UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-K

[☒] **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d)
OF THE SECURITIES EXCHANGE ACT OF 1934**

For the Fiscal Year Ended December 31, 2020

[☐] **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d)
OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from _________ to _________.**

Commission File Number: 001-37921

FORTERRA, INC.

(Exact name of registrant as specified in its charter)

Delaware	**37-1830464**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)

511 East John Carpenter Freeway, 6th Floor, Irving, TX 75062
(Address of principal executive offices, including zip code)
(469) 458-7973
(Registrant's telephone number, including area code)

Securities Registered Pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol	Name of each exchange on which registered
Common Stock, $0.001 par value per share	FRTA	Nasdaq Stock Market LLC

Securities Registered Pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes [ ] No [x]

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes [ ] No [x]

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes [x] No [ ]

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes [x] No [ ]

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting 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
☐	x	☐	☒	☐

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 13(a) of the Exchange Act. [ ]

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. [☒]

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes [☐] No [☒]

As of February 22, 2021, 66,263,762 shares of the registrant's common stock, $0.001 par value per share, were issued and outstanding. The aggregate market value of the registrant's common stock, $0.001 par value, held by non-affiliates of the registrant was approximately $212,488,000, based upon the closing market price of $11.16 per share of common stock on the Nasdaq Global Select Market as of June 30, 2020.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's Definitive Proxy Statement to be filed with the Securities and Exchange Commission no later than 120 days after the end of the Registrant's fiscal year ended December 31, 2020, are incorporated by reference in Part III of this Annual Report on Form 10-K.

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CAUTIONARY STATEMENT CONCERNING FORWARD-LOOKING STATEMENTS

Certain statements and information in this Annual Report on Form 10-K may constitute “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. These forward-looking statements relate to matters such as our industry, business strategy, goals and expectations concerning our market position, future operations, margins, profitability, capital expenditures, liquidity, capital resources and other financial and operating information. We have used the words “approximately,” “anticipate,” “assume,” “believe,” “contemplate,” “continue,” “could,” “estimate,” “expect,” “future,” “intend,” “may,” “plan,” “potential,” “predict,” “project,” “seek,” “should,” “target,” “will” and similar terms and phrases to identify forward-looking statements. All of our forward-looking statements are subject to risks and uncertainties that may cause actual results to differ materially from those that we are expecting, including:

- the impact of the COVID-19 pandemic on the economy, demand for our products and our business, financial condition and results of operations, including the measures taken by governmental authorities in response;
- government funding of infrastructure and related construction activities;
- the level of construction activity, particularly in the residential construction and non-residential construction markets;
- the highly competitive nature of our industry and our ability to effectively compete;
- the availability and price of the raw materials and other inputs we use in our business;
- our dependence on key customers and the absence of long-term agreements with these customers;
- the level of construction activity in Texas;
- disruption at one or more of our manufacturing facilities or in our supply chain;
- construction project delays and our inventory management;
- the seasonality of our business and its susceptibility to adverse weather;
- our ability to successfully integrate acquisitions;
- labor disruptions and other union activity;
- compliance with applicable regulations;
- a tightening of mortgage lending or mortgage financing requirements;
- the ability to implement our growth strategy;
- compliance with environmental laws and regulations;
- energy costs;
- changes in tax laws could adversely affect us;
- compliance with health and safety laws and regulations;
- our dependence on key executives and key management personnel;

- our ability and that of the customers with which we work to retain and attract additional skilled and non-skilled technical or sales personnel;
- credit and non-payment risks of our customers;
- warranty and related claims;
- legal and regulatory claims;
- our contract backlog;
- our ability to maintain sufficient liquidity and ensure adequate financing or guarantees for large projects;
- delays or outages in our information technology systems and computer networks;
- security breaches in our information technology systems and other cybersecurity incidents;
- risks associated with merger transactions generally, such as the inability to obtain, or delays in obtaining, required approvals under applicable anti-trust legislation and other regulatory and third party consents and approvals;
- the failure to consummate or delay in consummating the merger for other reasons;
- the risk that a condition to closing of the merger may not be satisfied;
- the occurrence of any event, change or other circumstances that could give rise to the termination of the merger agreement;
- the outcome of any legal proceedings that may be instituted following announcement of the merger;
- failure of Parent to obtain the financing required to consummate the merger;
- failure to retain our key management and employees;
- issues or delays in the successful integration of our operations with those of Parent, including incurring or experiencing unanticipated costs and/or delays or difficulties;
- unfavorable reaction to the merger by customers, competitors, suppliers and employees; and
- additional factors discussed in our filings with the Securities and Exchange Commission, or the SEC.

The forward-looking statements contained in this Annual Report on Form 10-K are based on historical performance and management's current plans, estimates and expectations in light of information currently available to us and are subject to uncertainty and changes in circumstances. There can be no assurance that future developments affecting us will be those that we have anticipated. Actual results may differ materially from these expectations due to changes in global, regional or local political, economic, business, competitive, market, regulatory and other factors, many of which are beyond our control, as well as the other factors described in Item 1A, "Risk Factors". The COVID-19 pandemic may also precipitate or exacerbate these and other unknown risks and uncertainties. Additional factors or events that could cause our actual results to differ may also emerge from time to time, and it is not possible for us to predict all of them. Should one or more of these risks or uncertainties materialize, or should any of our assumptions prove to be incorrect, our actual results may vary in material respects from what we may have expressed or implied by these forward-looking statements. We caution that you should not place undue reliance on any of our forward-looking statements. Any *forward-looking statement made by us speaks only as of the date on which we make it. We undertake no obligation to publicly update any forward-looking statement, whether as a result of new information, future developments or otherwise, except as may be required by applicable securities laws.*

PART I

Item 1. Business

On March 13, 2015, through an indirect wholly owned subsidiary, Lone Star Fund IX (U.S.), L.P. (which is referred to, along with its affiliates and associates, but excluding us and other companies that it owns as a result of its investment activity, as Lone Star) acquired the building products business of HeidelbergCement AG, or HC, in the United States and Eastern Canada, or the Acquisition. Unless otherwise specified or where the context otherwise requires, references in this Annual Report on Form 10-K to “our,” “we,” “us,” the “Company” and “our business” refer to the operations of Forterra, Inc., together with its consolidated subsidiaries. We are a holding company incorporated in Delaware in 2016. We are controlled by Lone Star and have been operating as a stand-alone company since 2015.

Recent Developments

On February 19, 2021, we entered into an Agreement and Plan of Merger, or the Merger Agreement, with Quikrete Holdings, Inc., a Delaware corporation, or Parent, and Jordan Merger Sub, Inc., a Delaware corporation and a wholly-owned subsidiary of Parent, or Merger Sub. Pursuant to the Merger Agreement, subject to the satisfaction or waiver of specified conditions, Merger Sub will merge with and into the Company, or the Merger, with us surviving the Merger as a wholly-owned subsidiary of Parent. At the effective time of the Merger, each issued and outstanding share of common stock of the Company (other than (i) any shares held in the treasury of the Company or owned, directly or indirectly, by Parent, Merger Sub or any wholly-owned subsidiary of the Company immediately prior to the Effective Time, (ii) shares that are subject to any vesting restrictions (“Company Restricted Shares”) granted under the Company’s stock incentive plans, (iii) any shares owned by stockholders who have properly exercised and perfected appraisal rights under Delaware law) will be automatically canceled and converted into the right to receive $24.00 in cash, without interest (the “Merger Consideration”), subject to deduction for any required withholding tax. See Item 7, Management's Discussion and Analysis, Overview for a more fulsome description of the Merger, the Merger Agreement and its terms and expected impact on our business.

General

We are a manufacturer of concrete pipe and precast products and ductile iron pipe in the United States and Eastern Canada for a variety of essential water-related infrastructure applications. Our products and services are used in the construction, maintenance, repair and replacement of water drainage, distribution and transmission systems.

Our manufacturing and distribution network allows us to serve most major markets in the United States and Eastern Canada. We operate 77 active manufacturing facilities with capacity that allows us to serve our customers' needs.

We manufacture both water drainage pipe and precast structures (used primarily for storm water and drainage applications) and water transmission and distribution pipe (used primarily to transport potable water and as a component of wastewater systems) and believe our complementary product portfolio is well positioned to serve both (i) the storm water and wastewater infrastructure market and (ii) the potable water transmission and distribution market. We serve a diverse set of end markets, including infrastructure, residential, and non-residential construction, which allows us to benefit from both secular and cyclical growth across each of these end-markets. The infrastructure, residential, and non-residential end markets in the United States and Eastern Canada have different growth drivers and operating dynamics, and the cyclical performance of these markets has historically been staggered during different stages of the broader economic cycle serving to mitigate the cyclical impact of any one single market on our business. In addition, given the nature of water as a basic necessity, municipalities generally repair and replace their existing water and wastewater infrastructure.

Our operational strategy is focused on our five improvement pillars:

- *Health and Safety* — Prioritizing the health and safety of our employees above anything else; our most productive facilities should be our safest
- *Plant-level Operational Discipline* — Making daily improvements using our manufacturing/process know-how to drive efficiencies with disciplined financial investment
- *Enhanced Commercial Capabilities*—Investing in our sales force to expand capabilities and better inform our customers of our compelling value proposition
- *Working Capital Efficiency*—Having the right levels of inventory in the right places at the right times and aligning our accounts receivable and accounts payable cycles
- *G&A Effectiveness*—Delivering deeper information faster and at a lower cost so operators can make better business decisions

Our solid execution on these five pillars has produced, and we believe will continue to produce, the earnings and cash flows to continue to reduce our net leverage ratio to our stated mid-term target of 3.0x to 3.5x earnings. Our organic growth strategy is focused on leveraging our operations, customer service and product innovation capabilities, as well as our product breadth and scale, to sell our products to existing customers, to increase penetration and project wins and to gain market share through new customers. Operationally, we continue to focus on efficiency and productivity improvements to reduce costs and drive unit margin improvements. We periodically evaluate our existing business and acquisition opportunities to complement our organic growth or enhance our scale, geographic footprint and product portfolio while simultaneously considering and making strategic divestitures or changes in our manufacturing footprint to optimize our portfolio. See Note 3 to our consolidated financial statements for a more detailed discussion of our recent acquisitions and divestitures.

Our Segments

Drainage Pipe & Products. We are the largest producer of concrete drainage pipe and precast products by sales volume in the United States and Eastern Canada. In addition, we also produce concrete pressure pipe in Eastern Canada. We operate 62 active manufacturing facilities across multiple states and a Canadian province. These facilities provide us with a local presence and the necessary proximity to our customers to minimize delivery times and distribution costs to the markets we serve. We believe our product offering creates value for our customers as it eliminates the need to engage multiple suppliers of storm water and wastewater-related products for a single project, enabling them to maximize efficiency and meet more aggressive timetables. We also have the ability to custom-build products to complex specifications and regulations.

Drainage pipe has residential, non-residential and infrastructure applications. It is primarily used for storm water applications, such as storm drains for roads and highways, and for residential and non-residential site developments. In addition, drainage pipe is used for sanitary sewers, low-pressure sewer force mains, tunneled systems, treatment plant piping and utility tunnels.

Water Pipe & Products. We are the largest producer of ductile iron pipe, or DIP, by sales volume in the United States. Utilizing the U.S. Pipe brand, we manufacture a number of products used for the transmission of potable water and wastewater in pipe diameters typically ranging from three to 64 inches. Our product breadth and depth and our technical service address a range of our customers' water transmission and distribution needs. Our 15 manufacturing facilities are located across the United States, with swing capacity available to support increased production levels as appropriate to satisfy increased demand.

Key Segments	Drainage Pipe & Products	Water Pipe & Products
Products		
Product Applications	Storm water and wastewater infrastructure	Potable and wastewater transmission and distribution
Primary Market Channels	- Direct to Contractors - Distributors	- Distributors - Direct to Contractors, Municipalities and Utilities Waterworks
# of Active Manufacturing Facilities	62	15

Corporate and Other. Corporate, general and administrative expenses not allocated to our revenue-generating segments, such as certain shared services, executive and other administrative functions.

Our Industry and Core End Markets

We serve a range of infrastructure-related end markets. Based on the source of funding, we classify these construction markets into infrastructure/municipal, residential and non-residential.

Infrastructure

Infrastructure represents spending by federal, state, and local governments for the construction and repair of streets, highways, storm and sanitary sewers, as well as the construction and repair of water lines for the delivery of potable water, which are often supported by multi-year federal and state legislation and programs. It also includes local municipalities water infrastructure spending associated with the construction, repair and replacement of water transportation and distribution systems. Spending on these items is driven by federal, state and municipal funding for both new build and repair projects. In addition to availability of funding at the federal, state and municipal levels, these programs are impacted by other factors, including demographic and population shifts and the ability of contractors to obtain skilled labor.

A large proportion of U.S. water infrastructure is approaching, or has already reached, the end of its useful life. According to The American Society of Civil Engineers, or ASCE, many drinking water pipes in the U.S. were laid from 1900 to 1950. Today, aging pipelines contribute to the estimated 240,000 water main breaks per year in the U.S., wasting over two trillion gallons of treated drinking water. Additionally, lead pipes and fixtures, which were commonly installed through the mid-20th century, are still in service in some cities. The American Water Works Association estimated that the need for buried drinking water infrastructure in the U.S. through 2050 totals nearly $1.7 trillion, about 54% of which is needed for replacement of existing infrastructure and the balance being necessary to accommodate population growth and migration over that period. ASCE gave the U.S. wastewater infrastructure a grade of D+ and, in 2017, estimated that 56 million new users would be connected to centralized treatment systems over the next 15 years requiring at least $271 billion to meet current and future demands and to upgrade existing infrastructure. Likewise, the ASCE grades the U.S. surface transportation (roads, bridges, and transit) infrastructure D/C+/D- and has identified over $1 trillion in additional spending needed to repair and upgrade existing structures as well as construction of new facilities to accommodate growth through 2025. As the leader in our respective markets serving the water related infrastructure industry, we believe we are well positioned to benefit from this much needed spending to repair and upgrade U.S. infrastructure.

Residential Construction

Residential construction includes single family homes and multi-family units such as apartments and condominiums. In this end market, our products are primarily used during the new lot development phase of construction. New residential housing starts provide a strong leading indicator of increased activity in the residential construction market for water transmission, wastewater and drainage systems. Demand for residential construction is influenced by demographic and population shifts, mortgage interest rates, and the ability of builders to obtain skilled labor. U.S. residential new construction peaked in 2006 before experiencing a downturn from 2007 to 2011. Since 2011, the recovery of residential new construction has translated into increased demand for our products and we believe we are well-positioned to capitalize as and to the extent this trend continues. In 2020, total annual housing starts in the United States increased to 1.7 million, an increase of 5.2% above 2019 housing starts according to the U.S. Census Bureau and the U.S. Department of Housing and Urban Development. Since 1974, annual additions to the housing supply exceeded household growth by an average of 30% to accommodate replacement of older units, demand for second homes, geographic shifts in the population, and a normal amount of vacancies. However, for most of the last decade, housing production has barely kept pace with household formation. We believe this indicates there is significant pent up demand for housing and that the market will see continued growth. The Joint Center for Housing Studies of Harvard University estimates annual construction should now be on the order of 1.5 million units, or about 210,000 higher than in 2019.

Non-residential Construction

Non-residential construction includes all privately financed construction other than residential structures. Revenues in this end-market are driven largely by new United States non-residential construction, for which demand is generally driven by job growth, vacancy rates, private infrastructure needs and demographic trends. Our products in this end market tend to be utilized primarily in shopping centers and similar types of suburban development as opposed to development of large office buildings, and we believe that the demand for suburban development should be stable to growing over the short to medium term. The supply of non-residential construction projects is also affected by the availability and cost of funding.

Our Products

Drainage Pipe & Products Segment

We manufacture drainage pipe and precast products in the United States and Eastern Canada. We also manufacture concrete pressure pipe products in Eastern Canada. Drainage pipe has residential, non-residential and infrastructure applications. It is primarily used for storm water applications, such as storm drains for roads and highways, and for residential and non-residential site developments. In addition, drainage pipe is used for sanitary sewers, low-pressure sewer force mains, tunneled systems, treatment plant piping and utility tunnels.

Drainage pipe consists of concrete reinforced by a steel cage. It is manufactured by producing a steel mesh cage, enclosing it in a form or mold and then pouring concrete around it to produce the pipe. Drainage pipe is manufactured in round, elliptical and arch shapes ranging from 12 inches to 144 inches in diameter and in box sizes ranging from three feet to 20 feet in length and width. We also manufacture a wide variety of precast concrete products, including box culverts, utility vaults, manholes, drainage inlets and pipe end sections. These precast concrete products are used for applications such as roadway drainage, airport drainage, storm water management, utility construction and water treatment and filtration systems. Our range of precast concrete products also includes products that fall under the general description of specialty precast, including products for which we hold patents that make us the exclusive manufacturer, or which are manufactured under license agreements with third parties. These specialty products include architectural panels for buildings, modular railroad crossings, retaining wall systems, highway noise barriers, storm water treatment systems and concrete vaults, which are used to house either dry utilities (such as electrical, data or communications equipment) or wet utilities (such as valves, pumps or water meters).

We also manufacture structural precast products in the United States and manufacture a range of precast concrete bridge girders for highway projects in both the United States and Eastern Canada. We manufacture a variety of structural precast products primarily for infrastructure and non-residential applications, including hollow-core planks, prestressed bridge girders, beams, columns, wall panels, stairs, garage floors and architectural cladding. These products are used as structural and architectural elements in building structures such as parking garages and arched and modular bridges.

Precast concrete products are reinforced with steel, similar to pipe, and manufactured using either a dry cast or wet cast concrete mix, depending on the size of the piece and the number of identical pieces to be manufactured. In the dry cast method, a concrete mix with low water content, known as zero-slump concrete, is poured into a mold and then densely compacted around the steel reinforcement using a variety of manufacturing methods. The concrete structure is immediately removed from the mold and allowed to cure in a high humidity environment to ensure proper hydration of the concrete. This method allows multiple pieces to be produced from the same mold each day and is most suitable for high volume, repetitive manufacturing. In the wet cast method, a concrete mix with relatively high water content is poured into a mold and allowed to cure in the mold, which can take from four to 16 hours. Precast concrete products typically range in diameter from four to 12 feet for round products or in length and width from one foot to 12 feet for square or rectangular products.

We also regularly consider ways to innovate internally and expand our drainage pipe and precast product offerings by working to bring other products to market. Some of our product offerings include precast Duct Bank, Kenner Chainwall, and a number of storm water innovative technologies for storm water management marketed through our Bio Clean subsidiary. Kenner Chainwall is a precast concrete foundation that provides a structurally sound, on-grade or elevated foundation to support prefabricated shelters or equipment buildings. One use is to elevate electrical equipment in flood zones such as those devastated by hurricanes. Duct Bank is a precast product that consolidates and protects underground electrical and communication cables and can be used in the construction of large buildings as well as installing cabling underneath roads and areas with existing structures. Each of these products is now commercially available.

In addition, for larger diameter applications, we manufacture concrete pressure pipe, prestressed concrete pipe and bar-wrapped concrete pipe in Eastern Canada. Our concrete pressure pipe is used for water transmission and distribution, power plant cooling water lines, sewage force mains for wastewater and storm water and other diverse applications involving the movement of large volumes of water. Concrete-lined pressure pipe ranges from fourteen to 144 inches in diameter. Prestressed concrete pipe consists of a concrete core, a steel cylinder and a high tensile strength wire that is wrapped, under measured tension and at uniform spacing, around the steel cylinder. This wire wrap places the steel cylinder and concrete core in compression, developing the pipe’s ability to withstand specified hydrostatic pressures and external loads. An outside coating of mortar protects the wires. Bar-wrapped concrete cylinder pipe combines the physical strength of steel with the structural and protective properties of high strength cement mortar. In this type of pipe, a round steel bar is helically wound around a welded steel cylinder and all surfaces are encased in cement mortar. This composite pipe reacts as a unit when resisting internal pressure and external loads. The inside of the cylinder is lined with centrifugally cast cement mortar.

Our concrete pressure pipe is highly engineered and is built to order for technically demanding applications requiring various thresholds of working pressure, surge pressure and loads. Our engineers work closely with customers to design components and systems to meet specific regulatory and industrial demands.

In addition to our operations, we have a 50% equity interest in Concrete Pipe & Precast LLC, or CP&P, a joint venture with Eagle Corporation. CP&P operates 12 plants that serve the Mid-Atlantic and Southeastern United States. CP&P manufactures drainage pipe and precast concrete products and sells those products to similar types of customers as the ones to which we market. See Note 6 to our consolidated financial statements for additional information regarding CP&P.

Water Pipe & Products Segment

Utilizing the U.S. Pipe brand, we manufacture a number of products used for the transmission of potable water and wastewater in pipe diameters ranging from three to 64 inches.

We manufacture DIP in pipe diameters ranging from three to 64 inches in the United States. For each diameter of pipe, we offer a wide range of thicknesses with both standard and specialized linings and coatings. DIP is used for transmission and distribution of potable water and wastewater and is typically utilized for smaller diameter applications of 24 inches and smaller. DIP has residential and infrastructure repair replacement applications, including potable water distribution systems, small water system grids, major water transmission mains, wastewater collection systems, sewer force mains and water treatment plants. In addition to DIP, we also manufacture a full line of complementary joint restraints and fittings in Mexico, which are utilized for interlocking adjoining segments of pipe and are typically bundled with DIP. We also operate fabrication plants that modify our pipe to meet specific customer design requirements for above-ground applications.

DIP is manufactured using a process that consists of introducing molten iron into a rapidly-rotating steel mold and relying on centrifugal force to distribute the molten iron evenly around the inner surface of the mold to produce pipe of uniform size and dimensions. We also strive to innovate in our Water Pipe & Products segment, including by offering metallic zinc coating and TR-XTREME pipe. Metallic zinc coating is active corrosion protection for DIP. TR-XTREME pipe is DIP designed for areas of seismic activity and has joints that provide flexible extension capabilities.

Customers and Markets

Drainage Pipe & Products Segment

We typically sell our drainage pipe and precast products to contractors that perform construction work for various levels of government, residential and non-residential building owners, and developers in markets across the United States and Eastern Canada. Additionally, although they are not our direct customers, we view the owners and engineers who are customers of the contractors that purchase our products as our customers as well, because these owners and engineers often specify the types of products that our customers are required to use. We also sell our drainage pipe and precast products to utility companies. Several of our largest manufacturing facilities are located in close proximity to our markets. Our drainage pipe and precast products are typically shipped within a radius of 150 miles, but in some cases up to 350 miles, from our manufacturing facilities. Our pressure pipe is used in projects for regional water authorities and districts, cities, counties, municipalities, port authorities, private companies and industrial clients, including power plants.

Water Pipe & Products Segment

Our water transmission pipe products are sold to some of the largest waterworks distributors and contractors. Our Water Pipe & Products segment has significant sales through distributors, including Core & Main, a key customer that accounted for 16% and 15% of our consolidated net sales in 2020 and 2019, respectively. We also sell to utility contractors that work on new or replacement pipeline projects, primarily in the East, South and Midwest of the United States. DIP is typically shipped within a radius of 1,000 miles and concrete pressure pipe is typically shipped within a radius of 500 miles from our manufacturing facilities.

Competition

Drainage Pipe & Products Segment

Our competitors in our Drainage Pipe & Products Segment include Rinker Materials (a division of the QUIKRETE Companies) and Oldcastle Infrastructure (a unit of CRH plc), as well as numerous regional and local manufacturers. Additionally, our drainage pipe products compete with high density polyethylene, or HDPE, and polypropylene pipe products where such materials would serve as an appropriate substitute for our product.

Within Canada, our concrete pressure pipe products compete with DECAST (formerly Munro Concrete Products, Ltd.) and several other American and Canadian competitors. Our concrete-lined pressure pipe also competes with pressure pipe made from other materials such as fiberglass, HDPE and PVC.

Water Pipe & Products Segment

Our two largest competitors in DIP manufacturing are McWane, Inc. and American Cast Iron Pipe Company. Our DIP products also compete with polyvinyl chloride, or PVC, and HDPE pipe and, when pricing achieves certain levels, we may also compete with foreign manufacturers of DIP. Our national network of fabrication products competes with regional and local providers of those products and services.

Sales, Marketing and Distribution

Our products are generally made to order, but certain of our products are made to inventory. We have established target levels of inventory for certain products that we attempt to keep available at our manufacturing facilities to meet customer demand. Inventories are held at manufacturing facilities and, to a lesser extent, at distribution yards.

Our structural precast products, most precast concrete products and concrete pressure pipe are customized products that are made to order. Our order backlog for precast concrete products is typically two to six months. Our order backlog for concrete pressure pipe and other precast offerings (bridge products) is approximately eight months.

We seek to attract and retain customers through customer service and technical expertise, as well as product quality, our product and service offerings and competitive pricing. Our market strategy for products with non-residential end users is centered on building and maintaining strong customer relationships rather than traditional advertising.

We maintain in-house technical sales, engineering and field service teams which provide customers technical expertise and support to assist them in finding the right product or solution for their specific need. Each of our operating segments has its own sales force. Overall, we employ more than 300 sales and related support professionals. Our sales force and customer service functions are staffed by experienced professionals who have been trained in our product lines, processes and systems, and who maintain touch points with engineers, contractors, builders, and distributors. Additionally, we have a staff of more than 130 engineers that we employ to work in concert with our sales force to help develop effective product solutions for our customers.

We sell our DIP products and our fittings and fabricated products primarily through distributors. Our drainage pipe, concrete pressure pipe, and precast concrete products are mostly sold direct to customers who are installing such products for or are the end users of such products. Drainage pipe, concrete pressure pipe, and certain precast products are sold through a bidding process in which we seek to place the most competitive bid. We undertake marketing efforts through our participation in trade shows and through our website. We outsource many of our product deliveries by using a combination of dedicated carriers and other third-party carriers.

Raw Materials and Inputs

The primary material for our drainage pipe and precast concrete products and our concrete pressure pipe is concrete, which consists of water, cement and aggregates. Another key input for our products is steel, which is used to provide reinforcement within our drainage pipe and precast concrete products. Our DIP is largely made from iron melted from recycled scrap metals. Other key materials for our DIP include foundry coke and certain additives, such as alloys.

Most of our raw materials are widely available commodities. We have not experienced any significant shortages of raw materials. To the extent we do not produce any raw materials, when and where possible, we try to purchase raw materials from the source, and because of their low value-to-weight ratios, we generally try to source our raw materials in the vicinity of our facilities. We usually purchase the raw materials we need in the spot market, except where we anticipate a significant need of materials for a specific project. Other than certain contracts for key materials, including cement and steel, we typically do not enter into long-term supply contracts with our suppliers that require us to purchase particular quantities or to pay particular prices.

We purchase our steel from a number of different suppliers, but most suppliers are based in the United States in order to comply with "Buy America" government contract requirements placed on our customers. We endeavor to purchase these steel supplies from the entity which is as close as possible to the manufacturer.

To manufacture DIP, fabricated products and fittings, we purchase scrap metal directly from qualified scrap sources near our foundry sites in the United States and Mexico. We utilize certain categories of scrap metal, primarily shredded automobile bodies, plate & structural, and cast iron. We purchase foundry coke from two merchant coke producers in the United States, both located in Birmingham, Alabama. Major alloys and additives are procured from both domestic and foreign sources based on a semiannual bid process.

Seasonality

The construction industry, and therefore demand for our products, is typically seasonal and dependent on weather conditions, with periods of snow or heavy rain negatively affecting construction activity. For a more detailed discussion, see the sections titled Item 1A., Risk Factors, and Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations, for a discussion of the seasonality of our business.

Employees

As of December 31, 2020, we had 4,581 employees, or team members, 1,371 of which were salaried and 3,210 of which were hourly. Of the total number of team members, 4,053 were located in the United States, 283 were located in Canada and 245 were located in Mexico. The number of hourly workers we employ varies to match our labor needs during periods of fluctuating demand and varies seasonally in certain regions. We also employ temporary workers as needed to meet production goals.

As of December 31, 2020, approximately 33% of our workforce is covered by collective bargaining agreements, and approximately 24% of these team members are included in collective bargaining agreements that expire within one year of December 31, 2020. We have not had any recent union-organized work stoppages in the United States, Canada or Mexico. We believe that we have good relationships with our team members and with the unions representing our team members.

Health and Safety

We believe there is nothing more important than the health, safety and wellness of our team members; we believe this commitment is both a moral imperative and is fundamental to driving success in our business. We are committed to providing a safe and healthy working environment for our team members and are constantly looking for ways to improve our facilities and processes in order to better serve these goals. We also provide team members and their families with access to programs that promote their health and wellness, including wellness and disease prevention programs, employee assistance programs, and comprehensive health care benefits. In response to the COVID-19 pandemic, we implemented numerous policies and initiatives to assure that our team members, many of whom were essential infrastructure workers, could operate in an environment that promoted each individual's health and safety, to provide paid leave and other benefits to employees directly impacted by the pandemic, and to allow those team members whose roles enabled them to work from home to do so.

Compensation and Benefits

In order to attract, retain, and engage our team members to drive our success, we provide compelling compensation and benefit programs that are competitive in our markets. Our programs include a combination of some or all of the following: competitive market-based pay, bonuses, stock awards, defined contribution retirement plans with Company matching contributions, including an additional discretionary contribution to all participants in 2020 to reward excellent performance, healthcare and insurance benefits, health savings and flexible spending accounts, wellness programs, company-paid life insurance, paid time off, family leave, employee assistance programs, tuition assistance, flexibility to allow work from home in certain situations including in response to the COVID-19 pandemic, reimbursement for some health and fitness programs, and many others.

These benefits can vary in our Canada and Mexico locations based on local availability and regulations. We are committed to ensuring equal pay for equal work regardless of gender, race or ethnicity.

Talent Development

We know that our continued success depends on our ability to engage with our team members and grow them into the future leaders our business needs. To that end, we have implemented robust learning management tools and are focused on developing our team members. Recent areas of focus have included implementation of a comprehensive program to develop skills for our sales professionals as well as development of a front-line leader training system for our plant-level supervisors. In addition, we periodically conduct an survey to determine where our team members are engaged and where we can improve.

