

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

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

**Shockwave Medical, Inc.**

(Exact Name of Registrant as Specified in Its Charter)

**Delaware**  
(State or Other Jurisdiction of  
Incorporation or Organization)

**27-0494101**  
(I.R.S. Employer  
Identification Number)

5403 Betsy Ross Drive  
Santa Clara, California 95054  
(510) 279-4262

(Address, Including Zip Code, and Telephone Number, Including Area Code, of Registrant's Principal Executive Offices)

**Douglas Godshall**  
**President & Chief Executive Officer**  
**Shockwave Medical, Inc.**  
5403 Betsy Ross Drive  
Santa Clara, California 95054  
(510) 279-4262

(Name, Address, Including Zip Code, and Telephone Number, Including Area Code, of Agent For Service)

*Copies to:*

**Hajime Tada**  
**General Counsel**  
**Shockwave Medical, Inc.**  
5403 Betsy Ross Drive  
Santa Clara, California 95054  
(510) 279-4262

**Alan F. Denenberg**  
**Davis Polk & Wardwell LLP**  
1600 El Camino Real  
Menlo Park, California 94025  
(650) 752-2000

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

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, 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.

Large accelerated filer  Accelerated filer  Non-accelerated filer  Smaller reporting company

Emerging growth company

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

**CALCULATION OF REGISTRATION FEE**

<b>Title of Each Class of Securities to Be Registered</b>	<b>Amount to Be Registered</b>	<b>Proposed Maximum Offering Price Per Unit</b>	<b>Proposed Maximum Aggregate Offering Price</b>	<b>Amount of Registration Fee</b>
Debt Securities				
Common Stock				
Preferred Stock				
Depository Shares	(1)	(1)	(1)	(1)
Warrants				
Purchase Contracts				
Units				

(1) An indeterminate amount of securities to be offered at indeterminate prices is being registered pursuant to this registration statement. The Registrant is deferring payment of the registration fee pursuant to Rule 456(b) and is omitting this information in reliance on Rule 456(b) and Rule 457(r).

PROSPECTUS



**DEBT SECURITIES  
COMMON STOCK  
PREFERRED STOCK  
DEPOSITARY SHARES  
WARRANTS  
PURCHASE CONTRACTS  
UNITS**

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We may offer from time to time debt securities, common stock, preferred stock, depositary shares, warrants, purchase contracts or units. In addition, certain selling securityholders to be identified in a prospectus supplement may use this prospectus from time to time to offer shares of common stock. Specific terms of these securities will be provided in supplements to this prospectus. You should read this prospectus and any supplement carefully before you invest.

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**Investing in these securities involves certain risks. See “Risk Factors” beginning on page 17 of our Annual Report on Form 10-K for the year ended December 31, 2019 and in Part II, Item 1A of our Quarterly Report on Form 10-Q for the three months ended March 31, 2020, which are incorporated by reference herein.**

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Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved these securities, or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

**The date of this prospectus is June 16, 2020**

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Neither we nor any selling securityholders to be identified in a supplement to this prospectus have authorized anyone to provide any information other than that contained or incorporated by reference in this prospectus or in any free writing prospectus prepared by or on behalf of us or to which we have referred you. We and any selling securityholders to be identified in a supplement to this prospectus take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. Neither we nor any selling securityholders to be identified in a supplement to this prospectus are making an offer of these securities in any state where the offer is not permitted. You should not assume that the information contained in or incorporated by reference in this prospectus or any prospectus supplement or in any such free writing prospectus is accurate as of any date other than their respective dates.

The terms “Shockwave,” the “Company,” “we,” “us” and “our” refer to Shockwave Medical, Inc. and its consolidated subsidiaries, unless expressly indicated or the context requires otherwise.

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## THE COMPANY

We are a medical device company focused on developing and commercializing products intended to transform the way calcified cardiovascular disease is treated. We aim to establish a new standard of care for medical device treatment of atherosclerotic cardiovascular disease (“atherosclerosis”) through our differentiated and proprietary local delivery of sonic pressure waves for the treatment of calcified plaque, which we refer to as intravascular lithotripsy (“IVL”). Our IVL system (our “IVL System”), which leverages our IVL technology (our “IVL Technology”), is a minimally invasive, easy-to-use and safe way to significantly improve patient outcomes.

Our Shockwave M5 IVL catheter (“M5 catheter”) was CE-Marked in April 2018 and cleared by the U.S. Food and Drug Administration (“FDA”) in July 2018 for use in our IVL System for the treatment of peripheral artery disease (“PAD”).

Our Shockwave C2 IVL catheter (“C2 catheter”), which we are currently marketing in Europe, was CE-Marked in June 2018 for use in our IVL System for the treatment of coronary artery disease (“CAD”). In August 2019, we received the Breakthrough Device Designation from the FDA for our C2 catheters using our IVL System for the treatment of CAD.

The second version of our Shockwave S4 IVL catheter (“S4 catheter”) was cleared by the FDA for the treatment of PAD in August 2019. We commenced a full commercial launch of our S4 catheter in the second half of 2019 in select approved geographies. In May 2020, BSI Group, our notified body in Europe, agreed that our S4 catheter could be implemented under the Medical Device Directive regulations. We are currently preparing for the European launch.

We also have ongoing clinical programs across several products and indications, which, if successful, will allow us to expand commercialization of our products into new geographies and indications. Importantly, we are undertaking ongoing clinical trials of our C2 catheter intended to support a pre-market application (“PMA”) in the United States and a Shonin submission in Japan for the treatment of CAD. In October 2018, we received staged Investigational Device Exemption (“IDE”) approval for our DISRUPT CAD III global study, which began enrollment in 2019. This study is designed to support U.S. PMA approval for our C2 catheters. We anticipate having final data from these ongoing clinical trials intended to support a U.S. launch of our C2 catheter in the first quarter of 2021 and a Japan launch in the first half of 2022.

We were incorporated in 2009 as a Delaware corporation under the name Shockwave Medical, Inc. Our principal executive offices are located at 5403 Betsy Ross Drive, Santa Clara, California 95054, and our telephone number is (510) 279-4262. Our website address is [www.shockwavemedical.com](http://www.shockwavemedical.com). The information on, or that can be accessed through, our website is not part of this registration statement. We have included our website address as an inactive textual reference only.

We use “Shockwave,” “Shockwave M5,” “Shockwave C2,” “Shockwave S4” and other marks as trademarks in the United States and other countries. This registration statement contains references to our trademarks and service marks and to those belonging to other entities. Solely for convenience, trademarks and trade names referred to in this registration statement, including logos, artwork and other visual displays, may appear without the ® or ™ symbols, but such references are not intended to indicate in any way that we will not assert, to the fullest extent under applicable law, our right or the rights of the applicable licensor to these trademarks and trade names. We do not intend our use or display of other entities’ trade names, trademarks or service marks to imply a relationship with, or endorsement or sponsorship of us by, any other entity.

**About this Prospectus**

This prospectus is part of a registration statement that we filed with the U.S. Securities and Exchange Commission (the “SEC”) utilizing a “shelf” registration process. Under this shelf process, we may sell any combination of the securities described in this prospectus in one or more offerings. This prospectus provides you with a general description of the securities we may offer. Each time we sell securities, we will provide a prospectus supplement that will contain specific information about the terms of that offering. The prospectus supplement may also add, update or change information contained in this prospectus. You should read both this prospectus and any prospectus supplement together with additional information described under the heading “Where You Can Find More Information.”

## WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. The SEC maintains an Internet site at <http://www.sec.gov>, that contains reports, proxy and information statements and other information we have filed electronically with the SEC.

The SEC allows us to “incorporate by reference” the information we file with them, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is an important part of this prospectus, and information that we file later with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below and all documents we file pursuant to Section 13(a), 13(c), 14, or 15(d) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”) on or after the date of this prospectus and prior to the termination of the offering under this prospectus and any prospectus supplement (other than, in each case, documents or information deemed to have been furnished and not filed in accordance with SEC rules):

- our Annual Report on [Form 10-K](#) for the year ended December 31, 2019;
- our Quarterly Report on [Form 10-Q](#) for the quarter ended March 31, 2020;
- our Definitive Proxy Statement on [Schedule 14A](#) filed on April 28, 2020, to the extent specifically incorporated by reference into our Annual Report on Form 10-K for the year ended December 31, 2019; and
- our Current Report on [Form 8-K](#) filed on February 13, 2020.

You may request, and we will provide you with, a copy of these filings, at no cost, by calling us at (510) 279-4262 or by writing to us at the following address:

Shockwave Medical, Inc.  
5403 Betsy Ross Drive  
Santa Clara, CA 95054  
Attn: Investor Relations.

Information about us, including copies of our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K filed with the SEC, is also available at our website at [www.shockwavemedical.com](http://www.shockwavemedical.com). However, the information on or accessible through our website is not a part of, or incorporated by reference in, this prospectus or any prospectus supplement that we file and should not be relied upon in determining whether to make an investment in our securities.

## SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, including the documents incorporated by reference herein and therein, contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the “Securities Act”), and within the meaning of Section 21E of the the Exchange Act. In some cases, you can identify these statements by forward-looking words such as “may,” “might,” “will,” “should,” “expects,” “plans,” “anticipates,” “believes,” “estimates,” “predicts,” “potential” or “continue,” the negative of these terms and other comparable terminology. These forward-looking statements, which are subject to risks, uncertainties and assumptions about us, may include projections of our future financial performance, our anticipated growth strategies and anticipated trends in our business. Forward-looking statements contained in this prospectus include, but are not limited to statements about:

- the impact of the COVID-19 pandemic on our operations, financial results, and liquidity and capital resources, including on sales, expenses, supply chain, manufacturing, research and development activities, clinical trials and employees;
- our ability to design, develop, manufacture and market innovative products to treat patients with challenging medical conditions, particularly in peripheral artery disease, coronary artery disease and aortic stenosis;
- our expected future growth, including growth in international sales;
- the size and growth potential of the markets for our products, and our ability to serve those markets;
- the rate and degree of market acceptance of our products;
- coverage and reimbursement for procedures performed using our products;
- the performance of third parties in connection with the development of our products, including third-party suppliers;
- regulatory developments in the United States and foreign countries;
- our ability to obtain and maintain regulatory approval or clearance of our products on expected timelines;
- our plans to research, develop and commercialize our products and any other approved or cleared product;
- our ability to scale our organizational culture of cooperative product development and commercial execution;
- the development, regulatory approval, efficacy and commercialization of competing products;
- the loss of key scientific or management personnel;
- our expectations regarding the period during which we qualify as an emerging growth company under the JOBS Act;
- our ability to develop and maintain our corporate infrastructure, including our internal controls;
- our use of the proceeds from this offering;
- our financial performance and capital requirements; and
- our expectations regarding our ability to obtain and maintain intellectual property protection for our products, as well as our ability to operate our business without infringing the intellectual property rights of others.

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These statements are only predictions based on our current expectations and projections about future events. There are important factors that could cause our actual results, level of activity, performance or achievements to differ materially from the results, level of activity, performance or achievements expressed or implied by the forward-looking statements, including those factors discussed in the section titled “Risk Factors” in our Annual Report on Form 10-K for the year ended December 31, 2019 and in Part II, Item 1A of our Quarterly Report on Form 10-Q for the three months ended March 31, 2020, which are incorporated by reference herein. Although we believe the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, level of activity, performance or achievements. We undertake no obligation to update any of these forward-looking statements for any reason, even if new information becomes available in the future, except as may be required by law.



## **USE OF PROCEEDS**

Unless otherwise indicated in a prospectus supplement, the net proceeds from the sale of the securities covered by this prospectus will be used for general corporate purposes, including working capital, continued development of our products, including research and development and clinical trials, the expansion of our international sales presence and personnel, potential acquisitions, and other business opportunities. We will not receive any proceeds from sales of securities offered by any selling securityholders under this prospectus.

## DESCRIPTION OF CAPITAL STOCK

*The following descriptions are summaries of the material terms of our restated certificate of incorporation, amended and restated bylaws, the amended and restated investor rights agreement to which we and certain of our stockholders are parties and of the Delaware General Corporation Law. Because the following is only a summary, it does not contain all of the information that may be important to you. For a complete description, you should refer to our restated certificate of incorporation, amended and restated bylaws and amended and restated investor rights agreement, copies of which have been filed as exhibits to the registration statement of which this prospectus is part.*

### General

Our authorized capital stock consists of 281,274,838 shares of common stock, par value \$0.001 per share, and 5,000,000 shares of undesignated preferred stock, par value \$0.001 per share.

### Common Stock

*Common stock.* As of April 30, 2020, there were 31,861,618 shares of our common stock issued and outstanding, held by 30 stockholders of record, and no shares of preferred stock issued or outstanding. All outstanding shares of common stock are fully paid and non-assessable, and all of the shares of common stock or preferred stock that may be offered with this prospectus will be fully paid and non-assessable.

*Voting rights.* The holders of common stock are entitled to one vote per share on all matters to be voted upon by the stockholders.

*Dividend rights.* Subject to preferences that may be applicable to any series of outstanding preferred stock, the holders of common stock are entitled to receive ratably such dividends, if any, as may be declared from time to time by our board of directors, out of funds legally available therefor.

*Rights upon liquidation.* In the event of liquidation, dissolution or winding up of the company, the holders of common stock are entitled to share ratably in all assets remaining after payment of liabilities, subject to prior distribution rights of any series of preferred stock, if any, then outstanding.

*Other rights.* The holders of our common stock have no preemptive or conversion rights or other subscription rights. There are no redemption or sinking fund provisions applicable to the common stock.

### Preferred Stock

As of April 30, 2020, no shares of preferred stock were outstanding. Under our restated certificate of incorporation, our board of directors has the authority to issue up to 5,000,000 shares of undesignated preferred stock in one or more series and to fix the rights, preferences, privileges and restrictions thereof, including dividend rights, dividend rates, conversion rights, voting rights, terms of redemption, redemption prices, liquidation preferences and the number of shares constituting any series or the designation of such series, without further vote or action by the stockholders.

The existence of authorized but unissued and unreserved shares of capital stock may make it more difficult for or discourage an attempt by a potential acquirer to obtain control of our company by means of a merger, tender offer, proxy contest or otherwise, and the issuance of preferred stock may have the effect of delaying, deferring or preventing a change in control of Shockwave without further action by the stockholders. The issuance of preferred stock may also adversely affect the voting and other rights of the holders of common stock.

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When we offer to sell a particular series of preferred stock, including preferred stock to be represented by depositary shares, we will describe the specific terms of the securities in a supplement to this prospectus. The preferred stock will be issued under a certificate of designations relating to each series of preferred stock and is also subject to our restated certificate of incorporation.

The transfer agent for each series of preferred stock and any exchange on which we plan to list a series of preferred stock will be described in the applicable prospectus supplement.

### **Registration Rights**

Certain holders of our common stock are entitled to rights with respect to the registration of their shares under the Securities Act pursuant to our amended and restated investor rights agreement as described in additional detail below (“registrable securities”). In an underwritten offering, the managing underwriter, if any, has the right, subject to specified conditions, to limit the number of shares such holders may include.

#### ***Demand Registration Rights***

The holders of approximately 3,156,652 shares of our common stock are entitled to certain demand registration rights. The holders of at least 40% of the registrable securities have the right to require us, on not more than two occasions, to file a registration statement under the Securities Act in order to register the resale of their shares of common stock, *provided* that such registration of shares would result in aggregate proceeds (after deducting the estimated underwriting discounts and commissions) of at least \$10.0 million. We may, in certain circumstances, defer such registrations and the underwriters have the right, subject to certain limitations, to limit the number of shares included in such registrations.

#### ***Piggyback Registration Rights***

If we propose to register the offer and sale of any of our securities under the Securities Act, in connection with the public offering of such securities the holders of approximately 3,156,652 shares of our common stock are entitled to certain “piggyback” registration rights, allowing the holders to include their shares in such registration, subject to certain limitations. If our proposed registration involves an underwriting, the managing underwriter of such offering will have the right to limit the number of shares to be underwritten for reasons related to the marketing of the shares. In connection with this registration statement, the holders of registrable securities were entitled to, and the necessary percentage of holders waived, their rights to notice of this registration statement and to include their shares of registrable securities in this registration statement.

#### ***S-3 Registration Rights***

We are required to use commercially reasonable efforts to qualify for registration on Form S-3. As we are currently qualified for registration on Form S-3, the holders of approximately 3,156,652 shares of our common stock may make a written request that we register the offer and sale of their shares on Form S-3, *provided* that such registration of shares would result in an aggregate price to the public of not less than \$2,000,000 and we have not effected two such registrations in the last 12 months. We may, in certain circumstances, defer such registrations and the underwriters have the right, subject to certain limitations, to limit the number of shares included in such registrations.

#### ***Expenses***

Subject to specified conditions and limitations, we are required to pay all expenses, other than underwriting discounts and commissions and stock transfer taxes, incurred in connection with any exercise of these registration rights.

### ***Indemnification***

Our amended and restated investor rights agreement contains customary cross-indemnification provisions, pursuant to which we are obligated to indemnify the selling holders of registrable securities in the event of either material misstatements or omissions in the applicable registration statement attributable to us or our violation of the Securities Act, and the selling stockholders are obligated to indemnify us for material misstatements or omissions in the registration statement attributable to them, subject to certain limitations.

### ***Termination***

The registration rights terminate upon the earliest of: (i) such date on which all shares of registrable securities may be sold during any 90 day period pursuant to Rule 144 of the Securities Act, (ii) the fifth anniversary of the completion of our initial public offering, (iii) the occurrence of a deemed liquidation event or (iv) the date that no registrable securities remain outstanding that have not previously been sold to the public pursuant to a registration or in reliance on Rule 144 of the Securities Act. In addition, the right of any holder of registrable securities to request registration or inclusion in any registration shall terminate on such date on which all shares of registrable securities held by such holder may immediately be sold under Rule 144 during any 90-day period.

## **Anti-Takeover Effects of our Certificate of Incorporation and our Bylaws**

### ***Election and Removal of Directors***

Our board of directors consists of seven directors. The exact number of directors will be fixed from time to time by resolution of the board. No director may be removed except for cause, and directors may be removed for cause by an affirmative vote of shares representing a majority of the shares then entitled to vote at an election of directors. Any vacancy occurring on the board of directors and any newly created directorship may be filled only by a majority of the remaining directors in office.

### ***Staggered Board***

Our board of directors is divided into three classes serving staggered three-year terms. Class I, Class II and Class III directors will serve until our annual meetings of stockholders in 2020, 2021 and 2022, respectively. At each annual meeting of stockholders, directors will be elected to succeed the class of directors whose terms have expired. This classification of our board of directors could have the effect of increasing the length of time necessary to change the composition of a majority of the board of directors. In general, at least two annual meetings of stockholders will be necessary for stockholders to effect a change in a majority of the members of the board of directors.

### ***Limits on Written Consents***

Our restated certificate of incorporation and our amended and restated bylaws provide that holders of our common stock are not able to act by written consent without a meeting, unless such consent is unanimous.

### ***Stockholder Meetings***

Our restated certificate of incorporation and our amended and restated bylaws provide that special meetings of our stockholders may be called only by the chairman of our board of directors or a majority of the directors. Our restated certificate of incorporation and bylaws specifically deny any power of any other person to call a special meeting.

### ***Amendment of Certificate of Incorporation***

The provisions of our restated certificate of incorporation described under “Election and Removal of Directors,” “Stockholder Meetings” and “Limits on Written Consents” may be amended only by the affirmative

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vote of holders of at least 75% of the voting power of our outstanding shares of voting stock, voting together as a single class. The affirmative vote of holders of at least a majority of the voting power of our outstanding shares of stock are generally required to amend other provisions of our restated certificate of incorporation.

### ***Amendment of Bylaws***

Our amended and restated bylaws may generally be altered, amended or repealed, and new bylaws may be adopted, with:

- the affirmative vote of a majority of directors present at any regular or special meeting of the board of directors called for that purpose, provided that any alteration, amendment or repeal of, or adoption of any bylaw inconsistent with, specified provisions of the bylaws, including those related to special and annual meetings of stockholders, action of stockholders by written consent, classification of the board of directors, nomination of directors, special meetings of directors, removal of directors, committees of the board of directors and indemnification of directors and officers, requires the affirmative vote of at least 75% of all directors in office at a meeting called for that purpose; or
- the affirmative vote of holders of 75% of the voting power of our outstanding shares of voting stock, voting together as a single class.

### ***Other Limitations on Stockholder Actions***

Our amended and restated bylaws also impose some procedural requirements on stockholders who wish to:

- make nominations in the election of directors;
- propose that a director be removed;
- propose any repeal or change in our bylaws; or
- propose any other business to be brought before an annual or special meeting of stockholders.

Under these procedural requirements, in order to bring a proposal before a meeting of stockholders, a stockholder must deliver timely notice of a proposal pertaining to a proper subject for presentation at the meeting to our corporate secretary along with the following:

- a description of the business or nomination to be brought before the meeting and the reasons for conducting such business at the meeting;
- the stockholder's name and address;
- any material interest of the stockholder in the proposal;
- the number of shares beneficially owned by the stockholder and evidence of such ownership; and
- the names and addresses of all persons with whom the stockholder is acting in concert and a description of all arrangements and understandings with those persons, and the number of shares such persons beneficially own.

To be timely, a stockholder must generally deliver notice:

- in connection with an annual meeting of stockholders, not less than 120 nor more than 180 days prior to the date on which the annual meeting of stockholders was held in the immediately preceding year, but in the event that the date of the annual meeting is more than 30 days before or more than 60 days after the anniversary date of the preceding annual meeting of stockholders, a stockholder notice will be timely if received by us not later than the close of business on the later of (1) the 120th day prior to the annual meeting and (2) the 10th day following the day on which we first publicly announce the date of the annual meeting; or

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- in connection with the election of a director at a special meeting of stockholders, not less than 40 nor more than 60 days prior to the date of the special meeting, but in the event that less than 55 days' notice or prior public disclosure of the date of the special meeting of the stockholders is given or made to the stockholders, a stockholder notice will be timely if received by us not later than the close of business on the 10th day following the day on which a notice of the date of the special meeting was mailed to the stockholders or the public disclosure of that date was made.

In order to submit a nomination for our board of directors, a stockholder must also submit any information with respect to the nominee that we would be required to include in a proxy statement, as well as some other information. If a stockholder fails to follow the required procedures, the stockholder's proposal or nominee will be ineligible and will not be voted on by our stockholders.

### ***Limitation of Liability of Directors and Officers***

Our restated certificate of incorporation contains provisions that limit the liability of our directors for monetary damages to the fullest extent permitted by Delaware law. Consequently, our directors will not be personally liable to us or our stockholders for monetary damages for any breach of fiduciary duties as directors, except liability for:

- any breach of the director's duty of loyalty to us or our stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- unlawful payments of dividends or unlawful stock repurchases or redemptions as provided in Section 174 of the Delaware General Corporation Law; or
- any transaction from which the director derived an improper personal benefit.

Our restated certificate of incorporation provides that we may indemnify our directors and officers, in each case to the fullest extent permitted by Delaware law. Our amended and restated bylaws also provides that we are obligated to indemnify our directors and officers to the fullest extent permitted by Delaware law and advance expenses incurred by a director or officer in advance of the final disposition of any action or proceeding and permit us to secure insurance on behalf of any officer, director, employee or other agent for any liability arising out of his or her actions in that capacity regardless of whether we would otherwise be permitted to indemnify him or her under the provisions of Delaware law. We have entered into agreements to indemnify our directors, executive officers and other employees as determined by our board of directors. With specified exceptions, these agreements provide for indemnification for related expenses including, among other things, attorneys' fees, judgments, fines and settlement amounts incurred by any of these individuals in any action or proceeding. We believe these limitations of liability provisions and indemnification agreements are necessary to attract and retain qualified persons as directors and officers. We also maintain directors' and officers' liability insurance.

