

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

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

**Calyxt, Inc.**

(Exact name of registrant as specified in its charter)

**Delaware  
(State or other jurisdiction of  
incorporation or organization)**

**27-1967997  
(I.R.S. Employer  
Identification No.)**

**2800 Mount Ridge Road  
Roseville, MN 55113  
(651) 683-2807**

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

**Debra Frimerman  
General Counsel  
Calyxt, Inc.  
2800 Mount Ridge Road  
Roseville, MN 55113**

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

*Copy to:*  
**Peter E. Devlin  
Jones Day  
250 Vesey Street  
New York, New York 10281  
(212) 326-3939**

Approximate date of commencement of the proposed sale of the securities 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 a dividend or interest reinvestment plans, 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.

**THE REGISTRANT HEREBY AMENDS THIS REGISTRATION STATEMENT ON SUCH DATE OR DATES AS MAY BE NECESSARY TO DELAY ITS EFFECTIVE DATE UNTIL THE REGISTRANT SHALL FILE A FURTHER AMENDMENT WHICH SPECIFICALLY STATES THAT THIS REGISTRATION STATEMENT SHALL THEREAFTER BECOME EFFECTIVE IN ACCORDANCE WITH SECTION 8(A) OF THE SECURITIES ACT OF 1933, AS AMENDED, OR UNTIL THE REGISTRATION STATEMENT SHALL BECOME EFFECTIVE ON SUCH DATE AS THE SECURITIES AND EXCHANGE COMMISSION, ACTING PURSUANT TO SAID SECTION 8(A), MAY DETERMINE.**

**The information in this preliminary prospectus supplement is not complete and may be changed. This preliminary prospectus supplement and the accompanying prospectus are not an offer to sell the securities and are not soliciting an offer to buy the securities in any jurisdiction where the offer or sale is not permitted.**

**SUBJECT TO COMPLETION, DATED SEPTEMBER 19, 2022**

**PROSPECTUS**

**\$50,000,000**



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

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Calyxt, Inc. (“Calyxt” or the “Company”) may offer and sell from time to time in one or more offerings shares of its common stock, par value \$0.0001 per share (“common stock”), shares of preferred stock, warrants, subscription rights, units or debt securities for an aggregate offering price of \$50,000,000. Any of these securities may be offered separately or in combination at prices and on other terms to be determined at the time of the offering.

As of September 16, 2022, the aggregate market value of the Company’s outstanding common equity held by non-affiliates, or public float, was \$5.9 million, based on 22,593,988 shares of the Company’s common stock held by non-affiliates and a per share price of \$0.26, which equaled the closing price of the Company’s common stock on the Nasdaq Global Market on such date. Pursuant to General Instruction I.B.6 of Form S-3, in no event will the Company sell securities in a primary offering with a value exceeding more than one-third of its public float in any 12-month period so long as its public float remains below \$75,000,000. If subsequent to the date of this prospectus the Company’s public float equals or exceeds \$75,000,000, such one-third limitation on sales shall not apply to sales subsequently made pursuant to this prospectus. During the 12 calendar months prior to and including the date of this prospectus supplement, we have offered and sold \$388.00 worth of our securities pursuant to General Instruction I.B.6 of Form S-3.

Each time the Company offers any securities pursuant to this prospectus, it will provide a prospectus supplement that will provide the specific terms of the securities to the extent those terms are not described in this prospectus or are different from the terms described in this prospectus. The prospectus supplements may also add to, update or change information contained in this prospectus. In addition, the Company may supplement, update or change any of the information contained in this prospectus by incorporating information by reference into this prospectus. You should read this prospectus, any applicable prospectus supplements and any documents incorporated by reference carefully before you invest.

The Company may offer these securities directly to investors, through agents, underwriters or dealers, or through a combination of these methods. Each applicable prospectus supplement will provide the terms of the plan of distribution relating to the specific offering. If any agents, dealers or underwriters are involved in the sale of any securities, the applicable prospectus supplement will set forth their names and any applicable commissions or discounts.

The Company’s common stock is listed on the Nasdaq Global Market (“Nasdaq”) under the symbol “CLXT.” On September 16, 2022, the closing sale price of the common stock on Nasdaq was \$0.26 per share.

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**Investing in Calyxt’s securities involves risks. See “[Risk Factors](#)” on page S-4 and any risk factors included in any accompanying prospectus supplement and in the documents incorporated by reference in this prospectus for a discussion of the factors you should carefully consider before investing in Calyxt’s securities.**

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

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The date of this prospectus is \_\_\_\_\_, 2022.

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## ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-3 that Calyxt filed with the Securities and Exchange Commission (the “SEC”) utilizing a “shelf” registration process. Under this shelf registration process, Calyxt may offer and sell from time to time any combination of the securities described in this prospectus in one or more offerings in amounts, at prices and on terms that Calyxt will determine at the time of the offering. This prospectus and the documents incorporated by reference into this prospectus provide you with a general description of the securities that may be sold under this shelf registration statement. In connection with a specific offering, Calyxt may provide a prospectus supplement and may also provide you with a free writing prospectus that will contain specific information about the terms of that offering. The prospectus supplement or free writing prospectus, if any, may also add to, update or change information contained in this prospectus. Before purchasing any securities, you should carefully read both this prospectus, any applicable accompanying prospectus supplement and any free writing prospectus prepared by or on behalf of Calyxt, together with the additional information described under the heading “Where You Can Find Additional Information” in this prospectus.

**Calyxt has not authorized any other person to provide you with any information different than that contained or incorporated by reference in this prospectus and any applicable accompanying prospectus supplement or free writing prospectus. If anyone provides you with different or inconsistent information, you should not rely on it as having been authorized by Calyxt. Calyxt is not making offers to sell the securities and is not soliciting offers to buy the securities in any jurisdiction where an offer or solicitation is not permitted. The information in this prospectus is accurate only as of the date on the front cover. You should not assume that the information contained in this prospectus, including any information incorporated in this prospectus by reference, any applicable accompanying prospectus supplement or any free writing prospectus prepared by Calyxt, is accurate as of any date other than the date on the front of these documents. Calyxt’s business, financial condition, results of operations and prospects may have changed since such date. Neither the delivery of this prospectus nor any sale made under it implies that there has been no change in Calyxt’s affairs or that the information in this prospectus is correct as of any date after the date of this prospectus. You are encouraged to consult your own counsel, accountant and other advisors for legal, tax, business, financial and related advice regarding an investment in Calyxt’s securities.**

Throughout this prospectus, unless the context otherwise requires, the terms “Calyxt,” the “Company” and “it” refer to Calyxt, Inc. The term “Collectis” refers to Collectis S.A., Calyxt’s majority stockholder as of the date of this prospectus.

Calyxt owns the names PlantSpring and BioFactory. Calyxt also owns the trademarks Calyxt® and Calyno® and owns or licenses other trademarks, trade names, and service marks appearing in this this prospectus and any prospectus supplement or free writing prospectus. The names and trademarks Collectis® and TALEN®, along with any other trademarks, trade names, and service marks of Collectis appearing in this this prospectus and any prospectus supplement or free writing prospectus are the property of Collectis. This prospectus, any prospectus supplement and any free writing prospectus may also contain additional trade names, trademarks and service marks belonging to other companies. Calyxt does not intend its use or display of other parties’ trademarks, trade names, or service marks to imply, and such use or display should not be construed to imply a relationship with, or endorsement or sponsorship of these other parties.

## SUMMARY

### **The Company**

Calyxt is a plant-based synthetic biology company that leverages its proprietary PlantSpring™ technology platform to engineer plant metabolism to produce innovative, high-value plant-based chemistries for use in customers' materials and products. As plant-based solutions, the Company's synthetic biology products can be used in helping customers meet their sustainability targets and financial goals. The Company is focused on developing these synthetic biology solutions for customers in large and differentiated end markets, including the cosmeceutical, nutraceutical, and pharmaceutical industries, which are the Company's initial target markets.

### **Relationship with Collectis**

Calyxt is currently a majority-owned subsidiary of Collectis S.A. As of June 30, 2022, Collectis owned 51.3 percent of Calyxt's 46,815,694 outstanding shares of common stock. Collectis has certain contractual rights as well as rights pursuant to Calyxt's certificate of incorporation and bylaws, in each case, for so long as it maintains threshold beneficial ownership levels in Calyxt's shares. Several of Collectis' rights remain in effect for so long as Collectis beneficially owns at least 15 percent of Calyxt's outstanding shares.

Calyxt holds an exclusive license from Collectis that broadly covers the use of engineered nucleases for plant gene editing. This intellectual property covers methods to edit plant genes using "chimeric restriction endonucleases," which include TALEN®, CRISPR/Cas9, zinc finger nucleases, and some types of meganucleases.

### **Corporate Information**

Calyxt was incorporated in the State of Delaware in 2010. The Company's corporate headquarters is located at 2800 Mount Ridge Road, Roseville, Minnesota 55113 and Calyxt's phone number is (651) 683-2807. Calyxt's filings with the SEC are posted on its corporate website at [www.calyxt.com](http://www.calyxt.com). The information contained in, or accessible through, Calyxt's corporate website does not constitute part of this prospectus.

Calyxt's common stock is listed on the Nasdaq Global Market under the symbol "CLXT."

## CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated herein contain “forward-looking statements” within the meaning of the federal securities laws, including Section 27A of the Securities Act of 1933 (the “Securities Act”) and Section 21E of the Securities Exchange Act of 1934 (the “Exchange Act”).

Calyxt has made these forward-looking statements in reliance on the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. In some cases, you can identify these statements by forward-looking words such as “anticipates,” “believes,” “continue,” “estimates,” “expects,” “intends,” “may,” “might,” “plans,” “predicts,” “projects,” “should,” “targets,” “will,” or the negative of these terms and other similar terminology. Forward-looking statements in this prospectus and the documents incorporated herein include statements about the Company’s future financial performance, including its cash runway; its product pipeline and development; the Company’s business model and strategies for the development, commercialization and sales of commercial products; commercial demand for its synthetic biology solutions; the development and deployment of its PlantSpring technology platform; its ability to deploy and leverage its artificial intelligence and machine learning (AIML) capabilities; the ability to scale production capability for its BioFactory production system; potential development agreements, partnerships, customer relationships, and licensing arrangements and their contribution to the Company’s financial results, cash usage, and growth strategies; the potential impact of the COVID-19 pandemic on the Company’s business and operating results; and anticipated trends in its business.

These and other forward-looking statements are predictions and projections about future events and trends based on Calyxt’s current expectations, objectives, and intentions and are premised on current assumptions. Calyxt’s actual results, level of activity, performance, or achievements could be materially different than those expressed, implied, or anticipated by forward-looking statements due to a variety of factors, including, but not limited to:

- the impact of increased competition, including competition from a broader array of synthetic biology companies;
- competition for customers, partners, and licensees and the successful execution of development and licensing agreements;
- disruptions at its key facilities, including disruptions impacting its BioFactory production system;
- flaws in AIML algorithms, insufficiency of data inputs required by such algorithms, and human error in interacting with AIML;
- changes in customer preferences and market acceptance of its products; changes in market consensus as to what attributes are required for a product to be considered “sustainable”;
- the impact of adverse events during development, including unsuccessful pilot production of plant-based chemistries or field trials;
- the impact of improper handling of its product candidates during development;
- failures by third-party contractors; inaccurate demand forecasting or milestone and royalty payment projections;
- the effectiveness of commercialization efforts by commercial partners or licensees; disruptions to supply chains, including raw material inputs for its BioFactory;
- the impact of changes or increases in oversight and regulation;
- disputes or challenges regarding intellectual property;
- proliferation and continuous evolution of new technologies; management changes;
- dislocations in the capital markets;

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- the severity and duration of the evolving COVID-19 pandemic and the resulting impact on macro-economic conditions;
- other important factors discussed under the heading “Risk Factors” in this prospectus, as may be amended or supplemented by Calyxt’s subsequent reports on Forms 10-Q and 8-K filed with the SEC.

While the list of factors presented here is considered representative, no such list should be considered to be a complete statement of all potential risks and uncertainties. Unlisted factors may present significant additional obstacles to the realization of forward-looking statements. Any of these factors, in whole or in part, could materially and adversely affect Calyxt’s business, financial condition, results of operations and the price of Calyxt’s common stock.

Any forward-looking statement made by Calyxt in this prospectus, any prospectus supplement and the documents incorporated by reference herein or therein is based only on information currently available to Calyxt and speaks only as of the date of this prospectus or such prospectus supplement or incorporated document, as the case may be. Calyxt does not assume any obligation to publicly provide revisions or updates to any forward-looking statements after the date of the document in which such statement appears, whether as a result of new information, future developments or otherwise, should circumstances change, except as otherwise required by securities and other applicable laws.

You should read this prospectus together with the documents Calyxt has filed with the SEC that are incorporated by reference and any prospectus supplement or free writing prospectus that the Company may authorize for use in connection with this offering completely and with the understanding that Calyxt’s actual future results may be materially different from what Calyxt currently expects. Calyxt qualifies all of the forward-looking statements in the foregoing documents by these cautionary statements.

## **RISK FACTORS**

Investing in Calyxt's securities involves risk. You should carefully consider the risks and uncertainties described in this prospectus, any prospectus supplement and the documents incorporated by reference herein or therein, including the risks and uncertainties described in Calyxt's Annual Report on Form 10-K for the fiscal year ended December 31, 2021, as updated by the Company's subsequent filings under the Exchange Act that are incorporated by reference herein or in the applicable prospectus supplement. If any of these risks actually occur, Calyxt's business, operating results, prospects or financial condition could be harmed. The risks below and incorporated by reference in this prospectus are not the only ones Calyxt faces. Additional risks not currently known to Calyxt or that Calyxt currently deems immaterial may also affect Calyxt's business operations. For more information, see "Where You Can Find Additional Information."



## USE OF PROCEEDS

Unless otherwise specified in a prospectus supplement prepared in connection with an offering of securities pursuant to this prospectus, the net proceeds from the sale of any securities described in this prospectus will be used for general corporate purposes. General corporate purposes may include financing research and development; scaling production capacity; funding personnel and infrastructure enhancements; repayment, repurchase or redemption of debt; repurchases of other securities; acquisitions; additions to working capital; capital expenditures and investments. Accordingly, Calyxt will have significant discretion over the use of any net proceeds. Calyxt may provide additional or updated information on the use of net proceeds from the sale of the offered securities in an applicable prospectus supplement relating to the offered securities.

## DESCRIPTION OF CAPITAL STOCK

Below is a description of the material terms and provisions of Calyxt's amended and restated certificate of incorporation (the "Certificate of Incorporation") and Calyxt's amended and restated bylaws ("By-laws") as well as relevant terms and provisions of Calyxt's indemnification agreements for directors and officers and Delaware law affecting the rights of Calyxt's stockholders. This summary does not purport to be complete and is qualified in its entirety by the provisions of Calyxt's Certificate of Incorporation, By-laws and such indemnification agreements. Copies of Calyxt's Certificate of Incorporation, By-laws and indemnification agreements have been filed with the SEC and are incorporated by reference into the registration statement of which this prospectus forms a part.

### General

Calyxt's authorized capital stock consists of 275,000,000 shares of common stock, par value \$0.0001 per share, and 50,000,000 shares of preferred stock, par value \$0.0001 per share. The only equity securities currently outstanding are shares of common stock.

As of June 30, 2022, there were 46,815,694 shares of common stock issued and outstanding.

### Common Stock

*Voting Rights.* The holders of Calyxt's common stock are entitled to one vote per share on all matters to be voted upon by the stockholders. Holders of Calyxt's common stock do not have cumulative voting rights in the election of directors. Accordingly, the holders of a majority of the voting power of Calyxt's common stock could, if they so choose, elect all the directors.

*Dividend Rights.* Holders of common stock are entitled to receive dividends if, as and when declared by Calyxt's Board of Directors, out of Calyxt's legally available assets, in cash, property or shares of Calyxt's capital stock, after payments of dividends required to be paid on outstanding preferred stock, if any.

*Distributions in Connection with Mergers or Other Business Combinations.* Upon a merger, consolidation or substantially similar transaction, holders of common stock will be entitled to receive equal per share payments or distributions.

*Liquidation Rights.* Upon Calyxt's liquidation, dissolution or winding up, any business combination or a sale or disposition of all or substantially all of Calyxt's assets, the assets legally available for distribution to Calyxt's stockholders will be distributable ratably among the holders of the common stock, subject to prior satisfaction of all outstanding debts and other liabilities and the preferential rights and payment of liquidation preferences, if any, on any outstanding preferred stock.

*Stockholders Agreement.* In connection with Calyxt's IPO, Calyxt entered into a stockholders agreement dated July 25, 2017 with Collectis (as amended from time to time, the "Stockholders Agreement"), pursuant to which Collectis has certain specified rights. Pursuant to the Stockholders Agreement, for so long as Collectis beneficially owns at least 50% of the then-outstanding shares of Calyxt's shares of Common Stock, Collectis has certain rights, including:

- to approve any modification to Calyxt's or any future subsidiary's share capital (e.g., share capital increase or decrease), the creation of any subsidiary, any grant of stock-based compensation, any distributions or initial public offering, merger, spin-off, liquidation, winding up or carve-out transactions;
- to approve Calyxt's annual business plan and annual budget and any modification thereto;

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- to approve any external growth transactions exceeding \$500,000 and not included in the approved annual business plan and annual budget;
- to approve any investment and disposition decisions exceeding \$500,000 and not included in the approved annual business plan and annual budget (excluding the purchase and sale of inventory as a part of the normal course of business);
- to approve any related-party agreement and any agreement or transaction between the executives or stockholders of Calyxt, on the one hand, and Calyxt or any of its subsidiaries, on the other hand;
- to approve any decision pertaining to the recruitment, dismissal/removal, or increase of the compensation of executives and corporate officers;
- to approve any material decision relating to a material litigation;
- to approve any decision relating to the opening of a social or restructuring plan or pre-insolvency proceedings;
- to approve any buyback by Calyxt of its own shares;
- to approve any new borrowings or debts exceeding \$500,000 and early repayment of loans, if any (it being understood that Collectis will approve the entering into of contracts for revolving loans and other short-term loans and the repayment of such for financing general operating activities, such as revolving loans for inventory or factoring of receivables);
- to approve grants of any pledges on securities;
- to develop new activities and businesses not described in the annual business plan and annual budget;
- to approve entry into any material agreement or partnership; and
- to approve any offshore and relocation activities.

