against such person in an administrative proceeding or civil action commenced by any federal banking agency. Such insurance may, but need not, be for the benefit of all institution-affiliated parties.

ELEVENTH. These articles of association may be amended at any regular or special meeting of the shareholders by the affirmative vote of the holders of a majority of the stock of this association, unless the vote of the holders of a greater amount of stock is required by law, and in that case by the vote of the holders of such greater amount. The association's board of directors may propose one or more amendments to the articles of association for submission to the shareholders.

EXHIBIT 4

BY-LAWS OF WILMINGTON TRUST, NATIONAL ASSOCIATION

**AMENDED AND RESTATED BYLAWS
OF
WILMINGTON TRUST, NATIONAL ASSOCIATION**

(Effective as of April 18, 2017)

**ARTICLE I
Meetings of Shareholders**

Section 1. Annual Meeting. The annual meeting of the shareholders to elect directors and transact whatever other business may properly come before the meeting shall be held at the main office of the association, Rodney Square North, 1100 Market Street, City of Wilmington, State of Delaware, at 1:00 o'clock p.m. on the first Tuesday in March of each year, or at such other place and time as the board of directors may designate, or if that date falls on a legal holiday in Delaware, on the next following banking day. Notice of the meeting shall be mailed by first class mail, postage prepaid, at least 10 days and no more than 60 days prior to the date thereof, addressed to each shareholder at his/her address appearing on the books of the association. If, for any cause, an election of directors is not made on that date, or in the event of a legal holiday, on the next following banking day, an election may be held on any subsequent day within 60 days of the date fixed, to be designated by the board of directors, or, if the directors fail to fix the date, by shareholders representing two-thirds of the shares. In these circumstances, at least 10 days' notice must be given by first class mail to shareholders.

Section 2. Special Meetings. Except as otherwise specifically provided by statute, special meetings of the shareholders may be called for any purpose at any time by the board of directors or by any one or more shareholders owning, in the aggregate, not less than fifty percent of the stock of the association. Every such special meeting, unless otherwise provided by law, shall be called by mailing, postage prepaid, not less than 10 days nor more than 60 days prior to the date fixed for the meeting, to each shareholder at the address appearing on the books of the association a notice stating the purpose of the meeting.

The board of directors may fix a record date for determining shareholders entitled to notice and to vote at any meeting, in reasonable proximity to the date of giving notice to the shareholders of such meeting. The record date for determining shareholders entitled to demand a special meeting is the date the first shareholder signs a demand for the meeting describing the purpose or purposes for which it is to be held.

A special meeting may be called by shareholders or the board of directors to amend the articles of association or bylaws, whether or not such bylaws may be amended by the board of directors in the absence of shareholder approval.

If an annual or special shareholders' meeting is adjourned to a different date, time, or place, notice need not be given of the new date, time or place, if the new date, time or place is announced at the meeting before adjournment, unless any additional items of business are to be considered, or the association becomes aware of an intervening event materially affecting any matter to be voted on more than 10 days prior to the date to which the meeting is adjourned. If a new record date for the adjourned meeting is fixed, however, notice of the adjourned meeting must be given to persons who are shareholders as of the new record date. If, however, the meeting to elect the directors is adjourned before the election takes place, at least ten days' notice of the new election must be given to the shareholders by first-class mail.

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Section 3. Nominations of Directors. Nominations for election to the board of directors may be made by the board of directors or by any stockholder of any outstanding class of capital stock of the association entitled to vote for the election of directors. Nominations, other than those made by or on behalf of the existing management of the association, shall be made in writing and shall be delivered or mailed to the president of the association and the Comptroller of the Currency, Washington, D.C., not less than 14 days nor more than 50 days prior to any meeting of shareholders called for the election of directors; *provided, however*, that if less than 21 days' notice of the meeting is given to shareholders, such nomination shall be mailed or delivered to the president of the association not later than the close of business on the seventh day following the day on which the notice of meeting was mailed. Such notification shall contain the following information to the extent known to the notifying shareholder:

- (1) The name and address of each proposed nominee;
- (2) The principal occupation of each proposed nominee;
- (3) The total number of shares of capital stock of the association that will be voted for each proposed nominee;
- (4) The name and residence of the notifying shareholder; and
- (5) The number of shares of capital stock of the association owned by the notifying shareholder.