The limitation of liability and indemnification provisions in our restated certificate of incorporation, amended and restated bylaws and indemnification agreements may discourage stockholders from bringing a lawsuit against our directors and officers for breach of their fiduciary duty. Our restated certificate of incorporation provides that any such lawsuit must be brought in the Court of Chancery of the State of Delaware. The foregoing provisions may also reduce the likelihood of derivative litigation against our directors and officers, even though an action, if successful, might benefit us and other stockholders. Further, a stockholder's investment may be adversely affected to the extent that we pay the costs of settlement and damage awards against directors and officers as required by these indemnification provisions. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers and controlling persons pursuant to the foregoing provisions, or otherwise, we have been advised that, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act, and is, therefore, unenforceable. At present, there is no pending litigation or proceeding involving any of our directors, officers or employees for which indemnification is sought, and we are not aware of any threatened litigation that may result in claims for indemnification.

### ***Forum Selection***

The Court of Chancery of the State of Delaware is the sole and exclusive forum for (i) any derivative action or proceeding brought on behalf of the company, (ii) any action asserting a claim of breach of fiduciary duty owed by any director, officer or other employee of the company to the company or the company's stockholders, (iii) any action asserting a claim arising pursuant to any provision of the Delaware General Corporation Law or (iv) any action asserting a claim governed by the internal affairs doctrine. Any person or entity purchasing or otherwise acquiring any interest in shares of capital stock of the company shall be deemed to have notice of and consented to the foregoing forum selection provisions. The provision would not apply to suits brought to enforce a duty or liability created by the Securities Act and Exchange Act. In addition, our amended and restated bylaws provides that unless we consent in writing to the selection of an alternative forum, the federal district courts of the United States shall be the exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act.

### ***Delaware Business Combination Statute***

We have elected to be subject to Section 203 of the Delaware General Corporation Law, which regulates corporate acquisitions. Section 203 prevents an "interested stockholder," which is defined generally as a person owning 15% or more of a corporation's voting stock, or any affiliate or associate of that person, from engaging in a broad range of "business combinations" with the corporation for three years after becoming an interested stockholder unless:

- the board of directors of the corporation had previously approved either the business combination or the transaction that resulted in the stockholder's becoming an interested stockholder;
- upon completion of the transaction that resulted in the stockholder's becoming an interested stockholder, that person owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, other than statutorily excluded shares; or
- following the transaction in which that person became an interested stockholder, the business combination is approved by the board of directors of the corporation and holders of at least two-thirds of the outstanding voting stock not owned by the interested stockholder.

Under Section 203, the restrictions described above also do not apply to specific business combinations proposed by an interested stockholder following the announcement or notification of designated extraordinary transactions involving the corporation and a person who had not been an interested stockholder during the previous three years or who became an interested stockholder with the approval of a majority of the corporation's directors, if such extraordinary transaction is approved or not opposed by a majority of the directors who were directors prior to any person becoming an interested stockholder during the previous three years or were recommended for election or elected to succeed such directors by a majority of such directors.

Section 203 may make it more difficult for a person who would be an interested stockholder to effect various business combinations with a corporation for a three-year period. Section 203 also may have the effect of preventing changes in our management and could make it more difficult to accomplish transactions that our stockholders may otherwise deem to be in their best interests.

### ***Anti-Takeover Effects of Some Provisions***

Some provisions of our restated certificate of incorporation and bylaws could make the following more difficult:

- acquisition of control of us by means of a proxy contest or otherwise, or
- removal of our incumbent officers and directors.

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These provisions, as well as our ability to issue preferred stock, are designed to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed to encourage persons seeking to acquire control of us to first negotiate with our board of directors. We believe that the benefits of increased protection give us the potential ability to negotiate with the proponent of an unfriendly or unsolicited proposal to acquire or restructure us, and that the benefits of this increased protection outweigh the disadvantages of discouraging those proposals, because negotiation of those proposals could result in an improvement of their terms.

### **Listing**

Our common stock is listed on the Nasdaq Global Select Market under the symbol "SWAV."

### **Transfer Agent and Registrar**

The transfer agent and registrar for the common stock is Computershare Trust Company, N.A. The transfer agent and registrar's address is 250 Royall St., Canton, Massachusetts 02021.



## DESCRIPTION OF DEPOSITARY SHARES REPRESENTING PREFERRED STOCK

The applicable prospectus supplement will include a description of the material terms of any depositary shares representing preferred stock offered hereby.

### DESCRIPTION OF DEBT SECURITIES

The following descriptions of the debt securities that may be offered under this prospectus do not purport to be complete and are subject to and qualified in their entirety by reference to the indenture, a form of which has been incorporated by reference in the registration statement of which this prospectus is a part. Any future supplemental indenture or similar document also will be so filed. You should read the indenture and any supplemental indenture or similar document because they, and not this description, define your rights as holder of our debt securities. All capitalized terms have the meanings specified in the indenture.

As used in this prospectus, “debt securities” means the debentures, notes, bonds and other evidences of indebtedness that we may issue separately or upon exercise of a debt warrant from time to time. The debt securities may either be senior debt securities or subordinated debt securities. The debt securities we offer will be issued under an indenture between us and a trustee to be named therein. Debt securities, whether senior or subordinated, may be issued as convertible debt securities or exchangeable debt securities.

As used in this “Description of Debt Securities,” the terms “Shockwave,” “we,” “our,” and “us” refer to Shockwave Medical, Inc. and do not, unless otherwise specified, include our subsidiaries.

#### General Terms of the Indenture

The debt securities will be our direct unsecured obligations. The senior debt securities will rank equally with all of our other senior unsecured and unsubordinated debt. The subordinated debt securities will be subordinate and junior in right of payment to all of our present and future senior indebtedness to the extent and in the manner described in the prospectus supplement and, if applicable, in a pricing supplement, and as set forth in the supplemental indenture, board resolution or officers’ certificate relating to such offering.

The indenture does not limit the amount of debt securities that we may issue. It provides that we may issue debt securities up to the principal amount that we may authorize and may be in any currency or currency unit designated by us. Except for the limitations on consolidation, merger and sale of all or substantially all of our assets contained in the indenture, the terms of the indenture do not contain any covenants or other provisions designed to afford holders of any debt securities protection with respect to our operations, financial condition or transactions involving us.

We may issue the debt securities issued under the indenture as “discount securities,” which means they may be sold at a discount below their stated principal amount. These debt securities, as well as other debt securities that are not issued at a discount, may, for U.S. federal income tax purposes, be treated as if they were issued with “original issue discount,” because of interest payment and other characteristics. Special U.S. federal income tax considerations applicable to debt securities issued with original issue discount will be described in more detail in any applicable prospectus supplement or pricing supplement, if any.

The applicable prospectus supplement for a series of debt securities that we issue, together with a pricing supplement, if any, will describe, among other things, the following terms of the offered debt securities:

- the title;
- the aggregate principal amount;

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- whether issued in fully registered form without coupons or in a form registered as to principal only with coupons or in bearer form with coupons;
- whether issued in the form of one or more global securities and whether all or a portion of the principal amount of the debt securities is represented thereby;
- the price or prices at which the debt securities will be issued;
- the date or dates on which principal is payable;
- the place or places where and the manner in which principal, premium or interest will be payable and the place or places where the debt securities may be presented for transfer and, if applicable, conversion or exchange;
- interest rates, and the dates from which interest, if any, will accrue, and the dates when interest is payable;
- the right, if any, to extend the interest payment periods and the duration of the extensions;
- our rights or obligations to redeem or purchase the debt securities, including sinking fund or partial redemption payments;
- conversion or exchange provisions, if any, including conversion or exchange prices or rates and adjustments thereto;
- the currency or currencies of payment of principal or interest;
- the terms applicable to any debt securities issued at a discount from their stated principal amount;
- the terms, if any, pursuant to which any debt securities will be subordinate to any of our other debt;
- if the amount of payments of principal or interest is to be determined by reference to an index or formula, or based on a coin or currency other than that in which the debt securities are stated to be payable, the manner in which these amounts are determined and the calculation agent, if any, with respect thereto;
- if other than the entire principal amount of the debt securities when issued, the portion of the principal amount payable upon acceleration of maturity as a result of a default on our obligations;
- any provisions for the remarketing of the debt securities;
- if applicable, covenants affording holders of debt protection with respect to our operations, financial condition or transactions involving us; and
- any other specific terms of any debt securities.

The applicable prospectus supplement or pricing supplement, if any, will set forth certain U.S. federal income tax considerations for holders of any debt securities and the securities exchange or quotation system on which any debt securities are listed or quoted, if any.

Debt securities issued by us will be structurally subordinated to all indebtedness and other liabilities of our subsidiaries.

Unless otherwise provided in the applicable prospectus supplement, all securities of any one series need not be issued at the same time and may be issued from time to time without consent of any holder.

### **Subordination**

The prospectus supplement or pricing supplement, if any, relating to any offering of subordinated debt securities will describe the specific subordination provisions, including the extent of subordination of payments by us of the principal of, premium, if any, and interest on such subordinated debt securities.

### **Conversion or Exchange Rights**

Debt securities may be convertible into or exchangeable for our other securities or property. The terms and conditions of conversion or exchange will be set forth in the applicable prospectus supplement or pricing supplement, if any. The terms will include, among others, the following:

- the conversion or exchange price;
- the conversion or exchange period;
- provisions regarding the ability of us or the holder to convert or exchange the debt securities;
- events requiring adjustment to the conversion or exchange price; and
- provisions affecting conversion or exchange in the event of our redemption of the debt securities.

### **Consolidation, Merger or Sale**

We cannot consolidate with or merge into, or convey, transfer or lease all or substantially all of our properties and assets to, any person unless (1) we will be the continuing corporation or (2) the successor corporation or person to which our assets are conveyed, transferred or leased is a corporation, partnership, trust or other entity organized and validly existing under the laws of the United States, any state of the United States or the District of Columbia and it expressly assumes our obligations on the debt securities and under the indenture. In addition, we cannot effect such a transaction unless immediately after giving effect to such transaction, no default or event of default under the indenture shall have occurred and be continuing. Subject to certain exceptions, when the person to whom our assets are transferred or leased has assumed our obligations under the debt securities and the indenture, we shall be discharged from all our obligations under the debt securities and the indenture, except in limited circumstances.

This covenant would not apply to any recapitalization transaction, a change of control of us or a highly leveraged transaction, unless the transaction or change of control were structured to include a merger or consolidation or transfer or lease of all or substantially all of our assets.

### **Events of Default**

Unless otherwise indicated, the term “Event of Default,” when used in the indenture, means any of the following:

- failure to pay interest for 30 days after the date payment is due and payable; provided that, an extension of an interest payment period in accordance with the terms of the debt securities shall not constitute a failure to pay interest;
- failure to pay principal or premium, if any, on any debt security when due, either at maturity, upon any redemption, by declaration or otherwise;
- failure to make sinking fund payments when due;
- failure to perform any other covenant for 90 days after notice that performance was required;
- certain events relating to bankruptcy, insolvency or reorganization; or
- any other Event of Default provided in the applicable resolution of our board of directors or the officers’ certificate or supplemental indenture under which we issue a series of debt securities.

An Event of Default for a particular series of debt securities does not necessarily constitute an Event of Default for any other series of debt securities issued under the indenture. If an Event of Default relating to the payment of interest, principal or any sinking fund installment involving any series of debt securities has occurred and is continuing, the trustee or the holders of not less than 25% in aggregate principal amount of the debt securities of each affected series may declare the entire principal of all the debt securities of that series to be due and payable immediately.

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If an Event of Default relating to the performance of other covenants has occurred and is continuing for a period of 90 days after notice of such, or involves all of the series of senior debt securities, then the trustee or the holders of not less than 25% in aggregate principal amount of all of the series of senior debt securities may declare the entire principal amount of all of the series of senior debt securities due and payable immediately.

Similarly, if an Event of Default relating to the performance of other covenants has occurred and is continuing for a period of 90 days after notice of such, or involves all of the series of subordinated debt securities, then the trustee or the holders of not less than 25% in aggregate principal amount of all of the series of subordinated debt securities may declare the entire principal amount of all of the series of subordinated debt securities due and payable immediately.

If, however, the Event of Default relating to the performance of other covenants or any other Event of Default that has occurred and is continuing is for less than all of the series of senior debt securities or subordinated debt securities, as the case may be, then, the trustee or the holders of not less than 25% in aggregate principal amount of each affected series of the senior debt securities or the subordinated debt securities, as the case may be, may declare the entire principal amount of all debt securities of such affected series due and payable immediately. The holders of not less than a majority in aggregate principal amount of the debt securities of a series may, after satisfying conditions, rescind and annul any of the above-described declarations and consequences involving the series.

If an Event of Default relating to events in bankruptcy, insolvency or reorganization occurs and is continuing, then the principal amount of all of the debt securities outstanding, and any accrued interest, will automatically become due and payable immediately, without any declaration or other act by the trustee or any holder.

The indenture provides that the trustee shall within 90 days after the occurrence of default (or 30 days after it is known by the trustee) with respect to a particular series of debt securities, give the holders of the debt securities of such series notice of such default known to it; provided that, except in the case of a default or Event of Default in payment of the principal, premium, if any, of, or interest on, any debt security of such series or in the payment of any redemption obligation, the trustee may withhold the notice if, and so long as, it in good faith determines that withholding the notice is in the interests of the holders of debt securities of that series.

The indenture imposes limitations on suits brought by holders of debt securities against us. Except as provided below, no holder of debt securities of any series may institute any action against us under the indenture unless:

- the holder has previously given to the trustee written notice of default and the continuance of that default;
- the holders of at least 25% in principal amount of the outstanding debt securities of the affected series have requested that the trustee institute the action;
- the requesting holders have offered the trustee reasonable security or indemnity satisfactory to it for expenses and liabilities that may be incurred by bringing the action;
- the trustee has not instituted the action within 60 days of the request; and
- the trustee has not received inconsistent direction by the holders of a majority in principal amount of the outstanding debt securities of the series.

Notwithstanding the foregoing, each holder of debt securities of any series has the right, which is absolute and unconditional, to receive payment of the principal of and premium and interest, if any, on such debt securities when due and to institute suit for the enforcement of any such payment, and such rights may not be impaired without the consent of that holder of debt securities.

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We will be required to file annually with the trustee a certificate, signed by one of our officers, stating whether or not the officer knows of any default by us in compliance with any condition or covenant of the indenture.

### **Registered Global Securities**

We may issue the debt securities of a series in whole or in part in the form of one or more fully registered global securities that we will deposit with a depository or with a nominee for a depository identified in the applicable prospectus supplement or pricing supplement, if any, and registered in the name of such depository or nominee. See “Forms of Securities.”

We may also issue bearer debt securities of a series in the form of one or more global securities, referred to as “bearer global securities.” We will deposit these bearer global securities with a common depository for Euroclear Bank S.A./N.V., as operator of the Euroclear System, known as “Euroclear” and Clearstream Banking, société anonyme, Luxembourg, known as “Clearstream”, or with a nominee for the depository identified in the prospectus supplement or pricing supplement, if any, relating to that series. The prospectus supplement or pricing supplement, if any, relating to a series of debt securities represented by a bearer global security will describe the specific terms and procedures, including the specific terms of the depository arrangement and any specific procedures for the issuance of debt securities in definitive form in exchange for a bearer global security, with respect to the portion of the series represented by a bearer global security.

### **Discharge, Defeasance and Covenant Defeasance**

We can discharge or defease our obligations under the indenture as set forth below. Unless otherwise set forth in the applicable prospectus supplement or pricing supplement, if any, the subordination provisions applicable to any subordinated debt securities will be expressly made subject to the discharge and defeasance provisions of the indenture.

We may discharge our obligations to holders of any series of debt securities that have not already been delivered to the trustee for cancellation and that have either become due and payable or are by their terms to become due and payable within one year (or are scheduled for redemption within one year). We may effect a discharge by irrevocably depositing with the trustee cash or U.S. government obligations or foreign government obligations, as applicable, as trust funds, in an amount certified to be sufficient to pay when due, whether at maturity, upon redemption or otherwise, the principal of, premium, if any, and interest on the debt securities and any mandatory sinking fund payments.

Unless otherwise provided in the applicable prospectus supplement or pricing supplement, if any, we may also discharge any and all of our obligations to holders of any series of debt securities at any time (“legal defeasance”). We also may be released from the obligations imposed by any covenants of any outstanding series of debt securities and provisions of the indenture, and we may omit to comply with those covenants without creating an Event of Default (“covenant defeasance”). We may effect legal defeasance and covenant defeasance only if, among other things:

- we irrevocably deposit with the trustee cash or U.S. government obligations or foreign government obligations, as applicable, as trust funds, in an amount certified to be sufficient to pay at maturity (or upon redemption) the principal, premium, if any, and interest on all outstanding debt securities of the series; and
- we deliver to the trustee an opinion of counsel from a nationally recognized law firm to the effect that the beneficial owners of the series of debt securities will not recognize income, gain or loss for U.S. federal income tax purposes as a result of the legal defeasance or covenant defeasance and that legal defeasance or covenant defeasance will not otherwise alter the beneficial owners’ U.S. federal income tax treatment of principal, premium, if any, and interest payments on the series of debt securities,

which opinion, in the case of legal defeasance, must be based on a ruling of the Internal Revenue Service issued, or a change in U.S. federal income tax law.

Although we may discharge or defease our obligations under the indenture as described in the two preceding paragraphs, we may not avoid, among other things, our duty to register the transfer or exchange of any series of debt securities, to replace any temporary, mutilated, destroyed, lost or stolen series of debt securities or to maintain an office or agency in respect of any series of debt securities.

#### **Modification of the Indenture**

The indenture provides that we and the trustee may enter into supplemental indentures without the consent of the holders of debt securities to:

- secure any debt securities;
- evidence the assumption by a successor corporation of our obligations;
- add covenants for the protection of the holders of debt securities;
- add one or more guarantees;
- cure any ambiguity or correct any inconsistency in the indenture;
- establish the forms or terms of debt securities of any series;
- conform any provision of the indenture to this description of debt securities, the description of the notes included in the applicable prospectus supplement or any other relevant section of the applicable prospectus supplement describing the terms of the debt securities;
- evidence and provide for the acceptance of appointment by a successor trustee;
- to provide for uncertificated debt securities in addition to or in place of certificated debt securities;
- make any change that does not materially adversely affect the right of any holder; and
- comply with requirements of the SEC in order to effect or maintain the qualification of the indenture under the Trust Indenture Act of 1939, as amended.

The indenture also provides that we and the trustee may, with the consent of the holders of not less than a majority in aggregate principal amount of debt securities of all series of senior debt securities or subordinated debt securities, as the case may be, then outstanding and affected (voting as one class), add any provisions to, or change in any manner, or eliminate any of the provisions of, the indenture or any supplemental indenture or modify in any manner the rights of the holders of the affected debt securities.

We and the trustee may not, however, without the consent of the holder of each outstanding debt security affected thereby:

- extend the final maturity of any debt security;
- reduce the principal amount or premium, if any;
- reduce the rate or extend the time of payment of interest;
- reduce any amount payable on redemption;
- change the currency in which the principal (other than as may be provided otherwise with respect to a series), premium, if any, or interest is payable;
- reduce the amount of the principal of any debt security issued with an original issue discount that is payable upon acceleration or provable in bankruptcy;

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- modify any of the subordination provisions or the definition of senior indebtedness applicable to any subordinated debt securities in a manner adverse to the holders of those securities;
- alter provisions of the indenture relating to the debt securities not denominated in U.S. dollars;
- impair the right to institute suit for the enforcement of any payment on any debt security when due;
- reduce the percentage of holders of debt securities of any series whose consent is required for any modification of the indenture, or the consent of whose holders is required for any waiver (of compliance with certain provisions of the indenture or certain defaults thereunder and their consequences) provided for in the indenture; or
- modify any provisions set forth in this paragraph.

### **Concerning the Trustee**

The indenture provides that there may be more than one trustee under the indenture, each with respect to one or more series of debt securities. If there are different trustees for different series of debt securities, each trustee will be a trustee of a trust under the indenture separate and apart from the trust administered by any other trustee under the indenture. Except as otherwise indicated in this prospectus or any prospectus supplement, any action permitted to be taken by a trustee may be taken by such trustee only with respect to the one or more series of debt securities for which it is the trustee under the indenture. Any trustee under the indenture may resign or be removed with respect to one or more series of debt securities. All payments of principal of, premium, if any, and interest on, and all registration, transfer, exchange, authentication and delivery (including authentication and delivery on original issuance of the debt securities) of, the debt securities of a series will be effected by the trustee with respect to that series at an office designated by the trustee in New York, New York.

The indenture contains limitations on the right of the trustee, should it become a creditor of us, to obtain payment of claims in some cases or to realize on certain property received in respect of any such claim as security or otherwise. The trustee may engage in other transactions. If it acquires any conflicting interest relating to any duties with respect to the debt securities, however, it must eliminate the conflict or resign as trustee.

The holders of a majority in aggregate principal amount of any series of debt securities then outstanding will have the right to direct the time, method and place of conducting any proceeding for exercising any remedy available to the trustee with respect to such series of debt securities, provided that, the direction would not conflict with any rule of law or with the indenture, would not be unduly prejudicial to the rights of another holder of the debt securities, and would not involve any trustee in personal liability. The indenture provides that in case an Event of Default shall occur and be known to any trustee and not be cured, the trustee must use the same degree of care as a prudent person would use in the conduct of his or her own affairs in the exercise of the trustee's power. Subject to these provisions, the trustee will be under no obligation to exercise any of its rights or powers under the indenture at the request of any of the holders of the debt securities, unless they shall have offered to the trustee security and indemnity satisfactory to the trustee.

### **No Individual Liability of Incorporators, Stockholders, Officers or Directors**

The indenture provides that no incorporator and no past, present or future stockholder, officer or director, of us or any successor corporation in their capacity as such shall have any individual liability for any of our obligations, covenants or agreements under the debt securities or the indenture.

### **Governing Law**

The indenture and the debt securities will be governed by, and construed in accordance with, the laws of the State of New York, including, without limitation, Sections 5-1401 and 5-1402 of the New York General Obligations Law and New York Civil Practice Law and Rules 327(b).

## DESCRIPTION OF WARRANTS

We may issue warrants to purchase our debt or equity securities or securities of third parties or other rights, including rights to receive payment in cash or securities based on the value, rate or price of one or more specified commodities, currencies, securities or indices, or any combination of the foregoing. Warrants may be issued independently or together with any other securities and may be attached to, or separate from, such securities. Each series of warrants will be issued under a separate warrant agreement to be entered into between us and a warrant agent. The terms of any warrants to be issued and a description of the material provisions of the applicable warrant agreement will be set forth in the applicable prospectus supplement.