Diversity and Inclusion

One of our core values is respect for people, and that includes providing a workplace that is committed to valuing diversity and inclusion of people of all backgrounds, regardless of race, ethnicity, gender, age, religious belief, disability, sexual orientation, gender identity, or cultural background. As of December 31, 2020, underrepresented minorities (defined as those individuals who identify as Black/African American, Hispanic/Latinx, Native American, Pacific Islander and/or two or more races) represented 49.35% of our team members, and women represented approximately 9.9% of our workforce.

Intellectual Property

We own various United States and foreign patents, registered trademarks, trade names and trade secrets and applications for, or licenses in respect of, the same, that relate to our various business lines including a number of innovative technologies relating to storm water management. The U.S. Pipe name has been a recognized manufacturer of DIP for more than 115 years. We also license intellectual property for use in certain of our products from unaffiliated third parties. We believe that our patents, trademarks, trade names and trade secrets are adequately protected and that any expiration or other loss of one or more of our patents or other intellectual property rights would not have a material adverse effect upon our business, financial condition or results of operations.

Environmental, Health and Safety Matters

We are subject to a broad range of federal, state, provincial, local and foreign laws and regulations governing health and safety or the protection of the environment and natural resources, including, for example:

- the federal Resource Conservation and Recovery Act, or RCRA, and comparable state laws that impose requirements for the generation, handling, transportation, treatment, storage, disposal and cleanup of waste from our operations;
- the federal Comprehensive Environmental Response, Compensation, and Liability Act, or CERCLA, also known as "Superfund," and comparable state laws that govern the cleanup of hazardous substances that may have been released at properties currently or previously owned or operated by us or locations which we have sent waste for disposal;
- the federal Clean Water Act, or CWA, and analogous state laws and regulations that can impose detailed permit requirements and strict controls on discharges of waste water from our facilities; and
- the federal Clean Air Act, or CAA, and comparable state laws and regulations that impose obligations related to air emissions, including federal and state laws and regulations to address greenhouse gas, or GHG, emissions.

Environmental pre-construction and operating permits are, or may be, required for certain of the Company's operations, and such permits are subject to modification, renewal, and revocation. It is likely that we will be subject to increasingly stringent environmental standards in the future, particularly under air quality and water quality laws. It is also likely that we will be required to make additional expenditures, which could be significant, relating to environmental matters such as pollution controls, on an ongoing basis. As our operations involve, and have involved, the handling, transport and distribution of materials that are, or could be classified as, toxic or hazardous or otherwise as pollutants, there is some risk of contamination and environmental damage inherent in our operations and the materials and products we handle and transport. Consequently, we are subject to environmental laws that impose liability for historical releases of hazardous substances. We are also subject to a variety of health and safety laws and regulations dealing with occupational health and safety. Manufacturing sites can be inherently dangerous workplaces. Our sites often put our employees and others in close proximity with large pieces of mechanized equipment, moving vehicles, and manufacturing processes, and highly regulated materials and there is inherent risk of related liabilities in our operations. See Item 1A. Risk Factors.

We regularly monitor and review our operations, procedures, and policies for compliance with existing laws and regulations, changes in interpretations of existing laws and enforcement policies, new laws that are adopted, and new laws that we anticipate will be adopted that could affect our operations. For health and safety regulations, the Occupational Safety and Health Administration, or OSHA, sets minimum standards; we have adopted programs internally that are intended to meet or exceed these requirements.

Despite our compliance efforts, risk of environmental, health and safety liability is inherent in the operation of our business, as it is with other companies engaged in similar businesses, and there can be no assurance that environmental, health and safety liabilities will not have a material adverse effect on us in the future.

Our consolidated financial statements include estimated liabilities for future costs arising from environmental issues relating to our properties and operations. As of December 31, 2020, the Company had accrued environmental liabilities of approximately $1.6 million. See Note 2 to the consolidated financial statements.

We have been named as a potentially responsible party, or PRP, at sites identified by the EPA or state regulatory agencies for investigation and remediation under CERCLA, or comparable state statutes, generally referred to as Superfund sites, including Sylacauga, AL, North Birmingham, AL, Portland, OR and Chattanooga, TN. With respect to these Superfund sites for which we have received PRP notices, we are entitled to contractual indemnity by a third party, subject to the terms of the indemnity provisions contained in the relevant agreement. Our estimates of current liabilities factor in these indemnification rights and our assessment of the likelihood that the indemnitor will fulfill its obligations with respect to liabilities relating to such sites. To date, the indemnifying party has been fulfilling its indemnification obligation with respect to those Superfund sites, and we have no reason to believe it will not continue to do so. However, in the future, we can provide no assurance that the indemnifying party will continue to honor its obligations, or that the existing indemnities will be sufficient to cover the liabilities for such matters.

Available Information

Our web site address is *www.forterrabp.com*. Information contained on our website or connected thereto does not constitute a part of this Annual Report on Form 10-K or any other filing we make with the Securities and Exchange Commission, or the SEC. We make available on this web site under the “Investor Relations” section, free of charge, our annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K, and amendments to those reports, as soon as reasonably practicable after we electronically file those materials with, or furnish them to, the SEC. The SEC also maintains a web site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC at *www.sec.gov*. We also make available free of charge on our website our Corporate Governance Guidelines, our Code of Ethics, and the Charters of our Audit Committee, Nominating and Corporate Governance Committee, and Compensation Committee of our Board of Directors.

Item 1A. RISK FACTORS

Our business, operations and financial condition are subject to various risks and uncertainties. We have described below significant factors that may adversely affect our business, operations, financial performance and condition or industry. Additionally, the COVID-19 pandemic has amplified many of the other risks discussed below to which we are subject and, given the unpredictable, unprecedented, and fluid nature of the pandemic, it may also materially and adversely affect our business, financial condition, and operating results in ways that are not currently anticipated by or known to us or that we do not currently consider to present material risk.
Additionally, the COVID-19 pandemic has amplified many of the other risks discussed below to which we are subject and, given the unpredictable, unprecedented, and fluid nature of the pandemic, it may also materially and adversely affect our business, financial condition, and operating results in ways that are not currently anticipated by or known to us or that we do not currently consider to present material risk.
You should carefully consider these factors, together with all of the other information in this Annual Report on Form 10-K and in other documents that we file with the SEC, before making any investment decision about our securities. These risks and uncertainties are not the only ones we face. Additional risk and uncertainties presently unknown to us or currently deemed immaterial also may impair our business operations. Adverse developments or changes related to any of the factors listed below or others could materially and adversely affect our business, financial condition, results of operations, future prospects and growth.

Risk Factor Summary

This risk factor summary contains a high-level overview of certain of the principal factors and uncertainties that make an investment in our securities risky, including risks related to our industry and end markets; risks related to our business; production, supply chain and systems related risks; employee specific risks; miscellaneous business risk; indebtedness and liquidity related risks; risks related to the proposed merger; risks related to ownership of our common stock; and risks related to our tax receivable agreement. The following summary is not complete and should be read together with the more detailed discussion of these and the other factors and uncertainties that follows before making an investment decision regarding our securities. The principal factors and uncertainties that makes an investment in our securities risky include:

Risks Related to Our Industry and End Markets

- Our business is based in significant part on government-funded infrastructure projects and building activities, and any reductions or re-allocation of spending or related subsidies in these areas could have a material adverse effect on us.
- Residential and non-residential construction activity is cyclical and influenced by many factors, and any reduction in the activity in one or both of these markets could have a material adverse effect on us.
- We engage in a highly competitive business and any failure to effectively compete could have a material adverse effect on us.
- Changes in construction activity levels in Texas could have a material adverse effect on us.

Risks Related to Our Business

- Our business, results of operations, financial condition, cash flows and stock price have been and in the future may be adversely affected by the COVID-19 pandemic.
- Our dependence on key customers with whom we do not have long-term contracts and consolidation within our customers' industries could have a material adverse effect on us.
- The seasonality of our business and its susceptibility to severe and prolonged periods of adverse weather and other conditions could have a material adverse effect on us.

Production, Supply Chain and Systems Related Risks

- Decreased availability of or increases in the cost of raw materials, including through the impacts of trade policy, could have a material adverse effect on us.

- A material disruption or capacity constraints at one or more of our manufacturing facilities or in our supply chain could have a material adverse effect on us.
- Delays in construction projects and any failure to manage our inventory could have a material adverse effect on us.

Employee Specific Risks

- Labor disruptions and other union activity could have a material adverse effect on us.
- We depend on the services of key executives and any inability to attract and retain key management personnel could have a material adverse effect on us.
- Any failure by us or the contractors with which we work to retain and attract necessary personnel or contract labor could have a material adverse effect on us.

Miscellaneous Business Risks

- Cybersecurity attacks may threaten our confidential information, disrupt operations and result in harm to our reputation and adversely impact our business and financial performance.
- Legal and regulatory claims and proceedings could have a material adverse effect on us.
- Any inability to successfully acquire businesses in the future could have a material adverse effect on us.

Indebtedness and Liquidity Related Risks

- The terms of our debt could have a material adverse effect on us.
- Our current indebtedness and any future indebtedness we may incur could have a material adverse effect on us.
- Credit and non-payment risks of our customers could have a material adverse effect on us.

Risks Related to the Proposed Merger

- We may not complete the proposed merger within the time frame we anticipate or at all, which could adversely affect our business.
- Our business is subject to restrictions while the merger is pending.
- The announcement and pendency of the merger may disrupt business relationships, lead to employee departures, or otherwise adversely affect our business.

Risks Related to Ownership of Our Common Stock

- The trading price of our common stock has been and may in the future be volatile and could decline substantially.
- The coverage of our business or our common stock by securities or industry analysts or the absence thereof could adversely affect our stock price and trading volume.

Risks Related to Our Tax Receivable Agreement

- We will be required to pay Lone Star for certain tax benefits, and these amounts are expected to be material.
- We will not be reimbursed for any payments made to Lone Star under the tax receivable agreement in the event that the tax benefits are disallowed.

Risks Related to Our Industry and End Markets

Our business is based in significant part on government-funded infrastructure projects and building activities, and any reductions or re-allocation of spending or related subsidies in these areas could have a material adverse effect on us.

Our business depends heavily on government spending for infrastructure and other similar building activities. As a result, demand for many of our products is heavily influenced by U.S. and Canadian federal government fiscal policies and tax incentives and other subsidies, as well as state and municipal funding of projects. The infrastructure projects in which we participate are typically funded directly by governments and/or privately-funded but are otherwise tied to or impacted by government policies and spending measures. Government infrastructure spending and governmental policies with respect thereto depend primarily on the availability of public funds, which is influenced by many factors, including governmental budgets, public debt levels, interest rates, existing and anticipated and actual federal, state, provincial and municipal tax revenues, government leadership and the general political climate, as well as other general macroeconomic and political factors. In addition, U.S. federal government funds may only be available based on states' willingness to provide matching funding, and state funding may not be available, particularly in light of the negative impact of the COVID-19 pandemic on state budgets. As a result, the American Road and Transportation Builders Association forecasts transportation construction activity to decline 5.5 percent in 2021. Government spending is often approved only on a short-term basis and some of the projects in which our products are used require longer-term funding commitments. If government funding is not approved or funding is lowered, whether as a result of poor economic conditions, lower than expected revenues, competing spending priorities or other factors, it could limit infrastructure projects available, increase competition for projects, result in excess inventory and decrease sales, any of which could adversely affect the profitability of our business.

Additionally, certain regions or states may require or possess the means to finance only a limited number of large infrastructure projects and periods of high demand may be followed by years of little to no activity. There can be no assurances that governments will sustain or increase current infrastructure spending and tax incentive and other subsidy levels, and any reductions thereto or delays therein could have a material adverse effect on our business, financial condition and results of operations.

Residential and non-residential construction activity is cyclical and influenced by many factors, and any reduction in the activity in one or both of these markets could have a material adverse effect on us.

Historically, demand for our products has been closely tied to residential construction and non-residential construction in the United States and Eastern Canada. Our success and future growth prospects depend, to a significant extent, on conditions in these two markets and the degree to which these markets are strong in the future.

The construction industry and related markets are cyclical and have in the past been, and may in the future be, materially and adversely affected by general economic and global financial market conditions. These factors impact not only our business, but those of our customers and suppliers as well. This influence is true with respect to macroeconomic factors within North America, particularly within our geographic footprint in the United States and Eastern Canada. For example, in 2008, residential construction and non-residential construction activity dipped to historically low levels during the financial crisis. As a result, demand for many of our products dropped significantly.

The markets in the construction industry in which we operate are also subject to other more specific factors. Residential construction activity levels are influenced by and sensitive to a number of factors, including mortgage availability, the cost of financing a home (in particular, mortgage terms and interest rates), unemployment levels, household formation rates, gross domestic product, residential vacancy and foreclosure rates, demand for second homes, existing housing prices, rental prices, housing inventory levels, building mix between single- and multi-family homes, consumer confidence, seasonal weather factors, the available labor pool and government regulation, policy and incentives. Non-residential construction activity is primarily driven by levels of business investment, availability of credit and interest rates, as well as many of the factors that impact residential construction activity levels.

We cannot control the foregoing factors, we cannot be certain that residential and non-residential construction activity will remain at current levels, and there can be no assurances regarding whether any growth in these markets can be sustained. If construction activity in our markets, and more generally, does remain at current levels, or if there are future downturns, whether locally, regionally or nationally, it could have a material adverse effect on our business, financial condition and results of operations.

We engage in a highly competitive business and any failure to effectively compete could have a material adverse effect on us.

The markets in which we sell our products are highly competitive. We face significant competition from, depending on the segment or product, domestic and imported products produced by local, regional, national and international building product manufacturers, as well as privately owned single-site enterprises. Due in part to the costs associated with transporting our products to our customers, many of our sub-markets are relatively fragmented and include a number of regional competitors. Our competitors include Rinker Materials (a division of QUIKRETE) and Oldcastle Infrastructure (a division of CRH plc), as well as numerous regional and local competitors, in our Drainage Pipe & Products segment and McWane, Inc. and American Cast Iron Pipe Company in our Water Pipe & Products segment, particularly with respect to DIP.

Competition among manufacturers in our markets is based on many factors with significant emphasis on price. Our competitors may sell their products at lower prices because, among other things, they possess the ability to manufacture or supply similar products and services more efficiently or at a lower cost or have built a superior sales or distribution network. Some of our competitors may have access to greater financial or other resources than we do, which may afford them greater purchasing power, greater production efficiency, increased financial flexibility or more capital resources for expansion and improvement. In addition, some of our competitors are vertically integrated with suppliers or distributors and can leverage this structure to their advantage to offer better pricing to customers. Furthermore, our competitors' actions, including restoring idled or expanding manufacturing capacity, or the entry of new competitors into one or more of our markets, particularly in the Drainage business where there are low barriers to entry, could cause us to lower prices in an effort to maintain our customer base. For example, the pricing impact of a new competitor entering the Houston, Texas Drainage market in 2017 had a negative impact on revenues. Certain of our products, including gravity pipe, are volume manufacturing products that are widely available from other manufacturers or distributors, with prices and volumes determined frequently based on participants' perceptions of short-term supply and demand. Competitive factors, including industry overcapacity, could also lead to pricing pressures. For example, competitors may choose to pursue a volume policy to continue utilizing their manufacturing facilities or in attempt to gain market share, each to the detriment of maintaining prices. Excess product supply can result in significant declines in the market prices for these products, often within a short period of time. As a result, at times, to remain competitive, we may lower the price for any one or more of our products to or below our production costs, requiring us to sacrifice margins or incur losses. Alternatively, we may choose to forgo product sales or cease production at one or more of our manufacturing facilities. Conversely, at times when prices are maintained at higher levels, there is greater risk that foreign competitors may enter one or more of our markets, particularly with respect to DIP.

In addition to pricing, we also compete based on service, quality, range of products and product availability. Our competitors may be positioned to provide better service and thereby establish stronger relationships with customers and suppliers. Our competitors may also sell preferred products, improve the design and performance of their products, develop a more comprehensive product portfolio, be better positioned to influence end-user product specifications or introduce new products with competitive prices and performance characteristics. While the majority of our products are not subject to frequent or rapid stylistic changes, trends do evolve over time, and our competitors may do a better job of predicting market developments or adapt more quickly to new technologies or evolving customer requirements.

We also face competition from substitute and newly designed building products. For example, storm water pipe can be manufactured from concrete, steel, high-density polyethylene (HDPE), polypropylene (PP) or polyvinyl chloride (PVC) and potable water transmission infrastructure can be manufactured using HDPE or PVC. The market share of HDPE and PP pipe, which compete with gravity pipe and concrete pressure pipe for certain applications, and HDPE and PVC pipe, which compete with DIP for certain applications, have increased in recent years. Governments in the past have, and may continue in the future, to provide incentives that support or encourage, or in certain instances pass regulations that require, the consideration or use of substitute products with which we compete. Lower costs and pricing of substitute products may challenge our ability to achieve pricing for our products at a level that is consistent with our business plans. Some of the substitute products with which we compete may also offer longer warranties than our typical product warranty, and we may face competitive pressures to offer longer warranties on our products, which could increase our exposure to claims in future years or cause us to lose business. Additionally, new construction techniques and materials will likely be developed in the future. Increases in customer or market preferences for any of these products could lead to a reduction in demand for our products, limit our ability to raise prices or otherwise adversely impact our competitive position.

Any failure by us to compete on price or service, to develop successful products and strategies or to generally maintain and improve our competitive position could have a material adverse effect on our business, financial condition and results of operations.

Changes in construction activity levels in Texas could have a material adverse effect on us.

We currently conduct a significant portion of our business in Texas, which we estimate represented approximately 18% and 20% of our 2020 and 2019 net sales, respectively. Government-funded infrastructure spending, as well as residential and non-residential construction activity in each of these areas has declined from time to time, particularly as a result of slow economic growth, whether in the energy industry or otherwise. Local economic conditions depend on a variety of factors, including national economic conditions, local and state budgets, infrastructure spending and the impact of federal cutbacks. In addition, Texas is susceptible to severe weather and flooding, which can interrupt, delay or otherwise impact the timing of projects. Any decrease in construction activity in Texas could have a material adverse effect on our business, financial condition and results of operations.

A tightening of mortgage lending or mortgage financing requirements or other reductions in the availability of consumer credit or increases in its cost could have a material adverse effect on us.

We depend on net sales generated from residential construction activity. Most home sales in the U.S. and Eastern Canada are financed through mortgage loans, and a significant percentage of renovation and other home repair activity is financed either through mortgage loans or other available credit. The financial crisis affected the financial position of many consumers and caused financial institutions to tighten their lending criteria, each of which contributed to a significant reduction in the availability of consumer credit. These developments resulted in a significant reduction in total new housing starts in the U.S. and consequently, a reduction in demand for our products in the residential sector. Similarly, the rate of interest payable on any mortgage or other form of credit will have an impact on the cost of borrowing. While base rates have remained relatively low in recent years, they may rise in the future, which would increase the cost of borrowing, making the purchase of a home less attractive, which could reduce the number of new housing starts in the U.S. and Eastern Canada. Any future tightening of mortgage lending or other reductions in the availability of consumer credit or increases in its cost could have a material adverse effect on our business, financial condition and results of operations.

Risks Related to Our Business

Our business, results of operations, financial condition, cash flows and stock price have been and in the future may be adversely affected by the COVID-19 pandemic.

Our operations and business have been adversely affected and could in the future be materially and adversely affected, whether directly or indirectly, by the COVID-19 pandemic and the resulting weakening of economic conditions in the United States and eastern Canada. Local, state, provincial and federal governmental authorities initially responded to the pandemic by implementing increasingly stringent measures in geographies where we operate to help control the spread of the virus, including restrictions on movement such as quarantines, “shelter in place,” “stay at home” orders, and travel restrictions, as well as restricting or prohibiting outright some or all forms of commercial and business activity, and other restrictions, including closures of school and childcare facilities. Certain states have also enacted regulations that authorize local officials to close businesses where there if a lack of safety precautions in place or signs that transmission of the virus at the workplace has occurred.

Although we were and have continued to be categorized as "essential" and therefore permitted to operate our facilities consistent with applicable local, state, provincial and federal orders, any changes in these governmental orders, including the imposition of new orders, changes to the extent or the duration thereof, or any further, more severe, actions taken by governmental authorities or that we may choose to take whether required or not could have a material adverse effect on our operations.

Our customers have been and could continue to be negatively impacted by the COVID-19 pandemic, including as a result of project delays and other adverse impacts on demand, which could result in adverse impacts on our sales and have a material adverse effect on our business, results of operations and financial condition. Similarly, our suppliers and other parts of our supply chain could experience disruptions and other adverse impacts as a result of the pandemic that could cause us to be unable to obtain key raw materials and supplies on a timely or cost-effective basis, or in some cases, at all, any of which could result in our being unable to service our customers' demands, and adversely affect our business and results of operations.

The COVID-19 pandemic, including any actions we have taken in response, has disrupted our internal operations, including by heightening the risk that a significant portion of our workforce will suffer illness or otherwise not be permitted or be unable to work, and required that certain of our employees work remotely, which has heightened certain risks, including those related to cybersecurity and internal controls. For example, during the second quarter of 2020, a small number of employees tested positive for COVID-19, which required us to temporarily close a small number of our manufacturing facilities, and during the third and fourth quarters we experienced increasing numbers of employees who tested positive for COVID-19 and were required to quarantine. Additionally, we cannot predict whether these conditions and concerns will continue or whether we will experience more significant or frequent disruptions in the future, including the complete closure of one or more of our facilities, which could cause delays in our ability to produce and deliver products to our customers and cause us to suffer reputational harm and incur penalties and other types of damages if we are not able to meet contractual obligations. In addition, in the event demand for our products is significantly reduced as a result of the COVID-19 pandemic and related economic impacts, we may need to assess different corporate actions and cost-cutting measures, including reducing our workforce or closing one or more facilities, and these actions could cause us to incur costs and expose us to other risks and inefficiencies, including whether we would be able to rehire our workforce or recommence operations at a given facility if our business experiences a subsequent recovery.

The COVID-19 pandemic has also adversely affected economies worldwide and significantly disrupted financial and other capital markets, causing a significant deceleration of economic activity. This slowdown has decreased demand for a wide variety of goods and services, diminished trade levels, reduced production and led to widespread corporate downsizing, causing a sharp increase in unemployment. The impact of this outbreak on the U.S. and world economies is uncertain and, unless until the outbreak is contained, these adverse impacts could worsen, impacting all segments of the global economy, and result in a significant recession or worse. Although we initially took certain precautionary measures to preserve liquidity, including borrowing under our ABL Facility and suspending non-essential capital expenditures, we have since ended these measures and repaid the amounts borrowed under the ABL Facility, and a prolonged period of generating lower cash from operations or other pressures on our liquidity could adversely affect our financial condition, the achievement of our strategic objectives or require us to seek additional capital. Conditions in the financial and capital markets have been extremely volatile and may limit or entirely restrict the availability of funding or increase the cost of funding, which could adversely affect our business, financial position and results of operations.

Considerable uncertainty still surrounds the COVID-19 virus and the pandemic's potential effects, and the extent and effectiveness of responses taken on local, national and global levels. No fully effective vaccines or treatments have been developed and one may not be discovered early enough to protect against a worsening of the pandemic or to prevent COVID-19 from becoming endemic. While we expect the pandemic and related events will continue to have a negative effect on us, the unpredictable and unprecedented nature and fluidity of current circumstances makes it impractical to identify all potential risks or estimate the full extent and scope of the impact on our business and industry, as well as national, regional and global markets and economies. However, our ability to conduct our business in the manner previously or currently expected could be materially and adversely affected, and any of the foregoing risks and uncertainties as well as those that have not yet manifested themselves or been identified could have a material adverse impact on our business, financial condition, results of operations and cash flows.

Our dependence on key customers with whom we do not have long-term contracts and consolidation within our customers' industries could have a material adverse effect on us.

Our business is dependent on certain key customers. In 2020 and 2019, Core & Main, our largest customer accounted for 16% and 15% of our net sales, respectively. As is customary in our industry, we do not enter into long-term contracts with many of our customers. As a result, our customers could stop purchasing our products, reduce their purchase levels or request reduced pricing structures at any time. We may therefore need to adapt our manufacturing, pricing and marketing strategies in response to a customer who may seek concessions in return for its continued or increased business. In addition, a macroeconomic downturn or any other cause of consolidation in the U.S. homebuilding industry or among our other customers, as occurred during the financial crisis when a number of smaller businesses went out of business or were acquired, can significantly increase the market share and bargaining power of a limited number of customers and give them significant additional leverage to negotiate more favorable terms and place greater demands on us. A loss of one or more customers or a meaningful reduction in their purchases from us or further consolidation within our end markets could have a material adverse effect on our business, financial condition and results of operations.

The seasonality of our business and its susceptibility to severe and prolonged periods of adverse weather and other conditions could have a material adverse effect on us.

Demand for our products in some markets is typically seasonal, with periods of snow or heavy rain negatively affecting construction activity. For example, sales of our products in Canada and the Northeast and Midwest regions of the United States are somewhat higher from spring through autumn when construction activity is greatest. Construction activity declines in these markets during the winter months in particular due to inclement weather, frozen ground and fewer hours of daylight. Construction activity can also be affected in any period by adverse weather conditions such as hurricanes, severe storms, torrential rains and floods, natural disasters such as fires and earthquakes and similar events, any of which could reduce demand for our products, push back existing orders to later dates or lead to cancellations. Furthermore, our ability to deliver products on time or at all to our customers can be significantly impeded by such conditions and events, such as those described above. Public holidays and vacation periods constitute an additional factor that may exacerbate certain seasonality effects, as building projects or industrial manufacturing processes may temporarily cease. These conditions, particularly when unanticipated, can leave both equipment and personnel underutilized. Additionally, the seasonal nature of our business has led to variation in our quarterly results in the past and may continue to do so in the future. This general seasonality of our business and any severe or prolonged adverse weather conditions or other similar events could have a material adverse effect on our business, financial condition and results of operations.

The use of our products is often affected by various laws and regulations in the markets in which we operate, any of which may have a material adverse effect on us.

The use of many of our products is subject to approvals by municipalities, state departments of transportation, engineers and developers. These approvals and specifications, including building codes, may affect the products our customers or their customers (the end users) are allowed or choose to use, and, consequently, failure to obtain or maintain such approvals or changes in building codes may affect the saleability of our products. Changes in applicable regulations governing the sale of some of our products or the failure of any of our products to comply with such requirements could increase our costs of doing business, reduce sales or otherwise have a material adverse effect on our business, financial condition and results of operations.

We are subject to increasingly stringent environmental laws and regulations, and any failure to comply with any current or future laws or regulations could have a material adverse effect on us.

We are subject to federal, state, provincial, local and foreign laws and regulations governing the protection of the environment and natural resources, including those governing air emissions, wastewater discharges and the use, storage, discharge, handling, disposal, transport and cleanup of solid and hazardous materials and wastes. We are required to obtain permits from governmental authorities for certain operations, and if we expand or modify our facilities or if environmental laws change, we could be required to obtain new or modified permits.

Environmental laws and regulations, including those related to energy use and climate change, tend to become more stringent over time, and any future laws and regulations could have a material impact on our operations or require us to incur material additional expenses to comply with any such future laws and regulations. Future environmental laws and regulations may cause us to modify how we manufacture and price our products or require that we make significant capital investments to comply. For example, our manufacturing processes use a significant amount of energy, and increased regulation of energy use to address the possible emission of greenhouse gases could materially increase our manufacturing costs or require us to install emissions control or other equipment at some or all of our manufacturing facilities.

If we fail to comply with any existing or future environmental laws, regulations or permits, we could incur fines, penalties or other sanctions and suffer reputational harm. In addition, we could be held responsible for costs and damages arising from claims or liabilities under environmental laws and regulations, including with respect to any exposure to or release of hazardous materials or contamination at our facilities, whether presently or previously leased, operated, or owned, or at third-party waste disposal sites. We could also be subject to third-party claims from individuals for property damage, personal injury or nuisance if any releases from our property were to cause contamination of the air, soil or groundwater of areas near our facilities. These laws and regulations may also require us to investigate and, in certain instances, remediate contamination. Some of our sites have a history of industrial use, and while we apply strict environmental operating standards and undertake extensive environmental due diligence in relation to our facilities and acquisitions, some soil and groundwater contamination has occurred in the past at a limited number of sites.

As of December 31, 2020, we had accrued approximately $1.6 million for environmental liabilities. Additionally, we cannot completely eliminate the risk of future contamination. Any costs or other damage related to existing or future environmental laws, regulations or permits or any violations thereof could expose us to significant financial losses as well as civil and criminal liabilities, any of which could have a material adverse effect on our business, financial condition and results of operations.

We are subject to health and safety laws and regulations, and the costs to comply with, or any failure to comply with, any current or future laws or regulations could have a material adverse effect on us.

Manufacturing sites are inherently dangerous workplaces. Our sites often put our employees and others in close proximity with large pieces of mechanized equipment, moving vehicles, chemical and manufacturing processes, heavy products and items and highly regulated materials. As a result, we are subject to a variety of health and safety laws and regulations dealing with occupational health and safety. Unsafe work sites have the potential to increase employee turnover and raise our operating costs. Our safety record can also impact our reputation. We maintain functional groups whose primary purpose is to ensure we implement effective work procedures throughout our organization and take other steps to ensure the health and safety of our work force, but there can be no assurances these measures or other measures we may take in the future will be successful in preventing injuries, including severe injuries and fatalities, or violations of health and safety laws and regulations. Any failure to maintain safe work sites or violations of applicable law could expose us to significant financial losses and reputational harm, as well as civil and criminal liabilities, any of which could have a material adverse effect on our business, financial condition and results of operations.

Warranty and related claims could have a material adverse effect on us.