Nominations not made in accordance herewith may, in his/her discretion, be disregarded by the chairperson of the meeting, and upon his/her instructions, the vote tellers may disregard all votes cast for each such nominee.

Section 4. Proxies. Shareholders may vote at any meeting of the shareholders by proxies duly authorized in writing, but no officer or employee of this association shall act as proxy. Proxies shall be valid only for one meeting, to be specified therein, and any adjournments of such meeting. Proxies shall be dated and filed with the records of the meeting. Proxies with facsimile signatures may be used and unexecuted proxies may be counted upon receipt of a written confirmation from the shareholder. Proxies meeting the above requirements submitted at any time during a meeting shall be accepted.

Section 5. Quorum. A majority of the outstanding capital stock, represented in person or by proxy, shall constitute a quorum at any meeting of shareholders, unless otherwise provided by law, or by the shareholders or directors pursuant to Article IX, Section 2, but less than a quorum may adjourn any meeting, from time to time, and the meeting may be held, as adjourned, without further notice. A majority of the votes cast shall decide every question or matter submitted to the shareholders at any meeting, unless otherwise provided by law or by the articles of association, or by the shareholders or directors pursuant to Article IX, Section 2. If a meeting for the election of directors is not held on the fixed date, at least 10 days' notice must be given by first-class mail to the shareholders.

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ARTICLE II
Directors

Section 1. Board of Directors. The board of directors shall have the power to manage and administer the business and affairs of the association. Except as expressly limited by law, all corporate powers of the association shall be vested in and may be exercised by the board of directors.

Section 2. Number. The board of directors shall consist of not less than five nor more than twenty-five members, unless the OCC has exempted the bank from the 25-member limit. The exact number within such minimum and maximum limits is to be fixed and determined from time to time by resolution of a majority of the full board of directors or by resolution of a majority of the shareholders at any meeting thereof.

Section 3. Organization Meeting. The secretary or treasurer, upon receiving the certificate of the judges of the result of any election, shall notify the directors-elect of their election and of the time at which they are required to meet at the main office of the association, or at such other place in the cities of Wilmington, Delaware or Buffalo, New York, to organize the new board of directors and elect and appoint officers of the association for the succeeding year. Such meeting shall be held on the day of the election or as soon thereafter as practicable, and, in any event, within 30 days thereof. If, at the time fixed for such meeting, there shall not be a quorum, the directors present may adjourn the meeting, from time to time, until a quorum is obtained.

Section 4. Regular Meetings. The Board of Directors may, at any time and from time to time, by resolution designate the place, date and hour for the holding of a regular meeting, but in the absence of any such designation, regular meetings of the board of directors shall be held, without notice, on the first Tuesday of each March, June and September, and on the second Tuesday of each December at the main office or other such place as the board of directors may designate. When any regular meeting of the board of directors falls upon a holiday, the meeting shall be held on the next banking business day unless the board of directors shall designate another day.

Section 5. Special Meetings. Special meetings of the board of directors may be called by the Chairman of the Board of the association, or at the request of two or more directors. Each member of the board of directors shall be given notice by telegram, first class mail, or in person stating the time and place of each special meeting.

Section 6. Quorum. A majority of the entire board then in office shall constitute a quorum at any meeting, except when otherwise provided by law or these bylaws, but a lesser number may adjourn any meeting, from time to time, and the meeting may be held, as adjourned, without further notice. If the number of directors present at the meeting is reduced below the number that would constitute a quorum, no business may be transacted, except selecting directors to fill vacancies in conformance with Article II, Section 7. If a quorum is present, the board of directors may take action through the vote of a majority of the directors who are in attendance.