The applicable prospectus supplement will describe the following terms of any warrants in respect of which this prospectus is being delivered:

- the title of such warrants;
- the aggregate number of such warrants;
- the price or prices at which such warrants will be issued;
- the currency or currencies in which the price of such warrants will be payable;
- the securities or other rights, including rights to receive payment in cash or securities based on the value, rate or price of one or more specified commodities, currencies, securities or indices, or any combination of the foregoing, purchasable upon exercise of such warrants;
- the price at which and the currency or currencies in which the securities or other rights purchasable upon exercise of such warrants may be purchased;
- the date on which the right to exercise such warrants shall commence and the date on which such right shall expire;
- if applicable, the minimum or maximum amount of such warrants which may be exercised at any one time;
- if applicable, the designation and terms of the securities with which such warrants are issued and the number of such warrants issued with each such security;
- if applicable, the date on and after which such warrants and the related securities will be separately transferable;
- information with respect to book-entry procedures, if any;
- if applicable, a discussion of any material United States Federal income tax considerations; and
- any other terms of such warrants, including terms, procedures and limitations relating to the exchange and exercise of such warrants.



## DESCRIPTION OF PURCHASE CONTRACTS

We may issue purchase contracts for the purchase or sale of:

- debt or equity securities issued by us or securities of third parties, a basket of such securities, an index or indices or such securities or any combination of the above as specified in the applicable prospectus supplement;
- currencies; or
- commodities.

Each purchase contract will entitle the holder thereof to purchase or sell, and obligate us to sell or purchase, on specified dates, such securities, currencies or commodities at a specified purchase price, which may be based on a formula, all as set forth in the applicable prospectus supplement. We may, however, satisfy our obligations, if any, with respect to any purchase contract by delivering the cash value of such purchase contract or the cash value of the property otherwise deliverable or, in the case of purchase contracts on underlying currencies, by delivering the underlying currencies, as set forth in the applicable prospectus supplement. The applicable prospectus supplement will also specify the methods by which the holders may purchase or sell such securities, currencies or commodities and any acceleration, cancellation or termination provisions or other provisions relating to the settlement of a purchase contract.

The purchase contracts may require us to make periodic payments to the holders thereof or vice versa, which payments may be deferred to the extent set forth in the applicable prospectus supplement, and those payments may be unsecured or prefunded on some basis. The purchase contracts may require the holders thereof to secure their obligations in a specified manner to be described in the applicable prospectus supplement. Alternatively, purchase contracts may require holders to satisfy their obligations thereunder when the purchase contracts are issued. Our obligation to settle such pre-paid purchase contracts on the relevant settlement date may constitute indebtedness. Accordingly, pre-paid purchase contracts will be issued under either the senior indenture or the subordinated indenture.

## DESCRIPTION OF UNITS

As specified in the applicable prospectus supplement, we may issue units consisting of one or more purchase contracts, warrants, debt securities, shares of preferred stock, shares of common stock or any combination of such securities. The applicable supplement will describe:

- the terms of the units and of the warrants, debt securities and common stock comprising the units, including whether and under what circumstances the securities comprising the units may be traded separately;
- a description of the terms of any unit agreement governing the units; and
- a description of the provisions for the payment, settlement, transfer or exchange of the units.

## FORMS OF SECURITIES

Each debt security, warrant and unit offered hereunder will be represented either by a certificate issued in definitive form to a particular investor or by one or more global securities representing the entire issuance of securities. Certificated securities in definitive form and global securities will be issued in registered form. Definitive securities name you or your nominee as the owner of the security, and in order to transfer or exchange these securities or to receive payments other than interest or other interim payments, you or your nominee must physically deliver the securities to the trustee, registrar, paying agent or other agent, as applicable. Global securities name a depository or its nominee as the owner of the debt securities, warrants and units represented by these global securities. The depository maintains a computerized system that will reflect each investor's beneficial ownership of the securities through an account maintained by the investor with its broker/dealer, bank, trust company or other representative, as we explain more fully below.

### Global Securities

*Registered Global Securities.* We may issue the registered debt securities, warrants and units offered under this prospectus in the form of one or more fully registered global securities that will be deposited with a depository or its nominee identified in the applicable prospectus supplement and registered in the name of that depository or nominee. In those cases, one or more registered global securities will be issued in a denomination or aggregate denominations equal to the portion of the aggregate principal or face amount of the securities to be represented by registered global securities. Unless and until it is exchanged in whole for securities in definitive registered form, a registered global security may not be transferred except as a whole by and among the depository for the registered global security, the nominees of the depository or any successors of the depository or those nominees.

If not described below, any specific terms of the depository arrangement with respect to any securities to be represented by a registered global security will be described in the prospectus supplement relating to those securities. We anticipate that the following provisions will apply to all depository arrangements.

Ownership of beneficial interests in a registered global security will be limited to persons, called participants, that have accounts with the depository or persons that may hold interests through participants. Upon the issuance of a registered global security, the depository will credit, on its book-entry registration and transfer system, the participants' accounts with the respective principal or face amounts of the securities beneficially owned by the participants. Any dealers, underwriters or agents participating in the distribution of the securities will designate the accounts to be credited. Ownership of beneficial interests in a registered global security will be shown on, and the transfer of ownership interests will be effected only through, records maintained by the depository, with respect to interests of participants, and on the records of participants, with respect to interests of persons holding through participants. The laws of some states may require that some purchasers of securities take physical delivery of these securities in definitive form. These laws may impair your ability to own, transfer or pledge beneficial interests in registered global securities.

So long as the depository, or its nominee, is the registered owner of a registered global security, that depository or its nominee, as the case may be, will be considered the sole owner or holder of the securities represented by the registered global security for all purposes under the applicable indenture, warrant agreement, guaranteed trust preferred security or unit agreement. Except as described below, owners of beneficial interests in a registered global security will not be entitled to have the securities represented by the registered global security registered in their names, will not receive or be entitled to receive physical delivery of the securities in definitive form and will not be considered the owners or holders of the securities under the applicable indenture, warrant agreement, guaranteed trust preferred security or unit agreement. Accordingly, each person owning a beneficial interest in a registered global security must rely on the procedures of the depository for that registered global security and, if that person is not a participant, on the procedures of the participant through which the person owns its interest, to exercise any rights of a holder under the applicable indenture, warrant agreement, guaranteed

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trust preferred security or unit agreement. We understand that under existing industry practices, if we request any action of holders or if an owner of a beneficial interest in a registered global security desires to give or take any action that a holder is entitled to give or take under the applicable indenture, warrant agreement, guaranteed trust preferred security or unit agreement, the depository for the registered global security would authorize the participants holding the relevant beneficial interests to give or take that action, and the participants would authorize beneficial owners owning through them to give or take that action or would otherwise act upon the instructions of beneficial owners holding through them.

Principal, premium, if any, and interest payments on debt securities, and any payments to holders with respect to warrants, guaranteed trust preferred securities or units, represented by a registered global security registered in the name of a depository or its nominee will be made to the depository or its nominee, as the case may be, as the registered owner of the registered global security. None of Shockwave, the trustees, the warrant agents, the unit agents or any other agent of Shockwave, agent of the trustees or agent of the warrant agents or unit agents will have any responsibility or liability for any aspect of the records relating to payments made on account of beneficial ownership interests in the registered global security or for maintaining, supervising or reviewing any records relating to those beneficial ownership interests.

We expect that the depository for any of the securities represented by a registered global security, upon receipt of any payment of principal, premium, interest or other distribution of underlying securities or other property to holders on that registered global security, will immediately credit participants' accounts in amounts proportionate to their respective beneficial interests in that registered global security as shown on the records of the depository. We also expect that payments by participants to owners of beneficial interests in a registered global security held through participants will be governed by standing customer instructions and customary practices, as is now the case with the securities held for the accounts of customers in bearer form or registered in "street name," and will be the responsibility of those participants.

If the depository for any of these securities represented by a registered global security is at any time unwilling or unable to continue as depository or ceases to be a clearing agency registered under the Exchange Act, and a successor depository registered as a clearing agency under the Exchange Act is not appointed by us within 90 days, we will issue securities in definitive form in exchange for the registered global security that had been held by the depository. Any securities issued in definitive form in exchange for a registered global security will be registered in the name or names that the depository gives to the relevant trustee, warrant agent, unit agent or other relevant agent of ours or theirs. It is expected that the depository's instructions will be based upon directions received by the depository from participants with respect to ownership of beneficial interests in the registered global security that had been held by the depository.

## **SELLING SECURITYHOLDERS**

Information about selling security holders, if any, will be set forth in a prospectus supplement, in a post-effective amendment to the registration statement of which this prospectus is a part or in filings we make with the SEC under the Exchange Act, which are incorporated by reference herein.

## **VALIDITY OF SECURITIES**

The validity of the securities in respect of which this prospectus is being delivered will be passed on for us by Davis Polk & Wardwell LLP, Menlo Park, California.

## **EXPERTS**

Ernst & Young LLP, independent registered public accounting firm, has audited our consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2019, as set forth in their report, which is incorporated by reference in this prospectus and elsewhere in the registration statement. Our financial statements are incorporated by reference in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.



**PART II**  
**INFORMATION NOT REQUIRED IN PROSPECTUS**

**Item 14. Other Expenses of Issuance and Distribution**

The following table sets forth the costs and expenses payable by the registrant in connection with the sale of the securities being registered hereby.

	<b>Amount to Be Paid</b>
Registration fee	\$ *
Printing	**
FINRA filing fee	225,500
Legal fees and expenses (including Blue Sky fees)	**
Trustee fees	**
Rating Agency fees	**
Accounting fees and expenses	**
Miscellaneous	**
<b>TOTAL</b>	<b>\$ **</b>

\* Omitted because the registration fee is being deferred pursuant to Rule 456(b) and 457(r).

\*\* Omitted because these fees and expenses will depend on the securities offered and the number of issuances, and accordingly cannot be estimated at this time. The expenses of any offering will be set forth in the applicable prospectus supplement.

**Item 15. Indemnification of Directors and Officers**

Section 145 of the Delaware General Corporation Law provides that a corporation may indemnify directors and officers as well as other employees and individuals against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with any threatened, pending or completed actions, suits or proceedings in which such person is made a party by reason of such person being or having been a director, officer, employee or agent to the registrant. The Delaware General Corporation Law provides that Section 145 is not exclusive of other rights to which those seeking indemnification may be entitled under any bylaw, agreement, vote of stockholders or disinterested directors or otherwise. The registrant's bylaws provides for indemnification by the registrant of its directors, officers and employees to the fullest extent permitted by the Delaware General Corporation Law. The registrant has entered into indemnification agreements with each of its current directors and executive officers to provide these directors and executive officers additional contractual assurances regarding the scope of the indemnification set forth in the registrant's restated certificate of incorporation and amended and restated bylaws and to provide additional procedural protections. There is no pending litigation or proceeding involving a director or executive officer of the registrant for which indemnification is sought.

Section 102(b)(7) of the Delaware General Corporation Law permits a corporation to provide in its certificate of incorporation that a director of the corporation shall not be personally liable to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, except for liability (i) for any breach of the director's duty of loyalty to the corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) for unlawful payments of dividends or unlawful stock repurchases, redemptions or other distributions, or (iv) for any transaction from which the director derived an improper personal benefit. The registrant's restated certificate of incorporation provides for such limitation of liability.

The registrant maintains standard policies of insurance under which coverage is provided (a) to its directors and officers against loss rising from claims made by reason of breach of duty or other wrongful act, and (b) to the

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registrant with respect to payments which may be made by the registrant to such officers and directors pursuant to the above indemnification provision or otherwise as a matter of law.

### **Item 16. Exhibits and Financial Statement Schedules**

(a) The following exhibits are filed as part of this Registration Statement:

<u>Exhibit Number</u>	<u>Description</u>	<u>Form</u>	<u>Incorporation by Reference</u>		<u>Filing Date</u>
			<u>File No.</u>	<u>Exhibit(s)</u>	
1.1†	Form of Underwriting Agreement				
3.1	<a href="#">Restated Certificate of Incorporation</a>	8-K	001-38829	3.3	March 12, 2019
3.2	<a href="#">Amended and Restated Bylaws</a>	8-K	001-38829	3.4	March 12, 2019
4.1	<a href="#">Specimen Common Stock Certificate</a>	S-1	333-229590	4.1	February 8, 2019
4.2†	Specimen Preferred Stock Certificate				
4.3*	<a href="#">Form of Indenture between the Registrant and the trustee to be named therein</a>				
4.4†	Form of Note				
4.5†	Form of Warrant Agreement				
4.6†	Form of Purchase Contract				
4.7†	Form of Unit Agreement				
4.8†	Form of Depositary Agreement				
5.1*	<a href="#">Opinion of Davis Polk &amp; Wardwell LLP</a>				
23.1*	<a href="#">Consent of Independent Registered Public Accounting Firm</a>				
23.2*	<a href="#">Consent of Davis Polk &amp; Wardwell LLP (included in Exhibit 5.1)</a>				
24.1*	<a href="#">Power of Attorney (included on the signature page of the Registration Statement)</a>				
25.1†	<a href="#">Statement of Eligibility on Form T-1 of the trustee to be named in the indenture included as Exhibit 4.3</a>				

\* Filed herewith

† To be filed, if necessary, by amendment to this registration statement or on a Current Report on Form 8-K in connection with the issuance of the applicable securities.

### **Item 17. Undertakings**

(a) The undersigned Registrant hereby undertakes:

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

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(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 Securities and Exchange Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no 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 (i), (ii) and (iii) above do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the Securities and Exchange Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in this registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered herein, 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 of 1933 to any purchaser:

(A) 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

(B) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement 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 of 1933 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 of 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 of 1933 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 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 of 1933, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) 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) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the Registrants pursuant to the foregoing provisions, or otherwise, the Registrants have been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the 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 Registrants will, unless in the opinion of their 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 Act and will be governed by the final adjudication of such issue.

(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 in accordance with the rules and regulations prescribed by the Securities and Exchange Commission under Section 305(b)(2) of the Trust Indenture Act.

## SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Santa Clara, State of California, on June 16, 2020.

By: /s/ Douglas Godshall

Name: Douglas Godshall

Title: Chief Executive Officer

## POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Douglas Godshall and Dan Puckett, and each of them, his or her true and lawful attorneys-in-fact and agents, with full power to act separately and full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this registration statement and to file the same, with all exhibits thereto, and all other documents in connection therewith, with the Securities and Exchange Commission, granting unto each said attorney-in-fact and agent full power and authority to do and perform each and every act in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or either of them or his or her or their substitute or substitutes may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Douglas Godshall</u> Douglas Godshall	President, Chief Executive Officer & Director (principal executive officer)	June 16, 2020
<u>/s/ Dan Puckett</u> Dan Puckett	Chief Financial Officer (principal financial and accounting officer)	June 16, 2020
<u>/s/ C. Raymond Larkin, Jr.</u> C. Raymond Larkin, Jr.	Chairman & Director	June 16, 2020
<u>/s/ Colin Cahill</u> Colin Cahill	Director	June 16, 2020
<u>/s/ Laura Francis</u> Laura Francis	Director	June 16, 2020
<u>/s/ Frederic Moll, M.D.</u> Frederic Moll, M.D.	Director	June 16, 2020
<u>/s/ Antoine Papiernik</u> Antoine Papiernik	Director	June 16, 2020
<u>/s/ F.T. "Jay" Watkins</u> F.T. "Jay" Watkins	Director	June 16, 2020

SHOCKWAVE MEDICAL, INC.

INDENTURE

Dated as of [\_\_\_\_\_]

[\_\_\_\_\_],

as

Trustee

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**SHOCKWAVE MEDICAL, INC.**

Reconciliation and tie between Trust Indenture Act of 1939 and Indenture, dated as of [\_\_\_\_\_].

§ 310(a)(1)	7.10
(a)(2)	7.10
(a)(3)	Not Applicable
(a)(4)	Not Applicable
(a)(5)	7.10
(b)	7.10
§ 311(a)	7.11
(b)	7.11
§ 312(a)	2.06
(b)	11.03
(c)	11.03
§ 313(a)	7.06
(b)(1)	7.06
(b)(2)	7.06
(c)	7.06
(d)	7.06
§ 314(a)	4.02, 4.03
(b)	Not Applicable
(c)(1)	11.04
(c)(2)	11.04
(c)(3)	Not Applicable
(d)	Not Applicable
(e)	11.05
(f)	Not Applicable
§ 315(a)	7.01
(b)	7.05
(c)	7.01
(d)	7.01
(e)	6.14
§ 316(a)	2.10
(a)(1)(A)	6.12
(a)(1)(B)	6.13
(a)(2)	Not Applicable
(b)	6.08
(c)	9.05
§ 317(a)(1)	6.03
(a)(2)	6.04
(b)	2.05
§ 318(a)	11.01

Note: This reconciliation and tie shall not, for any purpose, be deemed to be part of the Indenture.

Indenture dated as of [\_\_\_\_], between SHOCKWAVE MEDICAL, INC., a Delaware corporation (the “Company”), and [\_\_\_\_] (the “Trustee”).

Each party agrees as follows for the benefit of the other party and for the equal and ratable benefit of the Holders of the Securities issued under this Indenture.

ARTICLE 1  
DEFINITIONS AND INCORPORATION BY REFERENCE

Section 1.01. *Definitions.*

“**Additional Amounts**” means any additional amounts which are required hereby or by any Security, under circumstances specified herein or therein, to be paid by the Company in respect of certain taxes imposed on Holders specified therein and which are owing to such Holders.

“**Affiliate**” of any specified Person means any other Person, directly or indirectly, controlling or controlled by or under direct or indirect common control with such specified Person. For the purposes of this definition, “**control**” when used with respect to any Person means the power to direct the management and policies of such Person, directly or indirectly, whether through the ownership of voting securities, by contract or otherwise; and the terms “**controlling**” and “**controlled**” have meanings correlative to the foregoing.

“**Agent**” means any Registrar, Paying Agent, co-agent, co-registrar or Service Agent.

“**Authorized Newspaper**” means a newspaper in an official language of the country of publication customarily published at least once a day for at least five days in each calendar week and of general circulation in the place in connection with which the term is used. If it shall be impractical in the opinion of the Trustee to make any publication of any notice required hereby in an Authorized Newspaper, any publication or other notice in lieu thereof that is made or given by the Trustee shall constitute a sufficient publication of such notice.

“**Bearer**” means anyone in possession from time to time of a Bearer Security.

“**Bearer Global Security**” or “**Bearer Global Securities**” means a Bearer Security or Securities, as the case may be, in the form established pursuant to Section 2.02 evidencing all or part of a Series of Bearer Securities, deposited with a common depository for Euroclear Bank S.A./N.V., as operator of the Euroclear System and/or Clearstream Banking, société anonyme, Luxembourg.

“**Bearer Security**” means any Security, including any interest coupon appertaining thereto, that does not provide for the identification of the Holder thereof.

“**Board of Directors**” means the Board of Directors of the Company or any duly authorized committee thereof.

“**Board Resolution**” means a copy of a resolution certified by the Secretary or an Assistant Secretary of the Company to have been adopted by the Board of Directors or pursuant to authorization by the Board of Directors and to be in full force and effect on the date of the certificate and delivered to the Trustee.



“**Business Day**” means, unless otherwise provided by Board Resolution, Officers’ Certificate or supplemental indenture hereto for a particular Series, each day which is not a Legal Holiday.

“**Capital Stock**” of any Person means any and all shares, interests, rights to purchase, warrants, options, participations or other equivalents of or interests in (however designated) equity of such Person, including any Preferred Stock, but excluding any debt securities convertible into such equity.

“**Company**” means the party named as such above until a successor replaces it and thereafter means the successor.

“**Company Order**” means a written order signed in the name of the Company by two Officers, one of whom must be the Company’s principal executive officer, principal financial officer or principal accounting officer.

“**Company Request**” means a written request signed in the name of the Company by its Chairman of the Board of Directors, a President or a Vice President, and by its Treasurer, an Assistant Treasurer, its Secretary or an Assistant Secretary, and delivered to the Trustee.

“**Corporate Trust Office**” means the office of the Trustee at which at any particular time its corporate trust business relating to this Indenture shall be principally administered, which as of the date of this Indenture shall be located at:

[\_\_\_\_\_].

“**Debt**” of any Person as of any date means, without duplication, all indebtedness of such Person in respect of borrowed money, including all interest, fees and expenses owed in respect thereto (whether or not the recourse of the lender is to the whole of the assets of such Person or only to a portion thereof), or evidenced by bonds, notes, debentures or similar instruments.

“**Default**” means any event which is, or after notice or passage of time would be, an Event of Default.

“**Depository**” means, with respect to the Securities of any Series issuable or issued in whole or in part in the form of one or more Registered Global Securities, the Person designated as Depository for such Series by the Company, which Depository shall be a clearing agency registered under the Exchange Act; and if at any time there is more than one such Person, “**Depository**” as used with respect to the Securities of any Series shall mean the Depository with respect to the Securities of such Series.

“**Discount Security**” means any Security that provides for an amount less than the stated principal amount thereof to be due and payable upon declaration of acceleration of the Maturity thereof pursuant to Section 6.02.

“**Dollars**” means the currency of the United States of America.

“**Exchange Act**” means the Securities Exchange Act of 1934, as amended.

“**Foreign Currency**” means any currency or currency unit issued by a government other than the government of the United States of America.

“**Foreign Government Obligations**” means with respect to Securities of any Series that are denominated in a Foreign Currency, (i) direct obligations of the government that issued or caused to be issued such currency for the payment of which obligations its full faith and credit is pledged or (ii) obligations of a Person controlled or supervised by or acting as an agency or instrumentality of such government the timely payment of which is unconditionally guaranteed as a full faith and credit obligation by such government, which, in either case under clauses (i) or (ii), are not callable or redeemable at the option of the issuer thereof.

“**Holder**” or “**Securityholder**” means a Person in whose name a Security is registered in the Register or the holder of a Bearer Security.

“**Indenture**” means this Indenture as originally executed and delivered and as supplemented or amended from time to time and shall include the form and terms of particular Series of Securities established as contemplated hereunder.

“**interest**” with respect to any Discount Security which by its terms bears interest only after Maturity, means interest payable after Maturity.

“**Maturity**,” when used with respect to any Security or installment of principal thereof, means the date on which the principal of such Security or such installment of principal becomes due and payable as therein or herein provided, whether at the Stated Maturity or by declaration of acceleration, call for redemption, notice of option to elect repayment or otherwise.

“**Officer**” means the Chairman of the Board, the Chief Executive Officer, the Chief Financial Officer, the President, any Vice-President, the Treasurer, the Secretary, any Assistant Treasurer or any Assistant Secretary of the Company.

“**Officers’ Certificate**” means a certificate signed by two Officers, one of whom must be the Company’s principal executive officer, principal financial officer or principal accounting officer.

“**Opinion of Counsel**” means a written opinion of legal counsel who is reasonably acceptable to the Trustee. The counsel may be an employee of or counsel to the Company or the Trustee.

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

“**Place of Payment**,” when used with respect to the Securities of any Series, means the place or places specified in accordance with Section 2.02 where the principal of and any premium and interest on the Securities of that Series are payable, or if not so specified, in accordance with Section 4.06.

**“Preferred Stock,”** as applied to the Capital Stock of any Person, means Capital Stock of any class or classes (however designated) that is preferred as to the payment of dividends, or as to the distribution of assets upon any voluntary or involuntary liquidation or dissolution of such Person, over shares of Capital Stock of any other class of such Person.

**“principal”** of a Security means the principal of the Security plus, when appropriate, the premium, if any, on, and any Additional Amounts in respect of, the Security.

**“Registered Global Security”** or **“Registered Global Securities”** means a Security or Securities, as the case may be, in the form established pursuant to Section 2.02 evidencing all or part of a Series of Securities, issued to the Depository for such Series or its nominee, and registered in the name of such Depository or nominee.

**“Registered Securities”** means any Security registered on the Register of the Company.

**“SEC”** means the Securities and Exchange Commission.

**“Securities”** means the debentures, notes or other debt instruments of the Company of any Series authenticated and delivered under this Indenture.