We generally provide warranties on our products against defects in materials and workmanship, the costs of which could be significant. Many of our products such as gravity pipe are buried underground and incorporated into a larger infrastructure system, such as a city’s or municipality’s water transmission system, or built into the fabric of a building or dwelling. In most cases, it is difficult to access, repair, recall or replace these products. Additionally, some of our products, such as our pressure pipe, which is used in nuclear and coal-fired power generation factories, are used in applications where a product failure or construction defect could result in significant project delay, property damage, personal injury or death or could require significant remediation expenses. Because our products, including discontinued products, are long lasting, claims can also arise many years after their manufacture and sale. In certain cases, we may also offer warranties for longer periods now for certain products to compete with certain substitutes, which could increase the number, size, and frequency of warranty claims in the future. Product failures may also arise due to the quality of the raw materials we purchase from third-party suppliers or the quality of the work performed by our customers, including installation work, matters for which we have little to no control, but which may still subject us to a warranty claim. We may also assume product warranty or other similar obligations in acquisition transactions regarding the products sold by the acquired businesses prior to the transaction date for which we are not indemnified pursuant to the terms of the relevant transaction documentation. Our quality control systems and procedures and those of our suppliers and customers cannot test for all possible conditions of use or identify all defects in the design, engineering or specifications of one of our products or the raw materials we use before they are put to their intended purpose. Therefore, there can be no assurances that we will not supply defective or inferior products that cause product or system failure, which could give rise to potentially extensive warranty and other claims for damages, as well as negatively impact our reputation and the perception of our product quality and reliability. While we have established reserves for warranty and related claims that we believe to be reasonable, these claims may exceed our reserves and any such excess and any negative publicity and other issues related to such claims could have a material adverse effect on our business, financial condition and results of operations.

Sharing our brand name and logo could have a material adverse effect on us.

We share the “Forterra” brand with the operator of HeidelbergCement's former building products business in the United Kingdom, or Forterra UK, a public company listed on the London FTSE. Forterra UK is no longer affiliated with us and, to our knowledge, operates solely in the United Kingdom. We have no control over Forterra UK’s use of the “Forterra” name and logo in Europe. Any actions or negative publicity related to Forterra UK and its products could have a material adverse effect on our business, financial condition and results of operations.

HeidelbergCement asserted a claim against us related to the payment of an earnout in connection with the Acquisition and any payment we are required to make could have a material adverse effect on us.

HeidelbergCement asserted a $100.0 million claim against us regarding the earnout provision in the purchase agreement entered into in connection with the Acquisition. As discussed in greater detail in Item 3, “Legal Proceedings.” The neutral accounting arbitrator in the arbitration proceeding ruled against Heidelberg and found that no earnout amount was owed. We believe that the time has expired for Heidelberg to assert any objection to that ruling without such objection having been asserted, but if Heidelberg were to seek to overturn the ruling and be successful, we may not have sufficient cash to make such payment and may be required to incur additional indebtedness.

Production, Supply Chain and Systems Related Risks

Decreased availability of or increases in the cost of raw materials, including through the impacts of trade policy, could have a material adverse effect on us.

Our ability to offer our products to our customers is dependent upon our ability to obtain adequate supplies of raw materials at reasonable costs, such as cement, aggregate, steel and scrap iron. Raw material prices for certain raw materials that are key to our products, such as steel and scrap metal, have been volatile in recent years. In particular, changes in U.S. trade policy, including the imposition of any tariffs by the U.S. or foreign governments, may negatively impact the availability and price of raw materials used in our production. In particular, in 2018 and 2019, the U.S. government imposed tariffs and quotas on certain imported steel articles, and other countries, such as Canada, have implemented retaliatory tariffs on certain U.S. imports, including steel. These actions, which are for an indefinite period of time, resulted in increased prices for both U.S. and non-U.S. steel, one of our main raw material inputs, and the continued imposition of these tariffs, increases in tariff rates, additional tariffs on other goods, or further retaliatory actions from other governments may result in higher costs for us, and there can be no assurance we will be able to pass any of the increases in raw material costs directly resulting from the tariff to our customers. Such actions may also result in more difficulty or the inability to obtain needed materials.

Suppliers are also subject to their own viability concerns from economic, market and other pressures. In particular, many suppliers may decrease capacity during financial downturns or due to other market factors such as depressed prices. This decreased capacity, along with strong global demand for certain raw materials, has at times caused and may continue to cause tighter supply and significant price increases. Factors such as adverse weather conditions and other natural disasters, as well as political and other social instability, have and will continue to disrupt raw material supplies and impact prices.

Although we have agreements with our raw material suppliers, these agreements are generally terminable by either party on limited notice or contain prices that are based upon the volume of our total purchases. To the extent agreements with any of our raw material suppliers are terminated or we need to purchase additional raw materials in the open market, there can be no assurance that we could timely find alternative sources in reasonable quantities or at reasonable prices. In addition, sudden or unanticipated changes in sources for certain raw materials, such as cement, may require us to engage in testing of our products for quality assurance, which may cause delays in our ability to meet production schedule for our customers and timely deliver our products. Changes in U.S. trade policy and reactions of other governments to those changes could also negatively impact the availability of certain raw materials, such as steel, as the demand for U.S. steel could increase as a result of these changes. The inability to obtain any raw materials or unanticipated changes with respect to our suppliers could negatively impact our ability to manufacture or deliver our products and to meet customer demands.

We are susceptible to raw material price fluctuations. In recent years, prices of the raw materials we use have at times fluctuated and may be susceptible to significant price fluctuations in the future. We have hedged our positions with respect to certain raw materials in the past and may do so in the future, but we currently have no hedging in place regarding our raw material needs and are therefore more susceptible to any short-term price fluctuations. We generally attempt to pass increased costs, including higher raw material prices and government imposed costs, on to our customers, but the timing between acceptance of a customer order and the purchase of raw materials needed to fulfill such order, pricing pressure from our competitors, the market power of our customers or other pricing factors may limit our ability to pass on such price increases. If we cannot fully-offset increases in the cost of raw materials through other cost reductions, or recover these costs through price increases or otherwise, we could experience lower margins and profitability, which could have a material adverse effect on our business, financial condition and results of operations.

A material disruption or capacity constraints at one or more of our manufacturing facilities or in our supply chain could have a material adverse effect on us.

We own and operate manufacturing facilities of various ages and levels of automated control and rely on a number of third parties as part of our supply chain, including for the efficient distribution of products to our customers. Any disruption at one of our manufacturing facilities or within our supply chain could prevent us from meeting demand or require us to incur unplanned capital expenditures. Older facilities and equipment are generally less energy efficient and are at an increased risk of breakdown or equipment failure, resulting in unplanned downtime. Any unplanned downtime at our facilities may cause delays in meeting customer timelines, result in damages claims, including liquidated damages, or cause us to lose or harm customer relationships. Additionally, we require specialized equipment to manufacture certain products, and if any of our manufacturing equipment fails, the time required to repair or replace this equipment could be lengthy, which could result in extended downtime at the affected facility. Any unplanned repair or replacement work can also be very expensive. Moreover, manufacturing facilities can unexpectedly stop operating because of events unrelated to us or beyond our control, including fires and other industrial accidents, floods and other severe weather events, natural disasters, environmental incidents or other catastrophes, utility and transportation infrastructure disruptions, shortages of raw materials, and acts of war or terrorism. Work stoppages, whether union-organized or not, can also disrupt operations at manufacturing facilities. Furthermore, we are generally responsible for delivering products to the customer and, while we deliver a small percentage of our products directly to the customer using our own fleet, we outsource this function and depend on third parties to deliver the vast majority of our products, primarily by truck with some reliance on rail where possible. Any shortages in trucking or rail capacity or any increase in the cost thereof, whether as a result of strikes, slowdowns, a shortage of drivers, other disruption to the highway or rail systems, or other unrelated transportation issues could limit our ability to deliver our products in a timely and cost-effective manner or at all. Any material disruption at one or more of our facilities or those of our customers or suppliers or otherwise within our supply chain, whether as a result of downtime, facility damage, an inability to deliver our products or otherwise, could prevent us from meeting demand, require us to incur unplanned capital expenditures or cause other material disruption to our operations, any of which could have a material adverse effect on our business, financial condition and results of operations.

Delays in construction projects and any failure to manage our inventory could have a material adverse effect on us.

Many of our products are used in water transmission and distribution projects and other large-scale construction projects which generally require a significant amount of planning and preparation before construction commences. However, construction projects can be delayed and rescheduled for a number of reasons, including unanticipated soil conditions, adverse weather or flooding, changes in project priorities, financing issues, difficulties in complying with environmental and other government regulations or obtaining permits and additional time required to acquire rights-of-way or property rights. These delays or reschedulings may occur with too little notice to allow us to replace those projects in our manufacturing schedules or to adjust production capacity accordingly, creating unplanned downtime, increased costs and inefficiencies in our operations and increased levels of excess or obsolete inventory. Additionally, we maintain an inventory of certain products that meet standard specifications and are ultimately purchased by a variety of end users. However, our demand forecasts are not always accurate and unexpected changes in demand for these products, whether project-driven, because of a change in preferences or otherwise, can lead to increased levels of excess or obsolete inventory. Any delays in construction projects and our customers' orders or any inability to manage our inventory, which can lead to impairment charges, could have a material adverse effect on our business, financial condition and results of operations.

Increased costs of energy could have a material adverse effect on us.

We use significant amounts of energy, including electricity and natural gas, in the manufacturing, transportation, distribution and sale of our products, and the related expense is significant. While we have benefited from the relatively low cost of electricity and natural gas in recent years, energy prices have been and may continue to be volatile and these reduced prices may not continue. Proposed or existing government policies, including those to address climate change by reducing greenhouse gas emissions or the effects of hydraulic fracturing could result in increased energy costs. In addition, factors such as international political and military instability, adverse weather conditions and other natural disasters may disrupt fuel supplies and increase prices in the future. Additionally, because we and other manufacturers in our industry are often responsible for delivering products to the customer, we are further exposed to increased energy prices as a component of our transportation costs. While we generally attempt to pass increased costs, including higher energy costs, on to our customers, pricing pressure from our competitors, the market power of our customers or other pricing factors may limit our ability to do so, and any increases in energy prices could have a material adverse effect on our business, financial condition and results of operations.

Our business and financial performance could be adversely impacted based on disruptions, delays, outages of our information technology systems and computer networks.

Our manufacturing facilities as well as our sales and service activities depend on the efficient and uninterrupted operation of complex and sophisticated information technology systems and computer networks, which are subject to failure and disruption. These and other problems may be caused by system updates, natural disasters, malicious attacks, human error, accidents, power disruptions, telecommunications failures, acts of terrorism or war, computer viruses, physical or electronic break-ins or other similar events. Additionally, because we have grown through various acquisitions, we have integrated and are integrating a number of disparate information technology systems across our organization, certain of which may be outdated and due for replacement, further increasing the likelihood of problems. We may in the future replace and integrate systems or implement new technology systems, but these updates may not be successful, they may create new issues we currently do not face, or significantly exceed our cost estimates.

We outsource certain portions of the operations of our information technology systems to a third party. Any failure of us or of our third party provider to effectively operate such systems could cause a disruption in our information technology systems. Any disruption in our information technology systems could interrupt or damage our operations and our ability to meet customer needs as well as our ability to maintain effective controls. These events could damage our reputation and cause us to incur unanticipated liabilities, including financial losses from remedial actions, business interruptions, loss of business and other unanticipated costs which may not be covered by insurance. Despite the defensive measures we have taken to protect our data and information technology, our systems could be vulnerable to disruption and any such disruption and the resulting fallout could have a material adverse effect on our business, financial condition and results of operations.

Employee Specific Risks

Labor disruptions and other union activity could have a material adverse effect on us.

As of December 31, 2020, approximately 33% of our workforce was covered by collective bargaining agreements, and approximately 24% of these employees were included in collective bargaining agreements that are due to expire within one year. If negotiations to renew expiring collective bargaining agreements are not successful or become unproductive, the union could take actions such as strikes, work slowdowns or work stoppages. Such actions at any one of our facilities could lead to a plant shut down or a substantial modification to employment terms, thereby causing us to lose net sales or incur increased costs. We have not had any recent union-organized work stoppages in the United States, Canada or Mexico; however, we have experienced one union organizing effort directed at our non-union employees in the past ten years. There can be no assurances there will not be additional union organizing efforts, strikes, work slowdowns or work stoppages in the future. Any such disruption, or other issue related to union activity, could have a material adverse effect on our business, financial condition and results of operations.

We depend on the services of key executives and any inability to attract and retain key management personnel could have a material adverse effect on us.

Our key management personnel, including our Chief Executive Officer and Chief Financial Officer, are important to our success because they are instrumental in setting our strategic direction, operating our business and identifying expansion opportunities. Additionally, as our business grows, we may need to attract and hire additional management personnel. We have employment agreements with some members of senior management; however, we cannot prevent our executives from terminating their employment with us, and any replacements we hire may not be as effective. Further, we have undergone some changes at the senior management level, including our Chief Executive Officer and Chief Financial Officer, and any transition involves inherent risk and any failure to ensure a smooth transition to new personnel could hinder our strategic planning, execution and future performance. While we strive to mitigate the negative impact associated with changes our senior management team, there may be uncertainty among investors, employees, customers and others concerning our future direction and performance. Our ability to retain our key management personnel or to attract additional management personnel or suitable replacements when needed is dependent on a number of factors, including the competitive nature of the employment market. Any failure to retain key management personnel or to attract additional or suitable replacement personnel could have a material adverse effect on our business, financial condition and results of operations.

Any failure by us or the contractors with which we work to retain and attract necessary personnel or contract labor could have a material adverse effect on us.

Competition for hiring new and retaining existing qualified personnel is intense and our success depends in part on our ability to retain, attract and train necessary personnel, including engineering and other skilled technical personnel. Our experienced sales team has also developed a number of meaningful customer relationships that would be difficult to replace. We compete with other companies for many employees in hourly positions, which have historically had high turnover rates. Without a sufficient number of qualified employees in each of these areas, the productivity and profitability of our operations and manufacturing quality could suffer. Additionally, our business relies on the ability of the contractors who install our products to obtain qualified employees, including experienced supervisors and foreman, and a shortage in the supply of these skilled personnel could cause delays in customer's ability to take shipments of our products.

Labor shortages may impact our ability to hire skilled or unskilled workers with the necessary experience. For example, the reduction in demand for products in our industry during the financial crisis led to a number of both skilled and unskilled workers leaving our industry permanently, reducing an already limited pool of available and qualified personnel. Furthermore, unemployment has declined in recent years, reaching historically low levels in the United States, which has further tightened the labor market. If new or more restrictive immigration legislation is enacted at the federal level or in states in which we do business, or if existing regulations are interpreted or enforced differently, these changes could further tighten certain labor markets.

If we are unsuccessful in hiring and retaining the necessary workforce, we may incur additional costs to run our business. Many of these positions have historically had high turnover rates, which can lead to increased training and retention costs. Our ability to control labor costs is also subject to numerous external factors, including prevailing wage rates, the impact of legislation or regulations governing wages, regulations governing payment of workers.

There can be no assurances the labor pool from which we or the contractors with whom we work hire will increase or remain stable, nor that we will be able to control labor costs. Any failure by us or the contractors with which we work to retain our existing personnel or attract and train additional qualified personnel at reasonable costs could have a material adverse effect on our business, financial condition and results of operations.

Miscellaneous Business Risks

Cybersecurity attacks may threaten our confidential information, disrupt operations and result in harm to our reputation and adversely impact our business and financial performance.

Cybersecurity attacks across industries, including ours, are increasing in sophistication and frequency and may range from uncoordinated individual attempts to measures targeted specifically at us. These attacks include but are not limited to, malicious software or viruses, attempts to gain unauthorized access to, or otherwise disrupt, our information systems, attempts to gain unauthorized access to business, proprietary or other confidential information, and other electronic security breaches that could lead to disruptions in critical systems, unauthorized release of confidential or otherwise protected information and corruption of data. Cybersecurity failures may be caused by employee error, malfeasance, system errors or vulnerabilities, including vulnerabilities of our vendors, suppliers, and their products. We have been subject to cybersecurity attacks in the past, including breaches of our IT systems that exposed certain confidential business information as well as ransomware attacks on non-critical business systems. Based on information known to date, past attacks have not had a material impact on our business, financial condition or results of operations. We may experience these and different types of attacks in the future, potentially with more frequency or sophistication.

Failures of our IT systems as a result of cybersecurity attacks or other disruptions could result in a breach of critical operational or financial controls and lead to a disruption of our operations, commercial activities or financial processes. Cybersecurity attacks or other disruptions impacting significant customers and/or suppliers could also lead to a disruption of our operations or commercial activities. Despite our attempts to safeguard our systems and mitigate potential risks, there is no assurance that such actions will be sufficient to prevent cyberattacks or security breaches that manipulate or improperly use our systems or networks, compromise confidential or otherwise protected information, destroy or corrupt data, or otherwise disrupt our operations. The occurrence of such events could have a material adverse effect on our business, financial condition and results of operations.

Legal and regulatory claims and proceedings could have a material adverse effect on us.

We are subject to claims, litigation and regulatory proceedings in the normal course of business and could become subject to additional claims in the future, some of which could be material. For example, we have been, and may in the future be, subject to claims for product liability, construction defects, project delay, personal injury, property and other damages as well as allegations regarding compliance with mandated product specifications. Claims and proceedings, whether or not they have merit and regardless of the outcome, are typically expensive and can divert the attention of management and other personnel for significant periods of time. Additionally, claims and proceedings can impact customer confidence and the general public's perception of our company and products, even if the underlying assertions are proven to be false.

We are also currently a defendant, together with several of our current and former officers and directors, in a shareholder derivative suit, and in the past have been a defendant in other similar suits, each filed by plaintiffs seeking damages against the Company for allegations of violations of United States laws regulating securities, as discussed in greater detail in Item 3, "Legal Proceedings," and Note 16 to our consolidated financial statements. Lawsuits involving us, or our current or former officers and directors, could result in significant expense and divert attention and resources of our management and other key employees. In addition to any damages we may be required to pay, we are generally obligated to indemnify our current and former directors and officers in connection with lawsuits and related settlement amounts. Such amounts could exceed the coverage provided under our insurance policies.

While we have established reserves we believe to be reasonable under the facts known, the outcomes of litigation and similar disputes are often difficult to reliably predict and may result in decisions or settlements that are contrary to, or in excess of, our expectations, and losses may exceed our reserves. In addition, various factors and developments could lead us to make changes in our current estimates of liabilities and related insurance receivables or make new or modified estimates as a result of a judicial ruling or judgment, settlement, regulatory development or change in applicable law. Any claims or proceedings, particularly those in which we are unsuccessful or for which we did not establish adequate reserves, could harm our reputation and could have a material adverse effect on our business, financial condition and results of operations.

Any inability to successfully acquire businesses in the future could have a material adverse effect on us.

Historically we have grown in large part as a result of acquisitions and our business plan continues to provide for growth in part through acquisitions and joint ventures. Although we expect to regularly consider additional strategic transactions in the future, there can be no assurances that we will identify suitable acquisition, joint venture or other investment opportunities or, if we do, that any transaction can be consummated on acceptable terms. Antitrust or other competition laws may also limit our ability to acquire, or work collaboratively with, certain businesses or to fully realize the benefits of a prospective acquisition or joint venture. Furthermore, changes in our business or the economy, an unexpected decrease in our cash flows or any restrictions imposed by our debt may limit our ability to obtain the necessary capital or otherwise impede our ability to complete a transaction. Regularly considering strategic transactions can also divert management's attention and lead to significant due diligence and other expenses regardless of whether we pursue or consummate any transaction. Failure to identify suitable transaction partners and to consummate transactions on acceptable terms, as well as the commitment of time and resources in connection with such transactions, could have a material adverse effect on our business, financial condition and results of operations.

The consummation of an acquisition also exposes us to significant risks and additional costs. We may not accurately assess the value, strengths, weaknesses or potential profitability of an acquisition target. Furthermore, we may not be able to fully or successfully integrate an acquired business or realize the expected benefits and synergies following an acquisition. Business and operational overlaps may lead to hidden costs. These costs can include unforeseen pre-acquisition liabilities or the impairment of customer relationships or certain acquired assets such as inventory and goodwill. We may also incur costs and inefficiencies to the extent an acquisition expands the industries, markets or geographies in which we operate due to our limited exposure to and experience in a given industry, market or region. Significant acquisitions may also require that we incur additional debt to finance the transaction, which could be substantial and limit our flexibility in using our cash flow from operations for other purposes. Acquisitions can also involve post-transaction disputes with the counterparty regarding a number of matters, including a purchase price or other working capital adjustment or liabilities for which we believe we were indemnified under the relevant transaction agreements, such as environmental liabilities or pension or benefit obligations retained by the seller, including certain environmental and benefit obligations in connection with our U.S. Pipe Acquisition and certain pension obligations we assumed pursuant to the Acquisition and our acquisition of Cretex. For example, as discussed in greater detail in Item 3, “Legal Proceedings,” we are currently engaged in a dispute with HeidelbergCement regarding the earnout provision in the purchase agreement entered into in connection with the Acquisition. We are also engaged in other indemnification and other post-closing disputes with certain of our transaction counterparties. Our inability to realize the anticipated benefits of an acquisition as well as other transaction-related issues could have a material adverse effect on our business, financial condition and results of operations.

In July 2012, we entered into a joint venture agreement with Americast, Inc., now known as Eagle Corporation, to form Concrete Pipe & Precast LLC. From time to time, we may enter into additional joint ventures as part of our growth strategy. The nature of a joint venture requires us to share control with unaffiliated third parties. If our joint venture partners do not fulfill their contractual and other obligations, the affected joint venture may be unable to operate according to its business plan, and we may be required to increase our level of commitment. Differences in views among joint venture participants could also result in delays in business decisions or otherwise, failures to agree on major issues, operational inefficiencies and impasses, litigation or other issues. Third parties may also seek to hold us liable for the joint ventures’ liabilities. These issues or any other difficulties that cause a joint venture to deviate from its original business plan could have a material adverse effect on our business, financial condition and results of operations.

Any inability to protect our intellectual property or claims that we infringe on the intellectual property rights of others could have a material adverse effect on us.

We rely on a combination of patents, trademarks, trade names, confidentiality and nondisclosure clauses and agreements, and other unregistered rights to define and protect our rights to our brand and the intellectual property used in certain of our products, including the innovative technologies relating to storm water management acquired in the Bio Clean Acquisition. We also rely on product, industry, manufacturing and market “know-how” that cannot be registered and may not be subject to any confidentiality or nondisclosure clauses or agreements. However, we cannot guarantee that any of our registered or unregistered intellectual property rights or our know-how, or claims thereto, will now or in the future successfully protect our intellectual property , or that our rights will not be circumvented or successfully opposed or otherwise challenged. We also cannot guarantee that applications filed will be approved. To the extent that our intellectual property rights are not sufficient, third parties, including competitors, may be able to commercialize our innovations or products or use our know-how. Additionally, we have faced in the past and may in the future face claims that we are infringing the intellectual property rights of others, including with respect to both existing and new technologies we use. If any of our products are found to infringe the patents or other intellectual property rights of others, our manufacture and sale of such products could be significantly restricted or prohibited and we may be required to pay substantial damages or on-going licensing fees. Any inability to protect our intellectual property rights or any misappropriation of the intellectual property of others could have a material adverse effect on our business, financial condition and results of operations.

Our foreign operations could have a material adverse effect on us.

We operate production facilities in Canada and Mexico and we are therefore subject to a number of risks specific to these countries. These risks include social, political and economic instability, unexpected changes in regulatory requirements, tariffs and other trade barriers, currency exchange fluctuations, acts of war or terrorism and import/export requirements. In addition, we have a limited number of sales to other foreign jurisdictions, primarily concentrated in the Dominican Republic and Bolivia. Our consolidated financial statements are reported in U.S. dollars with international transactions being translated into U.S. dollars. If the U.S. dollar strengthens in relation to the Canadian dollar, our U.S. dollar reported net sales and income will decrease. Additionally, since we incur costs in foreign currencies, fluctuation in those currencies’ value can negatively impact manufacturing and selling costs. See Item 7A, “Quantitative and Qualitative Disclosures about Market Risk.” There can be no assurances that any of these factors will not materially impact our production cost or otherwise have a material adverse effect on our business, financial condition and results of operations.

Changes in tax laws could adversely affect us.

We regularly assess our future ability to utilize tax benefits, including those in the form of net operating loss, tax credit and other tax carryforwards, that are recorded as deferred income tax assets on our balance sheets to determine whether a valuation allowance is necessary. A reduction in, or disallowance of, these tax benefits resulting from a legislative change or adverse determination by a taxing jurisdiction could have an adverse impact on our financial results and liquidity.

Changes in corporate tax rates, the realizability of the net deferred tax assets relating to our U.S. operations, the taxation of foreign earnings and the deductibility of expenses contained in the Tax Cuts and Jobs Act of 2017, or the TCJA, or other tax reform legislation, including the Coronavirus Aid, Relief, and Economic Security Act of 2020, (“CARES Act”), could have a material impact on the value of our deferred tax assets, could result in significant one-time charges and could increase our future U.S. tax expense. See Note 20 to our consolidated financial statements.

Significant judgment is required in determining our domestic and international provision for income taxes, deferred tax assets or liabilities and in evaluating our tax positions on a worldwide basis. While we believe our tax positions are consistent with the tax laws in the jurisdictions in which we conduct our business, it is possible these positions may be contested or overturned by jurisdictional tax authorities, which may have a significant impact on our tax provision for income taxes. Tax laws are dynamic and subject to change as new laws are passed and new interpretations of the laws are issued or applied.

Insufficient insurance coverage could have a material adverse effect on us.

We maintain property, business interruption, counterparty and liability insurance coverage that we believe is consistent with industry practice. However, our insurance program does not cover, or may not adequately cover, every potential risk associated with our business and the consequences thereof. In addition, market conditions or any significant claim or a number of claims made by or against us could cause our premiums and deductibles to increase substantially and, in some instances, our coverage may be reduced or become entirely unavailable. In the future, we may not be able to obtain meaningful coverage at reasonable rates for a variety of risks, including certain types of environmental hazards and ongoing regulatory compliance. In addition, we self-insure a portion of our exposure to certain matters, including employee health care claims of up to $500,000 per covered individual per year and wage-payment obligations for short-term disability. If our insurance coverage is insufficient, if we are not able to obtain sufficient coverage in the future, or if we are exposed to significant losses as a result of the risks for which we self-insure, any resulting costs or liabilities could have a material adverse effect on our business, financial condition and results of operations.

Our internal control over financial reporting may not be effective, and our independent registered public accounting firm may not be able to certify as to their effectiveness, which could have a material adverse effect on our business and reputation.

As a public company, we are required to comply with the SEC’s rules implementing Sections 302 and 404 of the Sarbanes-Oxley Act, which require management to certify financial and other information in our quarterly and annual reports and provide an annual management report on the effectiveness of our control over financial reporting. Our independent registered public accounting firm is also required to formally attest to the effectiveness of our internal control over financial reporting pursuant to Section 404.

Although we currently do not have any material weaknesses in our internal control over financial reporting, we have historically experienced such material weaknesses. To remediate our prior material weaknesses, we have needed to undertake various actions, such as implementing additional internal controls and procedures and hiring additional accounting or internal audit staff, and we may need to do so in the future to maintain the effectiveness of our internal control over financial reporting and other controls. Testing and maintaining internal control can divert our management's attention from other matters that are important to the operation of our business. If we identify material weaknesses in our internal control over financial reporting or are unable to comply with the requirements of Section 404 of the Sarbanes-Oxley Act or assert that our internal control over financial reporting is effective, or if our independent registered public accounting firm is unable to express an opinion as to the effectiveness of our internal control over financial reporting, investors may lose confidence in the accuracy and completeness of our financial reports and the market price of our common stock could be negatively affected, and we could become subject to investigations by the SEC or other regulatory authorities, which could require additional financial and management resources.

We are a holding company and depend on the cash flow of our subsidiaries.

We are a holding company with no material assets other than the equity interests of our subsidiaries. Our subsidiaries conduct substantially all of our operations and own substantially all of our assets and intellectual property. Consequently, our cash flow and our ability to meet our obligations and pay any future dividends to our stockholders depends upon the cash flow of our subsidiaries and their ability to make payments, directly or indirectly, to us in the form of dividends, distributions and other payments. Any inability on the part of our subsidiaries to make payments to us could have a material adverse effect on our business, financial condition and results of operations.

Risks Relating to our Indebtedness and Liquidity

The terms of our debt could have a material adverse effect on us.

We have substantial debt and may incur additional debt. As of December 31, 2020, we had approximately $914.9 million of total debt. Our credit facility contains a number of significant restrictions and covenants that generally restrict our business and limit our ability to, among other things:

- dispose of certain assets;
- incur or guarantee additional indebtedness;
- enter into new lines of business;
- make investments, intercompany loans or certain payments in respect of indebtedness;
- incur or maintain certain liens;
- enter into transactions with affiliates;
- engage in certain sale and leaseback transactions;
- declare or pay dividends and make other restricted payments, including the repurchase or redemption of our stock; and
- engage in mergers, consolidations, liquidations and certain asset sales.

In addition, our ability to borrow under the Revolver is limited by the amount of the borrowing base applicable to U.S. dollar and Canadian dollar borrowings. Any negative impact on the elements of our borrowing base, such as eligible accounts receivable and inventory, will reduce our borrowing capacity under the Revolver. Moreover, the Revolver provides discretion to the agent bank acting on behalf of the lenders to impose additional requirements on what accounts receivable and inventory may be counted toward the borrowing base availability, and to impose other reserves, which could materially impair the amount of borrowings that would otherwise be available to us. The credit facility also requires us to maintain certain financial ratios. See Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" for more information regarding the terms of our credit facility and the indenture governing our senior secured notes dues due 2025. We are also party to a U.S. and a Canadian master lease under which we currently pay an aggregate of $17.1 million and $1.2 million (CAD) per annum, respectively, to lease certain properties through June 30, 2043. Each of these master lease agreements contain certain restrictions and covenants that limit, among other things, our use of and ability to sublease or discontinue use of the leased properties, our ability to consider strategic divestitures of properties that are leased and our ability to consolidate operations as may be appropriate in order to minimize operating costs. See Note 15 in our consolidated financial statements.

These and other similar provisions in these and other documents could have adverse consequences on our business and to our investors because they limit our ability to take these actions even if we believe that it would contribute to our future growth or improve our operating results. For example, these restrictions could limit our flexibility in planning for or reacting to changes in our business and our industry, thereby inhibiting our ability to react to markets and potentially making us more vulnerable to downturns. These restrictions could also require that, based on our level of indebtedness, a significant portion of our cash flow from operations be used to make interest payments, thereby reducing the cash flow available for working capital, to fund capital expenditures or other corporate purposes and to generally grow our business. Furthermore, these restrictions could prevent us from pursuing a strategic transaction that we believe would benefit our company.