Section 7. Meetings by Conference Telephone. Any one or more members of the board of directors or any committee thereof may participate in a meeting of such board or committees by means of a conference telephone or similar communications equipment allowing all persons participating in the meeting to hear each other at the same time. Participation in a meeting by such means shall constitute presence in person at such meeting.

Section 8. Procedures. The order of business and all other matters of procedure at every meeting of the board of directors may be determined by the person presiding at the meeting.

Section 9. Removal of Directors. Any director may be removed for cause, at any meeting of stockholders notice of which shall have referred to the proposed action, by vote of the stockholders. Any director may be removed without cause, at any meeting of stockholders notice of which shall have referred to the proposed action, by the vote of the holders of a majority of the shares of the Corporation entitled to vote. Any director may be removed for cause, at any meeting of the directors notice of which shall have referred to the proposed action, by vote of a majority of the entire Board of Directors.

Section 10. Vacancies. When any vacancy occurs among the directors, a majority of the remaining members of the board of directors, according to the laws of the United States, may appoint a director to fill such vacancy at any regular meeting of the board of directors, or at a special meeting called for that purpose at which a quorum is present, or if the directors remaining in office constitute fewer than a quorum of the board of directors, by the affirmative vote of a majority of all the directors remaining in office, or by shareholders at a special meeting called for that purpose in conformance with Section 2 of Article I. At any such shareholder meeting, each shareholder entitled to vote shall have the right to multiply the number of votes he or she is entitled to cast by the number of vacancies being filled and cast the product for a single candidate or distribute the product among two or more candidates. A vacancy that will occur at a specific later date (by reason of a resignation effective at a later date) may be filled before the vacancy occurs but the new director may not take office until the vacancy occurs.

ARTICLE III **Committees of the Board**

The board of directors has power over and is solely responsible for the management, supervision, and administration of the association. The board of directors may delegate its power, but none of its responsibilities, to such persons or committees as the board may determine.

The board of directors must formally ratify written policies authorized by committees of the board of directors before such policies become effective. Each committee must have one or more member(s), and who may be an officer of the association or an officer or director of any affiliate of the association, who serve at the pleasure of the board of directors. Provisions of the articles of association and these bylaws governing place of meetings, notice of meeting, quorum and voting requirements of the board of directors, apply to committees and their members as well. The creation of a committee and appointment of members to it must be approved by the board of directors.

Section 1. Loan Committee. There shall be a loan committee composed of not less than 2 directors, appointed by the board of directors annually or more often. The loan committee, on behalf of the bank, shall have power to discount and purchase bills, notes and other evidences of debt, to buy and sell bills of exchange, to examine and approve loans and discounts, to exercise authority regarding loans and discounts, and to exercise, when the board of directors is not in session, all other powers of the board of directors that may lawfully be delegated. The loan committee shall keep minutes of its meetings, and such minutes shall be submitted at the next regular meeting of the board of directors at which a quorum is present, and any action taken by the board of directors with respect thereto shall be entered in the minutes of the board of directors.

Section 2. Investment Committee. There shall be an investment committee composed of not less than 2 directors, appointed by the board of directors annually or more often. The investment committee, on behalf of the bank, shall have the power to ensure adherence to the investment policy, to recommend amendments thereto, to purchase and sell securities, to exercise authority regarding investments and to exercise, when the board of directors is not in session, all other powers of the board of directors regarding investment securities that may be lawfully delegated. The investment committee shall keep minutes of its meetings, and such minutes shall be submitted at the next regular meeting of the board of directors at which a quorum is present, and any action taken by the board of directors with respect thereto shall be entered in the minutes of the board of directors.