In addition, Collectis has the following rights for so long as it beneficially owns at least 15% of the then outstanding shares of Calyxt's common stock, including:

- to nominate the greater of three members of Calyxt's Board of Directors or a majority of the directors;
- to designate the Chairman of Calyxt's Board of Directors and one member to each of the audit committee of the Board of Directors, the compensation committee of the Board of Directors and the nominating and corporation governance committee of the Board of Directors;
- to approve any amendments to Calyxt's Certificate of Incorporation or By-laws that would change the name of the company, its jurisdiction of incorporation, the location of its principal executive offices, the purpose or purposes for which Calyxt is incorporated or the Collectis approval items set forth in the stockholders agreement;
- to approve the payment of any regular or special dividends;
- to approve the commencement of any proceeding for the voluntary dissolution, winding up or bankruptcy of Calyxt or a material subsidiary;
- to approve any public or private offering, merger, amalgamation or consolidation of us or the spinoff of a business of Calyxt's or any sale, conveyance, transfer or other disposition of Calyxt's assets; and
- to approve any change to Calyxt's Board of Directors contrary to the stockholders agreement or the Company's Certificate of Incorporation or By-laws.

*Other Matters.* Calyxt's Certificate of Incorporation does not entitle holders of Calyxt's common stock to preemptive rights. No redemption or sinking fund provisions apply to Calyxt's common stock. The rights, preferences and privileges of holders of Calyxt's common stock are subject to, and may be adversely affected by, the rights of holders of any series of preferred stock that Calyxt may designate in the future.

## Preferred Stock

Calyxt's Certificate of Incorporation authorizes its Board of Directors, without further action by the stockholders (unless so required by applicable law or Nasdaq listing standards), to issue preferred stock in one or more series, to increase or decrease the number of shares of any series subsequent to the issuance of that series, but not below the number of shares of such series then outstanding, and to determine the preferences, limitations and rights of any shares of preferred stock that Calyxt chooses to issue, without vote or action by the stockholders.

Calyxt will fix the designations, powers, preferences and relative, participating, optional or other rights, if any, of the preferred stock of each such series, as well as any qualifications, limitations or restrictions thereon, in the certificate of designation relating to that series. Calyxt will file as an exhibit to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that Calyxt files with the SEC, the form of any certificate of designation that sets forth the terms of the series of preferred stock Calyxt is offering before the issuance of that series of preferred stock. If Calyxt offers preferred stock, the terms of the particular series of preferred stock will be described in the applicable prospectus supplement. This description will include (to the extent applicable):

- the designation of the applicable series number of shares of such series Calyxt is offering;
- the purchase price;
- the liquidation preference per share;
- the dividend rate, period and payment date and method of calculation for dividends;
- whether dividends will be cumulative or non-cumulative and, if cumulative, the date from which dividends will accumulate;
- the procedures for any auction and remarketing, if any;
- the provisions for a sinking fund, if any;
- the provisions for redemption or repurchase, if applicable, and any restrictions on Calyxt's ability to exercise those redemption and repurchase rights;
- any listing of the preferred stock on any securities exchange or market;
- whether the preferred stock will be convertible into Calyxt's common stock or any other security of the Company, and, if applicable, the conversion price, or how it will be calculated, and the conversion period;
- whether the preferred stock will be exchangeable for Calyxt's common stock or any other security of the Company, and, if applicable, the exchange price, or how it will be calculated, and the exchange period;
- voting rights, if any, of the preferred stock;
- preemptive rights, if any;
- restrictions on transfer, sale or other assignment, if any;
- whether interests in the preferred stock will be represented by depositary shares;
- a discussion of any material United States federal income tax considerations applicable to the preferred stock;
- the relative ranking and preferences of the preferred stock as to dividend rights and rights if Calyxt liquidates, dissolves or winds up its affairs;

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- any limitations on the issuance of any class or series of preferred stock ranking senior to or on a parity with the series of preferred stock as to dividend rights and rights if Calyxt liquidates, dissolves or winds up its affairs; and
- any other specific terms, preferences, rights or limitations of, or restrictions on, the preferred stock.

The Delaware General Corporation Law (the “DGCL”) provides that the holders of preferred stock will have the right to vote separately as a class (or, in some cases, as a series) on an amendment to Calyxt’s Certificate of Incorporation if the amendment would change the par value, the number of authorized shares of the class or the powers, preferences or special rights of the class or series so as to adversely affect the class or series, as the case may be. This right is in addition to any voting rights that may be provided for in the applicable certificate of designation.

Calyxt’s Board of Directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of Calyxt’s common stock. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deferring or preventing a change in control of Calyxt and may adversely affect the market price of the common stock and the voting and other rights of the holders of common stock. Additionally, the issuance of preferred stock may have the effect of decreasing the market price of Calyxt’s common stock.

### **Delaware Anti-Takeover Law and Provisions of Calyxt’s Charter and Bylaws**

The following provisions may make a change in control of Calyxt’s business more difficult and could delay, defer or prevent a tender offer or other takeover attempt that a stockholder might consider to be in its best interest, including takeover attempts that might result in the payment of a premium to stockholders over the market price for their shares. These provisions also may promote the continuity of Calyxt’s management by making it more difficult for a person to remove or change the incumbent members of Calyxt’s Board of Directors.

*Authorized but Unissued Shares; Undesignated Preferred Stock.* The authorized but unissued shares of Calyxt’s common stock will be available for future issuance without stockholder approval. These additional shares may be used for a variety of corporate purposes, including future public offerings to raise additional capital, acquisitions and employee benefit plans. In addition, Calyxt’s Board of Directors may authorize, without stockholder approval, the issuance of undesignated preferred stock with voting rights or other rights or preferences designated from time to time by Calyxt’s Board of Directors. The existence of authorized but unissued shares of common stock or preferred stock may enable Calyxt’s Board of Directors to render more difficult or to discourage an attempt to obtain control of Calyxt by means of a merger, tender offer, proxy contest or otherwise.

*Election and Removal of Directors.* Calyxt’s Board of Directors consists of not less than five nor more than eleven directors, excluding any directors elected by holders of preferred stock pursuant to provisions of any applicable series of preferred stock entitling the holders thereof to separately elect directors. The exact number of directors will be fixed from time to time by resolution of Calyxt’s Board of Directors. As of the date of this prospectus, Calyxt’s Board of Directors has eight members.

Pursuant to the Stockholders Agreement, Collectis has the right to nominate the greater of three directors or a majority of directors to Calyxt’s Board of Directors so long as it continues to own at least 15% of the then-outstanding shares of Calyxt’s common stock.

At any time after Collectis beneficially owns less than 50% of Calyxt’s then outstanding common stock, Calyxt’s Certificate of Incorporation provides that directors may be removed only for cause and only by the affirmative vote of holders of a majority of Calyxt’s then outstanding stock. Prior to such time, directors may be removed with or without cause.

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*Classified Board of Directors.* Calyxt's Board of Directors currently is not classified. However, Calyxt's Certificate of Incorporation and By-laws provide that Calyxt's Board of Directors will be classified with approximately one-third of the directors elected each year at such time as Collectis no longer holds at least 50% of Calyxt's then outstanding common stock. The number of directors will be fixed from time to time by a majority of the total number of directors that Calyxt would have at the time such number is fixed if there were no vacancies. The directors will be divided into three classes, designated class I, class II and class III. Each class will consist, as nearly as may be possible, of one-third of the total number of directors constituting the entire Board of Directors. At each annual meeting of stockholders, successors to the class of directors whose term expires at that annual meeting will be elected for a three-year term and until their successors are duly elected and qualified. In addition, if the number of directors is changed, any increase or decrease will be apportioned by Calyxt's Board of Directors among the classes so as to maintain the number of directors in each class as nearly equal as possible, and any additional director of any class elected to fill a vacancy resulting from an increase in such class or from the removal from office, death, disability, resignation or disqualification of a director or other cause will hold office for a term that will coincide with the remaining term of that class, but in no case will a decrease in the number of directors have the effect of removing or shortening the term of any incumbent director.

*Director Vacancies.* Calyxt's Certificate of Incorporation authorizes only its Board of Directors to fill vacant directorships.

*No Cumulative Voting.* Calyxt's Certificate of Incorporation provides that stockholders do not have the right to cumulate votes in the election of directors.

*Special Meetings of Stockholders.* At any time after Collectis beneficially owns less than 50% of Calyxt's then outstanding common stock, Calyxt's By-laws and Certificate of Incorporation provide that special meetings of its stockholders may only be called by the Board of Directors. Prior to such time, a special meeting may also be called by the secretary of the Company at the request of stockholders holding a majority of the outstanding shares entitled to vote.

*Advance Notice Procedures for Director Nominations.* Calyxt's By-laws establish advance notice procedures for stockholders seeking to nominate candidates for election as directors at an annual or special meeting of stockholders. Although Calyxt's By-laws do not give the Board of Directors the power to approve or disapprove stockholder nominations of candidates to be elected at an annual meeting, the By-laws may have the effect of precluding the conduct of certain business at a meeting if the proper procedures are not followed or may discourage or deter a potential acquirer from conducting a solicitation of proxies to elect its own slate of directors or otherwise attempting to obtain control of the Company.

*Action by Written Consent.* At any time after Collectis beneficially owns less than 50% of Calyxt's then outstanding common stock, Calyxt's By-laws and Certificate of Incorporation provide that any action required or permitted to be taken by the stockholders must be effected at a duly called annual or special meeting of stockholders and may not be effected by any consent in writing in lieu of a meeting of such stockholders, subject to the rights of the holders of any series of preferred stock. Prior to such time, such actions may be taken without a meeting by written consent.

*Amending Calyxt's Certificate of Incorporation and Bylaws.* At any time after Collectis beneficially owns less than 50% of Calyxt's then outstanding common stock, Calyxt's Certificate of Incorporation and By-laws may be amended by the affirmative vote of the holders of at least two-thirds of Calyxt's common stock. Prior to such time, Calyxt's Certificate of Incorporation and By-laws may be amended by the affirmative vote of the holders of a majority of the voting power of Calyxt's common stock.

*Exclusive Jurisdiction.* Calyxt's Certificate of Incorporation provides that, unless it consents to the selection of an alternative forum, the Court of Chancery of the State of Delaware shall be the sole and exclusive forum for any derivative action or proceeding brought on Calyxt's behalf, any action asserting a claim of breach of

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fiduciary duty owed by any of the Company's directors, officers, or other employees to Calyxt or to its stockholders, any action asserting a claim arising pursuant to the DGCL, or any action asserting a claim governed by the internal affairs doctrine. Notwithstanding the foregoing, because the Exchange Act creates exclusive federal jurisdiction over all suits brought to enforce duties or liabilities created by the Exchange Act or the rules and regulations thereunder, the exclusive forum provision does not apply to any action arising under the Exchange Act. Although the exclusive forum provision applies, to the extent permitted by law, to Securities Act claims, the Securities Act creates concurrent federal and state jurisdiction over suits brought to enforce duties or liabilities created by the Securities Act or the rules and regulations thereunder. Accordingly, there is uncertainty as to whether a court would enforce this exclusive forum provision with respect to a Securities Act claim. Neither Calyxt nor its stockholders may waive compliance with the federal securities laws or the rules and regulations thereunder.

*Business Combinations with Interested Stockholders.* Subject to certain exceptions, Section 203 of the DGCL prohibits a public Delaware corporation from engaging in a business combination (as defined in such section) with an "interested stockholder" (defined generally as any person who beneficially owns 15% or more of the outstanding voting stock of such corporation or any person affiliated with such person) for a period of three years following the time that such stockholder became an interested stockholder, unless (i) prior to such time the Board of Directors of such corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder; (ii) upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of such corporation at the time the transaction commenced (excluding for purposes of determining the voting stock of such corporation outstanding (but not the outstanding voting stock owned by the interested stockholder) those shares owned (A) by persons who are directors and also officers of such corporation and (B) by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer); or (iii) at or subsequent to such time the business combination is approved by the Board of Directors of such corporation and authorized at a meeting of stockholders (and not by written consent) by the affirmative vote of at least 66 2/3% of the outstanding voting stock of such corporation not owned by the interested stockholder.

A Delaware corporation may "opt out" of these provisions with an express provision in its original certificate of incorporation or an express provision in its certificate of incorporation or bylaws resulting from a stockholders' amendment approved by at least a majority of the outstanding voting shares. Calyxt has expressly elected not to be governed by the "business combination" provisions of Section 203 of the DGCL until after such time as Collectis no longer beneficially owns at least 50% of Calyxt's common stock. At that time, such election shall be automatically withdrawn and Calyxt will thereafter be governed by the "business combination" provisions of Section 203 of the DGCL.

## **Conflicts of Interest**

Delaware law permits corporations to adopt provisions renouncing any interest or expectancy in certain opportunities that are presented to the corporation or its officers, directors or stockholders. Calyxt's Certificate of Incorporation renounces, to the maximum extent permitted from time to time by Delaware law, any interest or expectancy that Calyxt has in, or right to be offered an opportunity to participate in, specified business opportunities that are from time to time presented to Calyxt's officers, directors or stockholders or their respective affiliates, other than those officers, directors, stockholders or affiliates who are Calyxt's or its subsidiaries' employees. Calyxt's Certificate of Incorporation provides that, to the fullest extent permitted by law, none of Collectis or any of its affiliates or any director who is not employed by Calyxt, or his or her affiliates has any duty to refrain from (i) engaging in a corporate opportunity in the same or similar lines of business in which Calyxt or its subsidiaries now engage or propose to engage or (ii) otherwise competing with Calyxt or its subsidiaries. In addition, to the fullest extent permitted by law, in the event that Collectis or any non-employee director acquires knowledge of a potential transaction or other business opportunity which may be a corporate opportunity for itself or himself or its or his affiliates or for Calyxt or its affiliates, such person has no

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duty to communicate or offer such transaction or business opportunity to Calyxt or any of its affiliates and they may take any such opportunity for themselves or offer it to another person or entity. Calyxt's Certificate of Incorporation does not renounce its interest in any business opportunity that is expressly offered to a non-employee director solely in his or her capacity as a director of Calyxt. To the fullest extent permitted by law, no business opportunity will be deemed to be a potential corporate opportunity for Calyxt unless Calyxt would be permitted to undertake the opportunity under its Certificate of Incorporation, Calyxt has sufficient financial resources to undertake the opportunity and the opportunity would be in line with Calyxt's business.

### **Registration Rights**

The Stockholders Agreement provides Collectis with certain registration rights, as follows:

*Demand Registration*—Collectis may request that Calyxt register for resale all or a portion of their shares. Any such request must cover a quantity of shares with an anticipated aggregate offering price of at least \$25.0 million. To the extent Calyxt is a well-known seasoned issuer, Collectis may also request that Calyxt file an automatic shelf registration statement on Form S-3 that covers the registrable securities requested to be registered. Depending on certain conditions, Calyxt may defer a demand registration for up to 90 days in any twelve month period. Collectis will agree pursuant to a contractual lock-up not to exercise any of its rights under the registration rights agreement during a 90-day restricted period.

*Piggyback Registration Rights*—In the event that Calyxt proposes to register any of its securities under the Securities Act of 1933, either for its own account or for the account of its other security holders, Collectis is entitled to certain piggyback registration rights allowing it to include its shares in the registration, subject to certain marketing and other limitations. As a result, whenever Calyxt proposes to file a registration statement under the Securities Act, Collectis is entitled to notice of the registration.

*Expenses; Indemnification*—The registration rights provides that Calyxt must pay all registration expenses (other than the underwriting discounts and commissions) in connection with effecting any demand registration or shelf registration. The registration rights contain customary indemnification and contribution provisions.

*Term*—The registration rights will remain in effect with respect to any shares covered by the Stockholders Agreement until (i) all of Collectis' shares have been sold pursuant to an effective registration statement under the Securities Act; (ii) all of Collectis' shares have been sold to the public pursuant to Rule 144 under the Securities Act; or (iii) Collectis owns less than 10% of the then outstanding shares of Calyxt's common stock.

### **Indemnification and Limitations on Directors' Liability**

Section 145 of the DGCL grants each Delaware corporation the power to indemnify any person who is or was a director, officer, employee or agent of a corporation, against expenses, including attorneys' fees, judgments, fines and amounts paid in settlement actually and reasonably incurred by him or her in connection with any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, other than an action by or in the right of the corporation, by reason of serving or having served in any such capacity, if he or she acted in good faith in a manner reasonably believed to be in, or not opposed to, the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful. A Delaware corporation may similarly indemnify any such person in actions by or in the right of the corporation if he or she acted in good faith in a manner reasonably believed to be in, or not opposed to, the best interests of the corporation, except that no indemnification may be made in respect of any claim, issue or matter as to which the person shall have been adjudged to be liable to the corporation unless and only to the extent that the Delaware Court of Chancery or the court in which the action was brought determines that, despite adjudication of liability, but in view of all of the circumstances of the case, the person is fairly and reasonably entitled to indemnity for expenses which the Delaware Court of Chancery or other court shall deem proper.



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Section 102(b)(7) of the DGCL enables a corporation in its certificate of incorporation, or an amendment thereto, to eliminate or limit the personal liability of a director to the corporation or its stockholders for monetary damages for violations of the director's fiduciary duty as a director, except (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) pursuant to Section 174 of the DGCL (providing for director liability with respect to unlawful payment of dividends or unlawful stock purchases or redemptions) or (iv) for any transaction from which a director derived an improper personal benefit.