Our ability to comply with these provisions may be affected by events beyond our control. A breach of any of these provisions or any inability to comply with mandated financial ratios could result in a default, in which case the counterparties may have the right to declare all borrowings or other amounts due thereunder to be immediately due and payable. If we are unable to pay any amounts when due, whether periodic payments, at maturity or if declared due and payable following a default, the counterparties would have the right to proceed against the pledged collateral securing the indebtedness. Therefore, the restrictions under these agreements and any breach of the covenants or failure to otherwise comply with the terms thereof could have a material adverse effect on our business, financial condition and results of operations.

Our current indebtedness and any future indebtedness we may incur could have a material adverse effect on us.

We expect that we will depend primarily on cash generated by our operations to pay our expenses and any amounts due under our credit facility and any other indebtedness we may incur. However, our business may not generate sufficient cash flows from operations in the future and any anticipated growth in revenues and cash flows may not be realized, either or both of which could result in us being unable to repay indebtedness or our inability to fund other liquidity or strategic needs. Our ability to make these payments depends on our future performance, which will be affected by financial, business, economic and other factors, many of which are beyond our control. If we do not have sufficient liquidity, we may be required to refinance all or part of our then existing debt, sell assets or borrow more money.

If we incur additional indebtedness, the risks related to our indebtedness that we currently face could intensify. In addition to the risk of higher interest rates and fees, the non-economic terms of any additional indebtedness may contain covenants and other terms restricting our financial, operating and strategic flexibility to an equal or greater extent as those imposed by our credit facility, the indenture governing our senior secured notes dues due 2025 and the master leases. Additional indebtedness may also include cross-default provisions such that, if we breach a restrictive covenant with respect to any of our indebtedness, or an event of default occurs, lenders may be entitled to accelerate all amounts owing under other outstanding indebtedness.

If we are required to refinance our indebtedness or otherwise incur additional indebtedness to fund strategic transactions or otherwise, any additional financing may not be available on terms favorable to us or at all. If, at such time, market conditions are materially different or our credit profile has deteriorated, the cost of refinancing our debt may be significantly higher than our indebtedness existing at that time, or we may not be able to refinance our debt at all. Any failure to meet any future debt service obligations or any inability to obtain any additional financing on terms acceptable to us or to comply therewith could have a material adverse effect on our business, financial condition and results of operations.

Credit and non-payment risks of our customers could have a material adverse effect on us.

As is customary in our industry, the majority of our sales are to customers on an open credit basis, with standard payment terms of 30 days. While we generally monitor the ability of our customers to pay these open credit arrangements and limit the credit we extend to what we believe is reasonable based on an evaluation of each customer’s financial condition and payment history, we may still experience losses because of a customer’s inability to pay. As a result, while we maintain what we believe to be a reasonable allowance for doubtful receivables for potential credit losses based upon our historical trends and other available information, there is a risk that our estimates may not be accurate, particularly in times of economic uncertainty and tight credit markets. Any inability to collect customer receivables or inadequate provisions for doubtful receivables could have a material adverse effect on our business, financial condition and results of operations.

Our project-based business requires significant liquidity, and any inability to ensure adequate financing or guarantees for large projects in the future could have a material adverse effect on us.

The projects in which we participate, particularly in our pressure pipe business, can be capital-intensive and often require substantial liquidity levels. In line with industry practice, we receive prepayments from our customers as well as milestone payments. However, a change in prepayment patterns or our inability to obtain third-party guarantees in respect of such prepayments could force us to seek alternative financing sources, such as bank debt or in the capital markets, which we may not be able to do on terms acceptable to us or at all, any of which could have a material adverse effect on our business, financial condition and results of operations.

Certain of the contracts in our backlog may be adjusted, canceled or suspended by our customers and, therefore, our backlog is not necessarily indicative of our future revenues or earnings or a good indicator of our future margins, even if performed.

As of December 31, 2020, our backlog totaled approximately $510.2 million. In accordance with industry practice, many of our contracts are subject to cancellation, reduction, termination or suspension at the discretion of the customer in respect of work that has not yet been performed. In the event of a project cancellation, we would generally have no contractual right to the total revenue reflected in our backlog, but instead would collect revenues in respect of all work performed at the time of cancellation as well as all other costs and expenses incurred by us through such date. Projects can remain in backlog for extended periods of time because of the nature of the project, delays in execution of the project and the timing of the particular services required by the project. Additionally, the risk of contracts in backlog being canceled, terminated or suspended generally increases at times, including as a result of periods of widespread macroeconomic and industry slowdown, weather, seasonality and many of the other factors impacting our business. Many of the contracts in our backlog are subject to changes in the scope of services to be provided as well as adjustments to the costs relating to the contracts. The revenue for certain contracts included in backlog are based on estimates. Therefore, the timing of performance on our individual contracts can affect greatly our margins and hence, future profitability. There is no assurance that backlog will actually be realized as revenues in the amounts reported or, if realized, will result in any estimated profits.

As is customary in some of our markets, we provide our customers with performance guarantees and other guarantee instruments, such as surety bonds, that guarantee the timely completion of a project pursuant to defined contractual specifications. We also enter into contractual obligations to pay liquidated damages to our customers for project delays. We are required to make payments under these contracts, guarantees and instruments if we fail to meet any of the specifications. Some customers require the performance guarantees to be issued by a reputable and credit worthy financial institution in the form of a letter of credit, surety bond or other financial guarantee. Financial institutions consider our credit ratings and financial position in the guarantee approval process. Our credit ratings and financial position could make the process of obtaining guarantees from financial institutions more difficult and expensive. If we cannot obtain such guarantees from reputable and credit-worthy financial institutions on reasonable terms or at all, we could face higher financing costs or even be prevented from bidding on or obtaining new projects, and any of these or other related obstacles could have a material adverse effect on our business, financial condition and results of operations.

Our ability to raise capital in the future may be limited.

Our business and operations may consume resources faster than we anticipate. In the future, we may need to raise additional funds through the issuance of new equity securities, debt or a combination of both. However, any sale or perception of a possible sale by Lone Star, and any related decline in the market price of our common stock, could impair our ability to raise capital. Separately, additional financing may not be available on favorable terms, or at all. If adequate funds are not available on acceptable terms, we may be unable to fund our capital requirements. If we issue new debt securities, the debt holders would have rights senior to common stockholders to make claims on our assets, and the terms of any debt could restrict our operations, including our ability to pay dividends on our common stock. If we issue additional equity securities, existing stockholders will experience dilution, and the new equity securities could have rights senior to those of our common stock. Because our decision to issue securities in any future offering will depend on market conditions and other factors beyond our control, we cannot predict or estimate the amount, timing or nature of our future offerings. Thus, our stockholders bear the risk of our future securities offerings reducing the market price of our common stock and diluting their interest.

The phase-out of LIBOR could increase our interest expense and have a material adverse effect on us.

LIBOR is the basic rate of interest used in lending between banks on the London interbank market. Borrowings under our senior term loan and revolver use the London Interbank Offering Rate, or LIBOR, as a benchmark for establishing the applicable interest rate. The Financial Conduct Authority of the United Kingdom has announced that it plans to phase out LIBOR by the end of 2021. It is unclear if LIBOR will cease to exist at that time or if new methods of calculating LIBOR will be established such that it continues to exist after 2021. The U.S. Federal Reserve, in conjunction with the Alternative Reference Rates Committee, a steering committee comprised of large U.S. financial institutions, is considering replacing U.S. dollar LIBOR with a new index, the Secured Overnight Financing Rate, or SOFR, calculated using short-term repurchase agreements backed by Treasury securities. Whether or not SOFR, or another alternative reference rate, attains market traction as a LIBOR replacement tool remains in question. Although our borrowing arrangements provide for alternative base rates, , those alternative base rates historically would often have led to increased interest rates, in some cases significantly higher, than those we paid based on LIBOR, and may similarly be higher in the future. Therefore, if LIBOR ceases to exist, we will likely need to agree upon a replacement index with our lenders, which would require an amendment to our borrowing arrangements, and the interest rate thereunder will likely change.

The consequences of the phase out of LIBOR cannot be entirely predicted at this time. For example, we may not be successful in amending our borrowing arrangements to provide for a replacement rate. If any new or alternative base rate for calculating interest with respect to our outstanding indebtedness may not be as favorable or perform in the same manner as LIBOR and could lead to an increase in our interest expense or could impact our ability to refinance some or all of our existing indebtedness. In addition, the transition process may involve, among other things, increased volatility or illiquidity in financial markets, which could also have an adverse effect on us whether or not any replacement rate applicable to our borrowings is affected. Any such effects of the transition away from LIBOR, as well as other unforeseen impacts, may result in increased interest expense and other expenses, difficulties, complications or delays in connection with future financing efforts or otherwise have a material adverse impact on our business, financial condition, and results of operations.

Risks Related to the Proposed Merger

We may not complete the proposed merger within the time frame we anticipate or at all, which could adversely affect our business.

Completion of the merger is subject to a number of closing conditions, including receipt of required regulatory approvals or clearances. Regulatory authorities can require conditions on the proposed transaction, including requiring the disposition of certain assets, and the process of obtaining regulatory approvals could have the effect of delaying completion of the merger or of imposing additional costs or limitations. Effecting required dispositions can take time to negotiate and complete and there can be no assurances any such dispositions can be negotiated in a timely manner, on acceptable terms or at all. Further, while the parties have agreed to use their respective reasonable best efforts to obtain the required regulatory approvals, Parent and its affiliates will not be required to take, or agree to take, certain actions with respect to assets, businesses or product lines of Parent or any of its subsidiaries, or the Company or any of its subsidiaries, accounting for more than $80 million of EBITDA for the 12 months ended December 31, 2020, as defined in and measured in accordance with the merger agreement.

Each party’s obligation to consummate the merger is also subject to the absence of any order issued by any court of competent jurisdiction, other legal restraint or prohibition or any law enacted or deemed applicable by a governmental entity that prohibits or makes illegal the consummation of the merger; subject to certain qualifications, the accuracy of representations and warranties of the other party set forth in the merger agreement; and the performance by the other party in all material respects of its obligations under the merger agreement. Parent’s obligation to consummate the merger is also conditioned on, among other things, the absence of any material adverse effect, as defined in the merger agreement. In addition, the merger agreement may be terminated under certain specified circumstances, including if the merger has not been consummated on or before November 19, 2021, which date will be automatically extended for up to two additional 60-day periods under the circumstances specified in the merger agreement. As a result, we cannot assure you that the merger will be completed, or that, if completed, it will be exactly on the terms set forth in the merger agreement or within the expected time frame.

If the merger is not completed within the expected time frame or at all, we may be subject to a number of material risks and our business, financial condition and results of operations will be harmed. The price of our common stock may decline to the extent that current market prices reflect a market assumption that the merger will be completed. We could be required to reimburse certain expenses of Parent or pay Parent a termination fee of $50.0 million if the merger agreement is terminated under specific circumstances described in the merger agreement. The failure to complete the merger may result in negative publicity and could negatively affect our relationship with our stockholders, employees, customers, suppliers and strategic partners. We may also be required to devote significant time and resources to litigation related to any failure to complete the merger or related to any enforcement proceeding commenced against us to perform our obligations under the merger agreement.

The merger agreement provides us with limited remedies in the event of a breach by Parent that results in termination of the merger agreement, including the right to a reverse termination fee payable under certain specified circumstances, as described in the merger agreement. We cannot assure you that a remedy will be available to us in the event of such a breach or that the damages we incur in connection with such breach will not exceed the amount of the reverse termination fee.

Our business is subject to restrictions while the merger is pending.

The merger agreement restricts the conduct of our business prior to the completion of the merger or termination of the merger agreement, generally requiring us to conduct our business in the ordinary course and subjecting us to a variety of specified limitations absent Parent’s prior written consent. The restrictions on our business activities include, among other things, restrictions on our ability to acquire other businesses and assets, dispose of our assets, make investments, enter into certain contracts, repurchase or issue securities, pay dividends, make capital expenditures above specified levels, amend our organizational documents and incur indebtedness above specified levels. These restrictions could prevent us from pursuing strategic business opportunities, taking actions with respect to our business that we may consider advantageous and responding in a timely and effective manner to competitive pressures and industry developments, any of which could adversely affect our business, and financial condition and results of operations.

The announcement and pendency of the merger may disrupt business relationships, lead to employee departures, or otherwise adversely affect our business.

The announcement and pendency of the merger and our efforts to complete the merger could create uncertainty surrounding and significantly disrupt our business. Uncertainty regarding our future could adversely affect our relationship with existing and potential customers, suppliers, vendors, strategic partners or others that deal with us. For example, clients and other counterparties may delay or defer decisions concerning entering into contracts or otherwise working with us, seek to change our existing business relationships or consider doing business with other companies rather than us. Competitors may also target our customers by highlighting potential uncertainties and other risks related to the merger. The pendency of the merger may also divert management’s attention and resources towards completing the merger and preparing for integration actives and away from ongoing business and operations. Uncertainty as to whether the merger will be completed may also affect our ability to recruit prospective employees or to retain and motivate existing employees. Employee retention may be particularly challenging while the merger is pending because employees may experience uncertainty about their roles following the merger. These risks and the resulting adverse effects on business, financial condition and results of operations could be exacerbated by any delays in completion of the merger or termination of the merger agreement.

We have incurred, and will continue to incur, significant costs as a result of the merger.

We have incurred, and will continue to incur, significant direct and indirect costs and expenses in connection with the merger. These costs and expenses include fees for financial, legal and accounting advisors, facilities and systems costs in anticipation of consolidation, severance other potential employment-related costs and other transaction costs. We must pay substantially all of these amounts regardless of whether the merger is completed. There are a number of factors beyond our control that could affect the total amount or the timing of these costs and expenses, including the length of time required to obtain the required regulatory approvals and satisfy the other conditions to closing the merger. If the merger is not completed, we will have incurred significant costs for which we will have received little or no benefit, which could adversely affect our business, financial condition and results of operations.

Merger-related legal proceedings could delay or prevent the completion of the merger or otherwise adversely affect us.

Litigation by purported stockholder plaintiffs and others is common in connection with public company acquisitions, regardless of the merits of these claims. The lawsuits often allege, among other things, materially misleading disclosures or omissions in public filings and breaches of fiduciary duties. Any legal proceedings filed in connection with the merger could delay or prevent the merger from becoming effective. For example, the conditions to closing the merger include the absence of any order, injunction or other judgment issued by any court of competent jurisdiction, other legal restraint or prohibition or any law enacted or deemed applicable by a governmental entity that prohibits or makes illegal the consummation of the merger and, if a settlement or other resolution is not reached in any merger-related lawsuit in which a claimant secures injunctive or other relief having the effect of making the merger illegal or otherwise prohibiting completion of the merger, then the merger may not be completed in a timely manner or at all. Moreover, any litigation could be time consuming and expensive and could divert management’s attention away from our regular business, any of which could adversely affect on our business, financial condition and results of operations.

The merger agreement prohibits us from affirmatively seeking other acquisition proposals that may be superior to the merger.

The merger agreement prohibits us from engaging in any further discussions or solicitations regarding an alternative potential acquisition of the Company. This provision prevents us from affirmatively seeking offers from other possible acquirers that may be superior to the pending merger. Further, under the terms of the merger agreement, we may be required to pay Parent a termination fee of $50.0 million under specified conditions, including in the event Parent terminates the merger agreement for specified reasons and, within 12 months thereafter, we have consummated an acquisition proposal, as defined in the merger agreement, or entered into a definitive agreement regarding an acquisition proposal that is ultimately consummated. If the merger agreement is terminated under circumstances where the termination fee is potentially payable by the Company, this payment could affect the structure, pricing and terms proposed by a third party seeking to acquire or merge with us, and could discourage a third party from making a competing acquisition proposal following the termination of the merger agreement.

Risks Related to Ownership of Our Common Stock

The trading price of our common stock has been and may in the future be volatile and could decline substantially.

The market price of our common stock may be highly volatile and subject to wide fluctuations. Some of the factors that could negatively affect the market price of our common stock or result in significant fluctuations in price, regardless of our actual operating performance, include:

- actual or anticipated variations in our quarterly operating results;
- changes in market valuations of similar companies;
- changes in the markets in which we operate;
- additions or departures of key personnel;
- actions by stockholders, including the sale by Lone Star of any of its shares of our common stock;
- speculation in the press or investment community;
- general market, economic and political conditions, including an economic slowdown;
- uncertainty regarding economic events, including in Europe in connection with the United Kingdom's departure from the European Union;
- changes in interest rates;
- our operating performance and the performance of other similar companies;
- our ability to accurately project future results and our ability to achieve those and other industry and analyst forecasts; and
- new legislation or other regulatory developments that adversely affect us, our markets or our industry.

Furthermore, at times, the stock market has experienced significant price and volume fluctuations. This volatility has had a significant impact on the market price of securities issued by many companies, including companies in our industry, and often occurs without regard to the operating performance of the affected companies. Therefore, factors that have little or nothing to do with us could cause the price of our common stock to fluctuate, and these fluctuations or any fluctuations related to our company could cause the market price of our common stock to decline materially.

The coverage of our business or our common stock by securities or industry analysts or the absence thereof could adversely affect our stock price and trading volume.

The trading market for our common stock is influenced in part by the research and other reports that industry or securities analysts may publish about us or our business. We currently have, but may not be able to continue, research coverage by industry or financial analysts. If analysts do not continue coverage of us, the trading price and volume of our stock would likely be negatively impacted. Even if analyst coverage continues, if we fail to meet analyst expectations or one or more of the analysts who cover us downgrade our stock, or if analysts issue other unfavorable commentary or inaccurate research, our stock price would likely decline. If one or more of these analysts cease coverage of our company or fail to regularly publish reports on us, we could lose visibility in the financial markets, which in turn could cause our stock price or trading volume to decline.

Lone Star may have conflicts of interest with other stockholders and may limit your ability to influence corporate matters.

Lone Star beneficially owns approximately 52.9% of our outstanding common stock. As a result of this concentration of stock ownership, Lone Star acting on its own has sufficient voting power to effectively control all matters submitted to our stockholders for approval, including director elections and proposed amendments to our bylaws or certificate of incorporation. Five of the nine members of our board of directors are employees or affiliates of Lone Star.

In addition, this concentration of ownership may delay or prevent a merger, consolidation or other business combination or change in control of our company and make some transactions that might otherwise give investors the opportunity to realize a premium over the then-prevailing market price of our common stock more difficult or impossible without the support of Lone Star. Because we have opted out of Section 203 of the Delaware General Corporation Law, or the DGCL, regulating certain business combinations with interested stockholders, Lone Star may transfer control of us to a third party by transferring its common stock without the approval of our board of directors or other stockholders, which may limit the price that investors are willing to pay in the future for shares of our common stock. The interests of Lone Star may not always coincide with our interests as a company or the interests of other stockholders. Accordingly, Lone Star could cause us to enter into transactions or agreements of which investors would not approve or make decisions with which investors would disagree. This concentration of ownership may also adversely affect our share price.

Lone Star is in the business of making investments in companies and may from time to time acquire and hold interests in businesses that compete directly or indirectly with us, although it does not currently hold any such interests. Lone Star may also pursue acquisition opportunities that may be complementary to our business, and as a result, those acquisition opportunities may not be available to us. In recognition that principals, members, directors, managers, partners, stockholders, officers, employees and other representatives of Lone Star and its affiliates and investment funds may serve as our directors or officers, our amended and restated certificate of incorporation provides, among other things, that none of Lone Star or any principal, member, director, manager, partner, stockholder, officer, employee or other representative of Lone Star has any duty to refrain from engaging directly or indirectly in the same or similar business activities or lines of business that we do. In the event that any of these persons or entities acquires knowledge of a potential transaction or matter which may be a corporate opportunity for itself and us, we will not have any expectancy in such corporate opportunity, and these persons and entities will not have any duty to communicate or offer such corporate opportunity to us and may pursue or acquire such corporate opportunity for themselves or direct such opportunity to another person. These potential conflicts of interest could have a material adverse effect on our business, financial condition and results of operations if, among other things, attractive corporate opportunities are allocated by Lone Star to themselves or their other affiliates.

Lone Star may also have conflicts of interest with the Company and other stockholders as a result of its status as a party to the tax receivable agreement. For example, the tax receivable agreement entered into with Lone Star at the time of our initial public offering gives us the right to terminate the tax receivable agreement with approval of a majority of our independent directors and with Lone Star's consent by making a payment equal to the present value of future payments under the tax receivable agreement (based on certain assumptions and deemed events in the agreement, including those relating to our and our subsidiaries' future taxable income). Lone Star may determine to withhold its consent to terminate the tax receivable agreement at a time when such a termination would be favorable to us and the other stockholders. Furthermore, the tax receivable agreement prohibits us from settling any tax audit without Lone Star's consent (not to be unreasonably withheld, conditioned or delayed) if the outcome of the audit is reasonably expected to affect Lone Star's rights under the tax receivable agreement. Therefore, Lone Star may determine to withhold consent to a settlement that reduces the payments Lone Star will receive under the tax receivable agreement, even though the settlement might be favorable to us and our stockholders.

We are a "controlled company" within the meaning of Nasdaq rules and, as a result, qualify for, and are relying on, exemptions from certain corporate governance requirements.

Lone Star controls a majority of the voting power of our outstanding common stock. As a result, we are a "controlled company" within the meaning of the Nasdaq corporate governance standards. Under the relevant Nasdaq rules, a company of which more than 50% of the voting power is held by a person or group is a "controlled company" and need not comply with certain requirements, including the requirement that a majority of the board of directors consist of independent directors and the requirements that the compensation and nominating and corporate governance committees be composed entirely of independent directors. We are utilizing these exemptions and, for so long as Lone Star controls a majority of the voting power of our outstanding common stock, we intend to continue to utilize these exemptions. As a result, among other things, we do not have a majority of independent directors and our compensation and nominating and corporate governance committees do not consist entirely of independent directors. Accordingly, investors will not have the same protections afforded to stockholders of companies that are subject to all of the applicable Nasdaq corporate governance requirements.

Future sales of our common stock in the public market could cause our stock price to fall.

Lone Star beneficially owns approximately 52.9% of our outstanding shares of common stock. The shares held by Lone Star and all shares held by our affiliates are eligible for resale in the public market, subject to applicable securities laws, including the Securities Act of 1933, as amended, or the Securities Act. In December

2019 we registered the shares of common stock beneficially owned by Lone Star pursuant to the terms of a registration rights agreement and these shares are now generally freely tradeable in the public market, subject to applicable securities laws. Unless the shares owned by any of our other affiliates are registered under the Securities Act, these shares may only be resold into the public markets in accordance with the requirements of an exemption from registration or safe harbor, including Rule 144 and the volume limitations, manner of sale requirements and notice requirements thereof. Any sale by Lone Star or other affiliates or any perception in the public markets that such a transaction may occur could cause the market price of our common stock to decline materially.

We have issued, and in the future we expect to issue, options, restricted stock and other forms of stock-based compensation, which have the potential to dilute stockholder value and cause the price of our common stock to decline.

We have issued, and in the future expect to issue, stock-based awards, including stock options, restricted stock and other forms of stock-based compensation to our independent directors, officers and employees. If any options that we have issued or may issue are exercised, or any restricted stock or other awards that we have issued or may issue vests, and the shares of common stock are sold into the public market, the market price of our common stock may decline. In addition, the availability of shares of common stock for award under our equity incentive plan, or the grant of stock options, restricted stock or other forms of stock-based compensation, may adversely affect the market price of our common stock.

We have no present intention to pay dividends on our common stock.

We have no present intention to pay dividends on our common stock. Any determination to pay dividends to holders of our common stock will be at the discretion of our board of directors and will depend upon many factors, including our financial condition, results of operations, projections, liquidity, earnings, legal requirements, restrictions in our credit facility and agreements governing any other indebtedness we may enter into and other factors that our board of directors deems relevant. Accordingly, holders of our common stock may need to sell their shares to realize a return on their investment and may not be able to sell their shares at or above the price they paid.

Provisions of our amended and restated governing documents, Delaware law and other documents could discourage, delay or prevent a merger or acquisition at a premium price.

Provisions in our amended and restated certificate of incorporation and amended and restated bylaws may have the effect of delaying or preventing a change of control or changes in our management. For example, our amended and restated certificate of incorporation and amended and restated bylaws include provisions that:

- permit us to issue, without stockholder approval, preferred stock in one or more series and, with respect to each series, fix the number of shares constituting the series and the designation of the series, the voting powers, if any, of the shares of the series and the preferences and other special rights, if any, and any qualifications, limitations or restrictions, of the shares of the series;
- prevent stockholders from calling special meetings;
- restrict the ability of stockholders to act by written consent after such time as Lone Star owns less than a majority of our common stock;
- limit the ability of stockholders to amend our certificate of incorporation and bylaws;
- require advance notice for nominations for election to the board of directors and for stockholder proposals;
- do not permit cumulative voting in the election of our directors, which means that the holders of a majority of our common stock may elect all of the directors standing for election; and
- establish a classified board of directors with staggered three-year terms (which will be phased out over the next 3 annual meetings of stockholders).

These provisions may discourage, delay or prevent a merger or acquisition of our company, including a transaction in which the acquirer may offer a premium price for our common stock.

Our amended and restated certificate of incorporation includes an exclusive forum clause, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us.

Our amended and restated certificate of incorporation provides that, unless we consent in writing to the selection of an alternative forum, the sole and exclusive forum for any stockholder (including any beneficial owner) to bring (i) any derivative action or proceeding brought on our behalf, (ii) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers, or employees to us or to our stockholders, (iii) any action asserting a claim arising pursuant to any provision of the DGCL, or our certificate of incorporation or bylaws, or (iv) any action asserting a claim governed by the internal affairs doctrine, will be a state court located within the State of Delaware (or, if no state court located within the State of Delaware has jurisdiction, the federal district court for the District of Delaware); in all cases subject to such court having personal jurisdiction over the indispensable parties named as defendants. Any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock is deemed to have notice of and consented to the foregoing provisions. The exclusive forum clause may limit our stockholders' ability to obtain a favorable judicial forum for disputes with us. It is also possible that, notwithstanding such exclusive forum clause, a court could rule that such a provision is inapplicable or unenforceable.

Risks Related to Our Tax Receivable Agreement

We will be required to pay Lone Star for certain tax benefits, and these amounts are expected to be material.

We entered into a tax receivable agreement with Lone Star that provides for the payment by us to Lone Star of 85% of the amount of cash savings, if any, in U.S. federal, state, local and non-U.S. income tax that we and our subsidiaries realize (or in some circumstances are deemed to realize) as a result of the utilization of certain tax benefits, together with interest accrued at a rate of LIBOR plus 100 basis points from the date the applicable tax return is due (without extension) until paid. These tax benefits, which we collectively refer to as the Covered Tax Benefits, include: (i) all depreciation and amortization deductions, and any offset to taxable income and gain or increase to taxable loss, resulting from the tax basis that we have in our assets as of the time of the consummation of our initial public offering, (ii) the utilization of our and our subsidiaries' net operating losses and tax credits, if any, attributable to periods prior to our initial public offering, (iii) deductions in respect of payments made, funded or reimbursed by an initial party to the tax receivable agreement (other than us or one of our subsidiaries) or an affiliate thereof to participants under the LSF9 Concrete Holdings Ltd Long Term Incentive Plan, or the LTIP, (iv) deductions in respect of transaction expenses attributable to the acquisition of U.S. Pipe and (v) certain other tax benefits attributable to payments made under the tax receivable agreement. The tax receivable agreement will remain in effect until all Covered Tax Benefits have been used or expired, unless the agreement is terminated early, as described below.

We expect that the payments we make under the tax receivable agreement could be substantial. For the years ended December 31, 2020 and December 31, 2019, we paid $13.1 million and $11.4 million, respectively, on our tax receivable agreement to Lone Star. Assuming no material changes in the relevant tax law, and that we and our subsidiaries earn sufficient income to realize the full tax benefits subject to the tax receivable agreement, we currently estimate that future payments under the agreement will aggregate to approximately $64.2 million. This amount excludes any payments that may be made to Lone Star under the tax receivable agreement as a result of tax benefits recognized in connection with payments under the LTIP and, thus, the actual payments we ultimately are required to make under the tax receivable agreement could be greater, potentially materially greater, than these amounts. These payment obligations are our obligations and are not obligations of any of our subsidiaries. Furthermore, these payment obligations are not conditioned upon Lone Star maintaining a continued direct or indirect ownership interest in us. The actual utilization of Covered Tax Benefits as well as the timing of any payments under the tax receivable agreement will vary depending upon a number of factors, including the amount, character and timing of our and our subsidiaries' taxable income in the future.

We will not be reimbursed for any payments made to Lone Star under the tax receivable agreement in the event that the tax benefits are disallowed.

Lone Star will not reimburse us for any payments previously made under the tax receivable agreement if such benefits are subsequently disallowed upon a successful challenge by the Internal Revenue Service, although future payments under the agreement would be adjusted to the extent possible to reflect the result of such disallowance. As a result, in certain circumstances, payments could be made under the tax receivable agreement in excess of our cash tax savings if any, from the Covered Tax Benefits, and we may not be able to recoup those payments, which could adversely affect our liquidity.

In certain cases, payments made by us under the tax receivable agreement may be accelerated and/or significantly exceed the actual benefits we realize in respect of the Covered Tax Benefits.

The term of the tax receivable agreement will continue until all Covered Tax Benefits have been utilized or expired, unless we exercise our right to terminate the agreement with Lone Star's consent, we breach any of our material obligations under the agreement or certain credit events occur with respect to us, in any of which cases we will be required to make an accelerated payment to Lone Star equal to the present value of future payments under the tax receivable agreement. Such payment would be based on certain assumptions, including, among others, that we and our subsidiaries would generate sufficient taxable income and tax liability to fully utilize all Covered Tax Benefits. The tax receivable agreement also provides that upon certain mergers, asset sales, other forms of business combinations or other changes of control, our (or our successor's) payments under the tax receivable agreement for each taxable year after any such event would be based on certain valuation assumptions, including the assumption that we and our subsidiaries have sufficient taxable income to fully utilize the Covered Tax Benefits. Accordingly, payments under the tax receivable agreement may be made years in advance of the actual realization, if any, of the anticipated future tax benefits and may be significantly greater than the benefits we realize in respect of the Covered Tax Benefits.