**“Securities Act”** means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder, as in effect from time to time.

**“Senior Debt”** means the principal of, premium, if any, unpaid interest, and all fees and other amounts payable in connection with the following, whether outstanding on the date hereof or thereafter created, incurred, assumed or guaranteed, on (x) the Debt of the Company, for money borrowed other than (a) any Debt of the Company which when incurred and without respect to any election under Section 1111(b) of the Federal Bankruptcy Code, was without recourse to the Company, (b) any Debt of the Company to any of its Subsidiaries, (c) Debt to any employee of the Company, (d) any liability for taxes and (e) Trade Payables, unless the instrument creating or evidencing the same or pursuant to which the same is outstanding provides that such Debt is not senior or prior in right of payment to the Securities, (y) all obligations of the Company under interest rate, currency and commodity swaps, caps, floors, collars, hedge arrangements, forward contracts or similar agreements or arrangements and (z) renewals, extensions, modifications and refundings of any such Debt. This definition may be modified or superseded by a supplemental indenture.

**“Senior Securities”** means Securities other than Subordinated Securities.

**“Series”** or **“Series of Securities”** means each series of debentures, notes or other debt instruments of the Company created pursuant to Sections 2.01 and 2.02 hereof.

**“Stated Maturity”** when used with respect to any Security or any installment of principal thereof or interest thereon, means the date specified in such Security as the fixed date on which the principal of such Security or such installment of principal or interest is due and payable (without regard for any provisions for acceleration, redemption prepayment or otherwise).

“**Subordinated Securities**” means Securities that by the terms established pursuant to Section 2.02(i) are subordinated in right of payment to Senior Debt of the Company.

“**Subordination Provisions**” when used with respect to the Subordinated Securities of any Series, shall have the meaning established pursuant to Section 2.02(i) with respect to the Subordinated Securities of such Series.

“**Subsidiary**” of any Person means any corporation, association, partnership or other business entity of which more than 50% of the total voting power of shares of Capital Stock or other interests (including partnership interests) entitled (without regard to the occurrence of any contingency) to vote in the election of directors, managers or trustees thereof is at the time owned or controlled, directly or indirectly, by (i) such Person, (ii) such Person and one or more Subsidiaries of such Person or (iii) one or more Subsidiaries of such Person.

“**TIA**” means the Trust Indenture Act of 1939 (15 U.S. Code §§ 77aaa -77bbb) as in effect on the date of this Indenture; *provided, however*, that in the event the Trust Indenture Act of 1939 is amended after such date, “**TIA**” means, to the extent required by any such amendment, the Trust Indenture Act of 1939 as so amended.

“**Trade Payables**” means accounts payable or any other Debt or monetary obligations to trade creditors created or assumed by the Company or any Subsidiary of the Company in the ordinary course of business in connection with the receipt of materials or services.

“**Trust Officer**” means any officer within the Corporate Trust Office of the Trustee with direct responsibility for the administration of this Indenture.

“**Trustee**” means the Person named as the “**Trustee**” in the first paragraph of this instrument until a successor Trustee shall have become such pursuant to the applicable provisions of this Indenture, and thereafter “**Trustee**” shall mean or include each Person who is then a Trustee hereunder, and if at any time there is more than one such Person, “**Trustee**” as used with respect to the Securities of any Series shall mean the Trustee with respect to Securities of that Series.

“**U.S. Government Obligations**” means direct obligations (or certificates representing an ownership interest in such obligations) of the United States of America (including any agency or instrumentality thereof) for the payment of which the full faith and credit of the United States of America is pledged and which are not callable or redeemable at the issuer’s option.

Section 1.02. *Other Definitions.*

<u>Term</u>	<u>Defined in Section</u>
“ <b>Bankruptcy Law</b> ”	6.01
“ <b>Custodian</b> ”	6.01
“ <b>Event of Default</b> ”	6.01
“ <b>Journal</b> ”	11.15
“ <b>Judgment Currency</b> ”	11.16
“ <b>Legal Holiday</b> ”	11.07
“ <b>mandatory sinking fund payment</b> ”	12.01
“ <b>Market Exchange Rate</b> ”	11.15

<u>Term</u>	<u>Defined in Section</u>
“New York Banking Day”	11.16
“optional sinking fund payment”	12.01
“Paying Agent”	2.04
“Register”	2.04
“Registrar”	2.04
“Required Currency”	11.16
“Service Agent”	2.04
“successor person”	5.01

Section 1.03. *Incorporation by Reference of Trust Indenture Act.* Whenever this Indenture refers to a provision of the TIA, the provision is incorporated by reference in and made a part of this Indenture. The following TIA terms used in this Indenture have the following meanings:

“**Commission**” means the SEC.

“**indenture securities**” means the Securities.

“**indenture security holder**” means a Securityholder.

“**indenture to be qualified**” means this Indenture.

“**indenture trustee**” or “**institutional trustee**” means the Trustee.

“**obligor**” on the indenture securities means the Company and any successor obligor upon the Securities.

All other terms used in this Indenture that are defined by the TIA, defined by TIA reference to another statute or defined by SEC rule under the TIA and not otherwise defined herein are used herein as so defined.

Section 1.04. *Rules of Construction.* Unless the context otherwise requires:

- (i) a term has the meaning assigned to it;
- (ii) an accounting term not otherwise defined has the meaning assigned to it in accordance with generally accepted accounting principles;
- (iii) references to “generally accepted accounting principles” shall mean generally accepted accounting principles in effect as of the time when and for the period as to which such accounting principles are to be applied;
- (iv) “or” is not exclusive; and
- (v) words in the singular include the plural, and in the plural include the singular.

ARTICLE 2  
THE SECURITIES

Section 2.01. *Issuable in Series.* 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. All Securities of a Series shall be identical except as may be set forth in a Board Resolution, a supplemental indenture or an Officers' Certificate detailing the adoption of the terms thereof pursuant to the authority granted under a Board Resolution. In the case of Securities of a Series to be issued from time to time, the Board Resolution, Officers' Certificate or supplemental indenture may provide for the method by which specified terms (such as interest rate, maturity date, record date or date from which interest shall accrue) are to be determined. Securities may differ between Series in respect of any matters, *provided* that all Series of Securities shall be equally and ratably entitled to the benefits of the Indenture.

Section 2.02. *Establishment of Terms of Series of Securities.* At or prior to the issuance of any Securities within a Series, the following shall be established (as to the Series generally, in the case of Subsection 2.02(a) and either as to such Securities within the Series or as to the Series generally in the case of Subsections 2.02(b) through 2.02(x)) by a Board Resolution, a supplemental indenture or an Officers' Certificate pursuant to authority granted under a Board Resolution:

- (a) the title and designation of the Securities of the Series, which shall distinguish the Securities of the Series from the Securities of all other Series, and which may be part of a Series of Securities previously issued;
- (b) any limit upon the aggregate principal amount of the Securities of the Series that 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 the Series pursuant to Section 2.07, 2.08, 2.11, 3.06 or 9.06);
- (c) if other than Dollars, the Foreign Currency or Foreign Currencies in which the Securities of the Series are denominated;
- (d) the date or dates on which the principal of the Securities of the Series is payable or the method of determination thereof;
- (e) the rate or rates (which may be fixed or variable) at which the Securities of the Series shall bear interest, if any, the date or dates from which such interest shall accrue, on which such interest shall be payable, the terms and conditions of any deferral of interest and the additional interest, if any, thereon, the right, if any, of the Company to extend the interest payment periods and the duration of the extensions and (in the case of Registered Securities) the date or dates on which a record shall be taken for the determination of Holders to whom interest is payable and/or the method by which such rate or rates or date or dates shall be determined;
- (f) the place or places where and the manner in which, the principal of and any interest on Securities of the Series shall be payable;
- (g) the right, if any, of the Company to redeem Securities, in whole or in part, at its option and the period or periods within which, or the date or dates on which, the price or prices at which and any terms and conditions upon which Securities of the Series may be so redeemed, pursuant to any sinking fund or otherwise;

(h) the obligation, if any, of the Company to redeem, purchase or repay Securities of the Series pursuant to any mandatory redemption, sinking fund or analogous provisions or at the option of a Holder thereof and the price or prices at which and the period or periods within which or the date or dates on which, and any terms and conditions upon which Securities of the Series shall be redeemed, purchased or repaid, in whole or in part, pursuant to such obligation;

(i) if the Securities of such Series are Subordinated Securities, the terms pursuant to which the Securities of such Series will be made subordinate in right of payment to Senior Debt and the definition of such Senior Debt with respect to such Series (in the absence of an express statement to the effect that the Securities of such Series are subordinate in right of payment to all such Senior Debt, the Securities of such Series shall not be subordinate to Senior Debt and shall not constitute Subordinated Securities); and, in the event that the Securities of such Series are Subordinated Securities, such Board Resolution, Officer's Certificate or supplemental indenture, as the case may be, establishing the terms of such Series shall expressly state which articles, sections or other provisions thereof constitute the "Subordination Provisions" with respect to the Securities of such Series;

(j) if other than denominations of \$1,000 and any integral multiple thereof in the case of Registered Securities, or \$1,000 and \$5,000 in the case of Bearer Securities, the denominations in which Securities of the Series shall be issuable;

(k) the percentage of the principal amount at which the Securities will be issued, and, if other than the 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 and the terms and conditions of any acceleration;

(l) if other than the coin, currency or currencies in which the Securities of the Series are denominated, the coin, currency or currencies in which payment of the principal of or interest on the Securities of such Series shall be payable, including composite currencies or currency units;

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

(n) if the amount of payments of principal of and interest on the Securities of the Series may be determined with reference to an index or formula based on a coin, currency, composite currency or currency unit other than that in which the Securities of the Series are denominated, the manner in which such amounts shall be determined;

(o) whether the Securities of the Series will be issuable as Registered Securities (and if so, whether such Securities will be issuable as Registered Global Securities) or Bearer Securities, with or without interest coupons appertaining thereto (and if, so whether such Securities will be issuable as Bearer Global Securities), or any combination of the foregoing, any restrictions applicable to the offer, sale or delivery of Bearer Securities or the payment of interest thereon and the terms upon which Bearer Securities of any Series may be exchanged for Registered Securities of such Series and vice versa;

(p) whether and under what circumstances the Company will pay Additional Amounts on the Securities of the Series held by a Person who is not a U.S. Person in respect of any tax, assessment or governmental charge withheld or deducted and, if so, whether the Company will have the option to redeem the Securities of the Series rather than pay such Additional Amounts;

(q) if the Securities of the Series are to be issuable in definitive form (whether upon original issue or upon exchange of a temporary Security of such Series) only upon receipt of certain certificates or other documents or satisfaction of other conditions, the form and terms of such certificates, documents or conditions;

(r) any trustees, depositaries, authenticating or Paying Agents, transfer agents or registrars of any other agents with respect to the Securities of such Series;

(s) any deletion from, modification of or addition to the Events of Default or covenants with respect to the Securities of such Series, including, if applicable, covenants affording Holders of debt protection with respect to the Company's operations, financial conditions and transactions involving the Company;

(t) if the Securities of the Series are to be convertible into or exchangeable for any other security or property of the Company, including, without limitation, securities of another Person held by the Company or its Affiliates and, if so, the terms thereof, including conversion or exchange prices or rate and adjustments thereto;

(u) the price or prices at which the Securities will be issued;

(v) any provisions for remarketing;

(w) the terms applicable to any Securities issued at a discount from their stated principal amount; and

(x) any other terms of the Series.

All Securities of any one Series need not be issued at the same time and may be issued from time to time, consistent with the terms of this Indenture, if so provided by or pursuant to the Board Resolution, supplemental indenture or Officers' Certificate referred to above, and the authorized principal amount of any Series may not be increased to provide for issuances of additional Securities of such Series, unless otherwise provided in such Board Resolution, supplemental indenture or Officers' Certificate.

Section 2.03. *Execution and Authentication.* One or more Officers shall sign the Securities for the Company by manual or facsimile signature.

If an Officer whose signature is on a Security no longer holds that office at the time the Security is authenticated, the Security shall be valid nevertheless so long as such individual was an Officer at the time of execution of the Security.



A Security shall not be valid until authenticated by the manual signature of the Trustee or an authenticating agent. The signature shall be conclusive evidence that the Security has been authenticated under this Indenture.

The Trustee shall at any time, and from time to time, authenticate Securities for original issue in the principal amount provided in the Board Resolution, supplemental indenture hereto or Officers' Certificate, upon receipt by the Trustee of a Company Order. Each Security shall be dated the date of its authentication unless otherwise provided by a Board Resolution, a supplemental indenture hereto or an Officers' Certificate.

The aggregate principal amount of Securities of any Series outstanding at any time may not exceed any limit upon the maximum principal amount for such Series set forth in the Board Resolution, supplemental indenture hereto or Officers' Certificate delivered pursuant to Section 2.02, except as provided in Section 2.08.

Prior to the issuance of Securities of any Series, the Trustee shall have received and (subject to Section 7.02) shall be fully protected in relying on: (a) the Board Resolution, supplemental indenture hereto or Officers' Certificate establishing the form of the Securities of that Series or of Securities within that Series and the terms of the Securities of that Series or of Securities within that Series, (b) an Officers' Certificate complying with Section 11.04, and (c) an Opinion of Counsel complying with Section 11.04.

The Trustee shall have the right to decline to authenticate and deliver any Securities of such Series: (a) if the Trustee, being advised by counsel, determines that such action may not lawfully be taken; or (b) if the Trustee in good faith shall determine that such action would expose the Trustee to personal liability to Holders of any then outstanding Series of Securities.

The Trustee may appoint an authenticating agent reasonably acceptable to the Company to authenticate the Securities. Any such appointment shall be evidenced by an instrument signed by a Trust Officer, a copy of which shall be furnished to the Company. Unless limited by the terms of such appointment, an authenticating agent may authenticate Securities whenever the Trustee may do so. Each reference in this Indenture to authentication by the Trustee includes authentication by such agent. An authenticating agent has the same rights as an Agent to deal with the Company or an Affiliate.

Section 2.04. *Registrar and Paying Agent.* The Company shall maintain, with respect to each Series of Securities, at the place or places specified with respect to such Series pursuant to Section 2.02, an office or agency where Securities of such Series may be presented or surrendered for payment ("Paying Agent"), where Securities of such Series may be surrendered for registration of transfer or exchange ("Registrar") and where notices and demands to or upon the Company in respect of the Securities of such Series and this Indenture may be served ("Service Agent"). The Registrar shall keep a register with respect to each Series of Registered Securities (the "Register") and to their transfer and exchange. The Company will give prompt written notice to the Trustee of the name and address, and any change in the name or address, of each Registrar, Paying Agent or Service Agent. If at any time the Company shall fail to maintain any such required Registrar, Paying Agent or Service Agent or shall fail to furnish the Trustee with the name and address thereof, such presentations, surrenders, 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, surrenders, notices and demands; provided that the Corporate Trust Office shall not be an office or agency of the Company for the purpose of effecting service of legal process on the Company.

The Company may also from time to time designate one or more co-registrars, additional paying agents or additional service agents and may from time to time rescind such designations; *provided, however*, that no such designation or rescission shall in any manner relieve the Company of its obligations to maintain a Registrar, Paying Agent and Service Agent in each place so specified pursuant to Section 2.02 for Securities of any Series for such purposes. The Company will give prompt written notice to the Trustee of any such designation or rescission and of any change in the name or address of any such co-registrar, additional paying agent or additional service agent. The term "Registrar" includes any co-registrar; the term "Paying Agent" includes any additional paying agent; and the term "Service Agent" includes any additional service agent.

The Company hereby appoints the Trustee the initial Registrar, Paying Agent and Service Agent for each Series unless another Registrar, Paying Agent or Service Agent, as the case may be, is appointed prior to the time Securities of that Series are first issued. The Company or any of its domestically organized Subsidiaries may act as Paying Agent, Registrar or Service Agent. So long as the Trustee is the Service Agent, no service of legal process on the Company may be made on the Service Agent.

The rights, privileges, protections, immunities and benefits given to the Trustee under this Indenture including, without limitation, its right to be indemnified, are extended to, and shall be enforceable by, the Trustee in each of its capacities hereunder, and each Agent acting hereunder.

The Company shall enter into an appropriate agency agreement with any Registrar, Paying Agent or Service Agent not a party to this Indenture, which shall incorporate the terms of the TIA. The agreement shall implement the provisions of this Indenture that relate to such agent. The Company shall notify the Trustee of the name and address of any such agent.

The Company may remove any Registrar, Paying Agent or Service Agent for any Series of Securities upon written notice to such Registrar, Paying Agent or Service Agent and to the Trustee; *provided, however*, that no such removal shall become effective until (1) acceptance of an appointment by a successor as evidenced by an appropriate agreement entered into by the Company and such successor Registrar, Paying Agent or Service Agent, as the case may be, and delivered to the Trustee or (2) notification to the Trustee that the Trustee shall serve as Registrar, Paying Agent or Service Agent, as the case may be, until the appointment of a successor in accordance with clause (1) above. The Registrar, Paying Agent or Service Agent may resign at any time upon written notice; *provided, however*, that the Trustee may resign as Paying Agent, Registrar or Service Agent only if the Trustee also resigns as Trustee in accordance with Section 7.08. Upon any Event of Default under Section 6.01(e) or (f), the Trustee shall automatically be the Paying Agent.

Section 2.05. *Paying Agent to Hold Money in Trust.* Prior to each due date of the principal and interest on any Series of Securities, the Company shall deposit with the Paying Agent (or if the Company or a Subsidiary is acting as Paying Agent, segregate and hold in trust

for the benefit of the Persons entitled thereto) a sum sufficient to pay such principal and interest when so becoming due. The Company shall require each Paying Agent (other than the Trustee) to agree in writing that the Paying Agent will hold in trust, for the benefit of Securityholders of any Series of Securities, or the Trustee, all money held by the Paying Agent for the payment of principal of or interest on the Series of Securities, and shall notify the Trustee of any default by the Company in making any such payment. While any such default continues, the Trustee may require a Paying Agent to pay all money held by it to the Trustee. The Company at any time may require a Paying Agent to pay all money held by it to the Trustee. Upon payment over to the Trustee, the Paying Agent (if other than the Company or a Subsidiary) shall have no further liability for the money. If the Company or a Subsidiary acts as Paying Agent, it shall segregate and hold in a separate trust fund for the benefit of Securityholders of any Series of Securities all money held by it as Paying Agent.

Section 2.06. *Securityholder Lists.* The Trustee shall preserve in as current a form as is reasonably practicable the most recent list available to it of the names and addresses of Securityholders of each Series of Securities and shall otherwise comply with TIA § 312(a). If the Trustee is not the Registrar, the Company shall furnish, or cause the Registrar to furnish, to the Trustee at least five Business Days before each interest payment date, but in any event not less frequently than semi-annually, and at such other times as the Trustee may request in writing a list, in such form and as of such date as the Trustee may reasonably require, of the names and addresses of Securityholders of each Series of Securities.

Section 2.07. *Exchange and Registration of Transfer.* The Company shall cause to be kept at the Corporate Trust Office the Register in which, subject to such reasonable regulations as it may prescribe, the Company shall provide for the registration of Securities of a Series and of transfers of Securities of such Series. The Register shall be in written form or in any form capable of being converted into written form within a reasonably prompt period of time.

Upon surrender for registration of transfer of any Security of a Series to the Registrar or any co-registrar, and satisfaction of the requirements for such transfer set forth in this Section 2.07, the Company shall execute, and the Trustee shall authenticate and deliver, in the name of the designated transferee or transferees, one or more new Security of the same Series of any authorized denominations and of a like aggregate principal amount and bearing such restrictive legends as may be required by this Indenture.

Securities of a Series may be exchanged for other Securities of the same Series of any authorized denominations and of a like aggregate principal amount, upon surrender of the Securities to be exchanged at any such office or agency maintained by the Company pursuant to Section 4.06. Whenever any Securities of a Series are so surrendered for exchange, the Company shall execute, and the Trustee shall authenticate and deliver, the Securities of the same Series that the Holder making the exchange is entitled to receive bearing registration numbers not contemporaneously outstanding.

All Securities of a Series issued upon any registration of transfer or exchange of Securities of the same Series shall be the valid obligations of the Company, evidencing the same debt, and entitled to the same benefits under this Indenture, as the Securities of the same Series surrendered upon such registration of transfer or exchange.

All Securities of a Series presented or surrendered for registration of transfer or for exchange shall (if so required by the Company or the Registrar) be duly endorsed, or be accompanied by a written instrument or instruments of transfer in form satisfactory to the Company, and the Securities of such Series shall be duly executed by the Holder thereof or his attorney duly authorized in writing.

No service charge shall be made to any Holder for any registration of, transfer or exchange of Securities, but the Company or the Trustee may require payment by the Holder of a sum sufficient to cover any tax, assessment or other governmental charge that may be imposed in connection with any registration of transfer or exchange of such Securities (other than any such transfer tax or similar governmental charge payable upon exchanges pursuant to Sections 2.11, 3.06 or 9.06).

Neither the Company nor the Trustee nor any Registrar shall be required to exchange, issue or register a transfer of (a) Securities of any Series for a period of fifteen calendar days next preceding date of mailing of a notice of redemption of Securities of that Series selected for redemption, or (b) Securities of any Series or portions thereof called for redemption, except for the unredeemed portion of any Securities of that Series being redeemed in part.

Section 2.08. *Mutilated, Destroyed, Lost and Stolen Securities.* If a mutilated Security is surrendered to the Registrar or if the Securityholder of a Security claims that the Security has been lost, destroyed or wrongfully taken, the Company shall issue and the Trustee shall authenticate and deliver a replacement Security of the same Series if the requirements of Section 8 -405 of the Uniform Commercial Code are met, such that the Securityholder (a) satisfies the Company or the Trustee within a reasonable time after he has notice of such loss, destruction or wrongful taking and the Registrar does not register a transfer prior to receiving such notification, (b) makes such request to the Company or the Trustee prior to the Security being acquired by a protected purchaser as defined in Section 8 -303 of the Uniform Commercial Code (a "protected purchaser") and (c) satisfies any other reasonable requirements of the Company or the Trustee. If required by the Trustee or the Company, such Securityholder shall furnish an indemnity bond sufficient in the judgment of the Trustee to protect the Trustee and any Agent and in the judgment of the Company to protect the Company, the Trustee, the Paying Agent and the Registrar from any loss that any of them may suffer if a Security is replaced. The Company and the Trustee may charge the Securityholder for their expenses in replacing a Security. In case any Security which has matured or is about to mature or has been called for redemption, shall become mutilated or be destroyed, lost or stolen, the Company may, instead of issuing a substitute Security, pay or authorize the payment of (without surrender thereof except in the case of a mutilated Security), as the case may be, if the applicant for such payment or conversion shall furnish to the Company, to the Trustee and, if applicable, to such authenticating agent such security or indemnity as may be required by them to save each of them harmless for any loss, liability, cost or expense caused by or in connection with such substitution, and, in every case of destruction, loss or theft, the applicant shall also furnish to the Company, the Trustee and, if applicable, any Paying Agent evidence to their satisfaction of the destruction, loss or theft of such Securities and of the ownership thereof.

Every replacement Security of any Series issued pursuant to this Section is an additional obligation of the Company, evidencing the same debt, and entitled to the same benefits under this Indenture, as the Securities of the same Series replaced.

The provisions of this Section are exclusive and shall preclude (to the extent lawful) all other rights and remedies with respect to the replacement or payment of mutilated, destroyed, lost or stolen Securities.