Calyxt's Certificate of Incorporation indemnifies its directors and principal officers to the fullest extent permitted by Delaware law and Calyxt's Certificate of Incorporation also allows Calyxt's Board of Directors to indemnify other employees. This indemnification extends to the payment of judgments in actions against officers and directors and to reimbursement of amounts paid in settlement of such claims or actions and may apply to judgments in favor of the corporation or amounts paid in settlement to the corporation. This indemnification also extends to the payment of attorneys' fees and expenses of principal officers and directors in suits against them where the officer or director acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, Calyxt's best interests, and, with respect to any criminal action or proceeding, he or she had no reasonable cause to believe his or her conduct was unlawful. This right of indemnification is not exclusive of any right to which the officer or director may be entitled as a matter of law.

Calyxt's directors and officers are insured pursuant to a "directors and officers" insurance policy, which provides protection against un-indemnified losses arising from certain wrongful acts in their capacities as directors and officers and reimburses us for losses incurred by Calyxt in response to securities claims involving directors and officers. The policy contains various customary exclusions for policies of this type.

In addition, Calyxt's Board of Directors has adopted a policy to enter into an indemnification agreement with each of its directors and officers, which provide for certain advancement and indemnification rights. Each indemnification agreement provides, subject to certain exceptions, to indemnify and hold harmless the director or officer to the fullest extent permitted by Delaware law.

With respect to any indemnification available to directors affiliated with Collectis, Calyxt has agreed (i) that it is the indemnitor of first resort with respect to any amounts incurred or sustained in connection with such person's role as a director of Calyxt, (ii) that it will be responsible for, and required to advance, the full amount of such amounts without regard to any rights such person may have, or be pursuing, against Collectis, and (iii) to irrevocably waive, relinquish and release Collectis from any and all claims for contribution, subrogation or any other recovery in respect of such amounts.

Calyxt believes that the limitation of liability and indemnification provisions in its Certificate of Incorporation, By-laws, indemnification agreements and insurance policies are necessary to attract and retain qualified directors and officers. However, these provisions may discourage derivative litigation against directors and officers, even though an action, if successful, might benefit Calyxt and its stockholders. Furthermore, a stockholder's investment may be adversely affected to the extent Calyxt pays the costs of settlement and damage awards against directors and officers as required or allowed by these limitations of liability and indemnification provisions.

At present, there is no pending litigation or proceeding involving any of Calyxt's directors, officers, employees or agents as to which indemnification is sought from Calyxt, nor is the Company aware of any threatened litigation or proceeding that may result in an indemnification claim.

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**Listing**

Calyxt's shares of common stock are listed on the Nasdaq Global Market under the symbol "CLXT."

**Transfer Agent and Registrar**

The transfer agent and registrar for Calyxt's common stock is Broadridge Corporate Issuer Solutions, Inc., 1155 Long Island Avenue, Edgewood, NY 11717.

## DESCRIPTION OF WARRANTS

Calyxt may issue warrants to purchase common stock, preferred stock, debt securities or any combination thereof. Each warrant will entitle the holder to purchase for cash the amount of common stock, preferred stock, debt securities or units at the exercise price stated or determinable in a prospectus supplement for the warrants. 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 Calyxt and a warrant agent.

Unless otherwise specified in the applicable prospectus supplement, holders of warrants will not be entitled to any rights with respect to the securities for which warrants are exercisable prior to the issuance of securities. 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. These terms will include some or all of the following:

- the title of the warrants;
- the price or prices at which the warrants will be issued;
- the designation, amount and terms of the securities for which the warrants are exercisable;
- the designation and terms of the other securities, if any, with which the warrants are to be issued and the number of warrants issued with each other security;
- the aggregate number of warrants;
- any provisions for adjustment of the number or amount of securities receivable upon exercise of the warrants or the exercise price of the warrants;
- the price or prices at which the securities purchasable upon exercise of the warrants will be separately transferable, if applicable;
- if applicable, a discussion of material U.S. federal income tax considerations;
- the date on which the right to exercise the warrants will commence, and the date on which the right will expire;
- the maximum or minimum number of warrants that may be exercised at any time;
- information with respect to book-entry procedures, if any; and
- any other terms of the warrants, including terms, procedures and limitations relating to the exchange and exercise of the warrants.

The description in the applicable prospectus supplement of any warrants Calyxt offers will not necessarily be complete and will be qualified in its entirety by reference to the applicable warrant or warrant agreement, which will be filed with the SEC if Calyxt offers warrants. You are urged to read the applicable warrant or warrant agreement, as applicable, and any applicable prospectus supplement in their entirety.

## DESCRIPTION OF SUBSCRIPTION RIGHTS

Calyxt may issue subscription rights to purchase common stock, preferred stock, debt securities or any combination thereof. These subscription rights may be offered independently or together with any other security offered hereby and may or may not be transferable by the stockholder receiving the subscription rights in such offering. In connection with any offering of subscription rights, Calyxt may enter into a standby arrangement with one or more underwriters or other purchasers pursuant to which the underwriters or other purchasers may be required to purchase any securities remaining unsubscribed for after such offering.

The prospectus supplement relating to any subscription rights Calyxt offers, if any, will, to the extent applicable, include specific terms relating to the offering, including some or all of the following:

- the price, if any, for the subscription rights;
- the exercise price payable for Calyxt's common stock, preferred stock or debt securities upon the exercise of the subscription rights;
- the number of subscription rights to be issued to each stockholder;
- the number of shares and terms of the common stock, preferred stock or debt securities which may be purchased per each subscription right;
- the extent to which the subscription rights are transferable;
- any other terms of the subscription rights, including the terms, procedures and limitations relating to the exchange and exercise of the subscription rights;
- the date on which the right to exercise the subscription rights shall commence, and the date on which the subscription rights shall expire;
- the extent to which the subscription rights may include an over-subscription privilege with respect to unsubscribed securities or an over-allotment privilege to the extent the securities are fully subscribed; and
- if applicable, the material terms of any standby underwriting or purchase arrangement into which Calyxt may enter in connection with the offering of subscription rights.

The description in the applicable prospectus supplement of any subscription rights Calyxt offers will not necessarily be complete and will be qualified in its entirety by reference to the applicable subscription rights certificate, which will be filed with the SEC if Calyxt offers subscription rights. You are urged to read the applicable subscription rights certificate and any applicable prospectus supplement in their entirety.

## DESCRIPTION OF UNITS

Calyxt may issue units comprising one or more securities described in this prospectus in any combination (but not securities of third parties) as specified in a related prospectus supplement or a free writing prospectus. Units may be issued pursuant to the terms of a unit agreement, which may provide that the securities included in the unit may not be held or transferred separately at any time or at any time before a specified date. A copy of the forms of any unit agreement or unit certificate, as applicable, relating to any particular issue of units will, if applicable, be filed with the SEC when Calyxt issues units, and you should read those documents for provisions that may be important to you. For more information on how you can obtain copies of the forms of the unit agreement and the related unit certificate, see “Where You Can Find Additional Information.”

## DESCRIPTION OF DEBT SECURITIES

Calyxt may issue debt securities from time to time, in one or more series, as either senior or subordinated debt or as senior or subordinated convertible debt. While the terms summarized below will apply generally to any debt securities that Calyxt may offer under this prospectus, the particular terms of any debt securities that Calyxt may offer will be described in more detail in the applicable prospectus supplement. The terms of any debt securities offered under a prospectus supplement may differ from the terms described below. Unless the context requires otherwise, references to the indenture also refer to any supplemental indentures that specify the terms of a particular series of debt securities.

Calyxt will issue the debt securities under the indenture that it will enter into with the trustee named in the indenture. The indenture will be qualified under the Trust Indenture Act of 1939, as amended (the “Trust Indenture Act”). Calyxt has filed the form of indenture as an exhibit to the registration statement of which this prospectus is a part, and supplemental indentures and forms of debt securities containing the terms of the debt securities being offered will be filed as exhibits to the registration statement of which this prospectus is a part or will be incorporated by reference from reports that Calyxt files with the SEC.

The following summary of material provisions of the debt securities and the indenture is subject to, and qualified in its entirety by reference to, all of the provisions of the indenture applicable to a particular series of debt securities. You are urged to read the applicable prospectus supplements and any related free writing prospectuses related to the debt securities that Calyxt may offer under this prospectus, as well as the complete indenture that contains the terms of the debt securities.

### General

The indenture does not limit the amount of debt securities that Calyxt may issue. It provides that Calyxt may issue debt securities up to the principal amount that Calyxt may authorize and may be in any currency or currency unit that Calyxt may designate. Except for the limitations on consolidation, merger and sale of all or substantially all of Calyxt’s assets contained in the indenture, the terms of the indenture do not contain any covenants or other provisions designed to give holders of any debt securities protection against changes in Calyxt’s operations, financial condition or transactions involving Calyxt.

Calyxt 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 be issued with “original issue discount,” or OID, for U.S. federal income tax purposes because of interest payment and other characteristics or terms of the debt securities. Material U.S. federal income tax considerations applicable to debt securities issued with OID will be described in more detail in any applicable prospectus supplement.

The applicable prospectus supplement will describe the terms of the series of debt securities being offered, including:

- the title of the series of debt securities;
- any limit upon the aggregate principal amount that may be issued;
- the maturity date or dates;
- the form of the debt securities of the series;
- the applicability of any guarantees;
- whether or not the debt securities will be secured or unsecured, and the terms of any secured debt;
- whether the debt securities rank as senior debt, senior subordinated debt, subordinated debt or any combination thereof, and the terms of any subordination;

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- if the price (expressed as a percentage of the aggregate principal amount thereof) at which such debt securities will be issued is a price other than the principal amount thereof, the portion of the principal amount thereof payable upon declaration of acceleration of the maturity thereof, or if applicable, the portion of the principal amount of such debt securities that is convertible into or exchangeable for another security or the method by which any such portion shall be determined;
- the interest rate or rates, which may be fixed or variable, or the method for determining the rate and the date interest will begin to accrue, the dates interest will be payable and the regular record dates for interest payment dates or the method for determining such dates;
- Calyxt's right, if any, to defer payment of interest and the maximum length of any such deferral period;
- if applicable, the date or dates after which, or the period or periods during which, and the price or prices at which, Calyxt may, at Calyxt's option, redeem the series of debt securities pursuant to any optional or provisional redemption provisions and the terms of those redemption provisions;
- the date or dates, if any, on which, and the price or prices at which Calyxt is obligated, pursuant to any mandatory sinking fund or analogous fund provisions or otherwise, to redeem, or at the holder's option to purchase, the series of debt securities and the currency or currency unit in which the debt securities are payable;
- the denominations in which Calyxt will issue the series of debt securities, if other than denominations of \$1,000 and any integral multiple thereof;
- any and all terms, if applicable, relating to any auction or remarketing of the debt securities of that series and any security for Calyxt's obligations with respect to such debt securities and any other terms which may be advisable in connection with the marketing of debt securities of that series;
- whether the debt securities of the series shall be issued in whole or in part in the form of a global security or securities; the terms and conditions, if any, upon which such global security or securities may be exchanged in whole or in part for other individual securities; and the depositary for such global security or securities;
- if applicable, the provisions relating to conversion or exchange of any debt securities of the series and the terms and conditions upon which such debt securities will be so convertible or exchangeable, including the conversion or exchange price, as applicable, or how it will be calculated and may be adjusted, any mandatory or optional (at Calyxt's option or the holders' option) conversion or exchange features, the applicable conversion or exchange period and the manner of settlement for any conversion or exchange;
- if other than the full principal amount thereof, the portion of the principal amount of debt securities of the series which shall be payable upon declaration of acceleration of the maturity thereof;
- additions to or changes in the covenants applicable to the particular debt securities being issued, including, among others, the consolidation, merger or sale covenant;
- additions to or changes in the events of default with respect to the securities and any change in the right of the trustee or the holders to declare the principal, premium, if any, and interest, if any, with respect to such securities to be due and payable;
- additions to or changes in or deletions of the provisions relating to covenant defeasance and legal defeasance;
- additions to or changes in the provisions relating to satisfaction and discharge of the indenture;
- additions to or changes in the provisions relating to the modification of the indenture both with and without the consent of holders of debt securities issued under the indenture;
- the currency of payment of debt securities if other than U.S. dollars and the manner of determining the equivalent amount in U.S. dollars;

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- whether interest will be payable in cash or additional debt securities at Calyxt's or the holders' option and the terms and conditions upon which the election may be made;
- the terms and conditions, if any, upon which Calyxt will pay amounts in addition to the stated interest, premium, if any, and principal amounts of the debt securities of the series to any holder that is not a "United States person" for federal tax purposes;
- any restrictions on transfer, sale or assignment of the debt securities of the series; and
- any other specific terms, preferences, rights or limitations of, or restrictions on, the debt securities, any other additions or changes in the provisions of the indenture, and any terms that may be required by Calyxt or advisable under applicable laws or regulations.

### **Conversion or Exchange Rights**

The applicable prospectus supplement will set forth the terms on which a series of debt securities may be convertible into or exchangeable for Calyxt's common stock or its other securities. The applicable prospectus supplement will include provisions as to settlement upon conversion or exchange and whether conversion or exchange is mandatory, at the option of the holder or at Calyxt's option. The applicable prospectus supplement may include provisions pursuant to which the number of shares of Calyxt's common stock or Calyxt's other securities that the holders of the series of debt securities receive would be subject to adjustment.

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

Unless otherwise provided in the prospectus supplement applicable to a particular series of debt securities, the indenture will not contain any covenant that restricts Calyxt's ability to merge or consolidate, or sell, convey, transfer or otherwise dispose of its assets as an entirety or substantially as an entirety. However, any successor to or acquirer of such assets (other than a subsidiary of Calyxt's) must assume all of Calyxt's obligations under the indenture or the debt securities, as appropriate.

### **Events of Default under the Indenture**

Unless otherwise provided in the prospectus supplement applicable to a particular series of debt securities, the following are events of default under the indenture with respect to any series of debt securities that Calyxt may issue:

- if Calyxt fails to pay any installment of interest on such series of debt securities, as and when the same shall become due and payable, and such default continues for a period of 90 days; provided, however, that a valid extension of an interest payment period by Calyxt in accordance with the terms of any indenture supplemental thereto shall not constitute a default in the payment of interest for this purpose;
- if Calyxt fails to pay the principal of, or premium, if any, on such series of debt securities as and when the same shall become due and payable whether at maturity, upon redemption, by declaration or otherwise, or in any payment required by any sinking or analogous fund established with respect to such series; provided, however, that a valid extension of the maturity of such debt securities in accordance with the terms of any indenture supplemental thereto shall not constitute a default in the payment of principal or premium, if any;
- if Calyxt fails to observe or perform any other covenant or agreement contained in the debt securities of such series or the indenture, other than a covenant specifically relating to another series of debt securities, and such failure continues for 90 days after Calyxt receives written notice of such failure, requiring the same to be remedied and stating that such is a notice of default thereunder, from the trustee or holders of at least 25% in aggregate principal amount of the outstanding debt securities of the applicable series; and
- if specified events of bankruptcy, insolvency or reorganization occur.



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

The holders of a majority in principal amount of the outstanding debt securities of an affected series may waive any default or event of default with respect to the series and its consequences (including acceleration described in the preceding paragraph), except that such waivers of defaults or events of default regarding payment of principal, premium, if any, or interest, require that Calyxt shall have paid or set aside with the Trustee sufficient funds to pay all amounts then due and payable otherwise then due and payable otherwise then by acceleration. Any waiver shall cure the default or event of default.

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

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

No holder of the debt securities of any series will have the right to institute a proceeding under the indenture or to appoint a receiver or trustee, or to seek other remedies unless:

- the holder has given written notice to the trustee of a continuing event of default with respect to that series;
- the holders of at least 25% in aggregate principal amount of the outstanding debt securities of that series have made written request for the Trustee to initiate such action or proceeding;
- such holders have offered to the trustee indemnity satisfactory to it against the costs, expenses and liabilities to be incurred by the trustee in compliance with the request; and
- the trustee does not institute the proceeding, and does not receive from the holders of a majority in aggregate principal amount of the outstanding debt securities of that series other conflicting directions, within 90 days after the notice, request and offer.

These limitations do not apply to a suit instituted by a holder of debt securities if Calyxt defaults in the payment of the principal, premium, if any, or interest on, the debt securities.

On an annual basis, Calyxt will provide statements to the Trustee regarding its compliance with specified covenants in the indenture.

### **Modification of Indenture; Waiver**

Unless otherwise provided in the prospectus supplement applicable to a particular series of debt securities, Calyxt and the trustee may change an indenture without the consent of any holders with respect to specific matters:

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

In addition, under the indenture, the rights of holders of a series of debt securities may be changed by Calyxt and the trustee with the written consent of the holders of at least a majority in aggregate principal amount of the outstanding debt securities of each series that is affected. However, unless otherwise provided in the prospectus supplement applicable to a particular series of debt securities, Calyxt and the trustee may make the following changes only with the consent of each holder of any outstanding debt securities affected:

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

### **Discharge**

The indenture provides that Calyxt can elect to be discharged from its obligations with respect to one or more series of debt securities that shall become due and payable within one year or are to be called for redemption within one year, including obligations to:

- provide for payment;
- register the transfer or exchange of debt securities of the series;
- replace stolen, lost or mutilated debt securities of the series;

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- pay principal of and premium and interest on any debt securities of the series;
- maintain paying agencies;
- hold monies for payment in trust;
- recover excess money held by the trustee;
- compensate and indemnify the trustee; and
- appoint any successor trustee.

In order to exercise its rights to be discharged, Calyxt must irrevocably deposit with the trustee money or government obligations sufficient to pay all the principal of, any premium, if any, and interest on, the debt securities of the series when payments are due on the date of maturity or the date fixed for redemption.