Section 3. Examining Committee. There shall be an examining committee composed of not less than 2 directors, exclusive of any active officers, appointed by the board of directors annually or more often. The duty of that committee shall be to examine at least once during each calendar year and within 15 months of the last examination the affairs of the association or cause suitable examinations to be made by auditors responsible only to the board of directors and to report the result of such examination in writing to the board of directors at the next regular meeting thereafter. Such report shall state whether the association is in a sound condition, and whether adequate internal controls and procedures are being maintained and shall recommend to the board of directors such changes in the manner of conducting the affairs of the association as shall be deemed advisable.

Notwithstanding the provisions of the first paragraph of this section 3, the responsibility and authority of the Examining Committee may, if authorized by law, be given over to a duly constituted audit committee of the association's parent corporation by a resolution duly adopted by the board of directors.

Section 4. Trust Audit Committee. There shall be a trust audit committee in conformance with Section 1 of Article V.

Section 5. Other Committees. The board of directors may appoint, from time to time, from its own members, compensation, special litigation and other committees of one or more persons, for such purposes and with such powers as the board of directors may determine.

However, a committee may not:

- (1) Authorize distributions of assets or dividends;
- (2) Approve action required to be approved by shareholders;
- (3) Fill vacancies on the board of directors or any of its committees;
- (5) Amend articles of association;
- (6) Adopt, amend or repeal bylaws; or
- (6) Authorize or approve issuance or sale or contract for sale of shares, or determine the designation and relative rights, preferences and limitations of a class or series of shares.

Section 6. Committee Members' Fees. Committee members may receive a fee for their services as committee members and traveling and other out-of-pocket expenses incurred in attending any meeting of a committee of which they are a member. The fee may be a fixed sum to be paid for attending each meeting or a fixed sum to be paid quarterly, or semiannually, irrespective of the number of meetings attended or not attended. The amount of the fee and the basis on which it shall be paid shall be determined by the board of directors.

ARTICLE IV
Officers and Employees

Section 1. Officers. The board of directors shall annually, at the Annual Reorganization Meeting of the board of directors following the annual meeting of the shareholders, appoint or elect a Chairperson of the Board, a Chief Executive Officer and a President, and one or more Vice Presidents, a Corporate Secretary, a Treasurer, a General Auditor, and such other officers as it may determine. At the Annual Reorganization Meeting, the board of directors shall also elect or reelect all of the officers of the association to hold office until the next Annual Reorganization Meeting. In the interim between Annual Reorganization Meetings, the board of directors may also elect or appoint a Chief Executive Officer, a President or such additional officers to the rank of Vice President, including (without limitation as to title or number) one or more Administrative Vice Presidents, Group Vice Presidents, Senior Vice Presidents and Executive Vice Presidents, and any other officer positions as they deem necessary and appropriate. The Chief Executive Officer of M&T Bank, the head of the Human Resources Department of M&T Bank, and any one executive Vice Chairman of M&T Bank, acting jointly, may appoint one or more officers to the rank of Executive Vice President or Senior Vice President. The head of the Human Resources Department of M&T Bank or his or her designee or designees, may appoint other officers up to the rank of Group Vice President, including (without limitation as to title or number) one or more Administrative Vice Presidents, Vice Presidents, Assistant Vice Presidents, Assistant Secretaries, Assistant Treasurers and Assistant Auditors, and any other officer positions as they deem necessary and appropriate. Each such person elected or appointed by the board of directors, the Chief Executive Officer of M&T Bank, the head of the Human Resources Department of M&T Bank, and an executive Vice Chairman of M&T Bank, acting jointly, or the head of the Human Resources Department of M&T Bank or his or her designee or designees, in between Annual Reorganization Meetings shall hold office until the next Annual Reorganization Meeting unless otherwise determined by the board of directors or such authorized officers.

Section 2. Chairperson of the Board. The board of directors shall appoint one of its members to be the chairperson of the board to serve at its pleasure. Such person shall preside at all meetings of the board of directors. The chairperson of the board shall supervise the carrying out of the policies adopted or approved by the board of directors; shall have general executive powers, as well as the specific powers conferred by these bylaws; and shall also have and may exercise such further powers and duties as from time to time may be conferred upon or assigned by the board of directors.