Section 2.09. *Outstanding Securities.* The Securities outstanding at any time are all the Securities authenticated by the Trustee except for those cancelled by it, those delivered to it for cancellation, those reductions in the interest on a Registered Global Security effected by the Trustee in accordance with the provisions hereof and those described in this Section as not outstanding. A Security does not cease to be outstanding because the Company or an Affiliate holds the Security.

If a Security is replaced pursuant to Section 2.08, it ceases to be outstanding unless the Trustee and the Company receive proof satisfactory to them that the replaced Security is held by a protected purchaser.

If the Paying Agent (other than the Company, a Subsidiary or an Affiliate of any thereof) holds on the Maturity of Securities of a Series money sufficient to pay such Securities (or portions thereof) payable on that date, and the Paying Agent is not prohibited from paying such money to the Securityholders of such Series on that date pursuant to the terms of the Indenture, then on and after that date such Securities of the Series (or portions thereof) cease to be outstanding and interest on them ceases to accrue.

In determining whether the Holders of the requisite principal amount of outstanding Securities have given any request, demand, authorization, direction, notice, consent or waiver hereunder, the principal amount of a Discount Security that shall be deemed to be outstanding for such purposes shall be the amount of the principal thereof that would be due and payable as of the date of such determination upon a declaration of acceleration of the Maturity thereof pursuant to Section 6.02.

Section 2.10. *Treasury Securities.* In determining whether the Holders of the required principal amount of Securities of a Series have concurred in any direction, waiver or consent, Securities of a Series owned by the Company, any other obligor upon the Securities or an Affiliate of the Company or such other obligor shall be disregarded and deemed not to be outstanding, except that for the purposes of determining whether the Trustee shall be protected in relying on any such direction, waiver or consent only Securities of a Series that the Trustee knows are so owned shall be so disregarded. Securities so owned which have been pledged in good faith may be regarded as outstanding if the pledgee establishes to the satisfaction of the Trustee the pledgee's right so to act with respect to such Securities and that the pledgee is not the Company or any other obligor upon the Securities or any Affiliate of the Company or any other obligor on the Securities. In case of a dispute as to such right, the advice of counsel shall be full protection in respect of any decision made by the Trustee in accordance with such advice. Upon written request of the Trustee, the Company shall furnish to the Trustee promptly an Officers' Certificate listing and identifying all Securities, if any, known by the Company to be owned or held by or for the account of any of the above-described persons; and, subject to Sections 7.01 and 7.02, the Trustee shall be entitled to accept such Officers' Certificate as conclusive evidence of the facts therein set forth and of the fact that all Securities not listed therein are outstanding for the purpose of any such determination.

Section 2.11. *Temporary Securities.* Pending the preparation of Securities in certificated form, the Company may execute and the Trustee or an authenticating agent appointed by the Trustee shall, upon a Company Order, authenticate and deliver temporary Securities (printed, lithographed, typewritten, photocopied or otherwise produced). Temporary Securities shall be issuable in any authorized denomination, and substantially in the form of the Securities in certificated form, but with such omissions, insertions and variations as may be appropriate for temporary Securities, all as may be determined by the Company. Every such temporary Security shall be executed by the Company and authenticated by the Trustee or such authenticating agent upon the same conditions and in substantially the same manner, and with the same effect, as the Securities in certificated form. Without unreasonable delay, the Company will execute and deliver to the Trustee or such authenticating agent Securities of the same Series in certificated form and thereupon any or all temporary Securities may be surrendered in exchange therefor, at each office or agency maintained by the Company pursuant to Section 4.07 and the Trustee or such authenticating agent shall authenticate and make available for delivery in exchange for such temporary Securities an equal aggregate principal amount of Securities of the same Series in certificated form. Such exchange shall be made by the Company at its own expense and without any charge therefor. Until so exchanged, the temporary Securities shall in all respects be entitled to the same benefits and subject to the same limitations under this Indenture as Securities of the same Series in certificated form authenticated and delivered hereunder.

Section 2.12. *Cancellation.* The Company at any time may deliver Securities to the Trustee for cancellation. The Registrar and the Paying Agent shall forward to the Trustee any Securities surrendered to them for registration of transfer, exchange or payment. The Trustee and no one else shall cancel all Securities surrendered for registration of transfer, exchange, payment, replacement or cancellation and dispose of such cancelled Securities in accordance with its customary procedure. The Company may not issue new Securities to replace Securities that it has paid or delivered to the Trustee for cancellation. The Trustee shall not authenticate Securities in place of cancelled Securities other than pursuant to the terms of this Indenture.

Section 2.13. *Defaulted Interest.* If the Company defaults in a payment of interest on a Series of Securities, it shall pay the defaulted interest, plus, to the extent permitted by law, any interest payable on the defaulted interest, to the Persons who are Securityholders of the Series on a subsequent special record date. The Company shall fix or cause to be fixed any such special record date and payment date to the reasonable satisfaction of the Trustee and shall promptly mail or cause to be mailed or deliver by electronic transmission to each Securityholder of the Series a notice that states the special record date, the payment date and the amount of defaulted interest to be paid. The Company may pay defaulted interest in any lawful manner.

Section 2.14. *Registered Global Securities.*

(a) *Terms of Securities.* A Board Resolution, a supplemental indenture hereto or an Officers' Certificate shall establish whether the Securities of a Series shall be issued in whole or in part in the form of one or more Registered Global Securities and the Depositary for such Registered Global Security or Securities.

(b) *Transfer and Exchange.* Notwithstanding any provisions to the contrary contained in Section 2.07 of the Indenture and in addition thereto, any Registered Global Security shall be exchangeable pursuant to Section 2.07 of the Indenture for Securities registered in the names of

Holders other than the Depositary for such Security or its nominee only if (i) such Depositary notifies the Company that it is unwilling or unable to continue as Depositary for such Registered Global Security or if at any time such Depositary ceases to be a clearing agency registered under the Exchange Act, and, in either case, the Company fails to appoint a successor Depositary within 90 days of such event or (ii) the Company executes and delivers to the Trustee an Officers' Certificate to the effect that such Registered Global Security shall be so exchangeable. Any Registered Global Security that is exchangeable pursuant to the preceding sentence shall be exchangeable for Securities registered in such names as the Depositary shall direct in writing in an aggregate principal amount equal to the principal amount of the Registered Global Security with like tenor and terms.

Except as provided in this Section 2.14(b), a Registered Global Security may not be transferred except as a whole by the Depositary with respect to such Registered Global Security to a nominee of such Depositary, by a nominee of such Depositary to such Depositary or another nominee of such Depositary or by the Depositary or any such nominee to a successor Depositary or a nominee of such a successor Depositary.

(c) *Legend.* Any Registered Global Security issued hereunder shall bear a legend in substantially the following form:

“This Security is a Registered Global Security within the meaning of the Indenture hereinafter referred to and is registered in the name of the Depositary or a nominee of the Depositary. This Security is exchangeable for Securities registered in the name of a Person other than the Depositary or its nominee only in the limited circumstances described in the Indenture, and may not be transferred except as a whole by the Depositary to a nominee of the Depositary, by a nominee of the Depositary to the Depositary or another nominee of the Depositary or by the Depositary or any such nominee to a successor Depositary or a nominee of such a successor Depositary.”

(d) *Acts of Holders.* The Depositary, as a Holder, may appoint agents and otherwise authorize participants to give or take any request, demand, authorization, direction, notice, consent, waiver or other action which a Holder is entitled to give or take under the Indenture.

(e) *Payments.* Notwithstanding the other provisions of this Indenture, unless otherwise specified as contemplated by Section 2.02, payment of the principal of and interest, if any, on any Registered Global Security shall be made to the Holder thereof.

(f) *Consents, Declaration and Directions.* Except as provided in Section 2.14(e), the Company, the Trustee and any Agent shall treat a Person as the Holder of such principal amount of outstanding Securities of such Series represented by a Registered Global Security as shall be specified in a written statement of the Depositary with respect to such Registered Global Security, for purposes of obtaining any consents, declarations, waivers or directions required to be given by the Holders pursuant to this Indenture.

Section 2.15. *Computation of Interest.* Except as otherwise specified pursuant to Section 2.02 for Securities of any Series, interest on the Securities of each Series shall be computed on the basis of a 360-day year of twelve 30-day months.

Section 2.16. *CUSIP and ISIN Numbers.* The Company in issuing the Securities may use “CUSIP” and “ISIN” numbers (if then generally in use), and, if so, the Trustee shall use “CUSIP” and “ISIN” numbers in notices of redemption as a convenience to Holders; *provided* that any such notice may state that no representation is made as to the correctness of such numbers either as printed on the Securities or as contained in any notice of a redemption and that reliance may be placed only on the other elements of identification printed on the Securities, and any such redemption shall not be affected by any defect in or omission of such numbers. The Company shall promptly notify the Trustee in writing of any changes to the CUSIP and ISIN numbers.

ARTICLE 3  
REDEMPTION

Section 3.01. *Notice to Trustee.* The Company may, with respect to any Series of Securities, reserve the right to redeem and pay the Series of Securities or may covenant to redeem and pay the Series of Securities or any part thereof prior to the Stated Maturity thereof at such time and on such terms as provided for in such Securities. If a Series of Securities is redeemable and the Company wants or is obligated to redeem prior to the Stated Maturity thereof all or part of the Series of Securities pursuant to the terms of such Securities, it shall notify the Trustee in writing of the redemption date and the principal amount of Series of Securities to be redeemed. The Company shall give the notice at least 35 calendar days before the redemption date (or such shorter notice as may be acceptable to the Trustee).

Section 3.02. *Selection of Securities to be Redeemed.* Unless otherwise indicated for a particular Series by a Board Resolution, a supplemental indenture or an Officers’ Certificate, if less than all the Securities of a Series are to be redeemed, the Trustee shall select the Securities of the Series to be redeemed in any manner that the Trustee deems fair and appropriate. The Trustee shall make the selection from Securities of the Series outstanding not previously called for redemption. The Trustee may select for redemption portions of the principal of Securities of the Series that have denominations larger than \$1,000. Securities of the Series and portions of them it selects shall be in amounts of \$1,000 or whole multiples of \$1,000 or, with respect to Securities of any Series issuable in other denominations pursuant to Section 2.02(j), the minimum principal denomination for each Series and integral multiples thereof. Provisions of this Indenture that apply to Securities of a Series called for redemption also apply to portions of Securities of that Series called for redemption.

Section 3.03. *Notice of Redemption.* Unless otherwise indicated for a particular Series by Board Resolution, a supplemental indenture hereto or an Officers’ Certificate, at least 30 days but not more than 60 days before a redemption date, the Company shall provide a notice of redemption by electronic transmission or first-class mail to each Holder whose Securities are to be redeemed and if any Bearer Securities are outstanding, publish on one occasion a notice in an Authorized Newspaper.

The notice shall identify the Securities of the Series to be redeemed and shall state:

- (a) the redemption date;
- (b) the redemption price, or if not then ascertainable, the manner of calculation thereof;



(c) the name and address of the Paying Agent;

(d) if less than all Securities of any Series are to be redeemed, the identification of the particular Securities to be redeemed and the portion of the principal amount of any Security to be redeemed in part;

(e) that Securities of the Series called for redemption must be surrendered to the Paying Agent to collect the redemption price;

(f) that interest on Securities of the Series called for redemption ceases to accrue on and after the redemption date;

(g) the nature of any conditions precedent to the Company's obligation to redeem the Securities on the redemption date; and

(h) any other information as may be required by the terms of the particular Series or the Securities of a Series being redeemed.

At the Company's written request, the Trustee shall give the notice of redemption in the Company's name and at the Company's expense and *provided* that the form and content of such notice shall be prepared by the Company.

Section 3.04. *Effect of Notice of Redemption.* Once notice of redemption is transmitted, mailed or published as provided in Section 3.03, Securities of a Series called for redemption become due and payable on the redemption date and at the redemption price. Upon surrender to the Paying Agent, such Securities shall be paid at the redemption price plus accrued interest to, but excluding, the redemption date.

Section 3.05. *Deposit of Redemption Price.* On or before the redemption date, the Company shall deposit with the Paying Agent money sufficient to pay the redemption price of and accrued interest, if any, on all Securities to be redeemed on that date.

Section 3.06. *Securities Redeemed in Part.* Upon surrender of a Security that is redeemed in part, the Trustee shall authenticate for the Holder a new Security of the same Series and the same Maturity equal in principal amount to the unredeemed portion of the Security surrendered.

#### ARTICLE 4 COVENANTS

Section 4.01. *Payment of Principal and Interest.* The Company shall duly and punctually pay the principal of and interest, if any, on the Securities of that Series in accordance with the terms of such Securities and this Indenture.

Section 4.02. *SEC Reports.* The Company shall furnish to the Trustee within 15 days after the filing by the Company with the SEC 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 SEC may by rules and regulations prescribe) which the Company is required to file with the SEC pursuant to Section 13 or 15(d) of the Exchange Act. The Company also shall comply with the other

provisions of TIA § 314(a). The Company will be deemed to have furnished such reports referred to in this Section to the Trustee if the Company has filed such reports with the SEC via the EDGAR filing system (or any successor thereto) and such reports are publicly available.

Section 4.03. *Compliance Certificate*. The Company shall deliver to the Trustee, within 120 days after the end of each fiscal year of the Company, a brief certificate from the principal executive officer, principal financial officer, principal accounting officer or vice president or treasurer as to his or her knowledge of the Company's compliance with all conditions and covenants under this Indenture (which compliance shall be determined without regard to any period of grace or requirement of notice provided under this Indenture) and, in the event of any Default, specifying each such Default and the nature and status thereof of which such Person may have knowledge. Such certificates need not comply with Section 11.05 of this Indenture.

Section 4.04. *Stay, Extension and Usury Laws*. The Company covenants (to the extent that it may lawfully do so) that it will not at any time insist upon, plead, or in any manner whatsoever claim or take the benefit or advantage of, any stay, extension or usury law wherever enacted, now or at any time hereafter in force, which may affect the covenants or the performance of this Indenture or the Securities; and the Company (to the extent it may lawfully do so) hereby expressly waives all benefit or advantage of any such law and covenants that it will not, by resort to any such law, hinder, delay or impede the execution of any power herein granted to the Trustee, but will suffer and permit the execution of every such power as though no such law has been enacted.

Section 4.05. *Corporate Existence*. Subject to Article 5, the Company will do or cause to be done all things necessary to preserve and keep in full force and effect its corporate existence and the rights (charter and statutory), licenses and franchises of the Company; *provided, however*, that the Company shall not be required to preserve any such right, license or franchise, if the Board of Directors shall determine that the preservation thereof is no longer desirable in the conduct of the business of the Company and its Subsidiaries taken as a whole and that the loss thereof is not adverse in any material respect to the Holders.

Section 4.06. *Maintenance of Office or Agency*. The Company will maintain an office or agency in the United States, where the Securities of a Series may be surrendered for registration of transfer or exchange or for presentation for payment and where notices and demands to or upon the Company in respect of the Securities of a Series and this Indenture may be served. The Company will give prompt written notice to the Trustee of the location, and any change in the location, of such office or agency not designated or appointed by the Trustee. 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, surrenders, notices and demands may be made or served at the Corporate Trust Office.

The Company may also from time to time designate co-registrars and one or more offices or agencies where the Securities of a Series may be presented or surrendered for any or all such purposes and may from time to time rescind such designations. The Company will give prompt written notice to the Trustee of any such designation or rescission and of any change in the location of any such other office or agency.

Section 4.07. *Money For Securities Payments to be Held in Trust*. If the Company shall at any time act as its own Paying Agent with respect to the Securities of any Series, it shall, on or before each due date of the principal of and premium, if any, and interest, if any, on any of such

Securities, segregate and hold in trust for the benefit of the Persons entitled thereto a sum sufficient to pay the principal and premium or interest so becoming due until such sums shall be paid to such Persons or otherwise disposed of as herein provided. The Company shall promptly notify the Trustee of any failure by the Company (or any other obligor of such Securities) to make any payment of principal of or premium, if any, or interest, if any, on such Securities.

Whenever the Company shall have one or more Paying Agents for the Securities of any Series, it shall, on or before each due date of the principal of and premium, if any, and interest, if any, on such Securities, deposit with such Paying Agents sums sufficient (without duplication) to pay the principal and premium or interest so becoming due, such sums 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 shall promptly notify the Trustee of any failure by it so to act.

The Company shall cause each Paying Agent for the Securities of any Series, other than the Company or the Trustee, to execute and deliver to the Trustee an instrument in which such Paying Agent shall agree with the Trustee, subject to the provisions of this Section, that such Paying Agent shall:

- (i) hold all sums held by it for the payment of the principal of and premium, if any, or interest, if any, on such Securities in trust for the benefit of the Persons entitled thereto until such sums shall be paid to such Persons or otherwise disposed of as herein provided;
- (ii) give the Trustee notice of any failure by the Company (or any other obligor upon such Securities) to make any payment of principal of or premium, if any, or interest, if any, on such Securities; and
- (iii) at any time during the continuance of any such failure, upon the written request of the Trustee, forthwith pay to the Trustee all sums so held in trust by such Paying Agent and furnish to the Trustee such information as it possesses regarding the names and addresses of the Persons entitled to such sums.

The Company may at any time pay, or by Company Order 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 trusts as those upon which such sums were held by the Company or such Paying Agent and, if so stated in a Company Order delivered to the Trustee, in accordance with the provisions of Article 8; and, upon such payment by any Paying Agent to the Trustee, such Paying Agent shall be released from all further liability with respect to such money.

Any money deposited with the Trustee or any Paying Agent, or then held by the Company, in trust for the payment of the principal of and premium, if any, or interest, if any, on any Security and remaining unclaimed for two years after such principal and premium, if any, or interest, if any, has become due and payable shall be paid to the Company on request of the Company, or, if then held by the Company, shall be discharged from such trust; and, upon such payment or discharge, the Holder of such Security shall, as an unsecured general creditor and not as the Holder of an outstanding Security, look only to the Company for payment of the amount so due and payable and remaining unpaid, and all liability of the Trustee or such Paying Agent with respect to such trust money, and all liability of the Company as trustee thereof, shall

thereupon cease; *provided, however*, that the Trustee or such Paying Agent, before being required to make any such payment to the Company, may at the expense of the Company cause to be published once a week for two successive weeks, in each case on any day of the week, in an Authorized Newspaper in each Place of Payment, notice that such money remains unclaimed and that, after a date specified therein, which shall not be less than 30 days from the date of such publication, any unclaimed balance of such money then remaining will be paid to the Company.

Section 4.08. *Waiver of Certain Covenants.* Except as otherwise specified as contemplated by Section 2.02 for Securities of such Series, the Company may, with respect to the Securities of any Series, omit in any particular instance to comply with any term, provision or condition set forth in any covenant provided herein or pursuant to Section 2.02(s) or Section 9.01(b) for the benefit of the Holders of such Series if before the time for such compliance the Holders of at least 50% in principal amount of the outstanding Securities of such Series shall, by an Act of such Holders, either waive such compliance in such instance or generally waive compliance with such term, provision or condition, but no such waiver shall extend to or affect such term, provision or condition except to the extent so expressly waived, and, until such waiver shall become effective, the obligations of the Company and the duties of the Trustee in respect of such term, provision or condition shall remain in full force and effect.

## ARTICLE 5 SUCCESSORS

Section 5.01. *When Company May Merge, Etc.* The Company shall not consolidate with or merge into, or convey, transfer or lease all or substantially all of its properties and assets to, any Person (a “successor person”), and may not permit any Person to merge into, or convey, transfer or lease its properties and assets substantially as an entirety to, the Company, unless:

(a) either the Company shall be the continuing corporation or the successor person (if other than the Company) is a corporation, partnership, trust or other entity organized and validly existing under the laws of the United States of America, any State thereof or the District of Columbia and expressly assumes the Company’s obligations on the Securities and under this Indenture; and

(b) immediately after giving effect to the transaction, no Default or Event of Default, shall have occurred and be continuing.

The Company shall deliver to the Trustee prior to the consummation of the proposed transaction an Officers’ Certificate to the foregoing effect and an Opinion of Counsel stating that the proposed transaction and such supplemental indenture comply with this Indenture.

Section 5.02. *Successor Corporation Substituted.* The successor person formed by such consolidation or into which the Company is merged or to which such transfer or lease is made shall succeed to and be substituted for, and may exercise every right and power of, the Company under this Indenture with the same effect as if such successor person had been named as the Company herein, and thereafter (except in the case of a lease to another Person) the predecessor corporation shall be relieved of all obligations and covenants under the Indenture and the Securities and, in the event of such conveyance or transfer, any such predecessor corporation may be dissolved and liquidated.

ARTICLE 6  
DEFAULTS AND REMEDIES

Section 6.01. *Events of Default.*

“Event of Default,” wherever used herein with respect to Securities of any Series, means any one of the following events, unless in the establishing Board Resolution, supplemental indenture or Officers’ Certificate, it is *provided* that such Series shall not have the benefit of said Event of Default:

(a) a default in the payment of any interest on any Security of that Series when it becomes due and payable, and continuance of such default for a period of 30 days (unless the entire amount of such payment is deposited by the Company with the Trustee or with a Paying Agent prior to the expiration of such period of 30 days); *provided* that, a valid extension of an interest payment period by the Company in accordance with the terms of such Securities shall not constitute a failure to pay interest; or

(b) a default in the payment of the principal of, or premium, if any, on, any Security of that Series when due at its Maturity; or

(c) a default in the deposit of any sinking fund payment, when and as due in respect of any Security of that Series; or

(d) a default, subject to the provisions in Section 4.08, in the performance or breach of any covenant or warranty of the Company in this Indenture (other than a covenant or warranty that has been included in this Indenture solely for the benefit of Series of Securities other than that Series), which default continues uncured for a period of 90 days after there has been given, by registered or certified mail, to the Company by the Trustee or to the Company and the Trustee by the Holders of at least 25% in principal amount of the outstanding Securities of that Series a written notice specifying such default or breach and requiring it to be remedied and stating that such notice is a “Notice of Default” hereunder; or

(e) 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,

(iv) makes a general assignment for the benefit of its creditors, or

(v) generally is unable to pay its debts as the same become due; or

(f) a court of competent jurisdiction enters an order or decree 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 60 days; or

(g) any other Event of Default provided with respect to Securities of that Series, which is specified in a Board Resolution, a supplemental indenture hereto or an Officers' Certificate, in accordance with Section 2.02(s).

The term "**Bankruptcy Law**" means title 11, U.S. Code or any similar Federal or State law for the relief of debtors. The term "Custodian" means any receiver, trustee, assignee, liquidator or similar official under any Bankruptcy Law.

Section 6.02. *Acceleration of Maturity; Rescission and Annulment.* If an Event of Default described in Section 6.01 (a) or (b) occurs and is continuing, then, and in each and every such case, except for any Series of Securities the principal of which 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 each such affected Series then outstanding hereunder (each such Series voting as a separate class) by notice in writing to the Company (and to the Trustee if given by Securityholders), may declare the entire principal (or, if the Securities of such Series are Discount Securities, such portion of the principal amount as may be specified in the terms of such Series) of all Securities of such Series, and the interest accrued thereon, if any, to be due and payable immediately, and upon any such declaration, the same shall become immediately due and payable.