### **Form, Exchange and Transfer**

Calyxt will issue the debt securities of each series only in fully registered form without coupons and, unless otherwise provided in the applicable prospectus supplement, in denominations of \$1,000 and any integral multiple in excess thereof. The indenture provides that Calyxt may issue debt securities of a series in temporary or permanent global form and as book-entry securities that will be deposited with, or on behalf of, The Depository Trust Company (“DTC”) or another depository named by Calyxt and identified in the applicable prospectus supplement with respect to that series. To the extent the debt securities of a series are issued in global form and as book-entry, a description of terms relating to any book-entry securities will be set forth in the applicable prospectus supplement.

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

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

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

If Calyxt elects to redeem the debt securities of any series, Calyxt will not be required to:

- issue, register the transfer of, or exchange any debt securities of that series during a period beginning at the opening of business 15 days before the day of mailing of a notice of redemption of any debt securities that may be selected for redemption and ending at the close of business on the day of the mailing; or
- register the transfer of or exchange of any debt securities so selected for redemption, in whole or in part, except the unredeemed portion of any debt securities Calyxt is redeeming in part.

### **Information Concerning the Trustee**

The debt securities will be issued under an indenture between us and a trustee to be named in the indenture. The trustee, other than during the occurrence and continuance of an event of default under an indenture, undertakes to perform only those duties as are specifically set forth in the applicable indenture. Upon an event of default under an indenture, the trustee must use the same degree of care as a prudent person would exercise or use in the conduct of his or her own affairs. Subject to this provision, the trustee is under no obligation to exercise any of the powers given it by the indenture at the request of any holder of debt securities unless it is offered reasonable security and indemnity against the costs, expenses and liabilities that it might incur.

### **Payment and Paying Agents**

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

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

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

### **Governing Law**

The indenture and the debt securities, and any claim, controversy or dispute arising under or related to the indenture or the debt securities, will be governed by and construed in accordance with the laws of the State of New York, except to the extent that the Trust Indenture Act is applicable.

## PLAN OF DISTRIBUTION

Calyxt may sell its securities in any one or more of the following ways from time to time:

- through agents;
- to or through underwriters;
- through brokers or dealers;
- in “at the market offerings” within the meaning of Rule 415(a)(4) under the Securities Act, to or through market maker or into an existing trading market, on an exchange or otherwise;
- directly to purchasers, including through a specific bidding, auction or other process;
- through a combination of any of these methods of sale; or
- Calyxt may issue the securities as a dividend or distribution or in a subscription rights offering to Calyxt’s existing security holders.

The applicable prospectus supplement will contain the terms of the transaction, including the method of distribution of the securities offered, the proceeds Calyxt will receive from the sale, the name or names of any underwriters, dealers, agents and the respective amounts of securities underwritten or purchased by them, the initial public offering price of the securities, and the applicable agent’s commission, dealer’s purchase price or underwriter’s discount. Any dealers and agents participating in the distribution of the securities may be deemed to be underwriters, and compensation received by them on resale of the securities may be deemed to be underwriting discounts.

Any initial offering price, dealer purchase price, discount or commission may be changed from time to time.

The securities may be distributed from time to time in one or more transactions, at negotiated prices, at a fixed price or fixed prices (that may be subject to change), at market prices prevailing at the time of sale, or at various prices determined at the time of sale.

Offers to purchase securities may be solicited directly by Calyxt or by agents designated by Calyxt from time to time. Unless otherwise indicated in the prospectus supplement, any such agent will use its commercially reasonable efforts to solicit purchases for the period of its appointment or to sell securities on a continuing basis. Agents may receive compensation in the form of commissions, discounts or concessions from Calyxt. Agents may also receive compensation from the purchasers of the securities to whom they sell as principals. Each particular agent will receive compensation in amounts negotiated in connection with the sale, which might be in excess of customary commissions. Any such agent may be deemed to be an underwriter, as that term is defined in the Securities Act, of the securities so offered and sold. Accordingly, any commission, discount or concession received by them and any profit on the resale of the securities purchased by them may be deemed to be underwriting discounts or commissions under the Securities Act. Calyxt has not entered into any agreements, understandings or arrangements with any underwriters or broker-dealers regarding the sale of their securities. As of the date of this prospectus, there are no special selling arrangements between any broker-dealer or other person and Calyxt. No period of time has been fixed within which the securities will be offered and sold.

If underwriters are utilized in the sale of any securities in respect of which this prospectus is being delivered, such securities will be acquired by the underwriters for their own account and may be resold from time to time in one or more transactions, including negotiated transactions, at fixed public offering prices or at varying prices determined by the underwriters at the time of sale. Securities may be offered to the public either through underwriting syndicates represented by managing underwriters or directly by one or more underwriters. If any underwriter or underwriters are utilized in the sale of securities, unless otherwise indicated in the applicable prospectus supplement, the obligations of the underwriters are subject to certain conditions precedent, and the underwriters will be obligated to purchase all such securities if they purchase any of them.

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If a dealer is utilized in the sale of the securities in respect of which this prospectus is delivered, Calyxt will sell such securities to the dealer as principal. The dealer may then resell such securities to the public at varying prices to be determined by such dealer at the time of resale. Transactions through brokers or dealers may include block trades in which brokers or dealers will attempt to sell shares as agent but may position and resell as principal to facilitate the transaction or in cross trades, in which the same broker or dealer acts as agent on both sides of the trade. Any such dealer may be deemed to be an underwriter, as such term is defined in the Securities Act, of the securities so offered and sold.

Offers to purchase securities may be solicited directly by Calyxt, and the sale thereof may be made by Calyxt, directly to institutional investors or others who may be deemed to be underwriters within the meaning of the Securities Act with respect to any resale thereof.

Agents, underwriters and dealers may be entitled under relevant agreements with us to indemnification by us against certain liabilities, including liabilities under the Securities Act, or to contribution with respect to payments which such agents, underwriters and dealers may be required to make in respect thereof. The terms and conditions of any indemnification or contribution will be described in the applicable prospectus supplement.

Underwriters, broker-dealers or agents may receive compensation in the form of commissions, discounts or concessions from Calyxt. Underwriters, broker-dealers or agents may also receive compensation from the purchasers of shares for whom they act as agents or to whom they sell as principals, or both. Compensation as to a particular underwriter, broker-dealer or agent will be in amounts to be negotiated in connection with transactions involving shares and might be in excess of customary commissions. In effecting sales, broker-dealers engaged by Calyxt may arrange for other broker-dealers to participate in the resales.

Any securities offered other than common stock and preferred stock will be a new issue and, other than the common stock, which is listed on the Nasdaq Global Market, will have no established trading market. Calyxt may elect to list any series of securities on an exchange, and in the case of the common stock, on any additional exchange, but, unless otherwise specified in the applicable prospectus supplement and/or other offering material, Calyxt shall not be obligated to do so. It is possible that one or more underwriters may make a market in a class or series of securities, but the underwriters will not be obligated to do so and may discontinue any market making at any time without notice. No assurance can be given as to the liquidity of, or the trading market for, any of the securities.

Agents, underwriters and dealers may engage in transactions with, or perform services for, Calyxt or its subsidiaries in the ordinary course of business.

Any underwriter may engage in overallotment, stabilizing transactions, short covering transactions and penalty bids in accordance with Regulation M under the Exchange Act. Overallotment involves sales in excess of the offering size, which create a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum. Short covering transactions involve purchases of the securities in the open market after the distribution is completed to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a covering transaction to cover short positions. Those activities may cause the price of the securities to be higher than it would otherwise be. If commenced, the underwriters may discontinue any of the activities at any time. An underwriter may carry out these transactions on Nasdaq, in the over-the-counter market or otherwise. The underwriters or agents, as the case may be, are not required to engage in these activities and, if they engage in any of these activities, may end any of these activities at any time without notice.

The place and time of delivery for securities will be set forth in the accompanying prospectus supplement. To comply with applicable state securities laws, the securities offered by this prospectus will be sold, if necessary, in such jurisdictions only through registered or licensed brokers or dealers. In addition, securities may not be sold in some states absent registration or pursuant to an exemption from applicable state securities laws.

## **LEGAL MATTERS**

Unless otherwise indicated in the applicable prospectus supplement, the validity of the securities offered by this prospectus will be passed upon by Jones Day, New York, New York. Additional legal matters may be passed upon for any underwriters, dealers or agents by counsel that will be named in the applicable prospectus supplement.

## **EXPERTS**

The financial statements of Calyxt, Inc. appearing in Calyxt's Annual Report (Form 10-K) for the year ended December 31, 2021 have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their report thereon, included therein, and incorporated herein by reference. Such financial statements are, and audited financial statements to be included in subsequently filed documents will be, incorporated herein in reliance upon the report of Ernst & Young LLP pertaining to such financial statements to the extent covered by consents filed with the SEC given on the authority of such firm as experts in accounting and auditing.

## INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows Calyxt to incorporate by reference much of the information the Company files with them. This allows Calyxt to disclose important information to you by referring those publicly filed documents. The information that Calyxt incorporates by reference in this prospectus is considered to be part of this prospectus. Because Calyxt is incorporating by reference future filings with the SEC, this prospectus is continually updated and those future filings may modify or supersede some of the information included or incorporated in this prospectus. This means that you must look at all of the SEC filings that Calyxt incorporates by reference to determine if any of the statements in this prospectus or in any document previously incorporated by reference have been modified or superseded. This prospectus incorporates by reference the documents listed below (File No. 001-38161) and any future filings the Company makes with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (in each case, other than those documents or the portions of those documents not deemed to be filed) until the offering of the securities under the registration statement is terminated or completed:

- Annual Report on [Form 10-K](#) for the year ended December 31, 2021 (including the information in Part III incorporated therein by reference from Calyxt's [Definitive Proxy Statement](#) on Schedule 14A);
- Quarterly Reports on Form 10-Q for the quarter ended [March 31, 2022](#) and [June 30, 2022](#);
- Current Reports on Form 8-K (other than information furnished rather than filed) filed with the SEC on [February 18, 2022](#) (solely with respect to Item 8.01), [February 23, 2022](#), [March 28, 2022](#), [May 20, 2022](#) and [June 2, 2022](#); and
- the description of Calyxt's common stock contained in the Registration Statement on [Form 8-A](#) filed on July 20, 2017, including any amendment or report filed for the purpose of updating such description.

Calyxt also incorporates by reference any future filings (other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items unless such Form 8-K expressly provides to the contrary) made with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, including those made after the date of the initial filing of the registration statement of which this prospectus is a part and prior to effectiveness of such registration statement, until Calyxt files a post-effective amendment that indicates the termination of the offering of the shares of Calyxt's common stock made by this prospectus and will become a part of this prospectus from the date that such documents are filed with the SEC. Information in such future filings updates and supplements the information provided in this prospectus. Any statements in any such future filings will automatically be deemed to modify and supersede any information in any document Calyxt previously filed with the SEC that is incorporated or deemed to be incorporated herein by reference to the extent that statements in the later filed document modify or replace such earlier statements.



## WHERE YOU CAN FIND ADDITIONAL INFORMATION

Calyxt is subject to the information and reporting requirements of the Exchange Act and, in accordance with this law, is required to file periodic reports, proxy statements and other information with the SEC. You can read Calyxt's SEC filings, including the registration statement, over the internet at the SEC's website at [www.sec.gov](http://www.sec.gov).

Calyxt makes available free of charge, on or through the investor relations section of Calyxt's website, Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after the Company electronically files such material with, or furnishes it to, the SEC. Calyxt will provide without charge to each person, including any beneficial owner, to whom this prospectus is delivered, upon his or her written or oral request, a copy of any or all of the information that has been incorporated by reference into this prospectus but not delivered with this prospectus, excluding exhibits to those documents unless they are specifically incorporated by reference into those documents. You may obtain copies of this prospectus and the documents incorporated by reference without charge by writing to Calyxt's investor relations team at 2800 Mount Ridge Road, Roseville, Minnesota 55113, by telephone at (651)-683-2807 or on Calyxt's website at [www.calyxt.com](http://www.calyxt.com). Information contained on our website is not incorporated into this prospectus and you should not consider information contained on our website to be part of this prospectus.

**PART II. INFORMATION NOT REQUIRED IN PROSPECTUS****Item 14. Other Expenses of Issuance and Distribution.**

The following table sets forth the expenses payable by Calyxt, Inc., a Delaware corporation (the “Registrant”), in connection with the offering of securities described in this registration statement, other than underwriting discounts and commissions. All amounts shown are estimates, except for the Securities and Exchange Commission (the “SEC”) registration fee. The Registrant will bear all expenses shown below.

SEC registration fee	\$4,635*
FINRA filing fee	8,000
Accounting fees and expenses	**
Legal fees and expenses	**
Printing expenses	**
Transfer agent expenses	**
Other	**
Total	**

\* Includes fees previously paid in connection with unsold securities pursuant to Rule 415(a)(6).

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

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

Section 145 of the DGCL grants each Delaware corporation the power to indemnify any person who is or was a director, officer, employee or agent of a corporation, against expenses, including attorneys’ fees, judgments, fines and amounts paid in settlement actually and reasonably incurred by him or her in connection with any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, other than an action by or in the right of the corporation, by reason of serving or having served in any such capacity, if he or she acted in good faith in a manner reasonably believed to be in, or not opposed to, the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful. A Delaware corporation may similarly indemnify any such person in actions by or in the right of the corporation if he or she acted in good faith in a manner reasonably believed to be in, or not opposed to, the best interests of the corporation, except that no indemnification may be made in respect of any claim, issue or matter as to which the person shall have been adjudged to be liable to the corporation unless and only to the extent that the Delaware Court of Chancery or the court in which the action was brought determines that, despite adjudication of liability, but in view of all of the circumstances of the case, the person is fairly and reasonably entitled to indemnity for expenses which the Delaware Court of Chancery or other court shall deem proper.

Section 102(b)(7) of the DGCL enables a corporation in its certificate of incorporation, or an amendment thereto, to eliminate or limit the personal liability of a director to the corporation or its stockholders for monetary damages for violations of the director’s fiduciary duty as a director, except (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) pursuant to Section 174 of the DGCL (providing for director liability with respect to unlawful payment of dividends or unlawful stock purchases or redemptions) or (iv) for any transaction from which a director derived an improper personal benefit.

The Registrant’s Certificate of Incorporation indemnifies its directors and principal officers to the fullest extent permitted by Delaware law and its Certificate of Incorporation also allows its Board of Directors to indemnify other employees. This indemnification extends to the payment of judgments in actions against officers and directors and to reimbursement of amounts paid in settlement of such claims or actions and may apply to

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judgments in favor of the corporation or amounts paid in settlement to the corporation. This indemnification also extends to the payment of attorneys' fees and expenses of officers and directors in suits against them where the officer or director acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, the Registrant's best interests, and, with respect to any criminal action or proceeding, he or she had no reasonable cause to believe his or her conduct was unlawful. This right of indemnification is not exclusive of any right to which the officer or director may be entitled as a matter of law.

The Registrant's directors and officers are insured pursuant to a "directors and officers" insurance policy, which provides protection against unindemnified losses arising from certain wrongful acts in their capacities as directors and officers and reimburses us for losses incurred by it in response to securities claims involving directors and officers. The policy contains various customary exclusions for policies of this type.

In addition, the Registrant's board of directors has adopted a policy to enter into an indemnification agreement with each of its directors and officers, which provide for certain advancement and indemnification rights. Each indemnification agreement, provides, subject to certain exceptions, to indemnify and hold harmless the director or officer to the fullest extent permitted by Delaware law.

With respect to any indemnification available to directors affiliated with Collectis, the Registrant has agreed (i) that it is the indemnitor of first resort with respect to any amounts incurred or sustained in connection with such person's role as a director of the Registrant, (ii) that it will be responsible for, and required to advance, the full amount of such amounts without regard to any rights such person may have, or be pursuing, against Collectis, and (iii) to irrevocably waive, relinquish and release Collectis from any and all claims for contribution, subrogation or any other recovery in respect of such amounts.

The indemnification rights set forth above are not exclusive of any other right which an indemnified person may have or hereafter acquire under any statute, provision of the Registrant's Certificate of Incorporation, By-laws, agreement, vote of stockholders or disinterested directors or otherwise.

### **Item 16. Exhibits.**

The exhibit index immediately preceding the signature page hereto is incorporated herein by reference.

### **Item 17. Undertakings.**

(a) The undersigned Registrant hereby undertakes:

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

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

(ii) To reflect in the prospectus any facts or events arising after the effective date of this registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

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

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*provided, however*, that paragraphs (a)(1)(i), (a)(1)(ii) and (1)(iii) above do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the SEC by the Registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") (15 U.S.C. 78m or 78o(d)), that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

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

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

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

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

(ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which the prospectus forms a part, 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 this registration statement or made in a document incorporated or deemed incorporated by reference into this registration statement or prospectus that is a part of this registration statement will, as to a purchaser with a time of contract sale prior to such effective date, supersede or modify any statement that was made in this registration statement or prospectus that was a part of this registration statement or made in any such document immediately prior to such effective date.

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

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

(c) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted against the Registrant by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question of whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

(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 of 1939 (the "Act") in accordance with the rules and regulations prescribed by the SEC under section 305(b)(2) of the Act.