Section 3. President. The board of directors shall appoint one of its members to be the president of the association. In the absence of the chairperson, the president shall preside at any meeting of the board of directors. The president shall have general executive powers and shall have and may exercise any and all other powers and duties pertaining by law, regulation, or practice to the office of president, or imposed by these bylaws. The president shall also have and may exercise such further powers and duties as from time to time may be conferred or assigned by the board of directors.

Section 4. Vice President. The board of directors may appoint one or more vice presidents. Each vice president shall have such powers and duties as may be assigned by the board of directors. One vice president shall be designated by the board of directors, in the absence of the president, to perform all the duties of the president.

Section 5. Secretary. The board of directors shall appoint a secretary, treasurer, or other designated officer who shall be secretary of the board of directors and of the association and who shall keep accurate minutes of all meetings. The secretary shall attend to the giving of all notices required by these bylaws; shall be custodian of the corporate seal, records, documents and papers of the association; shall provide for the keeping of proper records of all transactions of the association; shall have and may exercise any and all other powers and duties pertaining by law, regulation or practice to the office of

treasurer, or imposed by these bylaws; and shall also perform such other duties as may be assigned from time to time, by the board of directors.

Section 6. Other Officers. The board of directors may appoint one or more assistant vice presidents, one or more trust officers, one or more assistant secretaries, one or more assistant treasurers, one or more managers and assistant managers of branches and such other officers and attorneys in fact as from time to time may appear to the board of directors to be required or desirable to transact the business of the association. Such officers shall respectively exercise such powers and perform such duties as pertain to their several offices, or as may be conferred upon or assigned to them by the board of directors, the chairperson of the board, or the president. The board of directors may authorize an officer to appoint one or more officers or assistant officers.

Section 7. Tenure of Office. The president and all other officers shall hold office for the current year for which the board of directors was elected, unless they shall resign, become disqualified, or be removed; and any vacancy occurring in the office of president shall be filled promptly by the board of directors.

Section 8. Resignation. An officer may resign at any time by delivering notice to the association. A resignation is effective when the notice is given unless the notice specifies a later effective date.

ARTICLE V **Fiduciary Activities**

Section 1. Trust Audit Committee. There shall be a Trust Audit Committee composed of not less than 2 directors, appointed by the board of directors, which shall, at least once during each calendar year make suitable audits of the association's fiduciary activities or cause suitable audits to be made by auditors responsible only to the board, and at such time shall ascertain whether fiduciary powers have been administered according to law, Part 9 of the Regulations of the Comptroller of the Currency, and sound fiduciary principles. Such committee: (1) must not include any officers of the bank or an affiliate who participate significantly in the administration of the bank's fiduciary activities; and (2) must consist of a majority of members who are not also members of any committee to which the board of directors has delegated power to manage and control the fiduciary activities of the bank.

Notwithstanding the provisions of the first paragraph of this section 1, the responsibility and authority of the Trust Audit Committee may, if authorized by law, be given over to a duly constituted audit committee of the association's parent corporation by a resolution duly adopted by the board of directors.

Section 2. Fiduciary Files. There shall be maintained by the association all fiduciary records necessary to assure that its fiduciary responsibilities have been properly undertaken and discharged.

Section 3. Trust Investments. Funds held in a fiduciary capacity shall be invested according to the instrument establishing the fiduciary relationship and applicable law. Where such instrument does not specify the character and class of investments to be made, but does vest in the association investment discretion, funds held pursuant to such instrument shall be invested in investments in which corporate fiduciaries may invest under applicable law.

ARTICLE VI
Stock and Stock Certificates

Section 1. Transfers. Shares of stock shall be transferable on the books of the association, and a transfer book shall be kept in which all transfers of stock shall be recorded. Every person becoming a shareholder by such transfer shall in proportion to such shareholder's shares, succeed to all rights of the prior holder of such shares. The board of directors may impose conditions upon the transfer of the stock reasonably calculated to simplify the work of the association with respect to stock transfers, voting at shareholder meetings and related matters and to protect it against fraudulent transfers.