Even if the payments under the tax receivable agreement are not accelerated as described above, such payments may be significantly greater than the benefits we realize in respect of the Covered Tax Benefits, due to the manner in which payments are calculated under the tax receivable agreement. For example, for purposes of calculating the payments to be made to Lone Star:

- it is assumed that we will pay effective state and local taxes at a rate of 5%, even though our actual effective state and local tax rate may be materially lower;
- tax benefits existing at the time of our initial public offering are deemed to be utilized before any post-closing/after-acquired tax benefits and, as a result, we could be required to make payments to Lone Star for a particular tax year even if our tax liability for such year would have been materially reduced or eliminated by reason of our utilization of the post-initial public offering/after-acquired tax benefits;
- a non-taxable transfer of assets by us to a non-consolidated entity is treated under the tax receivable agreement as a taxable sale at fair market value and, as a result, we could be required to make payments to Lone Star even though such non-taxable transfer would not generate any actual tax benefits to us or our non-consolidated entity; and
- a taxable sale or other taxable transfer of subsidiary stock by us (in cases where the subsidiary's tax basis in its assets exceeds our tax basis in the subsidiary's stock) is treated under the tax receivable agreement as a taxable sale of the subsidiary's assets and, as a result, we could be required to make payments to Lone Star that materially exceed the actual tax benefit we realize from such stock sale.

Because of the foregoing, our obligations under the tax receivable agreement could have a substantial negative impact on our liquidity and could have the effect of delaying, deferring or preventing certain mergers, asset sales, other forms of business combinations or other changes of control.

Certain provisions of the tax receivable agreement limit our ability to incur additional indebtedness, which could adversely affect our business and growth strategy.

For so long as the tax receivable agreement remains outstanding, without the prior written consent of Lone Star (not to be unreasonably withheld, conditioned or delayed), we will be prohibited from (a) entering into any agreement that would be materially more restrictive with respect to our ability to make payments under the tax receivable agreement than the terms of our credit agreement and (b) incurring any indebtedness for borrowed money if, immediately after giving effect to such incurrence and the application of proceeds therefrom, our consolidated net leverage ratio - the ratio of consolidated funded indebtedness for borrowed money less unrestricted cash to consolidated EBITDA - would exceed a certain specified ratio, in each case as calculated pursuant to the tax receivable agreement, unless the incurrence of such indebtedness is permitted by the terms of our credit agreement or any replacement credit agreements to the extent the terms thereof are no less restrictive in this regard than the applicable credit agreement it replaced. These restrictions on the incurrence of debt could adversely affect our business, including by preventing us from pursuing an acquisition or other strategic transaction that we believe is in the best interests of our company and our stockholders, thereby impeding our growth strategy. Lone Star has no fiduciary duties to us when deciding whether to enforce these covenants under the tax receivable agreement. Furthermore, the provision in the tax receivable agreement that requires that we make an accelerated payment to Lone Star equal to the present value of all future payments due under the tax receivable agreement if we breach any of our material obligations under the agreement or certain credit events occur with respect to us might make it harder for us to obtain financing from third party lenders on favorable terms.

We would be required to make tax gross-up payments to Lone Star if we consummate a corporate inversion or similar transaction that causes payments under the tax receivable agreement to be subject to withholding taxes.

If we were to consummate a change of control transaction that causes us (or our successor) to become a non-U.S. person (e.g., a corporate inversion transaction), and such transaction causes payments under the tax receivable agreement to become subject to withholding taxes, we would be required under the tax receivable agreement to make tax gross-up payments to Lone Star in respect of such withholding taxes in amounts that may exceed the tax savings realized by the Company from the Covered Tax Benefits. Any such tax gross-up payments could have a negative impact on our liquidity and our ability to finance our growth.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

We operate a broad network of 73 active manufacturing facilities in the United States, including 10 fabrication plants. We also have three manufacturing facilities in Canada and one in Mexico. Our headquarters is located in Irving, Texas.

The following tables set forth certain information regarding our active manufacturing facilities:

Facility Name	City	State/Province	Ownership
Drainage Pipe & Products (62 plants)			
Caldwell	Caldwell	Idaho	Owned
Salt Lake City	Salt Lake City	Utah	Owned
Pelham	Pelham	Alabama	Owned
El Mirage	El Mirage	Arizona	Leased
West Memphis	West Memphis	Arkansas	Leased
Florin Road (2 plants)	Sacramento	California	Leased
Deland Precast	Deland	Florida	Leased

Facility Name	City	State/Province	Ownership
Green Cove Springs	Green Cove Springs	Florida	Owned
Gretna	Gretna	Florida	Leased
Winter Haven Pipe	Winter Haven	Florida	Leased
St. Martinville	St. Martinville	Louisiana	Leased
Como	Como	Mississippi	Owned
Prentiss (2 plants)	Prentiss	Mississippi	Owned
Columbus (2 plants)	Columbus	Ohio	Leased
Austin Pipe	Austin	Texas	Leased
Cedar Hill Pipe	Cedar Hill	Texas	Leased
Grand Prairie (2 plants)	Grand Prairie	Texas	Leased
Jersey Village (3 plants)	Houston	Texas	Leased
Waco	Hewitt	Texas	Leased
Waxahachie (2 plants)	Waxahachie	Texas	Owned
Ottawa	Gloucester	Ontario	Leased
Cambridge	Cambridge	Ontario	Leased
Lexington	Lexington	Kentucky	Leased
Louisville	Louisville	Kentucky	Leased
Billings	Billings	Montana	Leased
Bonner Springs	Bonner Springs	Kansas	Leased
Cedar Rapids	Cedar Rapids	Iowa	Owned
Des Moines	Des Moines	Iowa	Leased
Elk River (4 plants)	Elk River	Minnesota	Leased
Hawley	Hawley	Minnesota	Leased
Helena	Helena	Montana	Leased
Humboldt	Humboldt	Iowa	Owned
Iowa Falls	Iowa Falls	Iowa	Leased
Lawrence	Lawrence	Kansas	Owned
Marshalltown	Marshalltown	Iowa	Leased
West Des Moines	West Des Moines	Iowa	Leased
Menoken	Menoken	North Dakota	Leased
Mitchell	Mitchell	South Dakota	Owned
Plattsmouth	Plattsmouth	Nebraska	Leased
Rapid City	Rapid City	South Dakota	Leased
Henderson (2 plants)	Henderson	Colorado	Leased
Grand Junction	Grand Junction	Colorado	Leased
Lubbock	Lubbock	Texas	Owned
Mineral Wells	Mineral Wells	Texas	Owned
San Antonio	San Antonio	Texas	Owned
Stacy	Stacy	Minnesota	Owned
Riverside (2 plants)	Menifee	California	Leased
Bio Clean	Oceanside	California	Leased
St. Eustache Pressure Pipe	St. Eustache	Quebec	Owned
Bar Nunn	Bar Nunn	Wyoming	Owned

Facility Name	City	State/Province	Ownership
Water Pipe & Products (15 plants)			
Bessemer (2 plants)	Bessemer	Alabama	Leased
Mini Mill	Bessemer	Alabama	Leased
Union City	Union City	California	Owned
Lynchburg	Lynchburg	Virginia	Owned
Monterrey, Mexico	Monterrey	Mexico	Owned
Rogers	Rogers	Minnesota	Leased
Ottawa	Ottawa	Kansas	Leased
Marysville	Marysville	California	Leased
Warren	Warren	Oregon	Leased
Ephrata	Ephrata	Pennsylvania	Leased
Phoenix	Phoenix	Arizona	Leased
Orlando	Orlando	Florida	Leased
Gainesville	Gainesville	Georgia	Leased
San Antonio	San Antonio	Texas	Leased

Item 3. Legal Proceedings

We have been from time to time, and may in the future become, party to litigation or other legal proceedings that we consider to be part of the ordinary course of our business. We are not currently involved in any legal proceedings that we believe could reasonably be expected to have a material adverse effect on our business, financial condition or results of operations. We may become involved in material legal proceedings in the future. See Note 16 to the consolidated financial statements, and the discussion therein under the headings “Earnout Dispute” and “Derivative Action” is incorporated herein by reference.

Earnout Dispute

On March 13, 2015, through an indirect wholly owned subsidiary, Lone Star acquired the building products business of HeidelbergCement AG, or Heidelberg, in the United States and Eastern Canada, or the Acquisition. The Acquisition purchase agreement included an earnout, which provided for the payment of contingent consideration of up to $100.0 million, if and to the extent the 2015 financial results of the businesses acquired by Lone Star in the Acquisition, including the Company and Heidelberg's former building products business in the United Kingdom, exceeded a specified Adjusted EBITDA target for fiscal year 2015, as calculated pursuant to the terms of the purchase agreement. If such Adjusted EBITDA calculation exceeded the specified target, LSF9 Concrete Holdings Ltd., or LSF9, and, as a result of the internal reorganization transaction effected prior to the Company's initial public offering, or IPO, the Company would be required to pay the U.S. affiliate of Heidelberg an amount equal to a multiple of such excess Adjusted EBITDA, with any payment capped at $100.0 million. In April 2016, the Company provided an earnout statement to affiliates of Heidelberg demonstrating that no payment was required. On June 13, 2016, Heidelberg provided notification that it disputed, among other things, the Company’s calculation of Adjusted EBITDA under the purchase agreement and asserting that a payment should be made in the amount of $100.0 million. On October 5, 2016, affiliates of Heidelberg filed a lawsuit in the Delaware Court of Chancery seeking specific performance and claiming access to the Company's books, records, and personnel; seeking a declaratory judgment concerning the scope of the neutral accounting expert’s authority; and in the alternative, claiming a breach of contract and seeking the $100.0 million and other damages (the "Delaware Action"). On December 8, 2017, the court granted the defendants' Motion to Dismiss the First Amended Complaint in the Delaware Action, finding that the earnout dispute should be heard before a neutral accounting arbitrator as set forth in the purchase agreement and that any claims that were required to be brought as indemnification claims under the purchase agreement were time-barred by the contractual limitations period. Following the dismissal of the Delaware Action, the Company and Heidelberg jointly engaged a neutral accounting expert to act as an arbitrator in the dispute as required by the purchase agreement. After briefing certain preliminary matters for the arbitrator and the production of additional documents, the parties began briefing the issues on the merits for the neutral accounting arbitrator, which was completed in April 2020. A hearing on the dispute was held in June 2020, and a written decision was issued by the neutral accounting arbitrator on September 10, 2020 in which the arbitrator ruled that no earnout payment was owed in the matter. The deadline for Heidelberg to take any action to overturn the ruling was in December 2020, and they took no action, so we believe the ruling is final. As of December 31, 2020, no liability for this contingency has been accrued as payment of any earnout is not considered probable. See Note 16 to our consolidated financial statements.

Shareholder Derivative Action

On January 15, 2019, a putative shareholder derivative complaint captioned Lee v. Bradley, et al., was filed in the United States District Court for the District of Delaware, naming as defendants certain of our current and former directors and officers (the "Lee Action"). The complaint alleges the defendants violated Section 14A of the Securities and Exchange Act of 1934, as amended, and related rules by failing to make certain disclosures in our proxy solicitation in advance of the 2017 Annual Meeting of Stockholders, and that defendants breached their fiduciary duties, wasted corporate assets, and committed constructive fraud. The complaint also asserts unjust enrichment claims against certain defendants. The complaint seeks, on behalf of the Company, unspecified damages, an order directing the return of certain payments to the defendants, certain injunctive relief, and reasonable costs and attorneys' fees. After initially staying the case until the court in a prior, unrelated shareholder class action that has now been settled ruled on the motion to dismiss in that case, on December 11, 2019, the court in the Lee Action entered a Stipulation and Order consolidating the Lee Action and another derivative action filed in the same court into a single case (the "Consolidated Lee Action"), and providing a schedule for filing of an amended complaint and motions to dismiss, which has been further extended by agreement of the parties. A mediation of the dispute was held on June 12, 2020 but was not successful in resolving the dispute. Plaintiffs filed an amended complaint in August 2020 and Defendants filed a motion to dismiss the complaint in September 2020, which is now fully briefed and before the court and a decision is expected in the coming months.

We and other defendants are vigorously defending the Consolidated Lee Action. Given the stage of the proceedings, we cannot reasonably estimate at this time the possible loss or range of loss, if any, that may arise from the Consolidated Lee Action. See Note 16 to our consolidated financial statements.

North Birmingham EPA Matter

U.S. Pipe received a General Notice Letter and Invitation to Conduct Removal Action dated September 20, 2013 from the EPA with respect to the 35th Avenue superfund site in Birmingham, Alabama. The letter requests that U.S. Pipe participate in an environmental response action in an area proximate to a closed U.S. Pipe facility in North Birmingham, Alabama. The U.S. Pipe North Birmingham facility was closed and, as part of the acquisition of U.S. Pipe by a private equity fund from Mueller Water Products, Inc. and Mueller Group, LLC, or the Sellers, in 2012, the facility was retained by and is currently owned by either the Sellers or one of their affiliates. The notice requested response activities including testing and removing surface soils at area residences alleged to be contaminated by locally-sourced air pollutants. In connection with the disposition, the Sellers agreed to jointly and severally defend and indemnify U.S. Pipe against any losses or environmental liabilities related to sites retained by the Sellers, including the North Birmingham facility. Accordingly, U.S. Pipe tendered the defense of this matter to the Sellers for defense and indemnification. The Sellers accepted the tender and, on behalf of U.S. Pipe, have responded to the EPA's request to participate in a time-critical removal action by declining, based on the EPA's failure to establish any nexus between the contamination and any operations at the U.S. Pipe North Birmingham facility. The EPA sent a renewed request addressed to the Sellers, U.S. Pipe and a number of other potentially responsible parties on August 8, 2014 seeking participation in a broader cleanup of soil at approximately 80 homes in North Birmingham. The Sellers again responded on U.S. Pipe's behalf declining to participate on the same grounds. In September 2014, the EPA proposed that the site be listed on the National Priorities List. The Sellers continue to defend on this matter on behalf of U.S. Pipe. While we cannot provide assurance that such defense will be successful, because of the indemnification described above, we do not believe the ultimate resolution of these matters will have a material adverse effect on our business, financial condition or results of operations.

Item 4. Mine Safety Disclosures

Not applicable.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Common Stock

Our common stock is traded on Nasdaq under the ticker symbol “FRTA.” As of February 24, 2021, there were 3 stockholders of record of our common stock. A substantially greater number of holders of Forterra's common stock are “street name” or beneficial holders, whose shares of record are held by banks, brokers, and other financial institutions.

Dividend Policy

We have not declared or paid any dividends since our formation and currently do not intend to pay dividends for the foreseeable future. Additional information concerning restrictions on our payment of cash dividends may be found in “Liquidity and Capital Resources” in Item 7 Management’s Discussion and Analysis of Financial Condition and Results of Operations.

Securities Authorized for Issuance Under Equity Compensation Plans

See Item 12, Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters for information regarding common stock authorized for issuance under equity compensation plans.

Item 6. Selected Financial Data

References in this Item 6 refer to our operations. The following tables set forth, for the periods and dates indicated, the selected historical financial data of Forterra, Inc. together with its consolidated subsidiaries. The accompanying historical financial statements are the financial statements of the Company and subsidiaries.

The selected financial data presented below represent portions of our financial statements and are not complete and should be read in conjunction with Item 7, "Management's Discussion and Analysis of Financial Condition" and "Results of Operations" and our consolidated financial statements.

(in thousands)	Year ended December 31, 2020	Year ended December 31, 2019	Year ended December 31, 2018	Year ended December 31, 2017	Year ended December 31, 2016
Statement of Operations Data:					
Net sales	$ 1,594,506	$ 1,529,752	$ 1,479,712	$ 1,580,413	$ 1,363,962
Cost of goods sold	1,217,833	1,233,370	1,234,143	1,327,305	1,083,508
Gross profit	376,673	296,382	245,569	253,108	280,454
Selling, general & administrative expenses	(221,770)	(221,770)	(209,877)	(255,034)	(216,099)
Impairment and exit charges	(2,511)	(3,520)	(4,336)	(13,220)	(2,218)
Other operating income, net	1,409	1,094	9,523	5,197	(10,971)
	(222,872)	(224,196)	(204,690)	(263,057)	(229,288)
Income (loss) from operations	153,801	72,186	40,879	(9,949)	51,166
Other income (expenses)					
Interest expense	(79,890)	(94,970)	(78,337)	(59,408)	(125,048)
Gain (loss) on extinguishment of debt	(12,256)	1,708	—	—	—
Earnings from equity method investee	11,291	10,466	10,162	12,360	11,947
Change in tax receivable agreement liability	—	—	—	46,180	—
Other income (expense), net	—	—	6,016	(31,915)	(847)
Income (loss) before income taxes	72,946	(10,610)	(21,280)	(42,732)	(62,782)
Income tax (expense) benefit	(8,460)	3,279	(3,085)	40,672	51,692
Income (loss) from continuing operations	64,486	(7,331)	(24,365)	(2,060)	(11,090)
Discontinued operations, net of tax	$ —	$ —	$ —	$ —	$ 3,484
Net income (loss)	$ 64,486	$ (7,331)	$ (24,365)	$ (2,060)	$ (7,606)
Basic and Diluted Earnings (loss) Per Share:					
Basic	$ 0.99	$ (0.11)	$ (0.38)	$ (0.03)	$ (0.23)
Discontinued operations	$ —	$ —	$ —	$ —	$ 0.07
Diluted	$ 0.94	$ (0.11)	$ (0.38)	$ (0.03)	$ (0.16)
Statement of Cash Flows Data:					
Net cash provided by (used in) operating activities	$ 243,197	$ 146,786	$ 27,196	$ 42,334	$ 76,925
Net cash provided by (used in) investing activities	(18,373)	(42,295)	(51,052)	(66,023)	(1,062,447)
Net cash provided by (used in) financing activities	(234,272)	(106,181)	(43,451)	86,250	981,728
Balance Sheet Data:					
Cash and cash equivalents	$ 25,678	$ 34,800	$ 35,793	$ 104,534	$ 40,024
Property, plant & equipment, net	451,082	475,575	492,167	412,572	452,914
Total assets	1,655,812	1,740,058	1,793,252	1,811,238	1,824,786
Total debt[1]	900,021	1,098,303	1,188,605	1,193,787	1,096,047
Shareholders' equity	193,767	120,967	108,222	132,491	132,917

[1] Total debt, net of debt issuance costs and original issuance discount

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion and analysis should be read in conjunction with our consolidated financial statements and the related notes included in Item 8. "Financial Statements and Supplementary Data".

This discussion and analysis contains forward-looking statements that involve risks, uncertainties and assumptions. Our actual results may differ materially from those anticipated in these forward-looking statements as a result of many factors, including those set forth under the heading Item 1A. "Risk Factors" and elsewhere in this Annual Report on Form 10-K. See the section entitled "Cautionary Statement Concerning Forward-Looking Statements."

Overview

Our Company

We are a manufacturer of ductile iron pipe and concrete pipe and precast products in the United States and Eastern Canada for a variety of essential water-related infrastructure applications, including water transmission, distribution and drainage. Our manufacturing and distribution network allows us to serve most major U.S. and Eastern Canadian markets. We operate 77 active manufacturing facilities and currently have additional manufacturing capacity available in both of our segments, providing room to increase production to meet short-cycle demand with minimal incremental investment. These facilities and our distribution network provide us with a local presence and the necessary proximity to our customers to minimize delivery time and distribution costs to the markets we serve.

Quikrete Merger Agreement

On February 19, 2021, we entered into an Agreement and Plan of Merger, or the Merger Agreement, with Quikrete Holdings, Inc., a Delaware corporation, or Parent, and Jordan Merger Sub, Inc., a Delaware corporation and a wholly-owned subsidiary of Parent, or Merger Sub. Pursuant to the Merger Agreement, subject to the satisfaction or waiver of specified conditions, Merger Sub will merge with and into the Company, or the Merger, with us surviving the Merger as a wholly-owned subsidiary of Parent.

Pursuant to the Merger Agreement, at the effective time of the Merger, or the Effective Time, each issued and outstanding share of common stock of ours (other than (i) any shares held in the treasury of us or owned, directly or indirectly, by Parent, Merger Sub or any wholly-owned subsidiary of us immediately prior to the Effective Time, (ii) shares that are subject to any vesting restrictions, or the Company Restricted Shares, granted under our stock incentive plans, or the Company Stock Plans, and (iii) any shares owned by stockholders who have properly exercised and perfected appraisal rights under Delaware law) will be automatically canceled and converted into the right to receive $24.00 in cash, without interest, or Merger Consideration, subject to deductions for any required withholding tax.

At the Effective Time:

(1) each restricted stock unit that is solely subject to time-based vesting requirements granted under the Company Stock Plans that is outstanding immediately prior to the Effective Time shall fully vest and be converted into the right to receive an amount in cash (without interest and subject to applicable tax withholdings) equal to the product of (i) the Merger Consideration multiplied by (ii) the number of shares of Common Stock subject to such vested restricted stock unit;

(2) each restricted stock unit that is subject to performance-based vesting requirements granted under the Company Stock Plans that is outstanding immediately prior to the Effective Time shall immediately vest and be converted into the right to receive an amount in cash (without interest and subject to applicable tax withholdings) equal to the product of (i) the Merger Consideration multiplied by (ii) the number of shares subject to such vested restricted stock unit immediately prior to the Effective Time as determined in accordance with the Merger Agreement;

(3) each option to purchase shares of Common Stock granted under the Company Stock Plans that is outstanding immediately prior to the Effective Time shall fully vest, to the extent not vested previously, and be converted into the right to receive an amount in cash (without interest and subject to applicable tax withholdings) equal to the product of (i) the remainder, if positive, of (A) the Merger Consideration minus (B) the exercise price per share of Common Stock of such option multiplied by (ii) the number of shares of Common Stock subject to such vested option; and

(4) each Company Restricted Share that is outstanding immediately prior to the Effective Time shall immediately vest in full and be converted into the right to receive an amount in cash (without interest and subject to applicable tax withholdings) equal to the Merger Consideration.

Each party's obligation to consummate the Merger is subject to certain conditions, including, among others: (i) expiration or termination of the applicable waiting period under the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended; (ii) the absence of any order issued by any court of competent jurisdiction, other legal restraint or prohibition or any law enacted or deemed applicable by a governmental entity that prohibits or makes illegal the consummation of the Merger; (iii) the passing of twenty (20) days from the date on which we mail to our stockholders the Information Statement (as defined below) in definitive form; (iv) subject to certain qualifications, the accuracy of representations and warranties of the other party set forth in the Merger Agreement; and (v) the performance by the other party in all material respects of its obligations under the Merger Agreement. Parent's obligation to consummate the Merger is also conditioned on, among other things, the absence of any Material Adverse Effect (as defined in the Merger Agreement).

Entry into the Merger Agreement was unanimously approved by our board of directors.

The Merger Agreement includes customary representations, warranties and covenants of us, Parent and Merger Sub. Among other things, we have agreed to use commercially reasonable efforts to conduct its business in the ordinary course of business consistent with past practice and use commercially reasonable efforts to preserve intact its businesses until the Merger is consummated. We and Parent have also agreed to use their respective reasonable best efforts to obtain any approvals from governmental authorities for the Merger, including all required antitrust approvals, on the terms and subject to the conditions set forth in the Merger Agreement, provided that Parent and its affiliates will not be required to take, or agree to take, certain actions with respect to assets, businesses or product lines of Parent or any of its subsidiaries, or we or any of its subsidiaries, accounting for more than $80 million of EBITDA (as defined in the Merger Agreement) for the 12 months ended December 31, 2020, measured in accordance with the Merger Agreement.

The Merger Agreement contains certain provisions giving each of Parent and us rights to terminate the Merger Agreement under certain circumstances, including the right for either Parent or us to terminate the Merger Agreement if the Merger has not been consummated on or before November 19, 2021, which date will be automatically extended for up to two additional 60-day periods in specified circumstances as described in the Merger Agreement, or the Outside Date. Upon termination of the Merger Agreement under specified circumstances, we will be required to pay Parent a termination fee of $50 million. The Merger Agreement further provides that Parent will be required to pay us a reverse termination fee of $85 million under certain circumstances if the Merger Agreement is terminated due to the failure of the parties to obtain required approvals under Antitrust Laws (as defined in the Merger Agreement) prior to the Outside Date or as a result of a Restraint (as defined in the Merger Agreement) arising under applicable Antitrust Laws.

If the Merger is consummated, the shares of Common Stock will be delisted from the Nasdaq Stock Market LLC and deregistered under the Securities Exchange Act of 1934, as amended (the "Exchange Act").

Our Segments

Our operations are organized into the following reportable segments:

- Drainage Pipe & Products - We are a producer of concrete drainage pipe and precast products and concrete pressure pipe products.
- Water Pipe & Products - We are a producer of ductile iron pipe, or DIP.
- Corporate and Other - Corporate, general and administrative expenses not allocated to our revenue-generating segments such as certain shared services, executive and other administrative functions.

In the fourth quarter of 2020, we reclassified our pressure pipe business from Water segment to Drainage segment to better align with our organizational structure.

COVID-19 Pandemic

Beginning in mid-March, local, state, provincial and federal authorities began issuing stay at home orders in response to the spread of the coronavirus disease 2019, or COVID-19, which has quickly spread throughout the United States and worldwide. These government-instituted restrictions, together with the economic volatility and uncertainty caused by the pandemic, have had a significant impact on the United States economy in general and certain parts of our end-markets in particular. Despite these events and the related uncertainty, we have continued to operate as an essential business under the government orders, and the COVID-19 pandemic has not materially affected our liquidity, financial results or business operations thus far. During the initial phase of the pandemic in the early part of the second quarter, we experienced temporary delays in certain projects, primarily related to governmental stay-at-home orders in place at that time and the reactions of certain customers to those orders, specifically in our residential end-markets. Late in the second quarter and continuing through 2020 and into 2021, as most states started gradually resuming their normal economic activities, there was some correction in these trends in the residential housing market.

Since the onset of the COVID-19 pandemic, we have focused on protecting the health and safety of our team members while maintaining our operations, which have been deemed essential under relevant pandemic-related government regulations, and continuing to meet our customers' needs. Although some of our team members have tested positive for COVID-19, and we encountered temporary closures of a small number of our manufacturing facilities in the second quarter due to such cases or due to government mandate, these events have not had a significant impact on our operations or our ability to serve our customers' needs. We are however utilizing the option under the CARES Act to defer the employer portion of the social security taxes that would otherwise be due in 2020, but will be delayed with 50% due by December 31, 2021 and the remaining 50% by December 31, 2022.

However, there is still considerable uncertainty regarding the extent and duration of the impact of the COVID-19 pandemic, and the pandemic and related economic impacts may affect our operations in 2021, in particular due to the uncertainty of future funding and demand in our infrastructure and municipal end-markets, as well as increased case numbers in locations where we have large numbers of employees or significant customer concentration. Our backlogs are stronger to date in 2021 than they were in 2020, however, and bidding activity also appears strong.

Due to the fluidity and unprecedented and uncertain nature of the pandemic, we cannot predict the full impact of the COVID-19 pandemic on our business, or that of our customers, and participants in our supply chain, or on economic conditions generally, including the effects on infrastructure and other construction activity. The ultimate scope and extent of the effects of the COVID-19 pandemic are highly uncertain and will depend on future developments, and such effects could exist for an extended period of time even after the pandemic may end.

For additional information on risk factors that could impact our results, please refer to “Risk Factors” in Part I, Item 1A of this Form 10-K.

Principal Factors Affecting Our Results of Operations

Our financial performance and results of operations are influenced by a variety of factors, including conditions in the residential, non-residential and infrastructure construction markets, general economic conditions, changes in cost of goods sold, competitive behavior in the markets we serve, and seasonality and weather conditions. Some of the more important factors are discussed below, as well as in the section Item 1A. “Risk Factors,” with the exception of the impacts of the COVID-19 pandemic, which are discussed above.

Infrastructure Spending and Residential and Non-Residential Construction Activities

A large proportion of our net sales in our Drainage Pipe & Products segment is generated through public infrastructure projects, which are driven by federal, state and provincial funding programs. In the U.S., federal funds are allocated to the states, which are required to match a portion of the federal funds they receive. Federal highway spending uses funds predominantly from the Federal Highway Trust Fund, which derives its revenue from taxes on diesel fuel, gasoline and other user fees. The dependability of federal funding allows the state departments of transportation to plan for their long term highway construction and maintenance needs. Funding for the existing U.S. federal transportation funding program extends through 2021. With the nation’s infrastructure aging, there is increased demand by states and municipalities for long-term federal funding to support the construction of new roads, highways and bridges in addition to the maintenance of the existing infrastructure. In addition to federal funding, state, county and local agencies provide highway construction and maintenance funding through various sources such as gas taxes.

The ongoing COVID-19 pandemic has resulted in high levels of unemployment and a slowdown in economic activities, mostly brought on by stay-at-home orders or partial shutdowns issued during 2020 by various state, county, city and local authorities across the country. The state and local transportation programs that depend on sales tax and gas tax revenues are also facing funding shortfalls. Many states have delayed projects or cut capital programs in 2020. The American Road and Transportation Builders Association (“ARTBA”) forecasts transportation construction activity to decline 5.5 percent in 2021, and to resume growth in 2022 as economic conditions improve to pre-COVID levels.

A large proportion of our net sales in our Water Pipe & Products segment is generated through municipal infrastructure projects. The U.S. potable water infrastructure, especially the underground pipes that deliver drinking water to homes and businesses, is aging and in need of significant reinvestment. Like many of the roads, bridges, and other public assets on which the U.S. relies, most of the underground drinking water infrastructure was built 50 or more years ago, in the post-World War II era of rapid demographic change and economic growth. In some older urban areas, many water mains have been in the ground for a century or longer. Given its age, a large proportion of the U.S. water infrastructure is approaching, or has already reached, the end of its useful life. In some locations, improvements to water infrastructure are needed to comply with standards for drinking water quality. The American Society of Civil Engineers estimates 240,000 water main breaks per year in the U.S. due to aging pipelines, wasting over two trillion gallons of treated drinking water. The underlying demand for municipalities to repair or replace their water systems depends on the status of the water systems and the availability of funding. With people spending more time at their homes in order to reduce the spread of the COVID-19 virus, it is even more critical to ensure the uninterrupted supply of clean water.