**Exhibit Index**

<b>Exhibit No.</b>	<b>Description</b>
1.1*	Form of Underwriting Agreement
3.1	<a href="#">Amended and Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 to the Company's Annual Report on Form 10-K filed on March 14, 2018)</a>
3.2	<a href="#">Amended and Restated Bylaws (incorporated by reference to Exhibit 3.2 to the Company's Quarterly Report on Form 10-Q filed on May 7, 2018)</a>
4.1	<a href="#">Description of the Registrant's Securities Registered Pursuant to Section 12 of the Securities Exchange Act of 1934 (incorporated by reference to Exhibit 4.1 to the Company's Annual Report on Form 10-K filed on March 5, 2020)</a>
4.2	<a href="#">Form of Outstanding Warrant (incorporated by reference to Exhibit 4.2 to the Company's Current Report on Form 8-K filed on February 23, 2022)</a>
4.3*	Form of Warrant
4.4*	Form of Warrant Agreement
4.5*	Form of Subscription Rights Certificate
4.6*	Form of Unit
4.7*	Form of Unit Agreement
4.8*	Form of Debt Securities
4.9	<a href="#">Form of Indenture</a>
4.10	<a href="#">Stockholders Agreement dated July 25, 2017 between Collectis S.A. and Calyxt, Inc. (incorporated by reference to Exhibit 10.4 to the Company's Annual Report on Form 10-K filed on March 14, 2018)</a>
4.11	<a href="#">Amendment No. 1 to Stockholders Agreement dated May 7, 2018 between Collectis S.A. and Calyxt, Inc. (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q filed on May 7, 2018)</a>
5.1	<a href="#">Opinion of Jones Day</a>
23.1	<a href="#">Consent of Ernst &amp; Young LLP</a>
23.2	<a href="#">Consent of Jones Day (included in Exhibit 5.1)</a>
24.1	<a href="#">Power of Attorney (included on the signature page hereto)</a>
25.1**	Statement of Eligibility of Trustee on Form T-1 under the Trust Indenture Act of 1939, as amended, for the Debt Securities (to be filed prior to any issuance of Debt Securities)
107	<a href="#">Filing Fee Table</a>

\* To be filed by amendment or as an exhibit to a document incorporated by reference herein in connection with an offering.

\*\* To be filed in accordance with the requirements of Section 305(b)(2) of the Trust Indenture Act of 1939, as amended.

## SIGNATURES

Pursuant to the requirements of the Securities Act, 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 Roseville, in the State of Minnesota, on September 19, 2022.

CALYXT, INC.

By: /s/ Michael A. Carr

Name: Michael A. Carr

Title: President and Chief Executive Officer

## POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Michael A. Carr, William F. Koschak and Debra Frimerman (with full power to each of them to act alone) his or her true and lawful attorney-in-fact and agent, with full power of substitution and re-substitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign on his or her behalf individually and in each capacity stated below any and all amendments (including post-effective amendments) to this registration statement (including and related registration statement filed pursuant to Rule 462(b) of the Securities Act), and to file the same, with all exhibits thereto and other documents in connection therewith, with the SEC, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents and either of them, or their substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act, this Registration Statement on Form S-3 and power of attorney have been signed by the following persons in the capacities indicated on September 19, 2022.

<u>Signature</u>	<u>Title</u>
<u>/s/ Michael A. Carr</u> Michael A. Carr	President, Chief Executive Officer and Director (Principal Executive Officer)
<u>/s/ William F. Koschak</u> William F. Koschak	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)
<u>/s/ Yves Ribeill</u> Yves Ribeill	Board Chair and Director
<u>/s/ Laurent Arthaud</u> Laurent Arthaud	Director
<u>/s/ Phillippe Dumont</u> Phillippe Dumont	Director
<u>/s/ Jonathan Fassberg</u> Jonathan Fassberg	Director
<u>/s/ Anna Ewa Kozicz-Stankiewicz</u> Anna Ewa Kozicz-Stankiewicz	Director

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<u>Signature</u>	<u>Title</u>
<hr/> /s/ Kimberly Nelson Kimberly Nelson	Director
<hr/> /s/ Christopher J. Neugent Christopher J. Neugent	Director



**CALYXT, INC.,  
Issuer**

**AND**

[                    ],  
**Trustee**

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**INDENTURE  
Dated as of September [   ], 2022**

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**Debt Securities**

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## INDENTURE

INDENTURE, dated as of September [ ], 2022, among CALYXT, INC., a Delaware corporation (the “Company”), and [ ], as trustee (the “Trustee”):

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

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

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

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

### ARTICLE 1

#### DEFINITIONS

##### Section 1.01 Definitions of Terms.

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

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

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

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

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

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

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

“**Company**” means CALYXT, INC., a corporation duly organized and existing under the laws of the State of DELAWARE, and, subject to the provisions of Article 10 hereof, shall also include its successors and assigns.

“**Corporate Trust Office**” means the office of the Trustee at which, at any particular time, its corporate trust business shall be principally administered, which office at the date hereof is located at [\_\_\_\_\_], and any successor office that the trustee notifies the Company in writing.

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

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

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

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

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

The term “**given**”, “**mailed**”, “**notify**” or “**sent**” with respect to any notice to be given to a Securityholder pursuant to this Indenture, shall mean notice (x) given to the Depository (or its designee) pursuant to the standing instructions from the Depository or its designee, including by electronic mail in accordance with accepted practices or procedures at the Depository (in the case of a Global Security) or (y) mailed to such Holder by first class mail, postage prepaid, at its address as it appears on the Security Register (in the case of a definitive Security). Notice so “given” shall be deemed to include any notice to be “mailed” or “delivered,” as applicable, under this Indenture.

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

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

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

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

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

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

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

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



**“Outstanding”**, when used with reference to Securities of any series, means, subject to the provisions of Section 8.04, as of any particular time, all Securities of that series theretofore authenticated and delivered by the Trustee under this Indenture, except (a) Securities theretofore canceled by the Trustee or any paying agent, or delivered to the Trustee or any paying agent for cancellation or that have previously been canceled; (b) Securities or portions thereof for the payment or redemption of which moneys or Governmental Obligations in the necessary amount shall have been deposited in trust with the Trustee or with any paying agent (other than the Company) or shall have been set aside and segregated in trust by the Company (if the Company shall act as its own paying agent); *provided, however*, that if such Securities or portions of such Securities are to be redeemed prior to the maturity thereof, notice of such redemption shall have been given as provided in Article 3, or provision satisfactory to the Trustee shall have been made for giving such notice; and (c) Securities in lieu of or in substitution for which other Securities shall have been authenticated and delivered pursuant to the terms of Section 2.07.

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

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

**“Responsible Officer”** when used with respect to the Trustee means any officer within the Corporate Trust Office of the Trustee (or any successor group of the Trustee) or any other officer of the Trustee customarily performing functions similar to those performed by any of the above designated officers and also means, with respect to a particular corporate trust matter, any other officer to whom such matter is referred because of his or her knowledge of and familiarity with the particular subject and in each case who shall have direct responsibility for the administration of this Indenture.

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

**“Securities Act”** means the Securities Act of 1933, as amended.

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

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

“*Subsidiary*” means, with respect to any Person, 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, general partners 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.

“*Trustee*” means [ ], and, subject to the provisions of Article 7, shall also include its successors and assigns, and, if at any time there is more than one Person acting in such capacity hereunder, “Trustee” shall mean each such Person. The term “Trustee” as used with respect to a particular series of the Securities shall mean the trustee with respect to that series.

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

“*U.S.A. Patriot Act*” means the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001, Pub. L. 107-56, as amended and signed into law October 26, 2001.

## ARTICLE 2

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

#### Section 2.01 Designation and Terms of Securities.

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

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

(2) any limit upon the aggregate principal amount of the Securities of that series 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 that series);

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

(4) the form of the Securities of the series including the form of the certificate of authentication for such series;

(5) the applicability of any guarantees;

(6) whether or not the Securities will be secured or unsecured, and the terms of any secured debt;

(7) whether the Securities rank as senior debt, senior subordinated debt, subordinated debt or any combination thereof, and the terms of any subordination;

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

(9) the interest rate or rates, which may be fixed or variable, or the method for determining the rate and the date interest will begin to accrue, the dates interest will be payable and the regular record dates for interest payment dates or the method for determining such dates;

(10) the Company's right, if any, to defer the payment of interest and the maximum length of any such deferral period;

(11) if applicable, the date or dates after which, or the period or periods during which, and the price or prices at which, the Company may at its option, redeem the series of Securities pursuant to any optional or provisional redemption provisions and the terms of those redemption provisions;

(12) the date or dates, if any, on which, and the price or prices at which the Company is obligated, pursuant to any mandatory sinking fund or analogous fund provisions or otherwise, to redeem, or at the Securityholder's option to purchase, the series of Securities and the currency or currency unit in which the Securities are payable;

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

(14) any and all terms, if applicable, relating to any auction or remarketing of the Securities of that series and any security for the obligations of the Company with respect to such Securities and any other terms which may be advisable in connection with the marketing of Securities of that series;

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

(16) if applicable, the provisions relating to conversion or exchange of any Securities of the series and the terms and conditions upon which such Securities will be so convertible or exchangeable, including the conversion or exchange price, as applicable, or how it will be calculated and may be adjusted, any mandatory or optional (at the Company's option or the holders' option) conversion or exchange features, the applicable conversion or exchange period and the manner of settlement for any conversion or exchange, which may, without limitation, include the payment of cash as well as the delivery of securities;

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

(18) additions to or changes in the covenants applicable to the series of Securities being issued, including, among others, the consolidation, merger or sale covenant;

(19) additions to or changes in the Events of Default with respect to the Securities and any change in the right of the Trustee or the Securityholders to declare the principal, premium, if any, and interest, if any, with respect to such Securities to be due and payable;

(20) additions to or changes in or deletions of the provisions relating to covenant defeasance and legal defeasance;

(21) additions to or changes in the provisions relating to satisfaction and discharge of this Indenture;

(22) additions to or changes in the provisions relating to the modification of this Indenture both with and without the consent of Securityholders of Securities issued under this Indenture;

(23) the currency of payment of Securities if other than U.S. dollars and the manner of determining the equivalent amount in U.S. dollars;

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

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

(26) any restrictions on transfer, sale or assignment of the Securities of the series; and

(27) any other specific terms, preferences, rights or limitations of, or restrictions on, the Securities, any other additions or changes in the provisions of this Indenture, and any terms that may be required by us or advisable under applicable laws or regulations.

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

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

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

#### **Section 2.02 Form of Securities and Trustee's Certificate.**

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

#### **Section 2.03 Denominations: Provisions for Payment.**

The Securities shall be issuable as registered Securities and in the denominations of one thousand U.S. dollars (\$1,000) or any integral multiple thereof, subject to Section 2.01(a)(13). The Securities of a particular series shall bear interest payable on the dates and at the rate specified with respect to that series. Subject to Section 2.01(a)(23), the principal of and the interest on the Securities of any series, as well as any premium thereon in case of redemption or repurchase thereof prior to maturity, and any cash amount due upon conversion or exchange thereof, shall be payable in the coin or currency of the United States of America that at the time is legal tender for public and private debt, at the office or agency of the Company maintained for that purpose. Each Security shall be dated the date of its authentication. Interest on the Securities shall be computed on the basis of a 360-day year composed of twelve 30-day months.

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

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

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

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

Unless otherwise set forth in a Board Resolution or one or more indentures supplemental hereto establishing the terms of any series of Securities pursuant to Section 2.01 hereof, the term "regular record date" as used in this Section with respect to a series of Securities and any Interest Payment Date for such series shall mean either the fifteenth day of the month immediately preceding the month in which an Interest Payment Date established for such series pursuant to Section 2.01 hereof shall occur, if such Interest Payment Date is the first day of a month, or the first day of the month in which an Interest Payment Date established for such series pursuant to Section 2.01 hereof shall occur, if such Interest Payment Date is the fifteenth day of a month, whether or not such date is a Business Day.

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

#### **Section 2.04 Execution and Authentications.**

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

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

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

Upon the Company's delivery of any such authentication order to the Trustee at any time after the initial issuance of Securities under this Indenture, the Trustee shall be provided with, and (subject to Sections 315(a) through 315(d) of the Trust Indenture Act) shall be fully protected in conclusively relying upon, (1) an Opinion of Counsel or reliance letter and (2) an Officer's Certificate each stating that:

(A) the Securities have been duly authorized by the Company and have been established in conformity with the provisions of the Indenture;

(B) such Securities, when authenticated and delivered by the Trustee in the manner and subject to any conditions specified in such Opinion of Counsel, will have been duly issued, and will constitute legal, valid and binding obligations of the Company enforceable against it in accordance with their terms, subject to customary enforceability exceptions;

(C) all laws and requirements in respect of the execution and delivery by the Company of such Securities have been complied with; and

(D) the Officer's Certificate shall also state that no Event of Default with respect to any of the Securities shall have occurred and be continuing or would be caused by such additional issuance.

If the authentication and delivery relates to a new series of Securities created by a supplemental indenture hereto, such Officer's Certificate and Opinion of Counsel shall also state that all conditions precedent to the execution of the supplemental indenture with respect to that series of Securities have been complied with, the Company has the power to execute and deliver such supplemental indenture and has taken all necessary action for those purposes and any such supplemental indenture has been duly authorized, executed and delivered and constitutes the legal, valid and binding obligation of the Company enforceable against it in accordance with its terms, subject to customary enforceability exceptions.

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

With respect to Securities of a series offered over a period of time, the Trustee may conclusively rely, as to the authorization by the Company of any of such Securities, the form and terms thereof and the legality, validity, binding effect and enforceability thereof, upon the Opinion of Counsel and other documents delivered pursuant to this Section in connection with the first authentication of Securities of such series unless and until such Opinion of Counsel or other documents have been superseded or revoked.

#### **Section 2.05 Registration of Transfer and Exchange.**

(a) Securities of any series may be exchanged upon presentation thereof at the office or agency of the Company designated for such purpose, for other Securities of such series of authorized denominations, and for a like aggregate principal amount, upon payment of a sum sufficient to cover any tax or other governmental charge in relation thereto, all as provided in this Section. In respect of any Securities so surrendered for exchange, the Company shall execute, the Trustee shall authenticate and such office or agency shall deliver in exchange therefor the Security or Securities of the same series that the Securityholder making the exchange shall be entitled to receive, bearing numbers not contemporaneously outstanding.

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

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



The Company initially appoints the Trustee as initial Security Registrar for each series of Securities.

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

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

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

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

#### **Section 2.06 Temporary Securities.**

Pending the preparation of definitive Securities of any series, the Company may execute, and the Trustee shall authenticate and deliver, temporary Securities (printed, lithographed or typewritten) of any authorized denomination. Such temporary Securities shall be substantially in the form of the definitive Securities in lieu of which they are issued, but with such omissions, insertions and variations as may be appropriate for temporary Securities, all as may be determined by the Company. Every temporary Security of any series shall be executed by the Company and be authenticated by the Trustee upon the same conditions and in substantially the same manner, and with like effect, as the definitive Securities of such series. Without

unnecessary delay the Company will execute and will furnish definitive Securities of such series and thereupon any or all temporary Securities of such series may be surrendered in exchange therefor (without charge to the Securityholders), at the office or agency of the Company designated for the purpose, and the Trustee shall authenticate and such office or agency shall deliver in exchange for such temporary Securities an equal aggregate principal amount of definitive Securities of such series, unless the Company advises the Trustee to the effect that definitive Securities need not be executed and furnished until further notice from the Company. Until so exchanged, the temporary Securities of such series shall be entitled to the same benefits under this Indenture as definitive Securities of such series authenticated and delivered hereunder.

#### **Section 2.07 Mutilated, Destroyed, Lost or Stolen Securities.**

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

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

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

### **Section 2.08 Cancellation.**

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

### **Section 2.09 Benefits of Indenture.**

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

### **Section 2.10 Authenticating Agent.**

So long as any of the Securities of any series remain Outstanding there may be an Authenticating Agent for any or all such series of Securities which the Trustee shall have the right to appoint. Said Authenticating Agent shall be authorized to act on behalf of the Trustee to authenticate Securities of such series issued upon exchange, transfer or partial redemption, repurchase or conversion thereof, and Securities so authenticated shall be entitled to the benefits of this Indenture and shall be valid and obligatory for all purposes as if authenticated by the Trustee hereunder. All references in this Indenture to the authentication of Securities by the Trustee shall be deemed to include authentication by an Authenticating Agent for such series. Each Authenticating Agent shall be acceptable to the Company and shall be a corporation that has a combined capital and surplus, as most recently reported or determined by it, sufficient under the laws of any jurisdiction under which it is organized or in which it is doing business to conduct a trust business, and that is otherwise authorized under such laws to conduct such business and is subject to supervision or examination by federal or state authorities. If at any time any Authenticating Agent shall cease to be eligible in accordance with these provisions, it shall resign immediately.

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

## Section 2.11 Global Securities.

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

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

(c) If at any time the Depository for a series of the Securities notifies the Company that it is unwilling or unable to continue as Depository for such series or if at any time the Depository for such series shall no longer be registered or in good standing under the Exchange Act, or other applicable statute or regulation, and a successor Depository for such series is not appointed by the Company within 90 days after the Company receives such notice or becomes aware of such condition, as the case may be, or if an Event of Default has occurred and is continuing and the Company has received a request from the Depository or from the Trustee, this Section 2.11 shall no longer be applicable to the Securities of such series and the Company will execute, and subject to Section 2.04, the Trustee will authenticate and deliver the Securities of such series in definitive registered form without coupons, in authorized denominations, and in an aggregate principal amount equal to the principal amount of the Global Security of such series in exchange for such Global Security. In addition, the Company may at any time determine that the Securities of any series shall no longer be represented by a Global Security and that the provisions of this Section 2.11 shall no longer apply to the Securities of such series. In such event the Company will execute and, subject to Section 2.04, the Trustee, upon receipt of an Officer's Certificate evidencing such determination by the Company, will authenticate and deliver the Securities of such series in definitive registered form without coupons, in authorized denominations, and in an aggregate principal amount equal to the principal amount of the Global Security of such series in exchange for such Global Security. Upon the exchange of the Global Security for such Securities in definitive registered form without coupons, in authorized denominations, the Global Security shall be canceled by the Trustee. Such Securities in definitive registered form issued in exchange for the Global Security pursuant to this Section 2.11(c) shall be registered in such names and in such authorized denominations as the Depository, pursuant to instructions from its direct or indirect participants or otherwise, shall instruct the Trustee. The Trustee shall deliver such Securities to the Depository for delivery to the Persons in whose names such Securities are so registered.