Section 2. Stock Certificates. Certificates of stock shall bear the signature of the president (which may be engraved, printed or impressed) and shall be signed manually or by facsimile process by the secretary, assistant secretary, treasurer, assistant treasurer, or any other officer appointed by the board of directors for that purpose, to be known as an authorized officer, and the seal of the association shall be engraved thereon. Each certificate shall recite on its face that the stock represented thereby is transferable only upon the books of the association properly endorsed.

The board of directors may adopt or use procedures for replacing lost, stolen, or destroyed stock certificates as permitted by law.

The association may establish a procedure through which the beneficial owner of shares that are registered in the name of a nominee may be recognized by the association as the shareholder. The procedure may set forth:

- (1) The types of nominees to which it applies;
- (2) The rights or privileges that the association recognizes in a beneficial owner;
- (3) How the nominee may request the association to recognize the beneficial owner as the shareholder;
- (4) The information that must be provided when the procedure is selected;
- (5) The period over which the association will continue to recognize the beneficial owner as the shareholder;
- (6) Other aspects of the rights and duties created.

ARTICLE VII
Corporate Seal

Section 1. Seal. The seal of the association shall be in such form as may be determined from time to time by the board of directors. The president, the treasurer, the secretary or any assistant treasurer or assistant secretary, or other officer thereunto designated by the board of directors shall have authority to affix the corporate seal to any document requiring such seal and to attest the same. The seal on any corporate obligation for the payment of money may be facsimile.

ARTICLE VIII
Miscellaneous Provisions

Section 1. Fiscal Year. The fiscal year of the association shall be the calendar year.

Section 2. Execution of Instruments. All agreements, indentures, mortgages, deeds, conveyances, transfers, certificates, declarations, receipts, discharges, releases, satisfactions, settlements, petitions, schedules, accounts, affidavits, bonds, undertakings, proxies and other instruments or documents may be signed, executed, acknowledged, verified, delivered or accepted on behalf of the association by the chairperson of the board, or the president, or any vice president, or the secretary, or the treasurer, or, if in connection with the exercise of fiduciary powers of the association, by any of those offices or by any trust officer. Any such instruments may also be executed, acknowledged, verified, delivered or accepted on behalf of the association in such other manner and by such other officers as the board of directors may from time to time direct. The provisions of this section 2 are supplementary to any other provision of these bylaws.

Section 3. Records. The articles of association, the bylaws and the proceedings of all meetings of the shareholders, the board of directors, and standing committees of the board of directors shall be recorded in appropriate minute books provided for that purpose. The minutes of each meeting shall be signed by the secretary, treasurer or other officer appointed to act as secretary of the meeting.

Section 4. Corporate Governance Procedures. To the extent not inconsistent with federal banking statutes and regulations, or safe and sound banking practices, the association may follow the Delaware General Corporation Law, Del. Code Ann. tit. 8 (1991, as amended 1994, and as amended thereafter) with respect to matters of corporate governance procedures.

Section 5. Indemnification. For purposes of this Section 5 of Article VIII, the term “institution-affiliated party” shall mean any institution-affiliated party of the association as such term is defined in 12 U.S.C. 1813(u).

Any institution-affiliated party (or his or her heirs, executors or administrators) may be indemnified or reimbursed by the association for reasonable expenses actually incurred in connection with any threatened, pending or completed actions or proceedings and appeals therein, whether civil, criminal, governmental, administrative or investigative, in accordance with and to the fullest extent permitted by law, as such law now or hereafter exists; provided, however, that when an administrative proceeding or action instituted by a federal banking agency results in a final order or settlement pursuant to which such person: (i) is assessed a civil money penalty, (ii) is removed from office or prohibited from participating in the conduct of the affairs of the association, or (iii) is required to cease and desist from or to take any affirmative action described in 12 U.S.C. 1818(b) with respect to the association, then the association shall require the repayment of all legal fees and expenses advanced pursuant to the next succeeding paragraph and may not indemnify such institution-affiliated parties (or their heirs, executors or administrators) for expenses, including expenses for legal fees, penalties or other payments incurred. The association shall provide indemnification in connection with an action or proceeding (or part thereof) initiated by an institution-affiliated party (or by his or her heirs, executors or administrators) only if such action or proceeding (or part thereof) was authorized by the board of directors.