Except as otherwise provided in the terms of any Series of Senior Securities pursuant to Section 2.02, if an Event of Default described in Section 6.01(c) or (d) above with respect to all Series of the Senior Securities then outstanding, occurs and is continuing, then, and in each and every such case, unless the principal of all of the Senior Securities shall have already become due and payable, either the Trustee or the Holders of not less than 25% in aggregate principal amount of all of the Senior Securities then outstanding hereunder (treated as one class) by notice in writing to the Company (and to the Trustee if given by Securityholders), may declare the entire principal (or, if the Senior Securities of any Series are Discount Securities, such portion of the principal amount as may be specified in the terms of such Series) of all of the Senior Securities then outstanding, and the interest accrued thereon, if any, to be due and payable immediately, and upon such declaration, the same shall become immediately due and payable. If an Event of Default described in Section 6.01(e) or (f) above occurs and is continuing, then the principal amount of all the Senior Securities then outstanding, and the interest accrued thereon, if any, shall become and be immediately due and payable without any declaration or other act on the part of the Trustee or any Holder.

Except as otherwise provided in the terms of any Series of Subordinated Securities pursuant to Section 2.02, if an Event of Default described in Section 6.01(c) or (d) above with respect to all Series of Subordinated Securities then outstanding, occurs and is continuing, then, and in each and every such case, unless the principal of all of the Subordinated Securities shall have already become due and payable, either the Trustee or the Holders of not less than 25% in aggregate principal amount of all of the Subordinated Securities then outstanding hereunder

(treated as one class) by notice in writing to the Company (and to the Trustee if given by Securityholders), may declare the entire principal (or, if the Subordinated Securities of any Series are Discount Securities, such portion of the principal amount as may be specified in the terms of such Series) of all of the Subordinated Securities then outstanding, and the interest accrued thereon, if any, to be due and payable immediately, and upon such declaration, the same shall become immediately due and payable.

If an Event of Default described in Section 6.01(c) or (d) occurs and is continuing, which Event of Default is with respect to less than all Series of Senior Securities then outstanding, then, and in each and every such case, except for any Series of Senior Securities the principal of which shall have already become due and payable, either the Trustee or the Holders of not less than 25% in aggregate principal amount of the Senior Securities of each such affected Series then outstanding hereunder (each such Series voting as a separate class) by notice in writing to the Company (and to the Trustee if given by Securityholders), may declare the entire principal (or, if the Securities of such Series are Original Issue Discount Securities, such portion of the principal amount as may be specified in the terms of such Series) of all Securities of such Series, and the interest accrued thereon, if any, to be due and payable immediately, and upon any such declaration, the same shall become immediately due and payable.

If an Event of Default described in Section 6.01(c) or (d) occurs and is continuing, which Event of Default is with respect to less than all Series of Subordinated Securities then outstanding, then, and in each and every such case, except for any Series of Subordinated Securities the principal of which shall have already become due and payable, either the Trustee or the Holders of not less than 25% in aggregate principal amount of the Subordinated Securities of each such affected Series then outstanding hereunder (each such Series voting as a separate class) by notice in writing to the Company (and to the Trustee if given by Securityholders), may declare the entire principal (or, if the Securities of such Series are Discount Securities, such portion of the principal amount as may be specified in the terms of such Series) of all Securities of such Series, and the interest accrued thereon, if any, to be due and payable immediately, and upon any such declaration, the same shall become immediately due and payable.

If an Event of Default specified in Section 6.01(e) or (f) shall occur, the principal amount (or specified amount) of and accrued and unpaid interest, if any, on all outstanding Securities shall ipso facto become and be immediately due and payable without any declaration or other act on the part of the Trustee or any Holder.

At any time after such a declaration of acceleration with respect to any Series has been made and before a judgment or decree for payment of the money due has been obtained by the Trustee as hereinafter in this Article provided, the Holders of a majority in principal amount of the outstanding Securities of that Series, by written notice to the Company and the Trustee, may rescind and annul such declaration and its consequences if:

- (a) the Company has paid or deposited with the Trustee a sum sufficient to pay
  - (i) all overdue interest, if any, on all Securities of that Series,
  - (ii) the principal of any Securities of that Series which have become due otherwise than by such declaration of acceleration and interest thereon at the rate or rates prescribed therefor in such Securities,

(iii) to the extent that payment of such interest is lawful, interest upon any overdue principal and overdue interest at the rate or rates prescribed therefor in such Securities, and

(iv) all sums paid or advanced by the Trustee hereunder and the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel; and

(v) all Events of Default with respect to Securities of that Series, other than the non-payment of the principal of Securities of that Series which have become due solely by such declaration of acceleration, have been cured or waived as provided in Section 6.13.

No such rescission shall affect any subsequent Default or impair any right consequent thereon.

Section 6.03. *Collection of Indebtedness and Suits for Enforcement by Trustee.* The Company covenants that if

(a) default is made in the payment of any interest on any Security when such interest becomes due and payable and such default continues for a period of 30 days, or

(b) default is made in the payment of principal of any Security when due at the Maturity thereof, or

(c) default is made in the deposit of any sinking fund payment when and as due by the terms of a Security, then, the Company will, upon demand of the Trustee, pay to it, for the benefit of the Holders of such Securities, the whole amount then due and payable on such Securities for principal and interest and, to the extent that payment of such interest shall be legally enforceable, interest on any overdue principal or any overdue interest, at the rate or rates prescribed therefor in such Securities, and, in addition thereto, such further amount as shall be sufficient to cover the costs and expenses of collection, including the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel.

If the Company fails to pay such amounts forthwith upon such demand, the Trustee, in its own name and as trustee of an express trust, may institute a judicial proceeding for the collection of the sums so due and unpaid, may prosecute such proceeding to judgment or final decree and may enforce the same against the Company or any other obligor upon such Securities and collect the moneys adjudged or deemed to be payable in the manner provided by law out of the property of the Company or any other obligor upon such Securities, wherever situated.

If an Event of Default with respect to any Securities of any Series occurs and is continuing, the Trustee may in its discretion proceed to protect and enforce its rights and the rights of the Holders of Securities of such Series by such appropriate judicial proceedings as the Trustee shall deem most effectual to protect and enforce any such rights, whether for the specific enforcement of any covenant or agreement in this Indenture or in aid of the exercise of any power granted herein, or to enforce any other proper remedy.



Section 6.04. *Trustee May File Proofs of Claim.* In case of the pendency of any receivership, insolvency, liquidation, bankruptcy, reorganization, arrangement, adjustment, composition or other judicial proceeding relative to the Company or any other obligor upon the Securities or the property of the Company or of such other obligor or their creditors, the Trustee (irrespective of whether the principal of the Securities shall then be due and payable as therein expressed or by declaration or otherwise and irrespective of whether the Trustee shall have made any demand on the Company for the payment of overdue principal or interest) shall be entitled and empowered, by intervention in such proceeding or otherwise,

(a) to file and prove a claim for the whole amount of principal and interest owing and unpaid in respect of the Securities and to file such other papers or documents as may be necessary or advisable in order to have the claims of the Trustee (including any claim for the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel) and of the Holders allowed in such judicial proceeding, and

(b) to collect and receive any moneys or other property payable or deliverable on any such claims and to distribute the same,

and any custodian, receiver, assignee, trustee, liquidator, sequestrator or other similar official in any such judicial proceeding is hereby authorized by each Holder to make such payments to the Trustee and, in the event that the Trustee shall consent to the making of such payments directly to the Holders, to pay to the Trustee any amount due it for the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel, and any other amounts due the Trustee under Section 7.07.

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

Section 6.05. *Trustee May Enforce Claims Without Possession of Securities.* All rights of action and claims under this Indenture or the Securities may be prosecuted and enforced by the Trustee without the possession of any of the Securities or the production thereof in any proceeding relating thereto, and any such 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 the payment of the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel, be for the ratable benefit of the Holders of the Securities in respect of which such judgment has been recovered.

Section 6.06. *Application of Money Collected.* Any money or property collected by the Trustee pursuant to this Article shall be applied in the following order, at the date or dates fixed by the Trustee and, in case of the distribution of such money or property on account of principal or interest, upon presentation of the Securities and the notation thereon of the payment if only partially paid and upon surrender thereof if fully paid:

First: To the payment of all amounts due the Trustee under Section 7.07; and

Second: To the payment of the amounts then due and unpaid for principal of and interest on the Securities 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 interest, respectively; and

Third: To the Company.

Section 6.07. *Limitation on Suits.* No Holder of any Security of any Series shall have any right to institute any proceeding, judicial or otherwise, with respect to this Indenture, or for the appointment of a receiver or trustee, or for any other remedy hereunder, unless

(a) such Holder has previously given written notice to the Trustee of an Event of Default and the continuance thereof with respect to the Securities of that Series;

(b) the Holders of not less than 25% in principal amount of the outstanding Securities of that Series shall have made written request to the Trustee to institute proceedings in respect of such Event of Default in its own name as Trustee hereunder;

(c) such Holder or Holders have offered to the Trustee reasonable security or indemnity satisfactory to the Trustee against the expenses and liabilities to be incurred in compliance with such request;

(d) the Trustee for 60 days after its receipt of such notice, request and offer of indemnity has failed to institute any such proceeding; and

(e) no direction inconsistent with such written request has been given to the Trustee during such 60 period by the Holders of a majority in principal amount of the outstanding Securities of that Series;

it being understood and intended that no one or more of such Holders shall have any right in any manner whatever by virtue of, or by availing of, any provision of this Indenture to affect, disturb or prejudice the rights of any other of such Holders, or to obtain or to seek to obtain priority or preference over any other of such Holders or to enforce any right under this Indenture, except in the manner herein provided and for the equal and ratable benefit of all such Holders.

Section 6.08. *Unconditional Right of Holders to Receive Principal and Interest.* Notwithstanding any other provision in this Indenture, the Holder of any Security shall have the right, which is absolute and unconditional, to receive payment of the principal of and interest, if any, on such Security on the Stated Maturity or Stated Maturities expressed in such Security (or, in the case of redemption, on the redemption date) and to institute suit for the enforcement of any such payment, and such rights shall not be impaired without the consent of such Holder.

Section 6.09. *Restoration of Rights and Remedies.* If the Trustee or any Holder has instituted any proceeding to enforce any right or remedy under this Indenture and such proceeding has been discontinued or abandoned for any reason, or has been determined adversely to the Trustee or to such Holder, then and in every such case, subject to any determination in such proceeding, the Company, the Trustee and the Holders shall be restored severally and respectively to their former positions hereunder and thereafter all rights and remedies of the Trustee and the Holders shall continue as though no such proceeding had been instituted.

Section 6.10. *Rights and Remedies Cumulative.* Except as otherwise provided with respect to the replacement or payment of mutilated, destroyed, lost or stolen Securities in Section 2.08, no right or remedy herein conferred upon or reserved to the Trustee or to the Holders is intended to be exclusive of any other right or remedy, and every right and remedy shall, to the extent permitted by law, be cumulative and in addition to every other right and remedy given hereunder or now or hereafter existing at law or in equity or otherwise. The assertion or employment of any right or remedy hereunder, or otherwise, shall not prevent the concurrent assertion or employment of any other appropriate right or remedy.

Section 6.11. *Delay or Omission Not Waiver.* No delay or omission of the Trustee or of any Holder of any Securities to exercise any right or remedy accruing upon any Event of Default shall impair any such right or remedy or constitute a waiver of any such Event of Default or an acquiescence therein. Every right and remedy given by this Article or by law to the Trustee or to the Holders may be exercised from time to time, and as often as may be deemed expedient, by the Trustee or by the Holders, as the case may be.

Section 6.12. *Control by Holders.* The Holders of a majority in principal amount of the outstanding Securities of any Series 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 the Securities of such Series, *provided that*

(a) such direction shall not be in conflict with any rule of law or with this Indenture,

(a) the Trustee may take any other action deemed proper by the Trustee which is not inconsistent with such direction, and

(b) subject to the provisions of Section 6.01, the Trustee shall have the right to decline to follow any such direction if the Trustee in good faith shall, by a Trust Officer of the Trustee, determine that the proceeding so directed would involve the Trustee in personal liability.

Section 6.13. *Waiver of Past Defaults.* The Holders of not less than a majority in principal amount of the outstanding Securities of any Series may on behalf of the Holders of all the Securities of such Series waive any past Default hereunder with respect to such Series and its consequences, except a Default in the payment of the principal of or interest on any Security of such Series (*provided, however,* that the Holders of a majority in principal amount of the outstanding Securities of any Series may rescind an acceleration and its consequences, including any related payment default that resulted from such acceleration). Upon any such waiver, such Default shall cease to exist, and any Event of Default arising therefrom shall be deemed to have been cured, for every purpose of this Indenture; but no such waiver shall extend to any subsequent or other Default or impair any right consequent thereon.

Section 6.14. *Undertaking for Costs.* All parties to this Indenture agree, and each Holder of any Security by his 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, suffered 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 Company, to any suit instituted by the Trustee, to any suit instituted by any Holder, or group of Holders, holding in the aggregate more than 10% in principal amount of the outstanding Securities of any Series, or to any suit instituted by any Holder for the enforcement of the payment of the principal of or interest on any Security on or after the Stated Maturity or Stated Maturities expressed in such Security (or, in the case of redemption, on the redemption date).

ARTICLE 7  
TRUSTEE

Section 7.01. *Duties of Trustee.* (a) If an Event of Default has occurred and is continuing, the Trustee shall exercise 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 Person would exercise or use under the circumstances in the conduct of such Person's own affairs.

(b) Except during the continuance of an Event of Default:

(i) the Trustee need perform only those duties that are specifically set forth in this Indenture and no other implied covenants or obligations shall be read into this Indenture against the Trustee; and

(ii) in the absence of bad faith on its part, the Trustee may conclusively rely, as to the truth of the statements and the correctness of the opinions expressed therein, upon certificates or opinions furnished to the Trustee and conforming to the requirements of this Indenture; however, the Trustee shall examine such certificates and opinions to determine whether or not they conform to the requirements of this Indenture.

(c) The Trustee may not be relieved from liability for its own negligent action, its own negligent failure to act or its own willful misconduct, except that:

(i) this paragraph does not limit the effect of paragraph (b) of this Section;

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

(iii) the Trustee shall not be liable with respect to any action it takes or omits to take with respect to Securities of any Series in good faith in accordance with the direction of the Holders of a majority in principal amount of the outstanding Securities of such Series.

(d) Every provision of this Indenture that in any way relates to the Trustee is subject to paragraph (a), (b), (c) and (g) of this Section.

(e) The Trustee shall not be liable for interest on any money received by it except as the Trustee may agree in writing with the Company.

(f) Money held in trust by the Trustee need not be segregated from other funds except to the extent required by law.

(g) No provision of this Indenture shall require the Trustee to expend or risk its own funds or otherwise incur any financial liability in the performance of any of its duties hereunder or in the exercise of any of its rights or powers, if it shall have reasonable grounds for believing that repayment of such funds or adequate indemnity against such risk is not reasonably assured to it.

(h) Every provision of this Indenture relating to the conduct or affecting the liability of or affording protection to the Trustee shall be subject to the provisions of this Section and to the provisions of the TIA.

Section 7.02. *Rights of Trustee.* (a) The Trustee may rely on any document believed by it to be genuine and to have been signed or presented by the proper person. The Trustee need not investigate any fact or matter stated in the document.

(b) Before the Trustee acts or refrains from acting, it may require an Officers' Certificate or an Opinion of Counsel or both. The Trustee shall not be liable for any action it takes or omits to take in good faith in reliance on the Officers' Certificate or Opinion of Counsel.

(c) The Trustee may act through agents and shall not be responsible for the misconduct or negligence of any agent appointed with due care.

(d) The Trustee shall not be liable for any action it takes or omits to take in good faith which it believes to be authorized or within its rights or powers.

(e) The Trustee may consult with counsel, and the advice or opinion of counsel with respect to legal matters relating to this Indenture and the Securities shall be full and complete authorization and protection from liability in respect to any action taken, omitted or suffered by it hereunder in good faith and in accordance with the advice or opinion of such counsel.

(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, debenture, note or other paper or document, but the Trustee, in its discretion, may make such further inquiry or investigation into such facts or matters as it may see fit.

(g) 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 security or indemnity satisfactory to the Trustee against the costs, expenses, losses and liabilities which may be incurred therein or thereby.

(h) The rights, privileges, protections, immunities and benefits given to the Trustee, including, without limitation, its rights to be indemnified, are extended to, and shall be enforceable by, the Trustee in each of its capacities hereunder, and to each agent, custodian and other Person employed to act hereunder.

(i) The Trustee may request that the Company deliver an Officers' Certificate setting forth the names of individuals and/or titles of officers authorized at such time to take specified actions pursuant to this Indenture, which Officers' Certificate may be signed by any Person authorized to sign an Officers' Certificate, including any Person specified as so authorized in any such certificate previously delivered and not superseded.

(j) The permissive rights of the Trustee enumerated herein shall not be construed as duties.

(i) Delivery of reports, information and documents to the Trustee under Section 4.02 is for informational purposes only 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 its covenants hereunder (as to which the Trustee is entitled to rely exclusively on Officers' Certificates).

(ii) Notwithstanding anything in this Indenture to the contrary, neither the Trustee nor any Agent shall be responsible or liable to any Person for any indirect, special, punitive or consequential damage or loss (including but not limited to lost profits) whatsoever, even if the Trustee has been informed of the likelihood thereof and regardless of the form of action.

Section 7.03. *Individual Rights of Trustee.* The Trustee in its individual or any other capacity may become the owner or pledgee of Securities and may otherwise deal with the Company or an Affiliate with the same rights it would have if it were not Trustee. Any Agent may do the same with like rights. The Trustee is also subject to Sections 7.10 and 7.11.

Section 7.04. *Trustee's Disclaimer.* The Trustee shall not be responsible and makes no representation as to the validity or adequacy of this Indenture or the Securities, it shall not be accountable for the Company's use of the proceeds from the Securities, and it shall not be responsible for any statement in the Securities or in any document issued in connection with the sale of the Securities or in the Securities other than its certificate of authentication.

Section 7.05. *Notice of Defaults.* If a Default or Event of Default occurs and is continuing with respect to the Securities of any Series and if it is known to a Trust Officer of the Trustee, the Trustee shall send to each Securityholder of the Securities of that Series and, if any Bearer Securities are outstanding, publish on one occasion in an Authorized Newspaper, notice of a Default or Event of Default within 90 days after it occurs or 30 days after it is known to a Trust Officer or written notice of it is received by the Trustee. Except in the case of a Default or Event of Default in payment of principal, premium, if any, of or interest on any Security of any Series or in payment of any redemption obligation, the Trustee may withhold the notice if and so long as its corporate trust committee or a committee of its Trust Officers in good faith determines that withholding the notice is in the interests of Securityholders of that Series.

Section 7.06. *Reports by Trustee to Holders.* As promptly as practicable after each May 15 beginning with May 15 beginning with the May 15 following the date of this Indenture, and in any event prior to July 15 in each year, the Trustee shall transmit by mail or by electronic transmission to all Securityholders, as their names and addresses appear on the Register kept by the Registrar and, if any Bearer Securities are outstanding, publish in an Authorized Newspaper, a brief report dated as of May 15, each year if and to the extent required by TIA § 313(a). The Trustee shall also comply with TIA § 313(b) and TIA § 313(c).

A copy of each report at the time of its sending to Securityholders of any Series shall be filed with the SEC and each stock exchange (if any) on which the Securities of that Series are listed. The Company shall promptly notify the Trustee when Securities of any Series are listed on any stock exchange and of any delisting thereof.

Section 7.07. *Compensation and Indemnity.* The Company shall pay to the Trustee from time to time such compensation as the Company and the Trustee shall from time to time agree in writing. The Trustee's compensation shall not be limited by any law on compensation of a trustee of an express trust. The Company shall reimburse the Trustee upon request for all reasonable out-of-pocket expenses incurred or made by it, including costs of collection, in addition to the compensation for its services. Such expenses shall include the reasonable compensation and expenses, disbursements and advances of the Trustee's agents, counsel, accountants and experts. The Company shall indemnify the Trustee, its officers, directors, employees and agents, and hold each of them harmless, against any and all loss, liability or expense (including reasonable attorneys' fees) incurred by or in connection with the offer and sale of the Securities or the administration of this trust and the performance of its duties hereunder. The Trustee shall notify the Company of any claim for which it may seek indemnity promptly upon obtaining actual knowledge thereof; *provided, however*, that any failure so to notify the Company shall not relieve the Company of its indemnity obligations hereunder. The Company shall defend the claim and the indemnified party shall provide reasonable cooperation at the Company's expense in the defense. Such indemnified parties may have separate counsel and the Company shall pay the fees and expenses of such counsel; *provided, however*, that the Company shall not be required to pay such fees and expenses if it assumes such indemnified parties' defense and, in such indemnified parties' reasonable judgment, there is no conflict of interest between the Company and such parties in connection with such defense. The Company need not reimburse any expense or indemnify against any loss, liability or expense incurred by an indemnified party through such party's own willful misconduct and gross negligence.

To secure the Company's payment obligations in this Section, the Trustee shall have a lien prior to the Securities of any Series on all money or property held or collected by the Trustee other than money or property held in trust to pay principal of and interest and any liquidated damages on particular Securities of that Series.

The Company's payment obligations pursuant to this Section shall survive the satisfaction or discharge of this Indenture, any rejection or termination of this Indenture under any Bankruptcy Law or the resignation or removal of the Trustee.

When the Trustee incurs expenses or renders services after an Event of Default specified in Section 6.01 (e) or (f) occurs, the expenses and the compensation for the services are intended to constitute expenses of administration under any Bankruptcy Law.

Section 7.08. *Replacement of Trustee.* The Trustee may resign with respect to the Securities of one or more Series at any time by so notifying the Company. The Holders of a majority in principal amount of the Securities of any Series may remove the Trustee with respect to that Series by so notifying the Trustee and may appoint a successor Trustee. The Company shall remove the Trustee with respect to Securities of one or more Series if:

- (a) the Trustee fails to comply with Section 7.10;

- (b) the Trustee is adjudged bankrupt or insolvent;
- (c) a receiver or other public officer takes charge of the Trustee or its property; or
- (d) the Trustee otherwise becomes incapable of acting.

If the Trustee resigns, is removed by the Company or by the Holders of a majority in principal amount of the Securities of any Series and such Securityholders do not reasonably promptly appoint a successor Trustee, or if a vacancy exists in the office of Trustee for any reason (the Trustee in such event being referred to herein as the retiring Trustee), the Company shall promptly appoint a successor Trustee.

A successor Trustee shall deliver a written acceptance of its appointment to the retiring Trustee and to the Company. Thereupon the resignation or removal of the retiring Trustee shall become effective, and the successor Trustee shall have all the rights, powers and duties of the Trustee with respect to each Series of Securities for which it is acting as Trustee under this Indenture. The successor Trustee shall send a notice of its succession to each Securityholder of each such Series and, if any Bearer Securities are outstanding, publish such notice on one occasion in an Authorized Newspaper. The retiring Trustee shall promptly transfer all property held by it as Trustee to the successor Trustee, subject to the lien provided for in Section 7.07.

If a successor Trustee with respect to the Securities of any one or more Series does not take office within 60 days after the retiring Trustee resigns or is removed, the retiring Trustee or the Holders of 10% in principal amount of the Securities of the applicable Series may petition any court of competent jurisdiction for the appointment of a successor Trustee.

If the Trustee with respect to the Securities of any one or more Series fails to comply with Section 7.10, any Securityholder of the applicable Series may petition any court of competent jurisdiction for the removal of the Trustee and the appointment of a successor Trustee.

Notwithstanding the replacement of the Trustee pursuant to this Section, the Company's obligations under Section 7.07 shall continue for the benefit of the retiring Trustee.

Section 7.09. *Successor Trustee by Merger, etc.* If the Trustee consolidates with, merges or converts into, or transfers all or substantially all of its corporate trust business or assets to, another corporation or banking association, the resulting, surviving or transferee corporation without any further act shall be the successor Trustee.