A relatively smaller proportion of our products has been closely tied to residential construction and non-residential construction activity in the United States and Eastern Canada. Activity levels in these markets can be materially affected by general economic and global financial market conditions. In addition, residential construction activity levels are influenced by and sensitive to mortgage availability, the cost of financing a home (in particular, mortgage and interest rates), unemployment levels, household formation rates, residential vacancy and foreclosure rates, existing housing prices, rental prices, housing inventory levels, consumer confidence and government policy and incentives. During 2020, we saw a brief downturn in the housing market at the onset of the pandemic, but it quickly rebounded and continued to grow throughout the remainder of 2020, driven by improvements in economic activities, increased demand for single-family housing as more people work remotely, as well as historically low mortgage interest rates. Non-residential construction activity is primarily driven by levels of business investment, availability of credit and interest rates, as well as many of the factors that impact residential construction activity levels. See Item 1 “Business.”

Mix of Products

We derive our revenues from both the sale of products manufactured to inventory, such as concrete drainage pipe and DIP, and highly engineered products which are made to order, such as precast concrete products and concrete pressure pipe. These two product categories differ in their dynamics. The mix of products our customers order is project driven and varies from period to period. We generally recognize revenue at the time of shipment of our products; however, for some of our highly engineered structural precast products, we recognize revenue on a percentage of completion method, which accounted for 2.6% of our total sales in 2020.

Most of our products are sold on a one-off basis, with volumes and prices determined frequently based on market participants’ perceptions of short-term supply and demand factors. A shortage of capacity or excess capacity in the industry, or in the regions where we have operations, or the behavior of our competitors, can each result in significant increases or decreases in market prices for these products, often within a short period of time. By contrast, our project-driven business involves highly engineered and customized products with a wide range of contract values. The products for these projects are engineered, manufactured and delivered on the basis of contracts that tend to extend over periods of several months or, in some cases, several years. The timing of the commencement of a project and the progress and completion of work under a contract, therefore, can have a significant effect on our results of operations for a particular period.

Average Selling Prices

The average selling prices we are able to obtain for our products affect our results of operations and our margins. Our average selling price can vary by market location, particularly in our Drainage Pipe and Products segment, product mix, factors relating to supply and demand, and the actions of our customers and competitors. The average selling prices for our products increased in 2020 over the average selling prices we received in 2019 in both our Water and Drainage segments.

Cost of Goods Sold

Costs of raw material and other inputs, supplies, labor (including contract labor), freight and energy constitute a large portion of our cost of goods sold, and fluctuations in the prices of these materials and inputs affect our results of operations and, in particular, our margins. Our primary raw materials in our Drainage Pipe and Products segment are cement, aggregates, and steel. We typically negotiate contracts with suppliers of these materials for one to three years, with prices subject to annual revisions. The primary input in our Water business is scrap steel, which we purchase on the spot market, and its costs can vary significantly from period to period. We do not generally hedge our raw material purchases but rather utilize our product pricing strategy to manage our exposure to fluctuations in our raw material costs.

Seasonality and Weather Conditions

The construction industry, and therefore demand for our products, is typically seasonal and highly dependent on weather conditions, with periods of snow or heavy rain negatively affecting construction activity. Because the majority of our products are buried underground, we experience lower demand for our products in periods of cold weather, particularly during winter, and periods of excessive rain or flooding. These types of conditions or other unfavorable weather conditions generally lead to seasonal fluctuations in our quarterly financial results. Historically, our net sales in the second and third quarters have been higher than in the other quarters of the year, particularly the first quarter.

In addition, unfavorable weather conditions, such as hurricanes or severe storms, or public holidays during peak construction periods can result in temporary cessation of projects and a material reduction in demand for our products and consequently have an adverse effect on our net sales. Results of a fiscal quarter may therefore not be a reliable basis for the expectations of a full fiscal year and may not be comparable with the results in the other fiscal quarters in the same year or prior years.

Our Business Strategy

Our strategy is focused on continued execution of our five improvement pillars: health and safety of our team members, plant-level operational discipline, enhanced commercial capabilities, working capital efficiency, and general and administrative effectiveness. See Item 1 "Business" These pillars are designed to expand our product margin so that we can earn a full and fair return on the products we produce and the capital we deploy. We are also committed to strengthen our capital structure through a combination of working capital improvement, debt repayment and prudent investment in the business. Prudent investment in the business includes growth capital expenditures in projects and smaller acquisitions. Our near-term goal is to reduce our net leverage ratio to 3x-3.5x. After achieving that, we will cautiously evaluate our capital allocation plans going forward to maximize values to our stakeholders.

Principal Components of Results of Operations

Net Sales

Net sales consist of the consideration received or receivable for the sale of products in the ordinary course of business and include the billable costs of delivery of our products to customers, net of discounts given to the customer. Net sales include any outbound freight charged to the customer. Revenue on certain long-term engineering and construction contracts for our structural precast and products that are designed and engineered specifically for the customer is recognized under the percentage-of completion method. See Note 2 to our consolidated financial statements.

Cost of Goods Sold

Cost of goods sold includes raw materials and other inputs (cement, aggregates, scrap, and steel) and supplies, labor (including contract labor), freight (including outbound freight for delivery of products to end users and other charges such as inbound freight), energy, depreciation and amortization, repairs and maintenance and other cost of goods sold.

Selling, General and Administrative Expenses

Selling, general and administrative expenses include expenses for sales, marketing, legal, accounting and finance services, human resources, customer support, treasury and other general corporate services. Selling, general and administrative expenses also include transaction costs directly related to business combinations.

Earnings from Equity Method Investee

Earnings from equity method investee represents our share of the income of the CP&P joint venture we entered into with Americast, Inc. CP&P is engaged primarily in the manufacture, marketing, sale and distribution of concrete pipe and precast products in Virginia, West Virginia, Maryland, North Carolina, Pennsylvania and South Carolina with sales to contiguous states. See Note 6 to the consolidated financial statements for additional information on CP&P.

Other Operating Income

The remaining categories of operating income and expenses consist of scrap income (associated with scrap from the manufacturing process or remaining scrap after plants are closed), insurance gains, rental income, as well as net gain or loss on the sale of assets including property, plant and equipment.

Interest Expense

Interest expense represents interest on the indebtedness.

Income Tax (Expense) Benefit

Income tax expense consists of federal, state, provincial, local and foreign taxes based on income in the jurisdictions in which we operate.

Results of Operations

Year Ended December 31, 2020 as Compared to the Year Ended December 31, 2019

Total Company

The following table summarizes certain financial information relating to our operating results for the years ended December 31, 2020 and December 31, 2019 (in thousands).

Statements of Income Data:	**Year ended December 31, 2020**	**Year ended December 31, 2019**	**% Change**
Net sales	$ 1,594,506	$ 1,529,752	4.2%
Cost of goods sold	1,217,833	1,233,370	(1.3)%
Gross profit	376,673	296,382	27.1%
Selling, general and administrative expenses	(221,770)	(221,770)	—%
Impairment and exit charges	(2,511)	(3,520)	(28.7)%
Other operating income, net	1,409	1,094	28.8%
	(222,872)	(224,196)	(0.6)%
Income from operations	153,801	72,186	113.1%
Other income (expenses)			
Interest expense	(79,890)	(94,970)	(15.9)%
Gain (loss) on extinguishment of debt	(12,256)	1,708	*
Earnings from equity method investee	11,291	10,466	7.9%
Income (loss) before income taxes	72,946	(10,610)	*
Income tax (expense) benefit	(8,460)	3,279	*
Net income (loss)	$ 64,486	$ (7,331)	*

** Represents positive or negative change in excess of 100%*

Net Sales

Net sales for the year ended December 31, 2020 were $1,594.5 million, an increase of $64.7 million or 4.2% from $1,529.8 million for the year ended December 31, 2019. The increase was the net effect of a $90.3 million increase in our in our Water Pipe & Products segment mostly due to higher average selling prices; partially offset by a decrease of $25.6 million in our Drainage Pipe & Products segment primarily driven by lower shipment volumes, partially offset by higher average selling prices.

Cost of Goods Sold

Cost of goods sold for the year ended December 31, 2020 were $1,217.8 million, a decrease of $15.6 million or 1.3% from $1,233.4 million for the year ended December 31, 2019. The small decrease in cost of goods sold was the net effect of a $36.2 million decrease in our Drainage Pipe & Products segment primarily driven by lower shipment volumes, partially offset by an increase of $20.8 million in our Water Pipe & Products segment primarily due to a slight year-over-year increase in shipment volumes while unit cost of sales remained relatively flat.

Gross Profit

Gross profit in the year ended December 31, 2020 was $376.7 million, an increase of $80.3 million, or 27.1%, from $296.4 million in the year ended December 31, 2019. Gross profit in both our Water Pipe & Products segment and our Drainage Pipe & Products segment increased by $69.5 million and $10.6 million, respectively, primarily due to higher average selling prices in both businesses, partially offset by the volume decline in our Drainage Pipe & Products segment.

Selling, General and Administrative Expenses

Selling, general and administrative expenses in the year ended December 31, 2020 were $221.8 million, the same as $221.8 million in the year ended December 31, 2019. Higher incentive compensation expenses of $6.1 million driven by better results were partially offset by lower travel expenses of $3.1 million, and lower executive severance expenses of $2.5 million in 2020 compared to 2019.

Impairment and Exit Charges

Impairment and exit charges in the year ended December 31, 2020 were $2.5 million, compared to $3.5 million in the year ended December 31, 2019. These charges in both years primarily related to plant closings undertaken for purposes of achieving operating efficiencies.

Interest Expense

Interest expense in the year ended December 31, 2020 was $79.9 million, a decrease of $15.1 million, or 15.9%, from $95.0 million in the year ended December 31, 2019. The decrease in interest expense was primarily driven by both the impact of lower LIBOR of $12.3 million and the impact of lower average outstanding debt balance of $4.0 million as we continued voluntarily prepaying our term loan, partially offset by $6.3 million impact of higher interest rate on the $500 million senior secured notes that were issued in July 2020. In addition, $5.4 million of the change was related to the decrease of mark-to-market loss on the interest rate swaps year over year.

Gain (loss) on extinguishment of debt

Loss on extinguishment of debt in the year ended December 31, 2020 was $12.3 million, compared to a gain of $1.7 million in the year ended December 31, 2019. The loss in 2020 was primarily driven by the write-off of the deferred debt issuance cost of $13.1 million associated with our $612.5 million term loan prepayment at par with the proceeds from the offering of our Senior Notes and cash on hand, slightly offset by a gain from our $83.5

million open-market term loan repurchases at small discounts. The gain in 2019 primarily related to our open-market purchases of term loan at discounts.

Income Tax (Expense) Benefit

Income tax expense in the year ended December 31, 2020 was $8.5 million, a change of $11.8 million from an income tax benefit of $3.3 million in the year ended December 31, 2019. The change is primarily due to the improvement of our operating income in 2020 to $72.9 million, compared to an operating loss of $10.6 million in 2019. The increase in income tax expense was partially offset by an $11.8 million reversal of valuation allowance in 2020 as our operating income continues to improve.

Segment Results of Operations

(in thousands)	For the year ended December 31,		
	2020	2019[(2)]	% Change
Net sales:			
Drainage Pipe & Products	$ 887,420	$ 913,033	(2.8)%
Water Pipe & Products	707,086	616,719	14.7 %
Corporate and Other	—	—	
Total	$ 1,594,506	$ 1,529,752	4.2 %
Gross profit (loss):			
Drainage Pipe & Products	211,568	201,015	5.3 %
Water Pipe & Products	165,078	95,581	72.7 %
Corporate and Other	27	(214)	*
Total	$ 376,673	$ 296,382	27.1 %
Segment EBITDA[(1)]:			
Drainage Pipe & Products	187,547	173,006	8.4 %
Water Pipe & Products[(2)]	145,451	82,831	75.6 %
Corporate and Other	(90,666)	(74,219)	22.2 %

(1) For purposes of evaluating segment performance, the Company's chief operating decision maker reviews earnings before interest, taxes, depreciation and amortization, or EBITDA, as a basis for making the decisions to allocate resources and assess performance. Our discussion below includes the primary drivers of EBITDA. See *Note 21* to our consolidated financial statements, for segment EBITDA reconciliation to income (loss) before income taxes.

(2) During the fourth quarter of 2020, we reclassified the pressure pipe business from Water segment to Drainage segment to better align with our organizational structure. The US and Canadian Pressure Pipe businesses were formerly managed by the Water segment management team, however Forterra changed its internal management structure to include the remaining Canadian Pressure Pipe plant under the same management team that oversees the Canadian Pipe & Precast operations. As a result, historical segment data were restated to reflect the current segment compositions.

Drainage Pipe & Products

Net Sales

Net sales in the year ended December 31, 2020 were $887.4 million, a decrease of $25.6 million, or 2.8%, from $913.0 million in the year ended December 31, 2019. The decrease was primarily the net effect of a $91.3 million decrease due to lower shipment volumes in our pipe and precast products driven by less favorable weather in 2020 compared to 2019, temporary project delays related to the COVID-19 pandemic, as well as our margin-enhancing "value before volume" commercial strategy; partially offset by a $53.7 million increase driven by higher average selling price in our pipe and precast products. Pipe and precast products revenues accounted for more than 85% of the net sales in this segment. The remaining increase in net sales was primarily related to our structural precast business and was driven by higher shipment volumes.

Gross Profit

Gross profit in the year ended December 31, 2020 was $211.6 million, an increase of $10.6 million or 5.3% from $201.0 million in the year ended December 31, 2019. The increase was primarily due to higher average selling prices, partially offset by lower shipment volumes of our pipe and precast products.

Water Pipe & Products

Net Sales

Net sales in the year ended December 31, 2020 were $707.1 million, an increase of $90.4 million or 14.7% from $616.7 million in the year ended December 31, 2019. The increase was primarily the combination of $76.2 million driven by higher average selling prices and $13.9 million driven by higher shipment volumes of our ductile iron pipe products. Ductile-iron pipe sales accounted for more than 85% of the net sales in this segment.

Gross Profit

Gross profit in the year ended December 31, 2020 was $165.1 million, an increase of $69.5 million or 72.7% from $95.6 million in the year ended December 31, 2019. The increase was primarily due to both higher average selling prices and higher shipment volumes.

Year Ended December 31, 2019 as Compared to the Year Ended December 31, 2018

Total Company

The following table summarizes certain financial information relating to our operating results for the years ended December 31, 2019 and December 31, 2018 (in thousands).

Statements of Income Data:	**Year ended December 31, 2019**	**Year ended December 31, 2018**	**% Change**
Net sales	$ 1,529,752	$ 1,479,712	3.4 %
Cost of goods sold	1,233,370	1,234,143	(0.1)%
Gross profit	296,382	245,569	20.7 %
Selling, general and administrative expenses	(221,770)	(209,877)	5.7 %
Impairment and exit charges	(3,520)	(4,336)	(18.8)%
Other operating income, net	1,094	9,523	(88.5)%
	(224,196)	(204,690)	9.5 %
Income from operations	72,186	40,879	76.6 %
Other income (expenses)			
Interest expense	(94,970)	(78,337)	21.2 %
Gain on extinguishment of debt	1,708	—	*
Earnings from equity method investee	10,466	10,162	3.0 %
Other income (expense), net	—	6,016	*
Loss before income taxes	(10,610)	(21,280)	(50.1)%
Income tax (expense) benefit	3,279	(3,085)	*
Net loss	$ (7,331)	$ (24,365)	(69.9)%

** Represents positive or negative change in excess of 100%*

Net Sales

Net sales for the year ended December 31, 2019 were $1,529.8 million, an increase of $50.1 million or 3.4% from $1,479.7 million for the year ended December 31, 2018. The increase was the net effect of a $73.3 million increase in our Drainage Pipe & Products segment primarily due to higher average selling prices and higher shipment volumes; partially offset by a $23.3 million decrease in our Water Pipe & Products segment primarily driven by lower shipment volumes, partially offset by higher average selling prices.

Cost of Goods Sold

Cost of goods sold for the year ended December 31, 2019 were $1,233.4 million, a decrease of $0.7 million or 0.1% from $1,234.1 million in the year ended December 31, 2018. The small change in cost of goods sold was the net effect of a $50.1 million decrease in our Water Pipe & Products segment primarily due to lower shipment volumes and lower cost of scrap metal, offset by a $49.7 million increase in our Drainage Pipe & Products segment primarily driven by higher shipment volumes.

Gross Profit

Gross profit in the year ended December 31, 2019 was $296.4 million, an increase of $50.8 million, or 20.7%, from $245.6 million in the year ended December 31, 2018. Gross profit in our Drainage Pipe & Products segment increased by $23.6 million primarily due to higher average selling prices and higher shipment volumes; gross profit in our Water Pipe & Products segment also increased by $26.8 million, primarily driven by higher average selling prices as well as lower scrap metal raw material costs.

Selling, General and Administrative Expenses

Selling, general and administrative expenses in the year ended December 31, 2019 were $221.8 million, an increase of $11.9 million or 5.7% from $209.9 million in the year ended December 31, 2018. The increase was primarily due to higher IT costs as we invest in our systems and processes, increased expenses related to various disputes and claims in the ordinary course of our business, increased reserves for credit losses, as well as a $3.7 million executive severance charge primarily related to the change in CEO in 2019.

Impairment and Exit Charges

Impairment and exit charges in the year ended December 31, 2019 were $3.5 million, compared to $4.3 million in the year ended December 31, 2018. The exit charges in both years primarily related to plant closings undertaken for purposes of achieving operating efficiencies.

Other Operating Income

Other operating income for the year ended December 31, 2019 was $1.1 million, compared to $9.5 million in the prior year period. The income in the 2018 period primarily related to gains from the disposition of certain property, plant and equipment.

Interest Expense

Interest expense in the year ended December 31, 2019 was $95.0 million, an increase of $16.7 million, or 21.2%, from $78.3 million in the year ended December 31, 2018. The interest expense in 2019 included $7.8 million resulting from the change in the classification of certain leases from operating lease to finance lease as the result of the amendment and restatement of our sale-leaseback transaction completed in June 2018. In addition, $7.8 million of the change related to the increase in interest expense due to the mark-to-market on the interest rate swaps year over year. The remainder of the interest expense increase was primarily due to the impact of higher average interest rates.

Other Income, net

Other income, net of $6.0 million for the year ended December 31, 2018 related to the gain from a divestiture transaction that was completed in February 2018.

Income Tax (Expense) Benefit

Income tax benefit in the year ended December 31, 2019 was $3.3 million, a change of $6.4 million from an income tax expense of $3.1 million in the year ended December 31, 2018. The change is primarily due to the benefit of the favorable valuation allowance movement between the two years of $8.4 million, and was partially offset by a $2.0 million increase in tax expense primarily related to greater pre-tax earnings in the year ended December 31, 2019 compared to the prior year.

Segment Results of Operations

(in thousands)	For the year ended December 31, 2019[2]	For the year ended December 31, 2018[2]	% Change
Net sales:			
Drainage Pipe & Products	$ 913,033	$ 839,689	8.7 %
Water Pipe & Products	616,719	640,023	(3.6)%
Corporate and Other	—	—	
Total	$ 1,529,752	$ 1,479,712	3.4 %
Gross profit (loss):			
Drainage Pipe & Products	201,015	177,444	13.3 %
Water Pipe & Products	95,581	68,813	38.9 %
Corporate and Other	(214)	(688)	(68.9)%
Total	$ 296,382	$ 245,569	20.7 %
Segment EBITDA[1]:			
Drainage Pipe & Products	173,006	160,295	7.9 %
Water Pipe & Products[2]	82,831	60,987	35.8 %
Corporate and Other	(74,219)	(58,802)	26.2 %

(1) For purposes of evaluating segment performance, the Company's chief operating decision maker reviews earnings before interest, taxes, depreciation and amortization, or EBITDA, as a basis for making the decisions to allocate resources and assess performance. Our discussion below includes the primary drivers of EBITDA. See *Note 21,* to our consolidated financial statements for segment EBITDA reconciliation to income (loss) before income taxes.

(2) During the fourth quarter of 2020, we reclassified the pressure pipe business from Water segment to Drainage segment to better align with our organizational structure. The US and Canadian Pressure Pipe businesses were formerly managed by the Water segment management team, however Forterra changed its internal management structure to include the remaining Canadian Pressure Pipe plant under the same management team that oversees the Canadian Pipe & Precast operations. As a result, historical segment data were restated to reflect the current segment compositions.

Drainage Pipe & Products

Net Sales

Net sales in the year ended December 31, 2019 was $913.0 million, an increase of $73.3 million, or 8.7%, from $839.7 million in the year ended December 31, 2018. The increase was primarily the combination of $52.5 million due to higher average selling prices and $23.0 million due to higher shipment volumes of our pipe and precast products. Pipe and precast products revenues accounted for more than 85% of the net sales in this segment.

Gross Profit

Gross profit in the year ended December 31, 2019 was $201.0 million, an increase of $23.6 million or 13.3%, from $177.4 million in the year ended December 31, 2018. The increase was primarily due to higher average selling prices and higher shipment volumes of our pipe and precast products, slightly offset by higher cost of raw materials.

Water Pipe & Products

Net Sales

Net sales in the year ended December 31, 2019 were $616.7 million, a decrease of $23.3 million or 3.6% from $640.0 million in the year ended December 31, 2018. The decrease was the net effect of a $44.9 million decrease caused by lower shipment volumes of our ductile-iron pipe products, partially offset by a $23.6 million increase contributed by higher average selling price of our ductile-iron pipe products. Ductile-iron pipe sales accounted for more than 85% of the net sales in this segment.

Gross Profit

Gross profit in the year ended December 31, 2019 was $95.6 million, an increase of $26.8 million or 38.9% from $68.8 million in the year ended December 31, 2018. The increase was primarily driven by higher average selling prices as well as lower raw material costs related to our ductile-iron pipe products.

Liquidity and Capital Resources

Our available cash and cash equivalents, borrowing availability under our $350.0 million Revolver, and funds generated from operations are our most significant sources of liquidity. While we believe these sources will be sufficient to finance our working capital requirements, planned capital expenditures that are essential, debt service obligations and other cash requirements for at least the next 12 months, our future liquidity will depend in part upon our operating performance, which will be affected by prevailing economic conditions, including those related to the COVID-19 pandemic, and financial, business and other factors, some of which are beyond our control. See “Risk Factors” in Part I, Item 1A of this Form 10-K.

As of December 31, 2020 and 2019, we had approximately $25.7 million and $34.8 million of cash and cash equivalents, respectively, of which $12.5 million and $12.6 million, respectively, were held by foreign subsidiaries. All of the cash and cash equivalents as of December 31, 2020 and 2019 were readily convertible as of such dates into currencies used in the Company’s operations, including the U.S. dollar. As a result of the TCJA, we can repatriate the cumulative undistributed foreign earnings back to the U.S. when needed with minimal additional taxes other than state income and foreign withholding tax.

In connection with the IPO, we entered into a tax receivable agreement with Lone Star that provides for the payment by us to Lone Star of specified amounts in respect of any cash savings as a result of the utilization of certain tax benefits. The actual utilization of the relevant tax benefits as well as the timing of any payments under the tax receivable agreement will vary depending upon a number of factors, including the amount, character and timing of our and our subsidiaries' taxable income in the future. However, we expect that the payments we make under the tax receivable agreement could be substantial. The tax receivable agreement also includes provisions that restrict the incurrence of debt and require that we make an accelerated payment to Lone Star equal to the present value of all future payments due under the tax receivable agreement, in each case under certain circumstances. Because of the foregoing, our obligations under the tax receivable agreement could have a substantial negative impact on our liquidity and could have the effect of delaying, deferring or preventing certain mergers, asset sales, other forms of business combinations or other changes of control. The passage of the TCJA significantly reduced the Company's anticipated liability under the tax receivable agreement. Our liability recorded for the tax receivable agreement at December 31, 2020 and December 31, 2019 was $64.2 million and $77.4 million, respectively, with $8.3 million and $13.1 million, respectively, being classified as short-term. For the years ended December 31, 2020 and December 31, 2019, we paid $13.1 million and $11.4 million, respectively, to Lone Star under the tax receivable agreement.

Our forecast for payments under the tax receivable agreement in 2021 is expected to be in the range of $8 to $10 million. We expect that future annual payments under the tax receivable agreement will decline each year in accordance with our tax basis depreciation and amortization schedule unless future transactions result in an acceleration of our tax benefits under the agreement. See Item 1A, Risk Factors and Note 16 to the consolidated financial statements.

Credit Agreements

During the year ended December 31, 2020, we voluntarily prepaid $203.5 million of our Term Loan prepaid $492.5 million of our Term Loan using the net proceeds from the offering of the senior secured notes, as further described below. As of December 31, 2020, we had $414.9 million outstanding balance under our Term Loan. At December 31, 2020, we had no borrowings under our Revolver and our available borrowing capacity under the Revolver was $235.6 million.

The Revolver provides for an aggregate principal amount of up to $350.0 million, with up to $330.0 million to be made available to the U.S. borrowers and up to $20.0 million to be made available to the Canadian borrowers. Subject to the conditions set forth in the revolving credit agreement, the Revolver may be increased by up to the greater of (i) $100.0 million and (ii) such amount as would not cause the aggregate borrowing base to be exceeded by more than $50.0 million. Borrowings under the Revolver may not exceed a borrowing base equal to the sum of (i) 100% of eligible cash, (ii) 85% of eligible accounts receivable and (iii) the lesser of (a) 75% of eligible inventory and (b) 85% of the orderly liquidation value of eligible inventory, with the U.S. and Canadian borrowings being subject to separate borrowing base limitations. The Revolver bears interest at a rate equal to LIBOR or CDOR plus a margin ranging from 1.75% to 2.25% per annum, or an alternate base rate, Canadian prime rate or Canadian base rate plus a margin ranging from 0.75% to 1.25% per annum, in each case, based upon the average excess availability under the Revolver for the most recently completed calendar quarter and our total leverage ratio as of the end of the most recent fiscal quarter for which financial statements have been delivered. The Revolver matures on June 17, 2025, subject to earlier maturity if greater than $75.0 million of our Term Loan remains outstanding 91 days prior to the scheduled maturity of the term loan credit facility or any refinancing thereof.

The Term Loan, as amended, provides for a $1.25 billion senior secured term loan. Subject to the conditions set forth in the term loan agreement, the Term Loan may be increased by (i) up to the greater of $285.0 million and 1.0x consolidated EBITDA of Forterra, Inc. and its restricted subsidiaries for the four quarters most recently ended prior to such incurrence plus (ii) the aggregate amount of any voluntary prepayments, plus (iii) an additional amount, provided certain financial tests are met. See Note 11 to our consolidated financial statements. The Term Loan matures on October 25, 2023 and is subject to quarterly amortization equal to 0.25% of the initial principal amount. Interest will accrue on outstanding borrowings thereunder at a rate equal to LIBOR (with a floor of 1.0%) or an alternate base rate, in each case plus a margin of 3.00% or 2.00%, respectively. Our credit agreement does not provide a mechanism to facilitate the adoption of an alternative benchmark rate for use in place of LIBOR. We plan to monitor the expected phase-out of LIBOR and may seek to renegotiate the benchmark rate with our lenders in the future. See Item 1A. "Risk Factors."

The Revolver and the Term Loan contain customary representations and warranties, and affirmative and negative covenants, that, among other things, restrict our ability to incur additional debt, incur or permit liens on assets, make investments and acquisitions, consolidate or merge with any other company, engage in asset sales and pay dividends and make distributions. The Revolver contains a financial covenant restricting Forterra from allowing its fixed charge coverage ratio to drop below 1.00:1.00 during a compliance period, which is triggered when the availability under the Revolver falls below a threshold. The fixed charge coverage ratio is the ratio of consolidated earnings before interest, depreciation, and amortization, less cash payments for capital expenditures and income taxes to consolidated fixed charges (interest expense plus scheduled payments of principal on indebtedness). The Term Loan does not contain any financial covenants. Obligations under the Revolver and the Term Loan may be accelerated upon certain customary events of default (subject to grace periods, as appropriate). As of December 31, 2020, we were in compliance with all applicable covenants under the Revolver and the Term Loan.

On July 16, 2020, two of our subsidiaries, Forterra Finance, LLC and FRTA Finance Corp., completed the issuance of $500 million senior secured notes, or the Notes, that are due July 15, 2025. The Notes have a fixed annual interest rate of 6.50%. Obligations under the Notes are guaranteed by us and our existing and future subsidiaries (other than the issuers) that guarantee the Term Loan and the obligations of the U.S. borrowers under the Revolver. The Notes and the related guarantees are secured by first-priority liens on the collateral that secures the Term Loan on a first-priority basis (which is generally all assets other than those that secure the Revolver on a first-priority basis as set forth below) and second-priority liens on the collateral that secures the Revolver on a first-priority basis (which is generally inventory, accounts receivable, deposit accounts, securities accounts, certain intercompany loans and related assets), which second-priority liens is ratable with the liens on such assets securing the obligations under the Term Loan and junior to the liens on such assets securing the Revolver. Upon closing, we used the net proceeds from this offering to repay $492.5 million of the principal amount of the Term Loan at par, plus accrued interest.

Parent Issuer and Subsidiary Guarantor Summarized Financial Information

The following information contains the summarized financial information for the parent (Forterra, Inc.) and subsidiary guarantors.

This consolidated summarized financial information has been prepared from the Company's financial information on the same basis of accounting as the Company's consolidated financial statements. Transactions between the parent and subsidiary guarantors presented on a combined basis have been eliminated. The principal elimination entries relate to investments in subsidiaries and intercompany balances and transactions. Certain costs have been partially allocated to all of the subsidiaries of the Company.