Expenses incurred by an institution-affiliated party (or by his or her heirs, executors or administrators) in connection with any action or proceeding under 12 U.S.C. 164 or 1818 may be paid by the association in advance of the final disposition of such action or proceeding upon (a) a determination by the board of directors acting by a quorum consisting of directors who are not parties to such action or proceeding that the institution-affiliated party (or his or her heirs, executors or administrators) has a

reasonable basis for prevailing on the merits, (b) a determination that the indemnified individual (or his or her heirs, executors or administrators) will have the financial capacity to reimburse the bank in the event he or she does not prevail, (c) a determination that the payment of expenses and fees by the association will not adversely affect the safety and soundness of the association, and (d) receipt of an undertaking by or on behalf of such institution-affiliated party (or by his or her heirs, executors or administrators) to repay such advancement in the event of a final order or settlement pursuant to which such person: (i) is assessed a civil money penalty, (ii) is removed from office or prohibited from participating in the conduct of the affairs of the association, or (iii) is required to cease and desist from or to take any affirmative action described in 12 U.S.C. 1818(b) with respect to the association. In all other instances, expenses incurred by an institution-affiliated party (or by his or her heirs, executors or administrators) in connection with any action or proceeding as to which indemnification may be given under these articles of association may be paid by the association in advance of the final disposition of such action or proceeding upon (a) receipt of an undertaking by or on behalf of such institution-affiliated party (or by or on behalf of his or her heirs, executors or administrators) to repay such advancement in the event that such institution-affiliated party (or his or her heirs, executors or administrators) is ultimately found not to be entitled to indemnification as authorized by these bylaws and (b) approval by the board of directors acting by a quorum consisting of directors who are not parties to such action or proceeding or, if such a quorum is not obtainable, then approval by stockholders. To the extent permitted by law, the board of directors or, if applicable, the stockholders, shall not be required to find that the institution-affiliated party has met the applicable standard of conduct provided by law for indemnification in connection with such action or proceeding.

In the event that a majority of the members of the board of directors are named as respondents in an administrative proceeding or civil action and request indemnification, the remaining members of the board may authorize independent legal counsel to review the indemnification request and provide the remaining members of the board with a written opinion of counsel as to whether the conditions delineated in the first four paragraphs of this Section 5 of Article VIII have been met. If independent legal counsel opines that said conditions have been met, the remaining members of the board of directors may rely on such opinion in authorizing the requested indemnification.

In the event that all of the members of the board of directors are named as respondents in an administrative proceeding or civil action and request indemnification, the board shall authorize independent legal counsel to review the indemnification request and provide the board with a written opinion of counsel as to whether the conditions delineated in the first four paragraphs of this Section 5 of Article VIII have been met. If legal counsel opines that said conditions have been met, the board of directors may rely on such opinion in authorizing the requested indemnification.

To the extent permitted under applicable law, the rights of indemnification and to the advancement of expenses provided in these articles of association (a) shall be available with respect to events occurring prior to the adoption of these bylaws, (b) shall continue to exist after any restrictive amendment of these bylaws with respect to events occurring prior to such amendment, (c) may be interpreted on the basis of applicable law in effect at the time of the occurrence of the event or events giving rise to the action or proceeding, or on the basis of applicable law in effect at the time such rights are claimed, and (d) are in the nature of contract rights which may be enforced in any court of competent jurisdiction as if the association and the institution-affiliated party (or his or her heirs, executors or administrators) for whom such rights are sought were parties to a separate written agreement.