In case at the time such successor or successors by merger, conversion or consolidation to the Trustee with respect to the Securities of any one or more Series shall succeed to the trusts created by this Indenture any of the Securities of the applicable Series shall have been authenticated but not delivered, any such successor to such Trustee may adopt the certificate of authentication of any predecessor trustee, and deliver such Securities of the applicable Series so authenticated; and in case at that time any of the Securities of such Securities shall not have been authenticated, any successor to the Trustee may authenticate such Securities either in the name of any predecessor hereunder or in the name of the successor to the Trustee; and in all such cases such certificates shall have the full force which it is anywhere in the Securities of such Series or in this Indenture *provided* that the certificate of the Trustee shall have.



Section 7.10. *Eligibility; Disqualification.* The Trustee shall at all times satisfy the requirements of TIA § 310(a). The Trustee shall have a combined capital and surplus of at least \$100,000,000 as set forth in its most recent published annual report of condition. The Trustee shall comply with TIA § 310(b); *provided, however*, that there shall be excluded from the operation of TIA § 310(b)(1) any indenture or indentures under which other securities or certificates of interest or participation in other securities of the Company are outstanding if the requirements for such exclusion set forth in TIA § 310(b)(1) are met.

Section 7.11. *Preferential Collection of Claims Against Company.* The Trustee shall comply with TIA § 311(a), excluding any creditor relationship listed in TIA § 311(b). A Trustee who has resigned or been removed shall be subject to TIA § 311(a) to the extent indicated.

## ARTICLE 8 SATISFACTION AND DISCHARGE; DEFEASANCE

Section 8.01. *Satisfaction and Discharge of Indenture.* This Indenture, with respect to Securities of any Series (if all Series issued under this Indenture are not to be effected) shall, upon Company Order, cease to be of further effect (except as hereinafter provided in this Section), and the Trustee, at the expense of the Company, shall execute such instruments reasonably requested by the Company acknowledging satisfaction and discharge of this Indenture, when

(a) Either

(i) all Securities of such Series theretofore authenticated and delivered (other than (A) Securities that have been destroyed, lost or stolen and that have been replaced or paid or (B) Securities for whose payment money has theretofore been deposited in trust or segregated and held in trust by the Company and thereafter repaid to the Company or discharged from such trust, as provided in Sections 2.05 and 4.07) have been delivered to the Trustee for cancellation; or

(ii) all such Securities of such Series not theretofore delivered to the Trustee for cancellation:

(A) have become due and payable, or

(B) will become due and payable at their Stated Maturity within one year, or

(C) are to be called for redemption within one year under arrangements satisfactory to the Trustee for the giving of notice of redemption by the Trustee in the name, and at the expense, of the Company, or

(D) are deemed paid and discharged pursuant to Section 8.03, as applicable;

and the Company, in the case of (A), (B) or (C) above, has deposited or caused to be deposited with the Trustee as trust funds in trust an amount sufficient for the purpose of paying and discharging the entire indebtedness on such Securities not theretofore delivered to the Trustee for

cancellation, for principal of, premium, if any, and interest on, and any mandatory sinking fund payments to the date of such deposit (in the case of Securities of such Series which have become due and payable on or prior to the date of such deposit) or to the Stated Maturity or redemption date, as the case may be;

(iii) the Company has paid or caused to be paid all other sums payable hereunder by the Company; and

(iv) the Company has delivered to the Trustee an Officers' Certificate and an Opinion of Counsel, each stating that all conditions precedent herein provided for relating to the satisfaction and discharge of this Indenture have been complied with.

Notwithstanding the satisfaction and discharge of this Indenture, the obligations of the Company to the Trustee under Section 7.07, and, if money shall have been deposited with the Trustee pursuant to clause (a) of this Section, the provisions of Sections 2.04, 2.07, 2.08, 4.07 (last paragraph only), 8.01, 8.02 and 8.05 shall survive.

Section 8.02. *Application of Trust Funds; Indemnification.* (a) Subject to the provisions of Section 8.05, all money deposited with the Trustee pursuant to Section 8.01, all money and U.S. Government Obligations or Foreign Government Obligations deposited with the Trustee pursuant to Section 8.03 or 8.04 and all money received by the Trustee in respect of U.S. Government Obligations or Foreign Government Obligations deposited with the Trustee pursuant to Section 8.03 or 8.04, shall be held in trust and applied by it, in accordance with the provisions of the Securities and this Indenture, to the payment, either directly or through any Paying Agent (including the Company if acting as its own Paying Agent) as the Trustee may determine, to the Persons entitled thereto, of the principal and interest for whose payment such money has been deposited with or received by the Trustee or to make mandatory sinking fund payments or analogous payments as contemplated by Sections 8.03 or 8.04.

(b) The Company shall pay and shall indemnify the Trustee against any tax, fee or other charge imposed on or assessed against U.S. Government Obligations or Foreign Government Obligations deposited pursuant to Sections 8.03 or 8.04 or the interest and principal received in respect of such obligations other than any payable by or on behalf of Holders.

(c) The Trustee shall deliver or pay to the Company from time to time upon Company Request any U.S. Government Obligations or Foreign Government Obligations or money held by it as provided in Sections 8.03 or 8.04 which, in the opinion of a nationally recognized firm of independent certified public accountants expressed in a written certification thereof delivered to the Trustee, are then in excess of the amount thereof which then would have been required to be deposited for the purpose for which such U.S. Government Obligations or Foreign Government Obligations or money were deposited or received. This provision shall not authorize the sale by the Trustee of any U.S. Government Obligations or Foreign Government Obligations held under this Indenture.

Section 8.03. *Legal Defeasance of Securities of any Series.* Unless this Section is otherwise specified, pursuant to Section 2.02(x), to be inapplicable to Securities of any Series, the Company shall be deemed to have paid and discharged the entire indebtedness on all the outstanding Securities of such Series on the 91st day after the date of the deposit referred to in subparagraph (d) hereof, and the provisions of this Indenture, as it relates to such outstanding

Securities of such Series, shall no longer be in effect (and the Trustee, at the expense of the Company, shall, at Company Request, execute such instruments reasonably requested by the Company acknowledging the same), except as to:

(a) the rights of Holders of Securities of such Series to receive, from the trust funds described in subparagraph (d) hereof, (i) payment of the principal of and each installment of principal of and interest on the outstanding Securities of such Series on the Stated Maturity of such principal or installment of principal or interest and (ii) the benefit of any mandatory sinking fund payments applicable to the Securities of such Series on the day on which such payments are due and payable in accordance with the terms of this Indenture and the Securities of such Series;

(b) the provisions of Sections 2.04, 2.07, 2.08, 8.02, 8.03 and 8.05; and

(c) the rights, powers, trust and immunities of the Trustee hereunder;

*provided* that, the following conditions shall have been satisfied:

(d) the Company shall have deposited or caused to be deposited irrevocably with the Trustee as trust funds in trust for the purpose of making the following payments, specifically pledged as security for and dedicated solely to the benefit of the Holders of such Securities (i) in the case of Securities of such Series denominated in Dollars, cash in Dollars (or such other money or currencies as shall then be legal tender in the United States) and/or U.S. Government Obligations, or (ii) in the case of Securities of such Series denominated in a Foreign Currency (other than a composite currency), money and/or Foreign Government Obligations, which through the payment of interest and principal in respect thereof, in accordance with their terms, will provide (and without reinvestment and assuming no tax liability will be imposed on such Trustee), not later than one day before the due date of any payment of money, an amount in cash, 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 and discharge each installment of principal (including mandatory sinking fund or analogous payments) of and interest, if any, on all the Securities of such Series on the dates such installments of interest or principal are due;

(e) such deposit will not result in a breach or violation of, or constitute a default under, this Indenture or any other agreement or instrument to which the Company is a party or by which it is bound;

(f) no Default or Event of Default with respect to the Securities of such Series shall have occurred and be continuing on the date of such deposit or during the period ending on the 91st day after such date;

(g) the Company shall have delivered to the Trustee an Officers' Certificate and an Opinion of Counsel from a nationally recognized law firm to the effect that (i) the Company has received from, or there has been published by, the Internal Revenue Service a ruling, or (ii) since the date of execution of this Indenture, there has been a change in the applicable Federal income tax law, in either case to the effect that, and based thereon such Opinion of Counsel shall confirm that, the beneficial owners of the Securities of such Series will not recognize income, gain or loss for Federal income tax purposes as a result of such deposit, defeasance and discharge and will be subject to Federal income tax on the same amount and in the same manner and at the same times as would have been the case if such deposit, defeasance and discharge had not occurred;

(h) the Company shall have delivered to the Trustee an Officers' Certificate stating that the deposit was not made by the Company with the intent of preferring the Holders of the Securities of such Series over any other creditors of the Company or with the intent of defeating, hindering, delaying or defrauding any other creditors of the Company;

(i) such deposit shall not result in the trust arising from such deposit constituting an investment company (as defined in the Investment Company Act of 1940, as amended), or such trust shall be qualified under such Act or exempt from regulation thereunder; and

(j) the Company shall have delivered to the Trustee an Officers' Certificate and an Opinion of Counsel, each stating that all conditions precedent provided for relating to the defeasance contemplated by this Section 8.03 have been complied with.

Section 8.04. *Covenant Defeasance.* Unless this Section 8.04 is otherwise specified pursuant to Section 2.02(x) to be inapplicable to Securities of any Series, on and after the date of the deposit referred to in subparagraph (a) hereof, the Company may omit to comply with any term, provision or condition set forth under Sections 4.02, 4.03, 4.04, 4.05 and 5.01 as well as any additional covenants contained in a supplemental indenture hereto for a particular Series of Securities or a Board Resolution or an Officers' Certificate delivered pursuant to Section 2.02(x) (and the failure to comply with any such covenants shall not constitute a Default or Event of Default under Section 6.01) and the occurrence of any event described in clause (e) of Section 6.01 shall not constitute a Default or Event of Default hereunder, with respect to the Securities of such Series, *provided* that the following conditions shall have been satisfied:

(a) with reference to this Section 8.04, the Company has deposited or caused to be irrevocably deposited (except as provided in Section 8.02(b)) with the Trustee as trust funds in trust, specifically pledged as security for, and dedicated solely to, the benefit of the Holders of such Securities (i) in the case of Securities of such Series denominated in Dollars, cash in Dollars (or such other money or currencies as shall then be legal tender in the United States) and/or U.S. Government Obligations, or (ii) in the case of Securities of such Series denominated in a Foreign Currency (other than a composite currency), money and/or Foreign Government Obligations, which through the payment of interest and principal in respect thereof, in accordance with their terms, will provide (and without reinvestment and assuming no tax liability will be imposed on such Trustee), not later than one day before the due date of any payment of money, an amount in cash, sufficient, in the opinion of a nationally recognized firm of independent certified public accountants expressed in a written certification thereof delivered to the Trustee, to pay principal and interest, if any, on and any mandatory sinking fund in respect of the Securities of such Series on the dates such installments of interest or principal are due;

(b) such deposit will not result in a breach or violation of, or constitute a default under, this Indenture or any other agreement or instrument to which the Company is a party or by which it is bound;

(c) no Default or Event of Default with respect to the Securities of such Series shall have occurred and be continuing on the date of such deposit;

(d) the Company shall have delivered to the Trustee an Opinion of Counsel from a nationally recognized law firm confirming that beneficial owners of the Securities of such Series will not recognize income, gain or loss for federal income tax purposes as a result of such deposit and defeasance and will be subject to federal income tax on the same amounts, in the same manner and at the same times as would have been the case if such deposit and defeasance had not occurred;

(e) the Company shall have delivered to the Trustee an Officers' Certificate stating the deposit was not made by the Company with the intent of preferring the Holders of the Securities of such Series over any other creditors of the Company or with the intent of defeating, hindering, delaying or defrauding any other creditors of the Company; and

(f) the Company shall have delivered to the Trustee an Officers' Certificate and an Opinion of Counsel, each stating that all conditions precedent herein provided for relating to the defeasance contemplated by this Section 8.04 have been complied with.

Section 8.05. *Repayment to Company.* The Trustee and the Paying Agent shall promptly pay to the Company (or its designee) upon Company Order any excess moneys or U.S. Government Obligations held by them at any time. The provisions of the last paragraph of Section 4.07 shall apply to any money held by the Trustee or any Paying Agent that remains unclaimed for two years after the Maturity of any Series or Securities for which money or U.S. Government Obligations have been deposited pursuant to Section 8.03 and 8.04.

Section 8.06. *Effect of Subordination Provisions.* Unless otherwise expressly established pursuant to Section 2.02 with respect to the Subordinated Securities of any Series, the provisions of Article 10 hereof, insofar as they pertain to the Subordinated Securities of such Series, and the Subordination Provisions established pursuant to Section 2.02(i) with respect to such Series, are hereby expressly made subject to the provisions for satisfaction and discharge and defeasance and covenant defeasance set forth in this Article and, anything herein to the contrary notwithstanding, upon the effectiveness of such satisfaction and discharge and defeasance and covenant defeasance pursuant to this Article with respect to the Securities of such Series, such Securities shall thereupon cease to be so subordinated and shall no longer be subject to the provisions of Article 10 or the Subordination Provisions established pursuant to Section 2.02(i) with respect to such Series and, without limitation to the foregoing, all moneys, U.S. Government Obligations and other securities or property deposited with the Trustee (or other qualifying trustee) in trust in connection with such satisfaction and discharge, defeasance or covenant defeasance, as the case may be, and all proceeds therefrom may be applied to pay the principal of, premium, if any, on, and mandatory sinking fund payments, if any with respect to the Securities of such Series as and when the same shall become due and payable notwithstanding the provisions of Article 10 or such Subordination Provisions.

## ARTICLE 9 AMENDMENTS AND WAIVERS

Section 9.01. *Without Consent of Holders.* The Company and the Trustee may amend or supplement this Indenture or the Securities of one or more Series without the consent of any Securityholder:

(a) to convey, transfer, assign, mortgage or pledge to the Trustee as security for the Securities of one or more Series any property or assets;

(b) to comply with Article 5;

(c) to add to the covenants of the Company such further covenants, restrictions, conditions or provisions as the Company and the Trustee shall consider to be for the protection of the Holders of Securities, and to make the occurrence, or the occurrence and continuance, of a default in any such additional covenants, restrictions, conditions or provisions an Event of Default permitting the enforcement of all or any of the several remedies provided in this Indenture as herein set forth; *provided*, that in respect of any such additional covenant, restriction, condition or provision such supplemental indenture may provide for a particular period of grace after default (which period may be shorter or longer than that allowed in the case of other defaults) or may provide for an immediate enforcement upon such an Event of Default or may limit the remedies available to the Trustee upon such an Event of Default or may limit the right of the Holders of a majority in aggregate principal amount of the Securities of such Series to waive such an Event of Default;

(d) add a guarantor or permit any Person to guarantee the obligations under any Series of Securities;

(e) to cure any ambiguity, defect or inconsistency;

(f) to provide for the issuance of and establish the form and terms and conditions of Securities of any Series as permitted by this Indenture;

(g) to conform to any provision of the "Description of the Notes" section, "Description of Debt Securities" section or other relevant section describing the terms of the Securities of the applicable prospectus, prospectus supplement, offering circular, offering memorandum or other relevant offering document;

(h) to evidence and provide for the acceptance of appointment hereunder by a successor Trustee with respect to the Securities of one or more Series and to 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;

(i) to provide for uncertificated Securities in addition to or in place of certificated Securities;

(j) to make any change that does not materially adversely affect the rights of any Securityholder; and

(k) to comply with requirements of the SEC in order to effect or maintain the qualification of this Indenture under the TIA.

Section 9.02. *With Consent of Holders.* The Company and the Trustee may enter into a supplemental indenture with the written consent of the Holders of at least a majority in principal amount of the outstanding Securities of each Series affected by such supplemental indenture (including consents obtained in connection with a tender offer or exchange offer for the

Securities of such Series), 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 the rights of the Securityholders of each such Series. Except as provided in Section 6.13, the Holders of at least a majority in principal amount of the outstanding Securities of each Series affected by such waiver by notice to the Trustee (including consents obtained in connection with a tender offer or exchange offer for the Securities of such Series) may waive compliance by the Company with any provision of this Indenture or the Securities with respect to such Series.

It shall not be necessary for the consent of the Holders of Securities under this Section 9.02 to approve the particular form of any proposed supplemental indenture or waiver, but it shall be sufficient if such consent approves the substance thereof. After a supplemental indenture or waiver under this Section becomes effective, the Company shall send to the Holders of Securities affected thereby and, if any Bearer Securities affected thereby are outstanding, publish on one occasion in an Authorized Newspaper, a notice briefly describing the supplemental indenture or waiver. Any failure by the Company to send or publish such notice, or any defect therein, shall not, however, in any way impair or affect the validity of any such supplemental indenture or waiver.

Section 9.03. *Limitations.* Without the consent of each Securityholder affected, an amendment or waiver may not:

- (a) extend the final Maturity of any Security;
- (b) reduce the principal amount thereof, or premium thereon, if any;
- (c) reduce the rate or extend the time of payment of interest thereon,
- (d) reduce any amount payable on redemption thereof;
- (e) make the principal thereof (including any amount in respect of original issue discount), or premium thereon, if any, or interest thereon payable in any coin or currency other than that provided in the Securities or in accordance with the terms thereof;
- (f) reduce the amount of the principal of a Discount Security that would be due and payable upon an acceleration of the Maturity thereof pursuant to Section 6.02 or the amount thereof provable in bankruptcy pursuant to Section 6.04;
- (g) in the case of Subordinated Securities of any Series, modify any of the Subordination Provisions or the definition of "Senior Indebtedness" relating to such Series in a manner adverse to the Holders of such Subordinated Securities;
- (h) alter the provisions of Section 11.15 or Section 11.16;
- (i) impair or affect the right of any Securityholder to institute suit for the payment thereof when due or, if the Securities provide therefor, any right of repayment at the option of the Securityholder;

(j) reduce the aforesaid percentage of Securities of any Series, the consent of the Holders of which is required for any such supplemental indenture, or the consent of whose Holders is required for any waiver (of compliance with certain provisions of this Indenture or certain defaults hereunder and their consequences) provided for in this Indenture; or

(k) modify any provision of this Section 9.03.

Section 9.04. *Compliance with Trust Indenture Act.* Every amendment to this Indenture or the Securities of one or more Series shall be set forth in a supplemental indenture hereto that complies with the TIA as then in effect.

Section 9.05. *Revocation and Effect of Consents.* Until an amendment or waiver becomes effective, a consent to it by a Holder of a Security is a continuing consent by the Holder and every subsequent Holder of a Security or portion of a Security that evidences the same debt as the consenting Holder's Security, even if notation of the consent is not made on any Security. However, any such Holder or subsequent Holder may revoke the consent as to his Security or portion of a Security if the Trustee receives the notice of revocation before the date the amendment or waiver becomes effective.

Any amendment or waiver once effective shall bind every Securityholder of each Series affected by such amendment or waiver unless it is of the type described in any of clauses (a) through (k) of Section 9.03. In that case, the amendment or waiver shall bind each Holder of a Security who has consented to it and every subsequent Holder of a Security or portion of a Security that evidences the same debt as the consenting Holder's Security.

The Company may, but shall not be obligated to, fix a record date for the purpose of determining the Securityholders entitled to give their consent or take any other action described above or required or permitted to be taken pursuant to this Indenture. If a record date is fixed, then notwithstanding the immediately preceding paragraph, those Persons who were Securityholders at such record date (or their duly designated proxies), and only those Persons, shall be entitled to give such consent or to revoke any consent previously given or to take any such action, whether or not such Persons continue to be Securityholders after such record date.

Section 9.06. *Notation on or Exchange of Securities.* The Trustee may place an appropriate notation about an amendment or waiver on any Security of any Series thereafter authenticated. The Company in exchange for Securities of that Series may issue and the Trustee shall authenticate upon written request new Securities of that Series that reflect the amendment or waiver.

Section 9.07. *Trustee Protected.* In executing, or accepting the additional trusts created by, any supplemental indenture permitted by this Article or the modifications thereby of the trusts created by this Indenture, the Trustee shall be entitled to receive, and (subject to Section 7.01) shall be fully protected in relying upon, an Officers' Certificate and an Opinion of Counsel stating that the execution of such supplemental indenture is authorized or permitted by this Indenture. The Trustee shall sign all supplemental indentures, except that the Trustee need not sign any supplemental indenture that adversely affects its rights.



ARTICLE 10  
SUBORDINATION OF SECURITIES

Section 10.01. *Agreement to Subordinate.* The Company, for itself, its successors and assigns, covenants and agrees, and each Holder of Subordinated Securities of any Series by his acceptance thereof, likewise covenants and agrees, that the payment of the principal of (and premium, if any) and interest, if any, on, and mandatory sinking fund payments, if any, in respect of each and all of the Subordinated Securities of such Series shall be expressly subordinated, to the extent and in the manner provided in the Subordination Provisions established with respect to the Subordinated Securities of such Series pursuant to Section 2.02(i) hereof, in right of payment to the prior payment in full of all Senior Debt with respect to such Series.

ARTICLE 11  
MISCELLANEOUS

Section 11.01. *Trust Indenture Act Controls.* If any provision of this Indenture limits, qualifies, or conflicts with another provision which is required or deemed to be included in this Indenture by the TIA, such required or deemed provision shall control.

Section 11.02. *Notices.* Any notice or communication by the Company or the Trustee to the other is duly given if in writing and delivered in person, mailed by first-class mail or delivered by electronic transmission:

if to the Company:

SHOCKWAVE MEDICAL, INC.  
5403 Betsy Ross Drive  
Santa Clara, California 95054  
Attn: Corporate Secretary

if to the Trustee:

[\_\_\_\_\_]

The Company or the Trustee by notice to the other may designate additional or different addresses for subsequent notices or communications.

Any notice or communication to a Securityholder shall be provided by electronic transmission or by first-class mail to his address shown on the Register kept by the Registrar and, if any Bearer Securities are outstanding, published in an Authorized Newspaper. Failure to provide a notice or communication to a Securityholder of any Series or any defect in it shall not affect its sufficiency with respect to other Securityholders of that or any other Series.

If a notice or communication is provided or published in the manner provided above, within the time prescribed, it is duly given, whether or not the Securityholder receives it.

If the Company provides a notice or communication to Securityholders, it shall provide a copy to the Trustee and each Agent at the same time.

In case, by reason of the suspension of or irregularities in regular mail service, it shall be impracticable to mail notice by the Company when such notice is required to be given pursuant to any provision of this Indenture, then any manner of giving such notice as shall be reasonably satisfactory to the Trustee shall be deemed to be a sufficient giving of such notice.

Notwithstanding anything in this Indenture to the contrary, wherever notice is to be given to Securityholders of Registered Global Securities, it shall be sufficient if such notice is given in accordance with the procedures of the Depository.

Section 11.03. *Communication by Holders with Other Holders.* Securityholders of any Series may communicate pursuant to TIA § 312(b) with other Securityholders of that Series or any other Series with respect to their rights under this Indenture or the Securities of that Series or all Series. The Company, the Trustee, the Registrar and anyone else shall have the protection of TIA § 312(c).

Section 11.04. *Certificate and Opinion as to Conditions Precedent.* Upon any request or application by the Company to the Trustee to take or refrain from taking any action under this Indenture, the Company shall furnish to the Trustee:

(a) an Officers' Certificate stating that, in the opinion of the signers, all conditions precedent, if any, provided for in this Indenture relating to the proposed action have been complied with; and

(b) an Opinion of Counsel stating that, in the opinion of such counsel, all such conditions precedent have been complied with.