The subsidiary guarantors are 100% owned by the Company. All guarantees are full and unconditional and are joint and several. There are no significant restrictions on the ability of the Company to obtain funds from its U.S. subsidiaries, including the guarantors.

Summarized financial information for the two most recent annual periods was as follows (in thousands):

	Parent - Forterra, Inc. and Subsidiary Guarantors	
	December 31, 2020	**December 31, 2019**
Current assets	$ 443,839	$ 459,437
Intercompany payable to non-guarantor subsidiaries	8,384	6,087
Non-current assets	1,115,191	1,175,697
Current liabilities	267,672	217,766
Non-current liabilities	1,176,492	1,383,697

	Parent - Forterra, Inc. and Subsidiary Guarantors	
	Year ended December 31, 2020	Year ended December 31, 2019
Net sales	$ 1,514,556	$ 1,448,492
Gross profit	347,854	272,489
Income before taxes	58,880	21,557
Net income	52,273	14,813

Cash Flows

The following table sets forth a summary of the net cash provided by (used in) operating, investing and financing activities for the periods presented *(in thousands)*.

	Year ended December 31, 2020	Year ended December 31, 2019	Year ended December 31, 2018
Statement of Cash Flows data:			
Net cash provided by operating activities	$ 243,197	$ 146,786	$ 27,196
Net cash used in investing activities	(18,373)	(42,295)	(51,052)
Net cash used in financing activities	(234,272)	(106,181)	(43,451)

Net Cash Provided by Operating Activities

Changes in operating cash flows between the periods are primarily due to the change in income from operations, timing of collections and payments, as well as the change in our inventory as compared to the prior year periods.

Operating cash flow increased to $243.2 million in 2020 as compared to $146.8 million in 2019 primarily due to higher income from operations and better working capital management. Operating cash flow increased to $146.8 million in 2019 as compared to $27.2 million in 2018 primarily due to higher income from operations and a decrease in ending inventory.

Net Cash Used in Investing Activities

Net cash used in investing activities was $18.4 million for the year ended December 31, 2020 primarily due to capital expenditures of $34.0 million, partially offset by proceeds from the sale of fixed assets of $15.6 million. Net cash used in investing activities was $42.3 million for the year ended December 31, 2019 primarily due to capital expenditures of $42.9 million and the acquisition of Buckner assets of $10.8 million, partially offset by proceeds from the sale of fixed assets of $11.4 million. Net cash used in investing activities was $51.1 million for the year ended December 31, 2018 due to capital expenditures of $48.7 million, final net working capital settlement related to U.S. Pressure Pipe Divestiture of $8.5 million, settlement on derivative contracts of $5.0 million, business acquisitions of $4.5 million and other asset acquisitions of $1.9 million, partially offset by cash received from the Foley Transaction of $9.1 million and proceeds from sale of fixed assets of $8.4 million.

Net Cash Used in Financing Activities

Net cash used in financing activities was $234.3 million for the year ended December 31, 2020 due primarily to $707.6 million repayments of principal on the Term Loan, $13.1 million payments pursuant to the tax receivable agreement, and $11.4 million payment of debt issuance costs, partially offset by proceeds from senior secured notes of $500.0 million. Net cash used in financing activities was $106.2 million for the year ended December 31, 2019 due primarily to $95.7 million of repayments of principal on the Term Loan and a $11.4 million payment pursuant to the tax receivable agreement. Net cash used in financing activities was $43.5 million for the year ended December 31, 2018 due primarily to the payment of $30.4 million under our tax receivable agreement. The $30.4 million payment under the tax receivable agreement in 2018, pertaining to the 2017 tax year, included the impact of accelerated payments as a result of certain transactions completed in 2017, including the sale of the U.S. concrete and steel pressure pipe business, that caused an acceleration of tax benefits subject to the tax receivable agreement. The $11.4 million payment under the tax receivable agreement in 2019 was pertaining to the 2018 tax year.

Secondary Public Offering

On September 21, 2020, Forterra US Holdings, LLC (the “Selling Stockholder”), an affiliate of Lone Star, sold 10,000,000 shares of our common stock at $13.50 per share. The Selling Stockholder also granted the underwriters an option for a period of 30 days to purchase up to an additional 1,500,000 shares of our common stock. On October 13, 2020, the underwriters exercised their option to purchase an additional 200,000 shares of our common stock. As a result of the sale, the aggregate beneficial ownership of Lone Star decreased from 68.9% to 53.2% of our outstanding shares of common stock as of October 13, 2020, and we remain a “controlled company” within the meaning of Nasdaq corporate governance standards. We did not receive any proceeds from the sale of the common stock by the Selling Stockholder.

Capital Expenditures

Under normal circumstances, our annual sustaining capital expenditures would average $45.0 million to $55.0 million. However, as a precautionary measure in response to the COVID-19 pandemic and in order to preserve liquidity, we delayed some non-essential capital spending projects during the second quarter. During the third quarter, given the improvements in cash generation and liquidity, we resumed capital spending projects.
Our capital expenditures were $34.0 million for the year ended December 31, 2020, $42.9 million for the year ended December 31, 2019, and $48.7 million for the year ended December 31, 2018. We expect capital expenditures to be higher than usual in 2021 due to certain pandemic-delayed projects being completed in 2021. The majority of our planned capital spending now is related to equipment, such as plant and mobile equipment, upgrade and expansion of existing facilities, and environmental and permit compliance projects.

Off-Balance Sheet Arrangements

In the ordinary course of our business, we are required to provide surety bonds and standby letters of credit to secure performance commitments. As of December 31, 2020, outstanding stand-by letters of credit amounted to $16.7 million.

Contractual Obligations and Other Long-Term Liabilities

The following table summarizes our significant contractual obligations as of December 31, 2020. Non-cancelable operating leases are presented net of non-cancelable subleases. Some of the amounts included in the table are based on management's estimate and assumptions about these obligations, including their duration, the possibility of renewal, anticipated actions by third parties and other factors. Because these estimates and assumptions are necessarily subjective, our actual payments may vary from those reflected in the table.

	Payment Due by Period						
	Total	**2021**	**2022**	**2023**	**2024**	**2025**	**Thereafter**
	(In thousands)						
Term loan	$ 414,867	$ 12,510	$ 12,510	$ 389,847	$ —	$ —	$ —
Notes	500,000	—	—	—	—	500,000	—
Interest on indebtedness [(1)]	45,388	16,591	16,084	12,713	—	—	—
Operating leases	150,110	10,201	9,829	10,569	9,836	9,446	100,229
Finance leases	726,999	18,024	18,239	18,366	18,599	18,803	634,968
Total Commitments	$ 1,837,364	$ 57,326	$ 56,662	$ 431,495	$ 28,435	$ 528,249	$ 735,197

(1) The interest rate on the Term loan is 4.0%; the interest rate on the Notes is 6.5%.

Additionally, we have accrued approximately $55.9 million associated with the tax receivable agreement in long-term liabilities and $36.9 million of other long-term liabilities as of December 31, 2020. The risks and uncertainties associated with the tax receivable agreement are discussed above and in Note 16 to the consolidated financial statements.

Application of Critical Accounting Policies and Estimates

Business Combinations

Assets acquired and liabilities assumed in business combination transactions, as defined by ASC 805, *Business Combination*, are recorded at fair value using the acquisition method of accounting. We allocate the purchase price of acquisitions based upon the fair value of each component which may be derived from various observable and unobservable inputs and assumptions. Initial purchase price allocations are preliminary and subject to revision within the measurement period, not to exceed one year from the date of the transaction. The fair value of property, plant and equipment and intangible assets may be based upon the discounted cash flow method that involves inputs that are not observable in the market (Level 3). Goodwill assigned represents the amount of consideration transferred in excess of the fair value assigned to identifiable assets acquired and liabilities assumed.

Use of estimates

The preparation of our financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities as of the reporting date, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from these estimates. These estimates are based on management's best knowledge of current events and actions that the Company may undertake in the future. The more significant estimates made relate to fair value estimates for assets and liabilities acquired in business combinations; accrued liabilities for environmental cleanup, bodily injury and insurance claims; estimates for commitments and contingencies; and estimates for the realizability of deferred tax assets, the tax receivable agreement obligation, inventory reserves, allowance for doubtful accounts and impairment of goodwill and long-lived assets.

Inventories

Inventories are valued at the lower of cost or net realizable value. Our inventories are valued using the average cost and first-in-first-out methods. Inventories include materials, labor and applicable factory overhead costs. The value of inventory is adjusted for damaged, obsolete, excess and slow-moving inventory. Market value of inventory is estimated considering the impact of market trends, an evaluation of economic conditions, and the value of current orders relating to the future sales of each respective component of inventory.

Goodwill and other intangible assets, net

Goodwill represents the excess of costs over the fair value of identifiable assets acquired and liabilities assumed. We evaluate goodwill and intangible assets in accordance with ASC 350, *Goodwill and Other Intangible Assets* which requires goodwill to be either qualitatively or quantitatively assessed for impairment annually (or more frequently if impairment indicators arise) for each reporting unit. We perform our annual impairment testing of goodwill as of October 1 of each year and in interim periods if events occur that would indicate that it is more likely than not the fair value of a reporting unit is less than carrying value. We first assess qualitative factors to evaluate whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount as the basis for determining whether it is necessary to perform a quantitative goodwill impairment test. We may bypass the qualitative assessment for any reporting unit in any period and proceed directly with the quantitative analysis. The quantitative analysis compares the fair value of the reporting unit with its carrying amount. If the carrying amount of a reporting unit exceeds the fair value, impairment is recognized in an amount equal to that excess, limited to the total amount of goodwill allocated to that reporting unit.

We determine the fair value of our reporting units using a weighted combination of the discounted cash flow method (income approach) and the guideline company method (market approach). Determining the fair value of a reporting unit requires judgment and the use of significant estimates and assumptions. Such estimates and assumptions include future revenue growth rates, gross profit margins, EBITDA margins, future capital expenditures, weighted average costs of capital and future market conditions, among others. We believe the estimates and assumptions used in our impairment assessments are reasonable; however, variations in any of the assumptions could result in materially different calculations of fair value and determinations of whether or not an impairment is indicated. Under the discounted cash flow method, we determine fair value based on estimated future cash flows of each reporting unit including estimates for capital expenditures, discounted to present value using the risk-adjusted industry rate, which reflect the overall level of inherent risk of the reporting unit. Cash flow projections are derived from one year budgeted amounts and five year operating forecasts plus an estimate of later period cash flows, all of which are evaluated by management. Subsequent period cash flows are developed for each reporting unit using growth rates that management believes are reasonably likely to occur. Under the guideline company method, we determine the estimated fair value of each of our reporting units by applying valuation multiples of comparable publicly-traded companies to each reporting unit’s projected EBITDA and then averaging that estimate with similar historical calculations using a three-year average. In addition, we estimate a reasonable control premium representing the incremental value that accrues to the majority owner from the opportunity to dictate the strategic and operational actions of the business.

Key assumptions for the measurement of an impairment include management’s estimate of future cash flows and EBITDA. The estimates of future cash flows and EBITDA are subjective in nature and are subject to impacts from the business risks described in “Item 1A. Risk Factors.” Therefore, the actual results could differ significantly from the amounts used for goodwill impairment testing, and significant changes in fair value estimates could occur, resulting in potential impairments in future periods.

For the years ended December 31, 2020, December 31, 2019 and December 31, 2018, no impairment charge was recorded for goodwill and intangible assets.

Leases Accounting Policy

We determine if an arrangement is a lease at inception. Leases with an initial term of 12 months or less are not recorded on the balance sheet. Operating leases are included in operating lease right-of-use, or ROU, assets, accrued liabilities, and long-term operating lease liabilities in the consolidated balance sheets. Finance leases are included in property, plant and equipment, accrued liabilities, and long-term finance lease liabilities in the consolidated balance sheets.

ROU assets represent our right to use an underlying asset for the lease term and lease liabilities represent our obligation to make lease payments arising from the lease. Operating lease ROU assets and liabilities are recognized at commencement date based on the present value of lease payments over the lease term. As most of our leases do not provide an implicit rate, we use our incremental borrowing rate based on the information available at commencement date in determining the present value of lease payments. We use the implicit rate when readily determinable. The lease terms may include options to extend or terminate the lease when it is reasonably certain that we will exercise that option. Lease expense for lease payments is recognized on a straight-line basis over the lease term.

We have lease agreements with lease and non-lease components, which are generally accounted for separately. For machinery and equipment leases, such as forklifts, we account for the lease and non-lease components as a single lease component.

Income Taxes

The Company computes the provision for income taxes using the asset/liability method. Deferred tax assets and liabilities are recorded for temporary differences between the tax basis of assets and liabilities and their reported amounts in the consolidated financial statements using the statutory tax rates in effect for the year in which the differences are expected to reverse. The Company uses the period cost method for Global Intangible Low-taxed Income (“GILTI”) provisions, and therefore, has not recorded deferred taxes for basis differences expected to reverse in future periods.

The Company evaluates the recoverability of its deferred tax assets quarterly to determine if valuation allowances are required or should be adjusted. In assessing the need for a valuation allowance, the Company considers all available evidence for each jurisdiction, including past operating results, future reversal of taxable and deductible temporary differences, estimates of future taxable income, and the feasibility of ongoing tax planning strategies. The measurement of a deferred tax asset is reduced, if necessary, by a valuation allowance if, based on all available evidence, it is more likely than not that some portion or all of the deferred tax assets will not be realized.

The Company recognizes a tax benefit for uncertain tax positions only if it believes it is more-likely-than-not that the position will be sustained upon examination based solely on the technical merits of the tax position. The Company evaluates whether a tax position meets the more-likely-than-not recognition threshold using the assumption that the position will be examined by the appropriate taxing authority. The tax benefits recognized in the financial statements from such positions are measured based upon the largest amount that is more than 50% likely to be realized upon ultimate settlement. Penalties and interest related to income tax uncertainties, should they occur, are included in income tax expense in the period in which they are incurred.

Revenue recognition

Revenues are recognized when the risks and rewards associated with the transaction have been transferred to the purchaser, which is demonstrated when all the following conditions are met: evidence of a binding arrangement exists, products have been delivered or services have been rendered, there is no future performance required, fees are fixed or determinable and amounts are collectible under normal payment terms. Sales represent the net amounts charged or chargeable in respect of services rendered and goods supplied, excluding intercompany sales. Sales are recognized net of any discounts given to the customer.

A portion of our sales revenue is derived from sales to distributors. Distributor revenue is recognized when all of the criteria for revenue recognition are met, which is generally the time of shipment to the distributor. All returns and credits are estimable and recognized as contra-revenue.

We incur shipping costs to third parties for the transportation of building products and bill such costs to customers. For the years ended December 31, 2020, 2019 and 2018, we recorded freight costs of approximately $122.7 million, $131.8 million, and $127.0 million, respectively, on a gross basis within net sales and cost of goods sold in the accompanying consolidated statements of operations.

For certain engineering and construction contracts and building contracting arrangements, we recognize revenue using the percentage of completion method, based on total contract costs incurred to date compared to total estimated cost at completion for each contract. Changes to total estimated contract cost or losses, if any, are recognized in the period in which they are determined. Pre-contract costs are expensed as incurred. If estimated total costs on a contract indicate a loss, the entire loss is provided for in the financial statements immediately. To the extent we have invoiced and collected from customers more revenue than has been recognized as revenue using the percentage of completion method, we record the excess amount invoiced as deferred revenue. Revenue recognized in excess of amounts billed, and balances billed but not yet paid by customers under retainage provisions are classified as a current asset within receivables, net on the balance sheet. For the years ended December 31, 2020, December 31, 2019, and December 31, 2018, revenue recognized in continuing operations using the percentage of completion method amounted to 3%, 2%, and 1% of total net sales, respectively.

We generally provide limited warranties related to our products which cover manufacturing in accordance with the specifications identified on the face of our quotation or order acknowledgment and to be free of defects in workmanship or materials. The warranty periods typically extend for a limited duration of one year. We estimate and accrue for potential warranty exposure related to products which have been delivered.

Recent Accounting Guidance Adopted

The information set forth under Note 2 to the consolidated financial statements under the caption “Recent Accounting Guidance Adopted” is incorporated herein by reference.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

In the normal course of business, we are exposed to financial risks such as changes in interest rates, foreign currency exchange rates and commodity price risk associated with our input costs. We utilize derivative instruments to manage selected foreign exchange and interest rate exposures. See Note 13 to the consolidated financial statements.

Interest Rate Risk

Our exposure to market risk for changes in interest rates relates primarily to our long-term debt. The interest expense associated with our long-term debt will vary with market rates. On March 30, 2020, Forterra entered into an interest rate swap transaction with a notional value of $400 million to reduce exposure to interest rate fluctuations associated with a portion of the Term Loan. Under the terms of the swap transaction, Forterra agreed to pay a fixed rate of interest of 1.08% and receive floating rate of interest indexed to one-month LIBOR, subject to a minimum of 1.00%, with monthly settlement terms with the swap counterparty. The swap has a 30-month term and expires on September 30, 2022. At December 31, 2020, we estimate that 1% increase in the rates relating to the portion of our floating rate debt that is not hedged would increase annual interest requirements by approximately $5.1 million.

Borrowings under our Term Loan and our Revolver may use LIBOR as a benchmark for establishing the applicable interest rate. LIBOR is the subject of recent regulatory guidance and proposals for reform, which are expected to ultimately lead to the discontinuation of LIBOR or to cause LIBOR to become unavailable as a benchmark rate. The consequences of these developments with respect to LIBOR cannot be entirely predicted but could result in a significant increase in the cost of our variable rate indebtedness causing a negative impact on our financial position, liquidity and results of operations. We plan to carefully monitor the situation and may seek to renegotiate the benchmark for establishing the applicable interest rate with our lenders in the future. See Item 1A. "Risk Factors."

Foreign Currency Risk

Approximately 5.1% of our net sales for the year ended December 31, 2020 were made in countries outside of the U.S. As a result, we are exposed to movements in foreign exchange rates between the U.S. dollar and other currencies. Based upon our net sales for the year ended December 31, 2020, we estimate that a 1% change in the exchange rate between the U.S. dollar and foreign currencies would affect net sales by approximately $0.8 million. This may differ from actual results depending on the levels of net sales outside of the U.S.

Commodity Price Risk

We are subject to commodity price risks with respect to price changes mainly in the electricity and natural gas markets and other raw material costs, such as cement, aggregates, scrap and steel. Price fluctuations on our key inputs have a significant effect on our financial performance. The markets for most of these commodities are cyclical and are affected by factors such as global economic conditions, changes in or disruptions to industry production capacity, changes in inventory levels and other factors beyond our control.

Credit Risk

Financial instruments that potentially subject us to a concentration of credit risk consist principally of accounts receivable. We provide our products to customers based on an evaluation of the financial condition of our customers, generally without requiring collateral. Exposure to losses on receivables is principally dependent on each customer's financial condition. We monitor the exposure for credit losses and maintain allowances for anticipated losses. Concentrations of credit risk with respect to our accounts receivable are limited due to the large number of customers comprising our customer base and their dispersion among many different geographies.

At December 31, 2020 and 2019, we had an individual customer within our Water Pipe & Products segment that accounted for more than 10% of total net sales for the years ended December 31, 2020 and 2019. The customer represented approximately 16% and 15% of our total net sales for the years ended December 31, 2020 and 2019, respectively, and had total receivables at December 31, 2020 and 2019 totaling 16% and 13% of our total receivables, net, respectively.

Item 8. Financial Statements and Supplementary Data

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Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of Forterra, Inc.

Opinion on the Financial Statements
We have audited the accompanying consolidated balance sheets of Forterra, Inc. (the Company) as of December 31, 2020 and 2019, and the related consolidated statements of operations, comprehensive income (loss), shareholders' equity and cash flows for the each of the three years in the period ended December 31, 2020, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Company at December 31, 2020 and 2019, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2020, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2020, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework), and our report dated February 25, 2021 expressed an unqualified opinion thereon.

Basis for Opinion
These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.
Critical Audit Matter
The critical audit matter communicated below is a matter arising from the current period audit of the financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective or complex judgments. The communication of a critical audit matter does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the account or disclosure to which it relates.

Realizability of deferred tax assets

Description of the Matter	As more fully described in Note 20 to the consolidated financial statements, at December 31, 2020, the Company had deferred tax assets related to deductible temporary differences of $87.1 million, net of a $1.7 million valuation allowance. Deferred tax assets are reduced by a valuation allowance if, based on the weight of all available evidence, in management's judgment it is more likely than not that some portion, or all, of the deferred tax assets will not be realized. Auditing management's assessment of the realizability of its deferred tax assets involved complex auditor judgment because management's estimate is highly judgmental and based on significant assumptions that may be affected by future market or economic conditions.
How We Addressed the Matter in Our Audit	We obtained an understanding, evaluated the design, and tested the operating effectiveness of controls that address the risks of material misstatement relating to the realizability of deferred tax assets. This included controls over management's scheduling of the future reversal of existing taxable temporary differences and projections of future taxable income. Among other audit procedures performed, we tested the Company's scheduling of the reversal of existing temporary taxable differences, including evaluation of the timing of the reversal pattern. We evaluated the assumptions used by the Company to develop projections of future taxable income by jurisdiction and tested the completeness and accuracy of the underlying data used in its projections. For example, we compared the projections of future taxable income with the actual results of prior periods, as well as management's consideration of current industry and economic trends. We also assessed the historical accuracy of management's projections and compared the projections of future taxable income with other forecasted financial information prepared by the Company.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 2013.

Dallas, Texas
February 25, 2021

FORTERRA, INC.
Consolidated Statements of Operations
(in thousands, except per share data)

	Year ended December 31, 2020	2019	2018
Net sales	$ 1,594,506	$ 1,529,752	$ 1,479,712
Cost of goods sold	1,217,833	1,233,370	1,234,143
Gross profit	376,673	296,382	245,569
Selling, general & administrative expenses	(221,770)	(221,770)	(209,877)
Impairment and exit charges	(2,511)	(3,520)	(4,336)
Other operating income, net	1,409	1,094	9,523
	(222,872)	(224,196)	(204,690)
Income from operations	153,801	72,186	40,879
Other income (expenses)			
Interest expense	(79,890)	(94,970)	(78,337)
Gain (loss) on extinguishment of debt	(12,256)	1,708	—
Earnings from equity method investee	11,291	10,466	10,162
Other income (expense), net	—	—	6,016
Income (loss) before income taxes	72,946	(10,610)	(21,280)
Income tax (expense) benefit	(8,460)	3,279	(3,085)
Net income (loss)	$ 64,486	$ (7,331)	$ (24,365)
Earnings (loss) per share:			
Basic	$ 0.99	$ (0.11)	$ (0.38)
Diluted	$ 0.94	$ (0.11)	$ (0.38)
Weighted average shares of common stock outstanding:			
Basic	65,260	64,232	63,904
Diluted	68,203	64,232	63,904

See accompanying notes to financial statements

FORTERRA, INC.
Consolidated Statements of Comprehensive Income (Loss)
(in thousands)

	Year ended December 31,		
	2020	2019	2018
Net income (loss)	$ 64,486	$ (7,331)	$ (24,365)
Unrealized gain on derivative activities, net of tax	—	—	970
Change in other postretirement benefit plans, net of tax	(1,042)	373	—
Foreign currency translation adjustment	1,149	3,304	(5,782)
Comprehensive income (loss)	$ 64,593	$ (3,654)	$ (29,177)

See accompanying notes to financial statements

FORTERRA, INC.
Consolidated Balance Sheets
(in thousands, except per share data)

	December 31, 2020	December 31, 2019
ASSETS		
Current assets		
Cash and cash equivalents	$ 25,678	$ 34,800
Receivables, net	227,948	205,801
Inventories	222,928	238,483
Prepaid expenses	7,967	11,021
Other current assets	2,022	8,890
Total current assets	486,543	498,995
Non-current assets		
Property, plant and equipment, net	451,082	475,575
Operating lease right-of-use assets	54,379	60,253
Goodwill	509,127	508,826
Intangible assets, net	101,409	142,674
Investment in equity method investee	48,285	50,034
Other long-term assets	4,987	3,701
Total assets	$ 1,655,812	$ 1,740,058
LIABILITIES AND EQUITY		
Current liabilities		
Trade payables	$ 134,144	$ 102,426
Accrued liabilities	115,693	88,839
Deferred revenue	8,220	9,527
Current portion of long-term debt	12,510	12,510
Current portion of tax receivable agreement	8,333	13,145
Total current liabilities	278,900	226,447
Non-current liabilities		
Senior term loan	395,468	1,085,793
Senior secured notes	492,043	—
Long-term finance lease liabilities	142,195	137,365
Long-term operating lease liabilities	50,943	54,411
Deferred tax liabilities	9,671	28,929
Other long-term liabilities	36,918	21,906
Long-term tax receivable agreement	55,907	64,240
Total liabilities	1,462,045	1,619,091
Commitments and Contingencies (Note 16)		
Equity		
Common stock, $0.001 par value. 190,000 shares authorized; 65,981 and 64,741 shares issued and outstanding at December 31, 2020 and December 31, 2019, respectively	19	19
Additional paid-in-capital	252,579	244,372
Accumulated other comprehensive loss	(6,956)	(7,063)
Retained deficit	(51,875)	(116,361)
Total shareholders' equity	193,767	120,967
Total liabilities and shareholders' equity	$ 1,655,812	$ 1,740,058

See accompanying notes to financial statements

FORTERRA, INC.
Consolidated Statements of Shareholders' Equity
(in thousands, except share data)

	Common Stock Shares	Common Stock Amount	Additional Paid-in-Capital	Accumulated Other Comprehensive Income (Loss)	Retained Deficit	Total Shareholders' Equity
Balance at December 31, 2017	64,230,888	$ 18	$ 230,023	$ (5,098)	$ (92,452)	$ 132,491
Share-based compensation expense	—	—	6,240	—	—	6,240
Stock-based plan activity	(25,284)	—	(126)	—	—	(126)
Net loss	—	—	—	—	(24,365)	(24,365)
Gains on derivative transactions, net of tax	—	—	—	970	—	970
Reclassification due to the adoption of ASU 2018-02	—	—	—	(830)	830	—
Foreign currency translation adjustment	—	—	—	(5,782)	—	(5,782)
Other	—	—	(1,206)	—	—	(1,206)
Balance at December 31, 2018	64,205,604	$ 18	$ 234,931	$ (10,740)	$ (115,987)	$ 108,222
Cumulative effect of accounting changes, net of tax	—	—	—	—	6,957	6,957
Share-based compensation expense	—	—	7,919	—	—	7,919
Stock-based plan activity	535,063	1	1,522	—	—	1,523
Net loss	—	—	—	—	(7,331)	(7,331)
Foreign currency translation adjustment	—	—	—	3,304	—	3,304
Other	—	—	—	373	—	373
Balance at December 31, 2019	64,740,667	$ 19	$ 244,372	$ (7,063)	$ (116,361)	$ 120,967
Share-based compensation expense	—	—	9,489	—	—	9,489
Stock-based plan activity	1,240,120	—	(1,282)	—	—	(1,282)
Net income	—	—	—	—	64,486	64,486
Foreign currency translation adjustment	—	—	—	1,149	—	1,149
Other	—	—	—	(1,042)	—	(1,042)
Balance at December 31, 2020	65,980,787	$ 19	$ 252,579	$ (6,956)	$ (51,875)	$ 193,767

See accompanying notes to financial statements

FORTERRA, INC.
Consolidated Statements of Cash Flows
(in thousands)

	Year ended December 31,		
	2020	2019	2018
CASH FLOWS FROM OPERATING ACTIVITIES			
Net income (loss)	$ 64,486	$ (7,331)	$ (24,365)
Adjustments to reconcile net income (loss) to net cash provided by operating activities:			
Depreciation & amortization expense	89,496	97,258	105,423
Gain on business divestiture	—	—	(6,016)
(Gain) / loss on disposal of property, plant and equipment	638	2,045	(4,266)
(Gain) / loss on extinguishment of debt	12,256	(1,708)	—
Amortization of debt discount and issuance costs	6,599	7,962	8,143
Stock-based compensation expense	9,489	7,919	6,240
Impairment of property, plant, and equipment and goodwill	1,206	128	956
Earnings from equity method investee	(11,291)	(10,466)	(10,162)
Distributions from equity method investee	13,039	11,039	13,141
Unrealized (gain) / loss on derivative instruments, net	830	6,401	(1,408)
Unrealized foreign currency (gains) / losses, net	311	45	(527)
Provision (recoveries) for doubtful accounts	(271)	387	(1,224)
Deferred income taxes	(19,258)	(20,067)	(20,768)
Deferred rent	—	—	1,373
Other non-cash items	5,188	1,320	83
Change in assets and liabilities:			
Receivables, net	(21,421)	(7,394)	(2,466)
Inventories	15,683	47,491	(45,313)
Other current assets	9,662	514	8,657
Accounts payable and accrued liabilities	53,936	2,675	(4,548)
Other assets & liabilities	12,619	8,568	4,243
NET CASH PROVIDED BY OPERATING ACTIVITIES	243,197	146,786	27,196
CASH FLOWS FROM INVESTING ACTIVITIES			
Purchase of property, plant and equipment, and intangible assets	(34,019)	(53,709)	(50,609)
Proceeds from business divestiture	—	—	618
Proceeds from sale of fixed assets	15,646	11,414	8,429
Settlement of net investment hedges	—	—	(4,990)
Assets and liabilities acquired, business combinations, net	—	—	(4,500)
NET CASH USED IN INVESTING ACTIVITIES	(18,373)	(42,295)	(51,052)
CASH FLOWS FROM FINANCING ACTIVITIES			
Payments of debt issuance costs	(11,416)	—	—
Proceeds from issuance of common stock, net	2,424	1,703	—
Payments on Term Loan	(707,624)	(95,741)	(12,510)
Proceeds from Senior Secured Notes	500,000	—	—
Proceeds from revolver	180,000	54,000	—
Payments on revolver	(180,000)	(54,000)	—
Payments pursuant to tax receivable agreement	(13,145)	(11,390)	(30,407)
Other financing activities	(4,511)	(753)	(534)
NET CASH USED IN FINANCING ACTIVITIES	(234,272)	(106,181)	(43,451)
Effect of exchange rate changes on cash	326	697	(1,434)
Net change in cash and cash equivalents	(9,122)	(993)	(68,741)
Cash and cash equivalents, beginning of period	34,800	35,793	104,534
Cash and cash equivalents, end of period	$ 25,678	$ 34,800	$ 35,793

1. Organization and description of the business

General

Forterra, Inc. (“Forterra” or the “Company”) is involved in the manufacturing, sale and distribution of building products in the United States (“U.S.”) and Eastern Canada. Forterra’s primary products are concrete drainage pipe, precast concrete structures, and water transmission pipe used in drinking and wastewater systems. These products are used in the residential, infrastructure and non-residential sectors of the construction industry.