(d) The Trustee shall have no responsibility or obligation to any beneficial owner of a Global Security, a member of, or a participant in, the Depository or other Person with respect to the accuracy of the records of the Depository or its nominee or of any participant or member thereof, with respect to any ownership interest in the Securities or with respect to the delivery to any participant, member, beneficial owner, or other Person (other than the Depository) of any notice (including any notice of redemption or purchase) or the payment of any amount or delivery of any Securities (or other security or property) under or with respect to such Securities. The Trustee may rely and shall be fully protected in relying upon information furnished by the Depository with respect to its members, participants, and any beneficial owners.

(e) Neither the Trustee nor any of its agents shall have any responsibility for any actions taken or not taken by the Depository.

#### **Section 2.12 CUSIP Numbers.**

The Company in issuing the Securities may use “CUSIP” numbers (if then generally in use), and, if so, the Trustee shall use “CUSIP” 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 will promptly notify the Trustee of any change in the “CUSIP” numbers.

### **ARTICLE 3**

#### **REDEMPTION OF SECURITIES AND SINKING FUND PROVISIONS**

##### **Section 3.01 Redemption.**

The Company may redeem the Securities of any series issued hereunder on and after the dates and in accordance with the terms established for such series pursuant to Section 2.01 hereof. If the Company elects to redeem Securities, it shall furnish to the Trustee, at least 5 days before notice of redemption is required to be given or caused to be given to holders of Securities pursuant to Section 3.02 hereof (unless a shorter notice shall be agreed to by the Trustee), an Officer’s Certificate from the Company setting forth (i) the paragraph or subparagraph of such Securities and/or section of the applicable supplemental indenture pursuant to which the redemption shall occur, (ii) the redemption date, (iii) the principal amount of the Securities to be re-deemed and (iv) the redemption price.

### Section 3.02 Notice of Redemption.

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

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

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

(b) If less than all the Securities of a series are to be redeemed, the Company shall give the Trustee at least 5 days' notice (unless a shorter notice shall be satisfactory to the Trustee) in advance of the date fixed for redemption as to the aggregate principal amount of Securities of the series to be redeemed, and thereupon the Securities to be redeemed shall be selected, by lot, on a pro rata basis, or in such other manner as the Company shall deem appropriate and fair in its discretion, subject to the applicable procedures of the Depository, and that may provide for the selection of a portion or portions (equal to one thousand U.S. dollars (\$1,000) or any integral multiple thereof) of the principal amount of such Securities of a denomination larger than \$1,000, the Securities to be redeemed and shall thereafter promptly notify the Company in writing of the numbers of the Securities to be redeemed, in whole or in part.

(c) The Company may, if and whenever it shall so elect, by delivery of an Officer's Certificate at least 5 days before notice of redemption is required to be mailed or caused to be delivered to holders of the Securities pursuant to this Section 3.02 (unless a shorter notice shall be agreed to by the Trustee) attaching a copy of such notice of redemption, instruct the Trustee or any paying agent to call all or any part of the Securities of a particular series for redemption and to give notice of redemption in the manner set forth in this Section, such notice to be in the

name of the Company and at its expense. In any case in which notice of redemption is to be given by the Trustee or any such paying agent, the Company shall deliver or cause to be delivered to, or permit to remain with, the Trustee or such paying agent, as the case may be, such Security Register, transfer books or other records, or suitable copies or extracts therefrom, sufficient to enable the Trustee or such paying agent to give any notice by mail that may be required under the provisions of this Section.

### **Section 3.03 Payment Upon Redemption.**

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

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

### **Section 3.04 Sinking Fund.**

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

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

**Section 3.05 Satisfaction of Sinking Fund Payments with Securities.**

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

**Section 3.06 Redemption of Securities for Sinking Fund.**

Not less than 2 days prior to each sinking fund payment date for any series of Securities (unless a shorter period shall be satisfactory to the Trustee), the Company will deliver to the Trustee an Officer's Certificate specifying the amount of the next ensuing sinking fund payment for that series pursuant to the terms of the series, the portion thereof, if any, that is to be satisfied by delivering and crediting Securities of that series pursuant to Section 3.05 and the basis for such credit and will, together with such Officer's Certificate, deliver to the Trustee any Securities to be so delivered. Not less than 30 days before each such sinking fund payment date the Securities to be redeemed upon such sinking fund payment date shall be selected in the manner specified in Section 3.02 and the Company shall cause notice of the redemption thereof to be given in the name of and at the expense of the Company in the manner provided in Section 3.02. Such notice having been duly given, the redemption of such Securities shall be made upon the terms and in the manner stated in Section 3.03.

**ARTICLE 4**

**COVENANTS**

**Section 4.01 Payment of Principal, Premium and Interest.**

The Company will duly and punctually pay or cause to be paid the principal of (and premium, if any) and interest on the Securities of that series at the time and place and in the manner provided herein and established with respect to such Securities. Payments of principal on the Securities may be made at the time provided herein and established with respect to such Securities by U.S. dollar check drawn on and mailed to the address of the Securityholder entitled thereto as such address shall appear in the Security Register, or U.S. dollar wire transfer to, a U.S. dollar account if such Securityholder shall have furnished wire instructions to the Trustee no later than 5 days prior to the relevant payment date. Payments of interest on the Securities may be made at the time provided herein and established with respect to such Securities by U.S. dollar check mailed to the address of the Securityholder entitled thereto as such address shall appear in the Security Register, or U.S. dollar wire transfer to, a U.S. dollar account if such Securityholder shall have furnished wire instructions in writing to the Security Registrar and the Trustee no later than 5 days prior to the relevant payment date. Where payments are being made to the Trustee or paying agent, such Trustee or paying agent must receive funds for any payment not later than 11:00 am New York City time.



#### **Section 4.02 Maintenance of Office or Agency.**

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

#### **Section 4.03 Paying Agents.**

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

(1) that it will hold all sums held by it as such agent for the payment of the principal of (and premium, if any) or interest on the Securities of that series (whether such sums have been paid to it by the Company or by any other obligor of such Securities) in trust for the benefit of the Persons entitled thereto;

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

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

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

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

Company shall have one or more paying agents for any series of Securities, it will, prior to each due date of the principal of (and premium, if any) or interest on any Securities of that series, deposit with the paying agent a sum sufficient to pay the principal (and premium, if any) or interest so becoming due, such sum to be held in trust for the benefit of the Persons entitled to such principal, premium or interest, and (unless such paying agent is the Trustee) the Company will promptly notify the Trustee of this action or failure so to act.

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

#### **Section 4.04 Appointment to Fill Vacancy in Office of Trustee.**

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

### **ARTICLE 5**

#### **SECURITYHOLDERS' LISTS AND REPORTS BY THE COMPANY AND THE TRUSTEE**

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

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

##### **Section 5.02 Preservation Of Information; Communications With Securityholders.**

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

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

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

### **Section 5.03 Reports by the Company.**

(a) The Company will at all times comply with Section 314(a) of the Trust Indenture Act. The Company covenants and agrees to provide (which delivery may be via electronic mail) to the Trustee within 30 days, after the Company files the same with the Commission, copies of the annual reports and of the information, documents and other reports (or copies of such portions of any of the foregoing as the Commission may from time to time by rules and regulations prescribe) that the Company is required to file with the Commission pursuant to Section 13 or Section 15(d) of the Exchange Act; *provided, however*, the Company shall not be required to deliver to the Trustee any correspondence filed with the Commission or any materials for which the Company has sought and received confidential treatment by the Commission; and *provided, further*, that so long as such filings by the Company are available on the Commission's Electronic Data Gathering, Analysis and Retrieval System (EDGAR), or any successor system, such filings shall be deemed to have been filed with the Trustee for purposes hereof without any further action required by the Company. For the avoidance of doubt, a failure by the Company to file annual reports, information and other reports with the Commission within the time period prescribed thereof by the Commission shall not be deemed a breach of this Section 5.03.

(b) Delivery of reports, information and documents to the Trustee under Section 5.03 is for informational purposes only and the information and the Trustee's receipt of the foregoing shall not constitute constructive notice of any information contained therein, or determinable from information contained therein including the Company's compliance with any of their covenants thereunder (as to which the Trustee is entitled to rely exclusively on an Officer's Certificate). The Trustee is under no duty to examine any such reports, information or documents delivered to the Trustee or filed with the Commission via EDGAR to ensure compliance with the provision of this Indenture or to ascertain the correctness or otherwise of the information or the statements contained therein. The Trustee shall have no responsibility or duty whatsoever to ascertain or determine whether the above referenced filings with the Commission on EDGAR (or any successor system) has occurred.

### **Section 5.04 Reports by the Trustee.**

(a) If required by Section 313(a) of the Trust Indenture Act, the Trustee, within sixty (60) days after each May 1, shall send to the Securityholders a brief report dated as of such May 1, which complies with Section 313(a) of the Trust Indenture Act.

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

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

## ARTICLE 6

### REMEDIES OF THE TRUSTEE AND SECURITYHOLDERS ON EVENT OF DEFAULT

#### Section 6.01 Events of Default.

(a) Whenever used herein with respect to Securities of a particular series, “**Event of Default**” means any one or more of the following events that has occurred and is continuing:

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

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

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

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

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

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

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

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

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

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

(a) The Company covenants that (i) in case it shall default in the payment of any installment of interest on any of the Securities of a series, or in any payment required by any sinking or analogous fund established with respect to that series as and when the same shall have become due and payable, and such default shall have continued for a period of 90 days, or (ii) in case it shall default in the payment of the principal of (or premium, if any, on) any of the

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

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

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

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

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

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

### **Section 6.03 Application of Moneys Collected.**

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

FIRST: To the payment of costs and expenses of collection and of all amounts payable to the Trustee (acting in any capacity hereunder) under Section 7.06;

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

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

### **Section 6.04 Limitation on Suits.**

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

Notwithstanding anything contained herein to the contrary or any other provisions of this Indenture, the right of any holder of any Security to receive payment of the principal of (and premium, if any) and interest on such Security, as therein provided, on or after the respective due dates expressed in such Security (or in the case of redemption, on the redemption date), or to institute suit for the enforcement of any such payment on or after such respective dates or redemption date, shall not be impaired or affected without the consent of such holder and by accepting a Security hereunder it is expressly understood, intended and covenanted by the taker and holder of every Security of such series with every other such taker and holder and the Trustee, that no one or more holders of Securities of such series shall have any right in any manner whatsoever by virtue or by availing of any provision of this Indenture to affect, disturb or prejudice the rights of the holders of any other of such Securities, or to obtain or seek to obtain priority over or preference to any other such holder, or to enforce any right under this Indenture, except in the manner herein provided and for the equal, ratable and common benefit of all holders of Securities of such series. For the protection and enforcement of the provisions of this Section, each and every Securityholder and the Trustee shall be entitled to such relief as can be given either at law or in equity.

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

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

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

#### **Section 6.06 Control by Securityholders.**

The holders of a majority in aggregate principal amount of the Securities of any series at the time Outstanding, determined in accordance with Section 8.04, shall have the right to direct the time, method and place of conducting any proceeding for any remedy available to the Trustee, or exercising any trust or power conferred on the Trustee with respect to such series; *provided, however*, that such direction shall not be in conflict with any rule of law or with this Indenture or subject the Trustee in its sole discretion to personal liability. Subject to the provisions of Section 7.01, the Trustee shall have the right to decline to follow any such direction if the Trustee in good faith shall, by a Responsible Officer or officers of the Trustee, determine that the proceeding so directed, subject to the Trustee's duties under the Trust Indenture Act, would involve the Trustee in personal liability or might be unduly prejudicial to the Securityholders not involved in the proceeding (it being understood that the Trustee does not



have an affirmative duty to ascertain whether or not such directions are unduly prejudicial to such Securityholders). The holders of a majority in aggregate principal amount of the Securities of any series at the time Outstanding affected thereby, determined in accordance with Section 8.04, may on behalf of the holders of all of the Securities of such series waive any past default in the performance of any of the covenants contained herein or established pursuant to Section 2.01 with respect to such series and its consequences, except a default in the payment of the principal of, or premium, if any, or interest on, any of the Securities of that series as and when the same shall become due by the terms of such Securities otherwise than by acceleration (unless such default has been cured and a sum sufficient to pay all matured installments of interest and principal and any premium has been deposited with the Trustee (in accordance with Section 6.01(c)). Upon any such waiver, the default covered thereby shall be deemed to be cured for all purposes of this Indenture and the Company, the Trustee and the holders of the Securities of such series shall be restored to their former positions and rights hereunder, respectively; but no such waiver shall extend to any subsequent or other default or impair any right consequent thereon.

#### **Section 6.07 Undertaking to Pay Costs.**

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

### **ARTICLE 7**

#### **CONCERNING THE TRUSTEE**

##### **Section 7.01 Certain Duties and Responsibilities of Trustee.**

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

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

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

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

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

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

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

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

(v) The Trustee shall not be required to give any bond or surety in respect of the performance of its powers or duties hereunder;

(vi) The permissive right of the Trustee to do things enumerated in this Indenture shall not be construed as a duty of the Trustee; and

(vii) No Trustee shall have any duty or responsibility for any act or omission of any other Trustee appointed with respect to a series of Securities hereunder.

**Section 7.02 Certain Rights of Trustee.**

Except as otherwise provided in Section 7.01:

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

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

(c) The Trustee may consult with counsel and the opinion or written advice of such counsel or, if requested, any Opinion of Counsel shall be full and complete authorization and protection in respect of any action taken or suffered or omitted hereunder in good faith and in reliance thereon;

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

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

(f) The Trustee shall not be bound to make any investigation into the facts or matters stated in any resolution, certificate, statement, instrument, opinion, report, notice, request, consent, order, approval, bond, security, or other papers or documents or inquire as to the performance by the Company of one of its covenants under this Indenture, unless requested in writing so to do by the holders of not less than a majority in principal amount of the Outstanding Securities of the particular series affected thereby (determined as provided in Section 8.04); *provided, however*, that if the payment within a reasonable time to the Trustee of the costs, expenses or liabilities likely to be incurred by it in the making of such investigation is, in the

opinion of the Trustee, not reasonably assured to the Trustee by the security afforded to it by the terms of this Indenture, the Trustee may require security or indemnity reasonably acceptable to the Trustee against such costs, expenses or liabilities as a condition to so proceeding. The reasonable expense of every such examination shall be paid by the Company or, if paid by the Trustee, shall be repaid by the Company upon demand;

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

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

(i) In no event shall the Trustee be responsible or liable for special, indirect, punitive or consequential loss or damage of any kind whatsoever (including, but not limited to, loss of profit) irrespective of whether the Trustee has been advised of the likelihood of such loss or damage and regardless of the form of action; and

(j) The Trustee agrees to accept and act upon instructions or directions pursuant to this Indenture sent by unsecured e-mail, facsimile transmission or other similar unsecured electronic methods; *provided, however*, that such instructions or directions shall be signed by an authorized representative of the party providing such instructions or directions. If the party elects to give the Trustee e-mail or facsimile instructions (or instructions by a similar electronic method) and the Trustee in its discretion elects to act upon such instructions, the Trustee's understanding of such instructions shall be deemed controlling. The Trustee shall not be liable for any losses, costs or expenses arising directly or indirectly from the Trustee's reliance upon and compliance with such instructions notwithstanding such instructions conflict or are inconsistent with a subsequent written instruction. The party providing electronic instructions agrees to assume all risks arising out of the use of such electronic methods to submit instructions and directions to the Trustee, including without limitation the risk of the Trustee acting on unauthorized instructions, and the risk of interception and misuse by third parties. The Trustee may request that the Company deliver an Officer's Certificate setting forth the names of individuals and/or titles of officers authorized at such time to furnish the Trustee with Officer's Certificates, Company Orders and any other matters or directions pursuant to this Indenture.

(k) The rights, privileges, protections, immunities and benefits given to the Trustee, 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 under the Securities, and each agent, custodian or other person employed to act under this Indenture.

(l) The Trustee shall not be deemed to have knowledge of any Default or Event of Default (other than an Event of Default constituting the failure to pay the interest on, or the principal of, the Securities if the Trustee also serves the paying agent for such Securities) until a Responsible Officer of the Trustee shall have received written notification in the manner set forth in this Indenture or a Responsible Officer of the Trustee shall have obtained actual knowledge.

(m) 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 such Officers' Certificate or Opinion of Counsel, unless it shall be proved that the Trustee was grossly negligent in ascertaining the pertinent facts.

(n) Any rights in favor of the Trustee that may be discretionary in nature shall not be construed as duties of the Trustee.

#### **Section 7.03 Trustee Not Responsible for Recitals or Issuance of Securities.**

(a) The recitals contained herein and in the Securities shall be taken as the statements of the Company, and the Trustee assumes no responsibility for the correctness of the same. The Trustee shall not be responsible for any statement in any registration statement, prospectus, or any other document in connection with the sale of Securities. The Trustee shall not be responsible for any rating on the Securities or any action or omission of any rating agency.

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

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

#### **Section 7.04 May Hold Securities.**

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

#### **Section 7.05 Moneys Held in Trust.**

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

### **Section 7.06 Compensation and Reimbursement.**

(a) The Company shall pay to the Trustee for each of its capacities hereunder from time to time compensation for its services as the Company and the Trustee shall from time to time agree upon 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 by it. Such expenses shall include the reasonable compensation and expenses of the Trustee's agents and counsel.

(b) The Company shall indemnify each of the Trustee in each of its capacities hereunder against any and all fees, costs, damages, losses, liabilities or expenses (including the cost of defending itself and including the reasonable compensation and expenses of the Trustee's agents and counsel and including reasonable attorneys' fees and expenses and court costs incurred in connection with any action, claim or suit brought to enforce the Trustee's right to compensation, reimbursement or indemnification) incurred by it except as set forth in Section 7.06(c) in the exercise or performance of its powers, rights or duties under this Indenture as Trustee or Agent (whether asserted against the Company or any other person). The Trustee shall notify the Company promptly of any claim for which it may seek indemnity. The Company shall defend the claim and the Trustee shall cooperate in the defense. The Trustee may have one separate counsel and the Company shall pay the reasonable fees and expenses of such counsel. The Company need not pay for any settlement made without its consent, which consent shall not be unreasonably withheld. This indemnification shall apply to officers, directors, employees, shareholders and agents of the Trustee.