Section 11.05. *Statements Required in Certificate or Opinion.* Each certificate or opinion with respect to compliance with a condition or covenant provided for in this Indenture shall include:

(a) a statement that the Person making such certificate or opinion has read such covenant or condition;

(b) 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;

(c) a statement that, in the opinion of such individual, he has made such examination or investigation as is necessary to enable him to express an informed opinion as to whether or not such covenant or condition has been complied with; and

(d) a statement as to whether or not, in the opinion of such person, such condition or covenant has been complied with.

Section 11.06. *Rules by Trustee and Agents.* The Trustee may make reasonable rules for action by or a meeting of Securityholders of one or more Series. Any Agent may make reasonable rules and set reasonable requirements for its functions.

Section 11.07. *Legal Holidays.* Unless otherwise provided by Board Resolution, Officers' Certificate or supplemental indenture for a particular Series, a "Legal Holiday" is a

Saturday, Sunday or a day on which banking institutions in the city (or in any of the cities, if more than one) in which amounts are payable, as specified in the form of such Security, are not required by any applicable law or regulation to be open. If a payment date for the payment of principal or interest on any Security falls on a Legal Holiday, such payment shall be made on the next succeeding Business Day, and no interest shall accrue for the intervening period. If a regular record date is a Legal Holiday, the record date shall not be affected.

Section 11.08. *No Recourse Against Others.* No recourse under or upon any obligation, covenant or agreement contained in this Indenture, or in any Security, or because of any indebtedness evidenced thereby, shall be had against any incorporator, as such, or against any past, present or future stockholder, officer or director, as such, of the Company or of any successor, either directly or through the Company or any successor, under any rule of law, statute or constitutional provision or by the enforcement of any assessment or by any legal or equitable proceeding or otherwise, all such liability being expressly waived and released by the acceptance of the Securities and the coupons, if any, appertaining thereto by the Holders thereof and as part of the consideration for the issue of the Securities and the coupons, if any, appertaining thereto.

Section 11.09. *Counterparts.* This Indenture may be executed in any number of counterparts and by the parties hereto in separate counterparts, each of which when so executed shall be deemed to be an original and all of which taken together shall constitute one and the same agreement.

Section 11.10. *Governing Laws; Waiver of Jury Trial.* THIS INDENTURE AND EACH SECURITY SHALL BE DEEMED TO BE A CONTRACT UNDER THE LAWS OF THE STATE OF NEW YORK, AND FOR ALL PURPOSES SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF SUCH STATE, INCLUDING, WITHOUT LIMITATION, SECTIONS 5-1401 AND 5-1402 OF THE NEW YORK GENERAL OBLIGATIONS LAW AND NEW YORK CIVIL PRACTICE LAWS AND RULES 327(b).

EACH OF THE COMPANY AND THE TRUSTEE HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING ARISING OUT OF OR RELATING TO THIS INDENTURE, THE NOTES OR THE TRANSACTION CONTEMPLATED HEREBY.

Section 11.11. *No Adverse Interpretation of Other Agreements.* This Indenture may not be used to interpret another indenture, loan or debt agreement of the Company or a Subsidiary. Any such indenture, loan or debt agreement may not be used to interpret this Indenture.

Section 11.12. *Successors.* All agreements of the Company in this Indenture and the Securities shall bind its successor. All agreements of the Trustee in this Indenture shall bind its successor.

Section 11.13. *Severability.* In case any provision in this Indenture or in the Securities shall be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

Section 11.14. *Table of Contents, Headings, Etc.* The Table of Contents, Cross Reference Table, and headings of the Articles and Sections of this Indenture have been inserted for convenience of reference only, are not to be considered a part hereof, and shall in no way modify or restrict any of the terms or provisions hereof.

Section 11.15. *Securities in a Foreign Currency.* Unless otherwise specified in a Board Resolution, a supplemental indenture hereto or an Officers' Certificate delivered pursuant to Section 2.02 of this Indenture with respect to a particular Series of Securities, whenever for purposes of this Indenture any action may be taken by the Holders of a specified percentage in aggregate principal amount of Securities of all Series or all Series affected by a particular action at the time outstanding and, at such time, there are outstanding Securities of any Series which are denominated in a coin or currency other than Dollars, then the principal amount of Securities of such Series which shall be deemed to be outstanding for the purpose of taking such action shall be that amount of Dollars that could be obtained for such amount at the Market Exchange Rate at such time. For purposes of this Section 11.15, "Market Exchange Rate" shall mean the noon Dollar buying rate in New York City for cable transfers of that currency as published by the Federal Reserve Bank of New York. If such Market Exchange Rate is not available for any reason with respect to such currency, the Trustee shall use, in its sole discretion and without liability on its part, such quotation of the Federal Reserve Bank of New York or quotations from one or more major banks in The City of New York or in the country of issue of the currency in question. The provisions of this paragraph shall apply in determining the equivalent principal amount in respect of Securities of a Series denominated in currency other than Dollars in connection with any action taken by Holders of Securities pursuant to the terms of this Indenture.

All decisions and determinations of the Trustee regarding the Market Exchange Rate or any alternative determination provided for in the preceding paragraph shall be in its sole discretion and shall, in the absence of manifest error, be conclusive to the extent permitted by law for all purposes and irrevocably binding upon the Company and all Holders.

Section 11.16. *Judgment Currency.* The Company agrees, to the fullest extent that it may effectively do so under applicable law, that (a) if for the purpose of obtaining judgment in any court it is necessary to convert the sum due in respect of the principal of or interest or other amount on the Securities of any Series (the "Required Currency") into a currency in which a judgment will be rendered (the "Judgment Currency"), the rate of exchange used shall be the rate at which in accordance with normal banking procedures the Trustee could purchase in The City of New York the Required Currency with the Judgment Currency on the day on which final unappealable judgment is entered, unless such day is not a New York Banking Day, then, the rate of exchange used shall be the rate at which in accordance with normal banking procedures the Trustee could purchase in The City of New York the Required Currency with the Judgment Currency on the New York Banking Day preceding the day on which final unappealable judgment is entered and (b) its obligations under this Indenture to make payments in the Required Currency (i) shall not be discharged or satisfied by any tender, any recovery pursuant to any judgment (whether or not entered in accordance with subsection (a)), in any currency other than the Required Currency, except to the extent that such tender or recovery shall result in the actual receipt, by the payee, of the full amount of the Required Currency expressed to be payable in respect of such payments, (ii) shall be enforceable as an alternative or additional cause of action for the purpose of recovering in the Required Currency the amount, if any, by which such actual receipt shall fall short of the full amount of the Required Currency so expressed to be payable, and (iii) shall not be affected by judgment being obtained for any other sum due under this Indenture. For purposes of the foregoing, "New York Banking Day" means any day except a Saturday, Sunday or a Legal Holiday in The City of New York on which banking institutions are authorized or required by law, regulation or executive order to close.

Section 11.17. *Acts of Holders.* (a) Any request, demand, authorization, direction, notice, consent, waiver or other action provided by this Indenture to be given or taken by a specified percentage in principal amount of the Securityholders of any or all Series may be embodied in and evidenced by one or more instruments of substantially similar tenor signed by such specified percentage of Securityholders in person or by agent duly appointed in writing; and, except as herein otherwise expressly provided, such action shall become effective when such instrument or instruments are delivered to the Trustee and, where it is hereby expressly required, to the Company. Such instrument or instruments and any such record (and the action embodied therein and evidenced thereby) are herein sometimes referred to as the "ACT" of the Holders signing such instrument or instruments and so voting at any such meeting. Proof of execution of any instrument or of a writing appointing any such agent shall be sufficient for any purpose of this Indenture and (subject to Sections 7.01 and 7.02) conclusive in favor of the Trustee and the Company, if made in the manner provided in this Section 11.17.

(b) Subject to Sections 7.01 and 7.02, the execution of any instrument by a Securityholder or his agent or proxy may be proved in accordance with such reasonable rules and regulations as may be prescribed by the Trustee or in such manner as shall be satisfactory to the Trustee. The holding of Registered Securities shall be proved by the Security register or by a certificate of the registrar thereof.

(c) The Company, the Trustee and any agent of the Company or the Trustee may deem and treat the person in whose name any Security shall be registered upon the Security register for such Series as the absolute owner of such Security (whether or not such Security shall be overdue and notwithstanding any notation of ownership or other writing thereon) for the purpose of receiving payment of or on account of the principal of and, subject to the provisions of this Indenture, interest on such Security and for all other purposes; and neither the Company nor the Trustee nor any agent of the Company or the Trustee shall be affected by any notice to the contrary. The Company, the Trustee and any agent of the Company or the Trustee may treat the Holder of any Bearer Security as the absolute owner of such Bearer Security (whether or not such Bearer Security shall be overdue) for the purpose of receiving payment thereof or on account thereof and for all other purposes, and neither the Company, the Trustee, nor any agent of the Company or the Trustee shall be affected by any notice to the contrary. All such payments so made to any such person, or upon his order, shall be valid, and, to the extent of the sum or sums so paid, effectual to satisfy and discharge the liability for moneys payable upon any such Bearer Security. Notwithstanding the foregoing, nothing herein shall prevent the Company, the Trustee or any Agent from giving effect to any written certification, proxy or other authorization furnished by the Depositary or impair, as between the Depositary and its members, the operation of customary practices governing the exercise of the rights of a holder of a beneficial interest in any Registered Global Security

(d) At any time prior to (but not after) the evidencing to the Trustee, as provided in this Section 11.17, of the taking of any action by the Holders of the percentage in aggregate principal amount of the Securities of any or all Series, as the case may be, specified in this Indenture in connection with such action, any Holder of a Security the serial number of which is shown by the evidence to be included among the serial numbers of the Securities the Holders of which have

consented to such action may, by filing written notice at the Corporate Trust Office and upon proof of holding as provided in this Article, 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 Securities issued in exchange or substitution therefor or on registration of transfer thereof, irrespective of whether or not any notation in regard thereto is made upon any such Security. Any action taken by the Holders of the percentage in aggregate principal amount of the Securities of any or all Series, as the case may be, 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 affected by such action.

Section 11.18. *Force Majeure*. In no event shall the Trustee or any Agent 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 and such Agent shall use reasonable efforts that are consistent with accepted practices in the banking industry to resume performance as soon as practicable under the circumstances.

## ARTICLE 12 SINKING FUNDS

Section 12.01. *Applicability of Article*. The provisions of this Article shall be applicable to any sinking fund for the retirement of the Securities of a Series, except as otherwise permitted or required by any form of Security of such Series issued pursuant to this Indenture.

The minimum amount of any sinking fund payment provided for by the terms of the Securities of any Series is herein referred to as a “mandatory sinking fund payment” and any other amount provided for by the terms of Securities of such 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 12.02. Each sinking fund payment shall be applied to the redemption of Securities of any Series as provided for by the terms of the Securities of such Series.

Section 12.02. *Satisfaction of Sinking Fund Payments with Securities*. The Company may, in satisfaction of all or any part of any sinking fund payment with respect to the Securities of any Series to be made pursuant to the terms of such Securities (a) deliver outstanding Securities of such Series to which such sinking fund payment is applicable (other than any of such Securities previously called for mandatory sinking fund redemption) and (b) apply as credit Securities of such Series to which such sinking fund payment is applicable and which have been redeemed either at the election of the Company pursuant to the terms of such Series of Securities (except pursuant to any mandatory sinking fund) or through the application of permitted optional sinking fund payments or other optional redemptions pursuant to the terms of such Securities, *provided* that such Securities have not been previously so credited. Such Securities shall be received by the Trustee, together with an Officers’ Certificate with respect thereto, not later than 15 days prior to the date on which the Trustee begins the process of selecting Securities for redemption, and shall be credited for such purpose by the Trustee at the 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. If as a result of the delivery or credit of Securities in lieu of cash payments pursuant to this Section, the principal amount of Securities of such Series to be redeemed in order to exhaust the aforesaid cash payment shall be less than \$100,000, the Trustee need not call Securities of such Series for redemption, except upon receipt of a Company Order that such action be taken, and such cash payment shall be held by the Trustee or a Paying Agent and applied to the next succeeding sinking fund payment, *provided, however*, that the Trustee or such Paying Agent shall from time to time upon receipt of a Company Order pay over and deliver to the Company any cash payment so being held by the Trustee or such Paying Agent upon delivery by the Company to the Trustee of Securities of that Series purchased by the Company having an unpaid principal amount equal to the cash payment required to be released to the Company.

Section 12.03. *Redemption of Securities for Sinking Fund.* Not less than 45 days (unless otherwise indicated in the Board Resolution, supplemental indenture hereto or Officers' Certificate in respect of a particular Series of Securities) prior to each sinking fund payment date for any Series of Securities, the Company will deliver to the Trustee an Officers' Certificate specifying the amount of the next ensuing mandatory sinking fund payment for that Series pursuant to the terms of that Series, the portion thereof, if any, which is to be satisfied by payment of cash and the portion thereof, if any, which is to be satisfied by delivering and crediting of Securities of that Series pursuant to Section 12.02, and the optional amount, if any, to be added in cash to the next ensuing mandatory sinking fund payment, and the Company shall thereupon be obligated to pay the amount therein specified. Not less than 30 days (unless otherwise indicated in the Board Resolution, Officers' Certificate or supplemental indenture in respect of a particular Series of Securities) 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 3.03. Such notice having been duly given, the redemption of such Securities shall be made upon the terms and in the manner stated in Sections 3.04, 3.05 and 3.06.

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

SHOCKWAVE MEDICAL, INC.

By: \_\_\_\_\_  
Name:  
Title:

[\_\_\_\_\_] ,  
Trustee

By: \_\_\_\_\_  
Name:  
Title:



New York  
Northern California  
Washington DC  
São Paulo  
London

Paris  
Madrid  
Tokyo  
Beijing  
Hong Kong



Davis Polk & Wardwell LLP  
1600 El Camino Real  
Menlo Park, CA 94025

650 752 2000 tel  
650 752 2111 fax

June 16, 2020  
Shockwave Medical, Inc.  
5403 Betsy Ross Drive  
Santa Clara, CA 95054

Ladies and Gentlemen:

Shockwave Medical, Inc., a Delaware Corporation (the “Company”) is filing with the Securities and Exchange Commission a Registration Statement on Form S-3 (the “Registration Statement”) for the purpose of registering under the Securities Act of 1933, as amended (the “Securities Act”), (a) shares of common stock, par value \$0.001 per share (the “Common Stock”), of the Company; (b) shares of preferred stock, par value \$0.001 per share (the “Preferred Stock”), of the Company; (c) the Company’s debt securities (the “Debt Securities”), which may be senior debt securities or subordinated debt securities and which may be issued pursuant to an indenture, between the Company and the trustee or trustees to be named therein, as trustee (the “Trustee”) (the “Indenture”); (d) warrants of the Company (the “Warrants”), which may be issued under one or more warrant agreements (each, a “Warrant Agreement”) to be entered into between the Company and the warrant agent to be named therein (the “Warrant Agent”); (e) purchase contracts (the “Purchase Contracts”) which may be issued under one or more purchase contract agreements (each, a “Purchase Contract Agreement”) to be entered into between the Company and the purchase contract agent to be named therein (the “Purchase Contract Agent”); (f) units (the “Units”) to be issued under one or more unit agreements to be entered into among the Company, a bank or trust company, as unit agent (the “Unit Agent”), and the holders from time to time of the Units (each such unit agreement, a “Unit Agreement”); and (g) depositary shares representing fractional interests in shares or multiple shares of the Preferred Stock (the “Depositary Shares”), which may be issued under one or more preferred stock depositary agreements (each, a “Depositary Agreement”) to be entered into between the Company and the preferred stock depositary to be named therein (the “Depositary”).

We, as your counsel, have examined originals or copies of such documents, corporate records, certificates of public officials and other instruments as we have deemed necessary or advisable for the purpose of rendering this opinion.

In rendering the opinions expressed herein, we have, without independent inquiry or investigation, assumed that (i) all documents submitted to us as originals are authentic and complete, (ii) all documents submitted to us as copies conform to authentic, complete originals, (iii) all documents filed as exhibits to the Registration Statement that have not been executed will

conform to the forms thereof, (iv) all signatures on all documents that we reviewed are genuine, (v) all natural persons executing documents had and have the legal capacity to do so, (vi) all statements in certificates of public officials and officers of the Company that we reviewed were and are accurate and (vii) all representations made by the Company as to matters of fact in the documents that we reviewed were and are accurate.

Based upon the foregoing, and subject to the additional assumptions and qualifications set forth below, we advise you that, in our opinion:

1. When the necessary corporate action on the part of the Company has been taken to authorize the issuance and sale of such shares of Common Stock proposed to be sold by the Company, and when such shares of Common Stock are issued and delivered in accordance with the applicable underwriting or other agreement against payment therefor (in excess of par value thereof) or upon conversion or exercise of any security offered under the Registration Statement (the "Offered Security"), in accordance with the terms of such Offered Security or the instrument governing such Offered Security providing for such conversion or exercise as approved by the Board of Directors of the Company, for the consideration approved by such Board of Directors (which consideration is not less than the par value of the Common Stock), such shares of Common Stock will be validly issued, fully-paid and non-assessable.
2. Upon designation of the relative rights, preferences and limitations of any series of Preferred Stock by the Board of Directors of the Company and the proper filing with the Secretary of State of the State of Delaware of a Certificate of Designation relating to such series of Preferred Stock, when all necessary corporate action on the part of the Company has been taken to authorize the issuance and sale of such series of Preferred Stock proposed to be sold by the Company, and when such shares of Preferred Stock are issued and delivered in accordance with the applicable underwriting or other agreement against payment therefor (in excess of par value thereof), such shares of Preferred Stock will be validly issued, fully paid and non-assessable.
3. When the Indenture and any supplemental indenture to be entered into in connection with the issuance of any Debt Securities have been duly authorized, executed and delivered by the Trustee and the Company; the specific terms of a particular series of Debt Securities have been duly authorized and established in accordance with the Indenture; and such Debt Securities have been duly authorized, executed, authenticated, issued and delivered in accordance with the Indenture and the applicable underwriting or other agreement against payment therefor, such Debt Securities will constitute valid and binding obligations of the Company, enforceable in accordance with their terms, subject to applicable bankruptcy, insolvency and similar laws affecting creditors' rights generally, concepts of reasonableness and equitable principles of general applicability, provided that we express no opinion as to (w) the enforceability of any waiver of rights under any usury or stay law, (x) the effect of fraudulent conveyance, fraudulent transfer or similar provision of applicable law on the conclusions expressed above, (y) the validity, legally binding effect or enforceability of any provision of the Indenture or any supplemental indenture that requires or relates

to adjustments to the conversion rate at a rate or in an amount that a court would determine in the circumstances under applicable law to be commercially unreasonable or a penalty or forfeiture or (z) the validity, legally binding effect or enforceability of any provision that permits holders to collect any portion of stated principal amount upon acceleration of the Debt Securities to the extent determined to constitute unearned interest.

4. When the Warrant Agreement to be entered into in connection with the issuance of any Warrants has been duly authorized, executed and delivered by the Warrant Agent and the Company; the specific terms of the Warrants have been duly authorized and established in accordance with the Warrant Agreement; and such Warrants have been duly authorized, executed, issued and delivered in accordance with the Warrant Agreement and the applicable underwriting or other agreement against payment therefor, such Warrants will constitute valid and binding obligations of the Company, enforceable in accordance with their terms, subject to applicable bankruptcy, insolvency and similar laws affecting creditors' rights generally, concepts of reasonableness and equitable principles of general applicability.
5. When the Purchase Contract Agreement to be entered into in connection with the issuance of any Purchase Contracts has been duly authorized, executed and delivered by the Purchase Contract Agent and the Company; the specific terms of the Purchase Contracts have been duly authorized and established in accordance with the Purchase Contract Agreement; and such Purchase Contracts have been duly authorized, executed, issued and delivered in accordance with the Purchase Contract Agreement and the applicable underwriting or other agreement against payment therefor, such Purchase Contracts will constitute valid and binding obligations of the Company, enforceable in accordance with their terms, subject to applicable bankruptcy, insolvency and similar laws affecting creditors' rights generally, concepts of reasonableness and equitable principles of general applicability.
6. When the Unit Agreement to be entered into in connection with the issuance of any Units has been duly authorized, executed and delivered by the Unit Agent and the Company; the specific terms of the Units have been duly authorized and established in accordance with the Unit Agreement; and such Units have been duly authorized, executed, issued and delivered in accordance with the Unit Agreement and the applicable underwriting or other agreement against payment therefor, such Units will constitute valid and binding obligations of the Company, enforceable in accordance with their terms, subject to applicable bankruptcy, insolvency and similar laws affecting creditors' rights generally, concepts of reasonableness and equitable principles of general applicability.
7. When the Depositary Agreement to be entered into in connection with the issuance of any Depositary Shares has been duly authorized, executed and delivered by the Depositary and the Company; the specific terms of the Depositary Shares have been duly authorized and established in accordance with the Depositary Agreement; and such Depositary Shares have been duly authorized, executed, issued and delivered in accordance with the Depositary

Agreement and the applicable underwriting or other agreement against payment therefor, such Depositary Shares will constitute legal and valid interests in the corresponding shares of Preferred Stock, subject to applicable bankruptcy, insolvency and similar laws affecting creditors' rights generally, concepts of reasonableness and equitable principles of general applicability.

In connection with the opinions expressed above, we have assumed that, at or prior to the time of the delivery of any such security, (i) the Board of Directors of the Company shall have duly established the terms of such security and duly authorized the issuance and sale of such security and such authorization shall not have been modified or rescinded; (ii) the Company shall remain validly existing as a corporation in good standing under the laws of the State of Delaware; (iii) the Registration Statement shall have become effective and such effectiveness shall not have been terminated or rescinded; (iv) the Indenture, the Debt Securities, the Warrant Agreement, the Purchase Contract Agreement, the Unit Agreement and the Depositary Agreement are each valid, binding and enforceable agreements of each party thereto (other than as expressly covered above in respect of the Company); and (v) there shall not have occurred any change in law affecting the validity or enforceability of such security. We have also assumed that (i) the terms of any security whose terms are established subsequent to the date hereof and the issuance, execution, delivery and performance by the Company of any such security (a) require no action by or in respect of, or filing with, any governmental body, agency or official and (b) do not contravene, or constitute a default under, any provision of applicable law or public policy or regulation or any judgment, injunction, order or decree or any agreement or other instrument binding upon the Company and (ii) any Warrant Agreement, Purchase Contract Agreement and Unit Agreement will be governed by the laws of the State of New York.

We are members of the Bars of the States of New York and California and the foregoing opinion is limited to the laws of the State of New York and the General Corporation Law of the State of Delaware.

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement referred to above and further consent to the reference to our name under the caption "Validity of Securities" in the prospectus, which is a part of the Registration Statement. In giving this consent, we do not admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act.

Very truly yours,

/s/ Davis Polk & Wardwell LLP

**Consent of Independent Registered Public Accounting Firm**

We consent to the reference to our firm under the caption “Experts” in the Registration Statement on Form S-3 and related Prospectus of Shockwave Medical, Inc. for the registration of debt securities, common stock, preferred stock, depositary shares, warrants, purchase contracts or units and to the incorporation by reference therein of our report dated March 12, 2020, with respect to the consolidated financial statements of Shockwave Medical, Inc. included in its Annual Report (Form 10-K) for the year ended December 31, 2019, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

San Jose, California  
June 12, 2020