The rights of indemnification and to the advancement of expenses provided in these bylaws shall not, to the extent permitted under applicable law, be deemed exclusive of any other rights to which any such institution-affiliated party (or his or her heirs, executors or administrators) may now or hereafter be otherwise entitled whether contained in the association's articles of association, these bylaws, a resolution of stockholders, a resolution of the board of directors, or an agreement providing such indemnification, the creation of such other rights being hereby expressly authorized. Without limiting the generality of the

foregoing, the rights of indemnification and to the advancement of expenses provided in these bylaws shall not be deemed exclusive of any rights, pursuant to statute or otherwise, of any such institution-affiliated party (or of his or her heirs, executors or administrators) in any such action or proceeding to have assessed or allowed in his or her favor, against the association or otherwise, his or her costs and expenses incurred therein or in connection therewith or any part thereof.

If this Section 5 of Article VIII or any part hereof shall be held unenforceable in any respect by a court of competent jurisdiction, it shall be deemed modified to the minimum extent necessary to make it enforceable, and the remainder of this Section 5 of Article VIII shall remain fully enforceable.

The association may, upon affirmative vote of a majority of its board of directors, purchase insurance to indemnify its institution-affiliated parties to the extent that such indemnification is allowed in these bylaws; provided, however, that no such insurance shall include coverage for a final order assessing civil money penalties against such persons by a bank regulatory agency. Such insurance may, but need not, be for the benefit of all institution- affiliated parties.

ARTICLE IX
Inspection and Amendments

Section 1. Inspection. A copy of the bylaws of the association, with all amendments, shall at all times be kept in a convenient place at the main office of the association, and shall be open for inspection to all shareholders during banking hours.

Section 2. Amendments. The bylaws of the association may be amended, altered or repealed, at any regular meeting of the board of directors, by a vote of a majority of the total number of the directors except as provided below, and provided that the following language accompany any such change.

I, _____, certify that: (1) I am the duly constituted (secretary or treasurer) of _____ and secretary of its board of directors, and as such officer am the official custodian of its records; (2) the foregoing bylaws are the bylaws of the association, and all of them are now lawfully in force and effect.

I have hereunto affixed my official signature on this _____ day of _____.

(Secretary or Treasurer)

The association's shareholders may amend or repeal the bylaws even though the bylaws also may be amended or repealed by the board of directors.

EXHIBIT 6

Section 321(b) Consent

Pursuant to Section 321(b) of the Trust Indenture Act of 1939, as amended, Wilmington Trust, National Association hereby consents that reports of examinations by Federal, State, Territorial or District authorities may be furnished by such authorities to the Securities and Exchange Commission upon requests therefor.

WILMINGTON TRUST, NATIONAL ASSOCIATION

Dated: June 13, 2018

By: _____

Name: Lynn M. Steiner
Title: Vice President

EXHIBIT 7
REPORT OF CONDITION
WILMINGTON TRUST, NATIONAL ASSOCIATION

As of the close of business on March 31, 2018

	Thousands of Dollars
ASSETS	
Cash and balances due from depository institutions:	3,111,871
Securities:	5,657
Federal funds sold and securities purchased under agreement to resell:	0
Loans and leases held for sale:	0
Loans and leases net of unearned income, allowance:	207,982
Premises and fixed assets:	4,228
Other real estate owned:	528
Investments in unconsolidated subsidiaries and associated companies:	0
Direct and indirect investments in real estate ventures:	0
Intangible assets:	0
Other assets:	45,718
Total Assets:	3,375,984
LIABILITIES	
Deposits	2,808,029
Federal funds purchased and securities sold under agreements to repurchase	0
Other borrowed money:	0
Other Liabilities:	27,704
Total Liabilities	2,835,733
EQUITY CAPITAL	
Common Stock	1,000
Surplus	396,439
Retained Earnings	143,122
Accumulated other comprehensive income	(310)
Total Equity Capital	540,251
Total Liabilities and Equity Capital	3,375,984