(c) The Company need not reimburse any expense or indemnify against any loss or liability incurred by the Trustee or by any officer, director, employee, shareholder or agent of the Trustee through their negligence or willful misconduct (as determined in a final non-appealable decision of a court of competent jurisdiction).

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

### **Section 7.07 Reliance on Officer's Certificate.**

Except as otherwise provided in Section 7.01, whenever in the administration of the provisions of this Indenture the Trustee shall deem it reasonably necessary or desirable that a matter be proved or established prior to taking or suffering or omitting to take any action hereunder, such matter (unless other evidence in respect thereof be herein specifically prescribed) may, in the absence of negligence or bad faith on the part of the Trustee, be deemed to be conclusively proved and established by an Officer's Certificate delivered to the Trustee and such certificate, in the absence of negligence or bad faith on the part of the Trustee, shall be full warrant to the Trustee for any action taken, suffered or omitted to be taken by it under the provisions of this Indenture upon the faith thereof.

**Section 7.08 Disqualification; Conflicting Interests.**

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

**Section 7.09 Corporate Trustee Required; Eligibility.**

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

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

**Section 7.10 Resignation and Removal; Appointment of Successor.**

(a) The Trustee or any successor hereafter appointed may at any time resign with respect to the Securities of one or more series by giving written notice thereof to the Company and the Securityholders of such series. Upon receiving such notice of resignation, the Company shall promptly appoint a successor trustee with respect to Securities of such series by written instrument, in duplicate, executed by order of the Board of Directors, one copy of which instrument shall be delivered to the resigning Trustee and one copy to the successor trustee. If no successor trustee shall have been so appointed and have accepted appointment within 30 days after the sending of such notice of resignation, the resigning Trustee may petition any court of competent jurisdiction for the appointment of a successor trustee with respect to Securities of such series, or any Securityholder of that series who has been a bona fide holder of a Security or Securities for at least six months may on behalf of himself and all others similarly situated, petition any such court for the appointment of a successor trustee. Such court may thereupon after such notice, if any, as it may deem proper and prescribe, appoint a successor trustee.

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

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

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

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

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

(c) The holders of a majority in aggregate principal amount of the Securities of any series at the time Outstanding may at any time remove the Trustee with respect to such series by so notifying the Trustee and the Company at least 30 days prior to such removal (unless a shorter notice shall be agreed to by the Trustee) and may appoint a successor Trustee for such series with the consent of the Company.

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

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

#### **Section 7.11 Acceptance of Appointment By Successor.**

(a) In case of the appointment hereunder of a successor trustee with respect to all Securities, every such successor trustee so appointed shall execute, acknowledge and deliver to the Company and to the retiring Trustee an instrument accepting such appointment, and thereupon the resignation or removal of the retiring Trustee shall become effective and such successor trustee, without any further act, deed or conveyance, shall become vested with all the rights, powers, trusts and duties of the retiring Trustee; but, on the request of the Company or the successor trustee, such retiring Trustee shall, upon payment of any amounts due to it pursuant to the provisions of Section 7.06, execute and deliver an instrument transferring to such successor trustee all the rights, powers, and trusts of the retiring Trustee and shall duly assign, transfer and deliver to such successor trustee all property and money held by such retiring Trustee hereunder.



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

(c) Upon request of any such successor trustee, the Company shall execute any and all instruments for more fully and certainly vesting in and confirming to such successor trustee all such rights, powers and trusts referred to in paragraph (a) or (b) of this Section, as the case may be.

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

(e) Upon acceptance of appointment by a successor trustee as provided in this Section, the Company shall send notice of the succession of such trustee hereunder to the Securityholders. If the Company fails to transmit such notice within ten days after acceptance of appointment by the successor trustee, the successor trustee shall cause such notice to be transmitted at the expense of the Company.

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

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

**Section 7.13 Preferential Collection of Claims Against the Company.**

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

**Section 7.14 Notice of Default.**

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

**ARTICLE 8**

**CONCERNING THE SECURITYHOLDERS**

**Section 8.01 Evidence of Action by Securityholders.**

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

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

#### **Section 8.02 Proof of Execution by Securityholders.**

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

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

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

#### **Section 8.03 Who May be Deemed Owners.**

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

#### **Section 8.04 Certain Securities Owned by Company Disregarded.**

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

#### **Section 8.05 Actions Binding on Future Securityholders.**

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

### **ARTICLE 9**

#### **SUPPLEMENTAL INDENTURES**

##### **Section 9.01 Supplemental Indentures Without the Consent of Securityholders.**

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

- (a) to cure any ambiguity, defect, or inconsistency herein or in the Securities of any series;
- (b) to comply with Article 10;

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

(d) to add to the covenants, restrictions, conditions or provisions relating to the Company for the benefit of the holders of all or any series of Securities (and if such covenants, restrictions, conditions or provisions are to be for the benefit of less than all series of Securities, stating that such covenants, restrictions, conditions or provisions are expressly being included solely for the benefit of such series), to make the occurrence, or the occurrence and the continuance, of a default in any such additional covenants, restrictions, conditions or provisions an Event of Default, or to surrender any right or power herein conferred upon the Company;

(e) to add to, delete from, or revise the conditions, limitations, and restrictions on the authorized amount, terms, or purposes of issue, authentication, and delivery of Securities, as herein set forth;

(f) to make any change that does not adversely affect the rights of any Securityholder in any material respect as set forth in an Officer's Certificate delivered to the Trustee;

(g) to provide for the issuance of and establish the form and terms and conditions of the Securities of any series as provided in Section 2.01, to establish the form of any certifications required to be furnished pursuant to the terms of this Indenture or any series of Securities, or to add to the rights of the holders of any series of Securities;

(h) to evidence and provide for the acceptance of appointment hereunder by a successor trustee; or

(i) to comply with any requirements of the Commission or any successor in connection with the qualification of this Indenture under the Trust Indenture Act.

The Trustee is hereby authorized to join with the Company in the execution of any such supplemental indenture, and to make any further appropriate agreements and stipulations that may be therein contained, but the Trustee shall not be obligated to enter into any such supplemental indenture that affects the Trustee's own rights, duties or immunities under this Indenture or otherwise.

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

#### **Section 9.02 Supplemental Indentures With Consent of Securityholders.**

With the consent (evidenced as provided in Section 8.01) of the holders of not less than a majority in aggregate principal amount of the Securities of each series affected by such supplemental indenture or indentures at the time Outstanding, the Company, when authorized by a Board Resolution, and the Trustee may from time to time and at any time enter into an indenture or indentures supplemental hereto (which shall conform to the provisions of the Trust Indenture Act as then in effect) for the purpose of adding any provisions to or changing in any manner or eliminating any of the provisions of this Indenture or of any supplemental indenture or

of modifying in any manner not covered by Section 9.01 the rights of the holders of the Securities of such series under this Indenture; *provided, however*, that no such supplemental indenture shall, without the consent of the holders of each Security then Outstanding and affected thereby, (a) extend the fixed maturity of any Securities of any series, or reduce the principal amount thereof, or reduce the rate or extend the time of payment of interest thereon, or reduce any premium payable upon the redemption thereof or (b) reduce the aforesaid percentage of Securities, the holders of which are required to consent to any such supplemental indenture.

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

#### **Section 9.03 Effect of Supplemental Indentures.**

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

#### **Section 9.04 Securities Affected by Supplemental Indentures.**

Securities of any series affected by a supplemental indenture, authenticated and delivered after the execution of such supplemental indenture pursuant to the provisions of this Article or of Section 10.01, may bear a notation in form approved by the Company, *provided* that such form meets the requirements of any securities exchange upon which such series may be listed, as to any matter provided for in such supplemental indenture. If the Company shall so determine, new Securities of that series so modified as to conform, in the opinion of the Board of Directors, to any modification of this Indenture contained in any such supplemental indenture may be prepared by the Company, authenticated by the Trustee and delivered in exchange for the Securities of that series then Outstanding.

#### **Section 9.05 Execution of Supplemental Indentures.**

Upon the request of the Company, accompanied by its Board Resolutions authorizing the execution of any such supplemental indenture, and upon the filing with the Trustee of evidence of the consent of Securityholders required to consent thereto as aforesaid, the Trustee shall join with the Company in the execution of such supplemental indenture unless such supplemental indenture affects the Trustee's own rights, duties or immunities under this Indenture or otherwise, in which case the Trustee may in its discretion but shall not be obligated to enter into such supplemental indenture. The Trustee, subject to the provisions of Section 7.01, shall receive an Officer's Certificate or an Opinion of Counsel as conclusive evidence that any supplemental indenture executed pursuant to this Article is authorized or permitted by the terms of this Article, that all conditions precedent to the execution of the supplemental indenture have been complied with, and that such supplemental indenture is the legal, valid and binding obligation of the Company enforceable against it in accordance with its terms, subject to customary enforceability exceptions.

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

## ARTICLE 10

### SUCCESSOR ENTITY

#### **Section 10.01 Company May Consolidate, Etc.**

Nothing contained in this Indenture shall prevent any consolidation or merger of the Company with or into any other Person (whether or not affiliated with the Company) or successive consolidations or mergers in which the Company or its successor or successors shall be a party or parties, or shall prevent any sale, conveyance, transfer or other disposition of the property of the Company or its successor or successors as an entirety, or substantially as an entirety, to any other Person (whether or not affiliated with the Company or its successor or successors); *provided, however*, the Company hereby covenants and agrees that, upon any such consolidation or merger (in each case, if the Company is not the survivor of such transaction) or any such sale, conveyance, transfer or other disposition (other than a sale, conveyance, transfer or other disposition to a Subsidiary of the Company), the due and punctual payment of the principal of (premium, if any) and interest on all of the Securities of all series in accordance with the terms of each series, according to their tenor, and the due and punctual performance and observance of all the covenants and conditions of this Indenture with respect to each series or established with respect to such series pursuant to Section 2.01 to be kept or performed by the Company shall be expressly assumed, by supplemental indenture (which shall conform to the provisions of the Trust Indenture Act, as then in effect) reasonably satisfactory in form to the Trustee executed and delivered to the Trustee by the entity formed by such consolidation, or into which the Company shall have been merged, or by the entity which shall have acquired such property.

#### **Section 10.02 Successor Entity Substituted.**

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

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

### **SECTION 10.03. Opinion of Counsel and Officers' Certificate to be Given Trustee.**

The Trustee shall receive an Opinion of Counsel and Officers' Certificate as conclusive evidence that any such consolidation, merger, sale or conveyance, and any such assumption, and, if a supplemental indenture is required in connection with such transaction, such supplemental indenture, comply with the provisions of this Article 10, that all conditions precedent herein provided for relating to such transaction have been complied with, and that if a supplemental indenture is required in connection with such transaction, such supplemental indenture is the legal, valid, and binding obligations of the Company enforceable against it in accordance with its terms, subject to customary enforceability exceptions.

## **ARTICLE 11**

### **SATISFACTION AND DISCHARGE**

#### **Section 11.01 Satisfaction and Discharge of Indenture.**

If at any time: (a) the Company shall have delivered to the Trustee for cancellation all Securities of a series theretofore authenticated and not delivered to the Trustee for cancellation (other than any Securities that shall have been destroyed, lost or stolen and that shall have been replaced or paid as provided in Section 2.07 and Securities for whose payment money or Governmental Obligations have theretofore been irrevocably deposited in trust or segregated and held in trust by the Company and thereupon repaid to the Company or discharged from such trust, as provided in Section 11.05); or (b) all such Securities of a particular series not theretofore delivered to the Trustee for cancellation shall have become due and payable, or are by their terms to become due and payable within one year or are to be called for redemption within one year under arrangements satisfactory to the Trustee for the giving of notice of redemption, and the Company shall irrevocably deposit or cause to be deposited with the Trustee as trust funds the entire amount in moneys or Governmental Obligations or a combination thereof, sufficient in the opinion of a nationally recognized firm of independent public accountants or investment bankers expressed in a written certification thereof delivered to the Trustee, to pay at maturity or upon redemption all Securities of that series not theretofore delivered to the Trustee for cancellation, including principal (and premium, if any) and interest due or to become due to such date of maturity or date fixed for redemption, as the case may be, together with instructions from the Company directing the Trustee to apply such funds to the payment thereof at maturity or redemption, as the case may be, and if the Company shall also pay or cause to be paid all other sums payable hereunder with respect to such series by the Company, and if the Company has delivered to the Trustee an Officer's Certificate and an Opinion of Counsel stating that all conditions precedent under this Indenture relating to the satisfaction and discharge of this Indenture have been complied with, then this Indenture shall thereupon cease to be of further effect with respect to such series except for the provisions of Sections 2.03, 2.05, 2.07, 4.01, 4.02, 4.03, 7.10, 11.05 and 13.04 that shall survive until the date of maturity or redemption date, as the case may be, and Sections 7.06 and 11.05, that shall survive to such date and thereafter, and the Trustee, on demand of the Company and at the cost and expense of the Company shall execute proper instruments acknowledging satisfaction of and discharging this Indenture with respect to such series.



### **Section 11.02 Discharge of Obligations.**

If at any time all such Securities of a particular series not heretofore delivered to the Trustee for cancellation or that have not become due and payable as described in Section 11.01 shall have been paid by the Company by depositing with the Trustee as trust funds moneys or an amount of Governmental Obligations sufficient to pay at maturity or upon redemption all such Securities of that series not theretofore delivered to the Trustee for cancellation, including principal (and premium, if any) and interest due or to become due to such date of maturity or date fixed for redemption, as the case may be, together with instructions from the Company directing the Trustee to apply such funds to the payment thereof at maturity or redemption, as the case may be, and if the Company shall also pay or cause to be paid all other sums payable hereunder by the Company with respect to such series, and if the Company has delivered to the Trustee an Officer's Certificate and an Opinion of Counsel stating that all conditions precedent under this Indenture relating to such discharge have been complied with, then after the date such moneys or Governmental Obligations, as the case may be, are deposited with the Trustee the obligations of the Company under this Indenture with respect to such series shall cease to be of further effect except for the provisions of Sections 2.03, 2.05, 2.07, 4.01, 4.02, 4.03, 7.06, 7.10, 11.05 and 13.04 hereof that shall survive until such Securities shall mature and be paid.

Thereafter, Sections 7.06 and 11.05 shall survive.

### **Section 11.03 Deposited Moneys to be Held in Trust.**

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

### **Section 11.04 Payment of Moneys Held by Paying Agents.**

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

### **Section 11.05 Repayment to Company.**

Any moneys or Governmental Obligations deposited with any paying agent or the Trustee, or then held by the Company, in trust for payment of principal of or premium, if any, or interest on the Securities of a particular series that are not applied but remain unclaimed by the holders of such Securities for at least two years after the date upon which the principal of (and premium, if any) or interest on such Securities shall have respectively become due and payable,

or such other shorter period set forth in applicable escheat or abandoned or unclaimed property law, shall be repaid to the Company on May 31 of each year or upon the Company's request or (if then held by the Company) shall be discharged from such trust; and thereupon the paying agent and the Trustee shall be released from all further liability with respect to such moneys or Governmental Obligations, and the holder of any of the Securities entitled to receive such payment shall thereafter, as a general creditor, look only to the Company for the payment thereof.

## ARTICLE 12

### IMMUNITY OF INCORPORATORS, STOCKHOLDERS, OFFICERS AND DIRECTORS

#### Section 12.01 No Recourse.

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

## ARTICLE 13

### MISCELLANEOUS PROVISIONS

#### Section 13.01 Effect on Successors and Assigns.

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

#### Section 13.02 Actions by Successor.

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

### **Section 13.03 Surrender of Company Powers.**

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

### **Section 13.04 Notices.**

Except as otherwise expressly provided herein, any notice, request or demand that by any provision of this Indenture is required or permitted to be given, made or served by the Trustee, the Security Registrar, any paying or other agent under this Indenture or by the holders of Securities or by any other Person pursuant to this Indenture to or on the Company may be given or served by being deposited in first class mail, postage prepaid, addressed (until another address is filed in writing by the Company with the Trustee), as follows: Calyxt, Inc., 2800 Mount Ridge Road, Roseville, Minnesota 55113, Attention: Chief Financial Officer. Any notice, election, request or demand by the Company or any Securityholder or by any other Person pursuant to this Indenture to or upon the Trustee shall be deemed to have been sufficiently given or made, for all purposes, if given or made in writing at the Corporate Trust Office of the Trustee.

### **Section 13.05 Governing Law; Jury Trial Waiver.**

This Indenture and each Security shall be governed by, and construed in accordance with, the internal laws of the State of New York, except to the extent that the Trust Indenture Act is applicable.

EACH PARTY HERETO, AND EACH HOLDER OF A SECURITY BY ACCEPTANCE THEREOF, HEREBY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN RESPECT OF ANY LITIGATION DIRECTLY OR INDIRECTLY ARISING OUT OF, UNDER OR IN CONNECTION WITH THIS INDENTURE.

### **Section 13.06 Treatment of Securities as Debt.**

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

### **Section 13.07 Certificates and Opinions as to Conditions Precedent.**

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

(b) Each certificate or opinion provided for in this Indenture and delivered to the Trustee with respect to compliance with a condition or covenant in this Indenture (other than the certificate to be delivered pursuant to Section 13.12 of this Indenture or Section 314(a)(1) of the Trust Indenture Act) shall include (i) a statement that the Person making such certificate or opinion has read such covenant or condition; (ii) a brief statement as to the nature and scope of the examination or investigation upon which the statements or opinions contained in such certificate or opinion are based; (iii) a statement that, in the opinion of such Person, he has made such examination or investigation as is reasonably necessary to enable him to express an informed opinion as to whether or not such covenant or condition has been complied with; and (iv) a statement as to whether or not, in the opinion of such Person, such condition or covenant has been complied with.

**Section 13.08 Payments on Business Days.**

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

**Section 13.09 Conflict with Trust Indenture Act.**

If and to the extent that any provision of this Indenture limits, qualifies or conflicts with the duties imposed by Section 318(c) of the Trust Indenture Act, such imposed duties shall control.

**Section 13.10 Counterparts.**

This Indenture may be executed in any number of counterparts, each of which shall be an original, but such counterparts shall together constitute but one and the same instrument. The exchange of copies of this Indenture and of signature pages by facsimile or PDF transmission shall constitute effective execution and delivery of this Indenture as to the parties hereto and may be used in lieu of the original Indenture for all purposes. Signatures of the parties hereto transmitted by facsimile or PDF shall be deemed to be their original signatures for all purposes.

**Section 13.11 Separability.**

In case any one or more of the provisions contained in this Indenture or in the Securities of any series shall for any reason be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provisions of this Indenture or of such Securities, but this Indenture and such Securities shall be construed as if such invalid or illegal or unenforceable provision had never been contained herein or therein.

### **Section 13.12 Compliance Certificates.**

The Company shall deliver to the Trustee, within 120 days after the end of each fiscal year during which any Securities of any series were outstanding, an officer's certificate stating whether or not the signers know of any Event of Default that occurred during such fiscal year.

Such certificate shall contain a certification from the principal executive officer, principal financial officer or principal accounting officer of the Company that a review has been conducted of the activities of the Company and the Company's performance under this Indenture and that the Company has complied with all conditions and covenants under this Indenture. For purposes of this Section 13.12, such compliance shall be determined without regard to any period of grace or requirement of notice provided under this Indenture. If the officer of the Company signing such certificate has knowledge of such an Event of Default, the certificate shall describe any such Event of Default and its status.

### **Section 13.13 U.S.A. Patriot Act.**

The parties hereto acknowledge that in accordance with Section 326 of the U.S.A. Patriot Act, the Trustee, like all financial institutions and in order to help fight the funding of terrorism and money laundering, is required to obtain, verify, and record information that identifies each person or legal entity that establishes a relationship or opens an account with the Trustee. The parties to this Indenture agree that they will provide the Trustee with such information as it may request in order for the Trustee to satisfy the requirements of the U.S.A. Patriot Act.

### **Section 13.14 Force Majeure.**

In no event shall the Trustee, the Security Registrar, any paying agent or any other agent under this Indenture 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 or utilities, communications or computer (software and hardware) services; it being understood that the Trustee, the Security Registrar, any paying agent or any other agent under this Indenture shall use reasonable efforts which are consistent with accepted practices in the banking industry to resume performance as soon as practicable under the circumstances.

### **Section 13.15 Table of Contents; Headings.**

The table of contents and headings of the articles and sections of this Indenture have been inserted for convenience of reference only, are not intended to be considered a part hereof, and will not modify or restrict any of the terms or provisions hereof.

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

**CALYXT, INC.**

By: \_\_\_\_\_

\_\_\_\_\_  
Name:

Title:

[ \_\_\_\_\_ ],  
**as Trustee**

By: \_\_\_\_\_

\_\_\_\_\_  
Name:

Title:

**CROSS-REFERENCE TABLE(1)****Section of Trust Indenture Act of 1939, as Amended****Section of Indenture**

310(a)	7.09
310(b)	7.08 7.10
310(c)	Inapplicable
311(a)	7.13
311(b)	7.13
311(c)	Inapplicable
312(a)	5.01 5.02(a)
312(b)	5.02(c)
312(c)	5.02(c)
313(a)	5.04(a)
313(b)	5.04(b)
313(c)	5.04(a) 5.04(b)
313(d)	5.04(c)
314(a)	5.03 13.12
314(b)	Inapplicable
314(c)	13.07(a)
314(d)	Inapplicable

314(e)	13.07(b)
314(f)	Inapplicable
315(a)	7.01(a)
	7.01(b)
315(b)	7.14
315(c)	7.01
315(d)	7.01(b)
315(e)	6.07
316(a)	6.06
	8.04
316(b)	6.04
316(c)	8.01
317(a)	6.02
317(b)	4.03
318(a)	13.09

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



## JONES DAY

September 19, 2022

Calyxt, Inc.  
2800 Mount Ridge Road  
Roseville, MN 55113

Re: Registration Statement on Form S-3 Filed by Calyxt, Inc.

Ladies and Gentlemen:

We have acted as counsel for Calyxt, Inc., a Delaware corporation (the "**Company**"), in connection with the authorization of the possible issuance and sale from time to time, on a delayed basis, by the Company of up to \$50,000,000 aggregate amount of: (i) shares of common stock, par value \$0.0001 per share, of the Company (the "**Common Stock**"); (ii) shares of preferred stock, par value \$0.0001 per share, of the Company (the "**Preferred Stock**"), in one or more series, certain of which may be convertible into or exchangeable for shares of Common Stock or other securities of the Company; (iii) debt securities of the Company (the "**Debt Securities**"), in one or more series, certain of which may be convertible into or exchangeable for shares of Common Stock or other securities of the Company; (iv) subscription rights to purchase shares of Common Stock, shares of Preferred Stock or Debt Securities or any combination thereof ("**Subscription Rights**"); (v) warrants to purchase shares of Common Stock, shares of Preferred Stock, Debt Securities or any combination thereof (the "**Warrants**"); and (vi) units consisting of one or more of the securities described in clauses (i) through (v) above (the "**Units**"), in each case as contemplated by the Company's Registration Statement on Form S-3 to which this opinion is filed as an exhibit (as the same may be amended from time to time, the "**Registration Statement**"). The Common Stock, the Preferred Stock, the Debt Securities, the Subscription Rights, the Warrants and the Units are collectively referred to herein as the "**Securities**." The Securities may be offered and sold from time to time pursuant to Rule 415 under the Securities Act of 1933 (the "**Securities Act**").

In connection with the opinions expressed herein, we have examined such documents, records and matters of law as we have deemed relevant or necessary for purposes of such opinions. Based on the foregoing, and subject to the further limitations, qualifications and assumptions set forth herein, we are of the opinion that:

1. The shares of Common Stock, upon receipt by the Company of such lawful consideration therefor having a value not less than the par value thereof as the Company's Board of Directors (or an authorized committee thereof) may determine, will be validly issued, fully paid and nonassessable.

2. The shares of Preferred Stock, upon receipt by the Company of such lawful consideration therefor having a value not less than the par value thereof as the Company's Board of Directors (or an authorized committee thereof) may determine, will be validly issued, fully paid and nonassessable.
3. The Debt Securities, when duly executed by the Company and authenticated by the Trustee in accordance with the Indenture, issued and sold in accordance with the Registration Statement and delivered to the purchaser or purchasers thereof against receipt by the Company of such lawful consideration therefor as the Company's Board of Directors (or a duly authorized committee thereof) may determine, will constitute valid and binding obligations of the Company.
4. The Subscription Rights, upon receipt by the Company of such lawful consideration therefor as the Company's Board of Directors (or an authorized committee thereof) may determine, will constitute valid and binding obligations of the Company.
5. The Warrants, upon receipt by the Company of such lawful consideration therefor as the Company's Board of Directors (or an authorized committee thereof) may determine, will constitute valid and binding obligations of the Company.
6. The Units, upon receipt by the Company of such lawful consideration therefor as the Company's Board of Directors (or an authorized committee thereof) may determine, will constitute valid and binding obligations of the Company.

In rendering the foregoing opinions, we have assumed that: (i) the Registration Statement, and any amendments thereto, will have become effective (and will remain effective at the time of issuance of any Securities thereunder); (ii) a prospectus supplement describing each class and/or series of Securities offered pursuant to the Registration Statement, to the extent required by applicable law and relevant rules and regulations of the Securities and Exchange Commission (the "*Commission*"), will be timely filed with the Commission; (iii) the definitive terms of each class and/or series of Securities will have been established in accordance with the authorizing resolutions adopted by the Company's Board of Directors (or an authorized committee thereof) and, as applicable, the Company's amended and restated certificate of incorporation (the "*Certificate of Incorporation*"), and applicable law; (iv) the Company will issue and deliver the Securities in the manner contemplated by the Registration Statement and any Securities that consist of shares of capital stock will have been authorized and reserved for issuance, in each case within the limits of the then remaining authorized but unissued and unreserved amounts of such capital stock; (v) the resolutions authorizing the Company to issue, offer and sell the Securities will have been adopted by the Company's Board of Directors (or an

authorized committee thereof) and will be in full force and effect at all times at which the Securities are offered or sold by the Company; (vi) all Securities will be issued in compliance with applicable federal and state securities laws; and (vii) the Indenture and any Warrant Agreement, Subscription Rights Agreement (each as defined below) or Unit agreement will be governed by and construed in accordance with the laws of the State of New York and will constitute a valid and binding obligation of each party thereto other than the Company.

With respect to any Securities consisting of Preferred Stock, we have further assumed that the Company will issue and deliver the shares of Preferred Stock being issued and delivered after the filing with the Secretary of State of the State of Delaware of a certificate of amendment to the Company's Certificate of Incorporation, approved by us, establishing the designations, preferences and rights of the class or series of Preferred Stock being issued and delivered.

With respect to any Securities consisting of any series of Debt Securities, we have further assumed that: (i) such Debt Securities will have been issued pursuant to an indenture (the "**Indenture**"), in a form approved by us, that has been authorized, executed and delivered by the Company and one or more entities selected by the Company to act as trustee (the "**Trustee**"), and the Indenture will have been qualified under the Trust Indenture Act of 1939, as amended; (ii) all terms of such Debt Securities not provided for in the Indenture will have been established in accordance with the provisions of the Indenture and reflected in appropriate documentation approved by us and, if applicable, duly executed and delivered by the Company and the Trustee; and (iii) the Debt Securities will be executed, authenticated, issued and delivered in accordance with the provisions of the Indenture.

With respect to any Securities consisting of Subscription Rights, we have further assumed that: (i) the subscription rights agreement, approved by us, relating to the Subscription Rights (the "**Subscription Rights Agreement**") to be entered into between the Company and an entity selected by the Company to act as the subscription rights agent (the "**Subscription Rights Agent**") will have been authorized, executed and delivered by the Company and the Subscription Rights Agent and (ii) the Subscription Rights will be authorized, executed and delivered by the Company and the Subscription Rights Agent in accordance with the provisions of the Subscription Rights Agreement.

With respect to any Securities consisting of Warrants, we have further assumed that (i) the warrant agreement, approved by us, relating to the Warrants (the "**Warrant Agreement**") to be entered into between the Company and an entity selected by the Company to act as the warrant agent (the "**Warrant Agent**") will have been authorized, executed and delivered by the Company and the Warrant Agent, and (ii) the Warrants will be authorized, executed and delivered by the Company and the Warrant Agent in accordance with the provisions of the Warrant Agreement.

With respect to any Securities consisting of Units, we have further assumed that each component of such Unit will be authorized, validly issued, fully paid and nonassessable (to the extent applicable) and will constitute a valid and binding obligation of the Company or any third party (to the extent applicable) as contemplated by the Registration Statement and the applicable unit agreement, if any.

The opinions expressed herein are limited by bankruptcy, insolvency, reorganization, fraudulent transfer and fraudulent conveyance, voidable preference, moratorium or other similar laws and related regulations and judicial doctrines from time to time in effect relating to or affecting creditors' rights generally, and by general equitable principles and public policy considerations, whether such principles and considerations are considered in a proceeding at law or in equity.

As to facts material to the opinions and assumptions expressed herein, we have relied upon oral or written statements and representations of officers and other representatives of the Company and others. The opinions expressed herein are limited to the laws of the State of New York and the General Corporation Law of the State of Delaware, in each case as currently in effect, and we express no opinion as to the effect of the laws of any other jurisdiction.

We hereby consent to the filing of this opinion as Exhibit 5.1 to the Registration Statement and to the reference to Jones Day under the caption "Legal Matters" in the prospectus constituting a part of such Registration Statement. In giving such consent, we do not thereby admit that we are included in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission promulgated thereunder.

Very truly yours,

/s/ Jones Day

Consent of Independent Registered Public Accounting Firm

We consent to the reference to our firm under the caption “Experts” in this Registration Statement (Form S-3) and related Prospectus of Calyxt, Inc. for the registration of common stock, shares of preferred stock, warrants, subscription rights, and units or debt securities, and to the incorporation by reference therein of our report dated March 3, 2022, with respect to the consolidated financial statements of Calyxt, Inc. included in its Annual Report (Form 10-K) for the year ended December 31, 2021, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP  
Minneapolis, Minnesota  
September 19, 2022

## Calculation of Filing Fee Tables

Form S-3  
(Form Type)

## Calyxt, Inc.

(Exact Name of Registrant as Specified in its Charter)

Table 1—Newly Registered and Carry Forward Securities

	Security Type	Security Class Title	Fee Calculation or Carry Forward Rule	Amount Registered	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee	Carry Forward Form Type	Carry Forward File Number	Carry Forward Initial Effective Date	Filing Fee Previously Paid In Connection with Unsold Securities to be Carried Forward
Newly Registered Securities												
Fees to Be Paid	—	—	—	—	—	—	—	—	—	—	—	—
Fees Previously Paid	—	—	—	—	—	—	—	—	—	—	—	—
Carry Forward Securities												
Carry Forward Securities	Equity	Common Stock, par value \$0.0001 per share	415(a)(6)	(1)	(2)	(3)	—	—	S-3	333-233231	September 27, 2019	(4)
Carry Forward Securities	Equity	Preferred Stock, par value \$0.0001 per share	415(a)(6)	(1)	(2)	(3)	—	—	S-3	333-233231	September 27, 2019	(4)
Carry Forward Securities	Other	Warrants	415(a)(6)	(1)	(2)	(3)	—	—	S-3	333-233231	September 27, 2019	(4)
Carry Forward Securities	Other	Subscription Rights	415(a)(6)	(1)	(2)	(3)	—	—	S-3	333-233231	September 27, 2019	(4)
Carry Forward Securities	Other	Units	415(a)(6)	(1)	(2)	(3)	—	—	S-3	333-233231	September 27, 2019	(4)
Carry Forward Securities	Debt	Debt Securities	415(a)(6)	(1)	(2)	(3)	—	—	S-3	333-233231	September 27, 2019	(4)
Carry Forward Securities	Unallocated (Universal) Shelf	(1)	415(a)(6)	\$50,000,000 (1)	(2)	\$50,000,000 (3)	0.0001212	—	S-3	333-233231	September 27, 2019	\$6,060.00 (4)
Total Offering Amounts						\$50,000,000		—				
Total Fees Previously Paid								—				
Total Fee Offsets								—				
Net Fees Due								\$0.00 (4)				

(1) The amount to be registered consists of up to \$50,000,000 of an indeterminate amount of common stock, preferred stock, warrants, subscription rights, units or debt securities (the "Carry-Forward Securities"). There is also being registered hereunder such currently indeterminate number of (i) shares of common stock or other securities of the registrant as may be issued upon conversion of, or in exchange for, convertible or exchangeable debt securities and/or preferred stock registered hereby, or (ii) shares of preferred stock, common stock or debt securities as may be issued upon exercise of warrants registered hereby, as the case may be. Any securities registered hereunder may be offered separately or in combination with the other securities registered hereunder.

(2) The proposed maximum aggregate offering price per unit will be determined from time to time by the registrant in connection with the issuance by the registrant of the securities registered hereunder.

(3) Estimated pursuant to Rule 457(o) under the Securities Act. In no event will the aggregate offering price of all securities sold by the registrant from time to time pursuant to this registration statement exceed \$50,000,000. No separate consideration will be received for (i) common stock or other securities of the registrant that may be issued upon conversion of, or in exchange for, convertible or exchangeable debt securities and/or preferred stock registered hereby, or (ii) preferred stock, common stock or debt securities that may be issued upon exercise of warrants registered hereby, as the case may be.

(4) The Carry-Forward Securities consist of securities previously registered under the Registration Statement on Form S-3 (File No. 333-233231), initially filed with the Securities and Exchange Commission on August 13, 2019, as amended on September 16, 2019 and declared effective on September 27, 2019 (the "2019 Registration Statement"), to register such securities with an aggregate maximum offering price of \$200,000,000. Registrant paid a registration fee of \$24,240 in connection with the 2019 Registration Statement. As of the date of this registration statement, an aggregate of \$169,958,400 of securities registered on the 2019 Registration Statement remain unsold. Pursuant to Rule 415(a)(6), the unsold securities are being moved from the 2019 Registration Statement to this registration statement and the registration fee of \$6,060.00 (calculated at the filing fee rate in effect at the time of the filing of the 2019 Registration Statement) previously paid by the registrant relating to the unsold securities included on this registration statement will continue to be applied to such unsold securities and no additional filing fee is due with respect to the Carry-Forward Securities in connection with the filing of this registration statement. During the grace period afforded by Rule 415(a)(5) under the Securities Act, the registrant may continue to offer and sell under the 2019 Registration Statement the Carry-Forward Securities being registered hereunder. To the extent that, after the filing date hereof and prior to the effectiveness of this registration statement, the registrant sells any Carry-Forward Securities under the 2019 Registration Statement, the registrant will identify in a pre-effective amendment to this registration statement the updated amount of Carry-Forward Securities from the 2019 Registration Statement to be included in this registration statement pursuant to Rule 415(a)(6) under the Securities Act and the updated amount of new securities to be registered on this registration statement. Pursuant to Rule 415(a)(6) under the Securities Act, the offering of Carry-Forward Securities under the 2019 Registration Statement will be deemed terminated as of the date of effectiveness of this registration statement.