Forterra, a Delaware corporation, was formed on June 21, 2016 to hold the business of Forterra Building Products following an internal reorganization transaction in connection with its initial public offering in 2016 ("IPO").

The business of Forterra Building Products included indirect wholly-owned subsidiaries of LSF9 Concrete Holdings Ltd., ("LSF9"). Lone Star Fund IX (U.S.), L.P., which is referred to along with its affiliates and associates, but excluding the Company and other companies that it owns as a result of its investment activity, as Lone Star, through its wholly-owned subsidiary LSF9, acquired the business of Forterra Building Products on March 13, 2015, (“Acquisition”). LSF9, which was formed on February 6, 2015 for the purpose of acquiring the business of Forterra Building Products had no operations prior to the date of the Acquisition.

Initial Public Offering

On October 6, 2016, Forterra filed an Amended and Restated Certificate of Incorporation which increased the number of authorized shares of common stock from 1,000 with a par value of $0.01 per share to 190,000,000 with a par value of $0.001 per share, and, immediately after which, effected a 41,619.472 for one stock split of its issued and outstanding common stock previously approved by the Company's Board of Directors. Following the stock split there were 41,619,472 shares of common stock outstanding. The Company's Amended and Restated Certificate of Incorporation has also authorized 10,000,000 shares of preferred stock that may be issued at the approval of the Company's Board of Directors. No shares of preferred stock have been issued or were outstanding as of December 31, 2020.

On October 25, 2016, Forterra sold 18,420,000 shares of common stock in its IPO at a public offering price of $18.00 per share. The Company received net proceeds of $313.3 million in the IPO before offering costs.

Reorganization

Prior to the consummation of the IPO, LSF9 distributed its brick operations in the United States and Eastern Canada to an affiliate of Lone Star, or the Bricks Disposition, recognized as a return of capital in the statement of shareholders' equity. Following the Bricks Disposition and prior to the consummation of the IPO, the remaining building products operations of LSF9 in the United States and Eastern Canada, were transferred to Forterra, Inc. in an internal reorganization under common control transaction (the "Reorganization"). Following the Reorganization, Forterra, Inc. became a wholly owned subsidiary of Forterra US Holdings, LLC, which is indirectly wholly owned by an affiliate of Lone Star.

Refinancing

Concurrent with the completion of the IPO, Forterra entered into a new asset based revolving credit facility for working capital and general corporate purposes, (the "Revolver"), and a new $1.05 billion senior term loan facility ("Term Loan"). On May 1, 2017, the Company amended the Term Loan to increase the principal outstanding by an additional $200.0 million and to reduce the interest margin applicable to the full balance thereof. The terms of the Term Loan and Revolver are described in greater detail in Note 11, Debt and deferred financing costs.

Quikrete Merger Agreement

On February 19, 2021, the Company entered into an Agreement and Plan of Merger (the “Merger Agreement”) with Quikrete Holdings, Inc., a Delaware corporation (“Parent”), and Jordan Merger Sub, Inc., a Delaware corporation and a wholly-owned subsidiary of Parent (“Merger Sub”). Pursuant to the Merger Agreement, subject to the satisfaction or waiver of specified conditions, Merger Sub will merge with and into the Company (the “Merger”), with the Company surviving the Merger as a wholly-owned subsidiary of Parent.

Pursuant to the Merger Agreement, at the effective time of the Merger (the “Effective Time”), each issued and outstanding share of common stock (the “Common Stock”) of the Company (other than (i) any shares held in the treasury of the Company or owned, directly or indirectly, by Parent, Merger Sub or any wholly-owned subsidiary of the Company immediately prior to the Effective Time, (ii) shares that are subject to any vesting restrictions (“Company Restricted Shares”) granted under the Company’s stock incentive plans (the “Company Stock Plans”) and (iii) any shares owned by stockholders who have properly exercised and perfected appraisal rights under Delaware law) will be automatically canceled and converted into the right to receive $24.00 in cash, without interest (the “Merger Consideration”), subject to deduction for any required withholding tax.

At the Effective Time:

(1) each restricted stock unit that is solely subject to time-based vesting requirements granted under the Company Stock Plans that is outstanding immediately prior to the Effective Time shall fully vest and be converted into the right to receive an amount in cash (without interest and subject to applicable tax withholdings) equal to the product of (i) the Merger Consideration multiplied by (ii) the number of shares of Common Stock subject to such vested restricted stock unit;

(2) each restricted stock unit that is subject to performance-based vesting requirements granted under the Company Stock Plans that is outstanding immediately prior to the Effective Time shall immediately vest and be converted into the right to receive an amount in cash (without interest and subject to applicable tax withholdings) equal to the product of (i) the Merger Consideration multiplied by (ii) the number of shares subject to such vested restricted stock unit immediately prior to the Effective Time as determined in accordance with the Merger Agreement;

(3) each option to purchase shares of Common Stock granted under the Company Stock Plans that is outstanding immediately prior to the Effective Time shall fully vest, to the extent not vested previously, and be converted into the right to receive an amount in cash (without interest and subject to applicable tax withholdings) equal to the product of (i) the remainder, if positive, of (A) the Merger Consideration minus (B) the exercise price per share of Common Stock of such option multiplied by (ii) the number of shares of Common Stock subject to such vested option; and

(4) each Company Restricted Share that is outstanding immediately prior to the Effective Time shall immediately vest in full and be converted into the right to receive an amount in cash (without interest and subject to applicable tax withholdings) equal to the Merger Consideration.

Each party’s obligation to consummate the Merger is subject to certain conditions, including, among others: (i) expiration or termination of the applicable waiting period under the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended; (ii) the absence of any order issued by any court of competent jurisdiction, other legal restraint or prohibition or any law enacted or deemed applicable by a governmental entity that prohibits or makes illegal the consummation of the Merger; (iii) the passing of twenty (20) days from the date on which the Company mails to the Company’s stockholders the Information Statement (as defined below) in definitive form; (iv) subject to certain qualifications, the accuracy of representations and warranties of the other party set forth in the Merger Agreement; and (v) the performance by the other party in all material respects of its obligations under the Merger Agreement. Parent’s obligation to consummate the Merger is also conditioned on, among other things, the absence of any Material Adverse Effect (as defined in the Merger Agreement).

Entry into the Merger Agreement has been unanimously approved by the board of directors of the Company.

The Merger Agreement includes customary representations, warranties and covenants of the Company, Parent and Merger Sub. Among other things, the Company has agreed to use commercially reasonable efforts to conduct its business in the ordinary course of business consistent with past practice and use commercially reasonable efforts to preserve intact its businesses until the Merger is consummated. The Company and Parent have also agreed to use their respective reasonable best efforts to obtain any approvals from governmental authorities for the Merger, including all required antitrust approvals, on the terms and subject to the conditions set forth in the Merger Agreement, provided that Parent and its affiliates will not be required to take, or agree to take, certain actions with respect to assets, businesses or product lines of Parent or any of its subsidiaries, or the Company or any of its subsidiaries, accounting for more than $80 million of EBITDA (as defined in the Merger Agreement) for the 12 months ended December 31, 2020, measured in accordance with the Merger Agreement.

The Merger Agreement contains certain provisions giving each of Parent and the Company rights to terminate the Merger Agreement under certain circumstances, including the right for either Parent or the Company to terminate the Merger Agreement if the Merger has not been consummated on or before November 19, 2021, which date will be automatically extended for up to two additional 60-day periods in specified circumstances as described in the Merger Agreement (such date, as may be so extended pursuant to the Merger Agreement, the “Outside Date”). Upon termination of the Merger Agreement under specified circumstances, the Company will be required to pay Parent a termination fee of $50 million. The Merger Agreement further provides that Parent will be required to pay the Company a reverse termination fee of $85 million under certain circumstances if the Merger Agreement is terminated due to the failure of the parties to obtain required approvals under Antitrust Laws (as defined in the Merger Agreement) prior to the Outside Date or as a result of a Restraint (as defined in the Merger Agreement) arising under applicable Antitrust Laws.

If the Merger is consummated, the shares of Common Stock will be delisted from the Nasdaq Stock Market LLC and deregistered under the Securities Exchange Act of 1934, as amended (the “Exchange Act”).

2. Summary of significant accounting policies

Principles of Consolidation

The consolidated financial statements include the accounts and results of operations of Forterra, Inc. and its consolidated subsidiaries. Intercompany transactions and balances have been eliminated in consolidation.

Basis of Presentation

The consolidated financial statements of the Company have been prepared in accordance with U.S. generally accepted accounting principles (‘‘U.S. GAAP’’). Certain prior year numbers have been reclassified to conform to current year presentations.

Business Combinations

Assets acquired and liabilities assumed in business combination transactions, as defined by the Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") 805, *Business Combination*, are recorded at fair value using the acquisition method of accounting. The Company allocates the purchase price of acquisitions based upon the fair value of each component which may be derived from various observable and unobservable inputs and assumptions. Initial purchase price allocations are preliminary and subject to revision within the measurement period, not to exceed one year from the date of the transaction. The fair value of property, plant and equipment and intangible assets may be based upon the discounted cash flow method that involves inputs that are not observable in the market (Level 3). Goodwill assigned represents the amount of consideration transferred in excess of the fair value assigned to identifiable assets acquired and liabilities assumed.

Use of estimates

The preparation of the consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities as of the reporting date, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from these estimates. These estimates are based on management’s best knowledge of current events and actions that the Company may undertake in the future. The more significant estimates made by management relate to fair value estimates for assets and liabilities acquired in business combinations; estimates for accrued liabilities for environmental cleanup, bodily injury and insurance claims; estimates for commitments and contingencies; and estimates for the realizability of deferred tax assets, the tax receivable agreement obligation, inventory reserves, allowance for doubtful accounts and impairment of goodwill and long-lived assets.

Certain accounting matters that generally require consideration of forecasted financial information were assessed in light of the impact from the coronavirus disease 2019 ("COVID-19") pandemic. The accounting matters assessed included, but were not limited to, the Company’s allowance for doubtful accounts, inventory reserves, goodwill impairment, impairment of property and equipment and valuation allowances for tax assets. While the assessments resulted in no material impacts to the Company’s consolidated financial statements as of and for the year ended December 31, 2020, the Company believes the full impact of the COVID-19 outbreak remains uncertain and will continue to assess if ongoing developments related to the outbreak may cause future material impacts to its consolidated financial statements.

Cash and cash equivalents

Cash and cash equivalents include cash on hand and other highly liquid investments having an original maturity of less than three months.

Receivables, net

Receivables are recorded at net realizable value, which includes allowances for doubtful accounts. The Company reviews the collectability of trade receivables on an ongoing basis. The Company reserves for trade receivables determined to be uncollectible. This determination is based on the delinquency of the account, the financial condition of the customer and the Company’s collection experience.

Concentration of credit risk

Financial instruments that potentially subject the Company to concentrations of credit risk are primarily receivables. The Company performs ongoing credit evaluations of its customers’ financial condition and generally requires no collateral from its customers. The allowances for uncollectible receivables are based upon analysis of economic trends in the construction industry, detailed analysis of the expected collectibility of accounts receivable that are past due and the expected collectibility of overall receivables.

The Company had an individual customer within its Water Pipe & Products segment that accounted for approximately 16% and 15% of the Company's total net sales for the years ended December 31, 2020 and 2019, respectively, and total receivables at December 31, 2020 and 2019 representing 16% and 13% of the Company's total receivables, net, respectively.

Credit Losses

Trade accounts receivable. The allowance for doubtful accounts is based on the Company’s assessment of the collectability of customer accounts. The Company regularly reviews the allowance by considering factors such as historical experience, credit quality, the age of the accounts receivable balances, and current economic conditions that may affect a customer’s ability to pay.

The Company's exposure to credit losses may increase if one or more of its customers are adversely affected by changes in laws or other government recommendations or mandates, economic pressures or uncertainty associated with local or global economic recessions, disruption or other impacts associated with the COVID-19 pandemic, or other customer-specific factors. Although the Company has historically not experienced significant credit losses, it is possible that there could be a material adverse impact from potential adjustments of the carrying amount of trade receivables as customers are impacted by the COVID-19 pandemic.

Concentration of Labor

Approximately 33% of the Company’s employees are represented by collective bargaining agreements, and 24% of these employees are included in collective bargaining agreements that expire within 12 months.

Inventories

Inventories are valued at the lower of cost or net realizable value. The Company’s inventories are valued using the average cost and first-in-first-out methods. Inventories include materials, labor and applicable factory overhead costs. The value of inventory is adjusted for damaged, obsolete, excess and slow-moving inventory. Market value of inventory is estimated considering the impact of market trends, an evaluation of economic conditions, and the value of current orders relating to the future sales of each respective component of inventory.

Property, plant and equipment, net

Property, plant and equipment, which includes amounts recorded under capital lease arrangements, is stated at cost less accumulated depreciation. Depreciation of property, plant and equipment is computed using the straight-line method over the estimated useful lives of the assets. These lives range from 20 to 40 years for buildings, 4 to 20 years for machinery and equipment, and 5 to 10 years for other equipment and lower of lease term or useful life on leasehold improvements. Repair and maintenance costs are expensed as incurred. The Company's depreciation expense is recorded in cost of goods sold and selling, general and administrative expenses in the statements of operations. The Company capitalizes interest during the active construction of major projects. Capitalized interest is added to the cost of the underlying assets and is depreciated over the useful lives of those assets. There was no interest capitalized for any of the periods presented in the financial statements.

Impairment or disposal of long-lived assets

The Company evaluates the recoverability of its long-lived assets in accordance with the provisions of ASC 360, *Property, Plant and Equipment* ("ASC 360"). ASC 360 requires that long-lived assets and certain identifiable intangibles be reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets is measured by comparing the carrying amount of an asset to future undiscounted net cash flows expected to be generated by the asset. Such evaluations for impairment are significantly impacted by estimates of future prices for the Company's products, capital needs, economic trends in the construction sector and other factors. If such assets are considered to be impaired, the impairment to be recognized is measured at the amount by which the carrying amount of the assets exceeds their fair value.

Leases

The Company has both capital and finance leases. The Company determines if an arrangement is a lease at inception. Leases with an initial term of 12 months or less are not recorded on the balance sheet. Operating leases are included in operating lease right-of-use ("ROU") assets, accrued liabilities, and long-term operating lease liabilities in the consolidated balance sheets. Finance leases are included in property, plant and equipment, accrued liabilities, and long-term finance lease liabilities in the consolidated balance sheets.

ROU assets represent the Company's right to use an underlying asset for the lease term, and lease liabilities represent the Company's obligation to make lease payments arising from the lease. Operating lease ROU assets and liabilities are recognized at commencement date based on the present value of lease payments over the lease term. As most of the Company's leases do not provide an implicit rate, the Company uses its incremental borrowing rate based on the information available at commencement date in determining the present value of lease payments. The Company uses the implicit rate when readily determinable. The lease terms may include options to extend or terminate the lease when it is reasonably certain that the Company will exercise that option. Lease expense for lease payments is recognized on a straight-line basis over the lease term.

The Company has lease agreements with lease and non-lease components, which are generally accounted for separately. For machinery and equipment leases, such as forklifts, the Company accounts for the lease and non-lease components as a single lease component.

Minimum rent payments under operating leases are recognized as an expense on a straight-line basis over the lease term, including any rent-free periods. Operating lease expenses for the years ended December 31, 2020, 2019 and 2018 were approximately $15.6 million, $16.5 million and $24.3 million, respectively.

Goodwill and other intangible assets, net

Goodwill represents the excess of costs over the fair value of identifiable assets acquired and liabilities assumed. The Company evaluates goodwill and intangible assets in accordance with ASC 350, *Goodwill and Other Intangible Assets* ("ASC 350"). ASC 350 requires goodwill to be either qualitatively or quantitatively assessed for impairment annually (or more frequently if impairment indicators arise) for each reporting unit. The Company performs its annual impairment testing of goodwill as of October 1 of each year and in interim periods if events occur that would indicate that it is more likely than not the fair value of a reporting unit is less than carrying value. The Company first assesses qualitative factors to evaluate whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount as the basis for determining whether it is necessary to perform a quantitative goodwill impairment test. The Company may bypass the qualitative assessment for any reporting unit in any period and proceed directly with the quantitative analysis. The quantitative analysis compares the fair value of the reporting unit with its carrying amount. If the carrying amount of a reporting unit exceeds the fair value, impairment is recognized in an amount equal to that excess, limited to the total amount of goodwill allocated to that reporting unit.

The Company evaluates its intangible assets with finite lives for indications of impairment whenever events or changes in circumstances indicate that the net book value may not be recoverable. Intangible assets with finite lives consist of customer relationships, customer backlogs, and brand names, and are amortized under the consumption method over the estimated useful lives. Factors that could trigger an impairment review include significant under-performance relative to expected historical or projected future operating results, significant changes in the manner of the Company's use of the acquired assets or the strategy for the Company's overall business or significant negative industry or economic trends.

If this evaluation indicates that the value of the intangible asset may be impaired, the Company makes an assessment of the recoverability of the net book value of the asset over its remaining useful life. If this assessment indicates that the intangible asset is not recoverable, based on the estimated undiscounted future cash flows of the asset over the remaining amortization period, the Company reduces the net book value of the related intangible asset to fair value and may adjust the remaining amortization period.

Investment in equity method investee

The Company has an investment in a joint venture accounted for using the equity method. Under the equity method, carrying value is adjusted for the Company's share of the investee's earnings and losses, as well as capital contributions to and distributions from the investee. Distributions in excess of equity method earnings are recognized as a return of investment and recorded as investing cash inflows in the accompanying consolidated statements of cash flows. The Company classifies its share of income and loss related to its investments in its investee as a component of operating income or loss, as the Company's investments in the investee is an extension of the Company's core business operations.

The Company evaluates its investment in the equity method investee for impairment whenever events or changes in circumstances indicate that the carrying value of its investment may have experienced an "other-than-temporary" decline in value. If such conditions exist, the Company compares the estimated fair value of the investment to its carrying value to determine if an impairment is indicated and determines whether the impairment is "other-than-temporary" based on its assessment of all relevant factors, including consideration of the Company's intent and ability to retain its investment.

Derivatives and Hedge Accounting

The Company has entered into derivative instruments to mitigate interest rate and foreign exchange rate risk. Certain derivative instruments are designated for hedge accounting under ASC 815-20, *Derivatives - Hedging*. Instruments that meet hedge criteria are formally designated as hedges at the inception of the instrument.

The Company’s derivative assets and liabilities are measured at fair value. Fair value related to the cash flows occurring within one year are classified as current and the fair value related to the cash flows occurring beyond one year are classified as non-current in the consolidated balance sheets. For those instruments designated as hedges, the Company recognizes the changes in fair value in other comprehensive income (“OCI”), and recognizes any ineffectiveness immediately in earnings.

Valuation of derivative assets and liabilities reflect the value of the instrument including counterparty credit risk. These values also take into account the Company's own credit standing.

Deferred financing costs

In conjunction with its debt, the Company had a net balance of $14.8 million in debt discounts and debt issuance costs as of December 31, 2020. These costs are amortized over the life of the applicable debt instrument to interest expense utilizing the effective interest method. The Company wrote-off deferred debt issuance cost of $13.1 million in the year ended December 31, 2020 in connection with the repayment of a portion of the term loan at par with the proceeds from the offering of the senior secured notes. See Note 11, Debt and deferred financing costs.

Fair value measurement

The Company utilizes valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs to the extent possible. The Company determines fair value based on assumptions that market participants would use in pricing an asset or liability in the principal or most advantageous market. When considering market participant assumptions in fair value measurements, the following fair value hierarchy distinguishes between observable and unobservable inputs, which are categorized in one of the following levels:

Level 1 Inputs – Unadjusted quoted prices in active markets for identical assets or liabilities accessible to the reporting entity at the measurement date.

Level 2 Inputs – Other than quoted prices included in Level 1 inputs that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the asset or liability.

Level 3 Inputs – Unobservable inputs for the asset or liability used to measure fair value to the extent that observable inputs are not available, thereby allowing for situations in which there is little, if any, market activity for the asset or liability at measurement date.

The Company's other financial instruments consist primarily of cash and cash equivalents, trade and other receivables, accounts payable, accrued expenses, derivative financial instruments and long-term debt. The carrying value of the Company's trade and other receivables, trade payables and accrued expenses approximates fair value due to their highly liquid nature, short-term maturity, or competitive rates assigned to these financial instruments.

The Company adjusts the carrying amount of certain non-financial assets to fair value on a non-recurring basis when they are impaired.

Foreign currency translation

The Company uses the U.S. dollar as its functional currency for operations in the U.S. and Mexico, and the Canadian dollar for operations in Canada. The assets, liabilities, revenues and expenses of the Company's Canadian operations are translated in accordance with ASC 830, *Foreign Currency Matters.*

Environmental remediation liabilities

The Company accrues for costs on an undiscounted basis associated with environmental remediation obligations when such costs are probable and reasonably estimable; if an estimated amount is likely to fall within a range and no amount within that range can be determined to be the better estimate, the minimum amount of the range is recorded. Claims for recoveries from insurance carriers and other third parties are not recorded until it is probable that the recoveries will be realized. Such accruals are adjusted as further information develops or circumstances change. Environmental expenditures that relate to current operations or to conditions caused by past operations are expensed. Expenditures that create future benefits are capitalized. At December 31, 2020 and 2019, the Company had environmental obligations of $1.6 million and $1.6 million, respectively, which are recorded within accrued liabilities and other long-term liabilities in the consolidated balance sheets.

Stock-based plans

The Company applies the provisions of ASC 718, *Compensation - Stock Compensation,* in its accounting and reporting for stock-based compensation. ASC 718 requires all stock-based payments to employees, including grants of employee stock options, to be recognized in the income statement based on their fair values. All unvested options outstanding under the Company's option plans have grant prices equal to the market price of the Company's stock on the dates of grant. Compensation cost for restricted stock and restricted stock units is determined based on the fair market value of the Company's stock at the date of grant. Stock-based compensation expense is generally recognized over the required service period, or over a shorter period when employee retirement eligibility is a factor. The Company recognizes forfeitures as they occur. Awards that may be settled in cash or company stock are classified as liabilities and remeasured at fair value at the end of each reporting period until the awards are settled.

Income Taxes

The Company computes the provision for income taxes using the asset/liability method. Deferred tax assets and liabilities are recorded for temporary differences between the tax basis of assets and liabilities and their reported amounts in the consolidated financial statements using the statutory tax rates in effect for the year in which the differences are expected to reverse. The Company uses the period cost method for Global Intangible Low-taxed Income (“GILTI”) provisions, and therefore, has not recorded deferred taxes for basis differences expected to reverse in future periods.

The Company evaluates the recoverability of its deferred tax assets quarterly to determine if valuation allowances are required or should be adjusted. In assessing the need for a valuation allowance, the Company considers all available evidence for each jurisdiction, including past operating results, future reversal of taxable and deductible temporary differences, estimates of future taxable income, and the feasibility of ongoing tax planning strategies. The measurement of a deferred tax asset is reduced, if necessary, by a valuation allowance if, based on all available evidence, it is more likely than not that some portion or all of the deferred tax assets will not be realized.

The Company recognizes a tax benefit for uncertain tax positions only if it believes it is more-likely-than-not that the position will be sustained upon examination based solely on the technical merits of the tax position. The Company evaluates whether a tax position meets the more-likely-than-not recognition threshold using the assumption that the position will be examined by the appropriate taxing authority. The tax benefits recognized in the financial statements from such positions are measured based upon the largest amount that is more than 50% likely to be realized upon ultimate settlement. Penalties and interest related to income tax uncertainties, should they occur, are included in income tax expense in the period in which they are incurred.

Revenue recognition

The Company's revenue contracts are primarily single performance obligations for the sale of product both to trade customers and distributors. A majority of revenue recognized by the Company is recognized at the time control is transferred to customers, in an amount that reflects the consideration the Company expects to be entitled to in exchange for the products. The Company considers several indicators for the transfer of control to its customers, including the significant risks and rewards of ownership of products, the Company's right to payment and the legal title of the products. Based upon the assessment of control indicators, sales to trade customers and distributors are generally recognized when products are delivered to customers.

All variable consideration that may affect the total transaction price, including contractual discounts, rebates, returns and credits, is included in net sales. Estimates for variable consideration are based on historical experience, anticipated performance and management's judgment. Generally, the Company's contracts do not contain significant financing.

For certain engineering and construction contracts and building contracting arrangements, the Company enters into long-term contracts with customers. Revenue is recognized as the identified performance obligations are satisfied over time using an acceptable input method to measure the progress toward completion of the performance obligation if: the customer receives the benefits as work is performed, the customer controls the asset as it is being produced, or if the product being produced for the customer has no alternative use and the Company has a contractual right to payment. The Company uses its cost incurred to date relative to total estimated costs at completion to measure progress. The Company's contract liabilities consist of billings to customers in excess of revenue recognized which the Company records as deferred revenue. Revenue recognized during the years ended December 31, 2020 and December 31, 2019, which was included in contract liabilities at the beginning of each period was not material. Contract assets include revenue recognized in excess of amounts billed, and balances billed but not yet paid by customers under retainage provisions which are classified as a current asset within receivables, net on the Company's consolidated balance sheet. The Company had no material contract assets on the consolidated balance sheets as of December 31, 2020 or December 31, 2019. For the years ended December 31, 2020, 2019 and 2018, revenue recognized in continuing operations using the percentage of completion method amounted to 3%, 2%, and 1% and of total net sales, respectively.

The Company records net sales including taxes collected on behalf of its customers. Shipping and handling costs are accounted for as contract fulfillments costs and classified as cost of goods sold. See Note 20, Segment reporting, for the Company's disaggregated revenue disclosures.

The Company incurs shipping costs to third parties for the transportation of building products and bills such costs to customers. For the years ended December 31, 2020, 2019 and 2018, the Company recorded freight costs of approximately $122.7 million, $131.8 million and $127.0 million, respectively, on a gross basis within net sales and cost of goods sold in the accompanying consolidated statements of operations.

The Company generally provides limited warranties related to its products which cover manufacturing in accordance with the specifications identified on the face of its quotation or order acknowledgment and to be free of defects in workmanship or materials. The warranty periods typically extend for a limited duration of one year. The Company estimates and accrues for potential warranty exposure related to products which have been delivered.

Cost of goods sold and selling, general and administrative expenses

Cost of goods sold includes costs of production, inbound freight charges for raw materials, outbound freight to customers, purchasing and receiving costs, inspection costs and warehousing at plant distribution facilities. Selling, general and administrative costs include expenses for sales, marketing, legal, accounting and finance services, human resources, customer support, treasury and other general corporate services.

Recent Accounting Guidance Adopted

In June 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2016-13, *Financial Instruments–Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments.* The standard replaces the incurred loss impairment methodology under current U.S. GAAP with a methodology that reflects expected credit losses and requires the use of a forward-looking expected credit loss model for accounts receivables, loans, and other financial instruments. The Company adopted this ASU on January 1, 2020 using a modified retrospective approach, which did not have a material impact on the Company's consolidated financial statements.

In March 2020, the FASB issued ASU 2020-04, *Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting.* The amendments in the ASU provide optional guidance for a limited time to ease the potential burden in accounting for reference rate reform. The new guidance provides optional expedients and exceptions for applying U.S. GAAP to contracts, hedging relationships and other transactions affected by reference rate reform if certain criteria are met. The amendments apply only to contracts and hedging relationships that reference London Interbank Offered Rate ("LIBOR") or another reference rate expected to be discontinued due to reference rate reform. The guidance was effective upon issuance and generally can be applied through December 31, 2022 and has not had any material impact to the Company's consolidated financial statements.

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)*, which establishes the principles that lessees and lessors shall apply to report information about the amount, timing, and uncertainty of cash flows arising from a lease. Under the new guidance, lessees are required to recognize a right-of-use asset and a lease liability, measured on a discounted basis, at the commencement date for all leases with terms greater than twelve months. Additionally, this guidance required disclosures to help investors and other financial statement users better understand the amount, timing and uncertainty of cash flows arising from leases, including qualitative and quantitative requirements. The Company adopted Topic 842 during the first quarter of 2019, using the transition approach that permits application of the new standard at the adoption date instead of the earliest comparative period presented in the financial statements.

To adopt Topic 842, the Company elected the package of practical expedients permitted under the transition guidance within the new standard, which among other things, allowed the Company to carry forward its historical assessments of (1) whether the existing contracts contained a lease, (2) the lease classification for existing leases, and (3) initial direct cost for existing leases. In addition to the package of practical expedients, the Company has elected the adoption expedients of (1) the exclusion of leases with terms less than 12 months, and (2) the election not to separate non-lease components from lease components for certain classes of underlying leased assets.

To adopt Topic 842, the Company recognized a cumulative catch-up adjustment to the opening balance sheet presented January 1, 2019. The adoption of the standard had a material impact on the Company’s consolidated balance sheet but did not have an impact on its consolidated statements of operations, comprehensive income (loss) or cash flows. As a result of the adoption, the Company has recorded additional lease assets and lease liabilities of approximately $63.9 million and $65.2 million, respectively, as of January 1, 2019. In addition, the Company recognized the carrying value of deferred gains related to certain sale and operating leaseback of land of $9.3 million, net of tax impact of $2.3 million, to beginning retained deficit as of January 1, 2019, in accordance with ASC 842-10-65-1.

In February 2018, the FASB issued ASU 2018-02, *Income Statement - Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income* to allow a reclassification from accumulated other comprehensive income (“AOCI”) to retained earnings for stranded tax effects resulting from the U.S. tax reform legislation commonly known as the Tax Cuts and Jobs Act of 2017 (“TCJA”). This guidance is effective for fiscal years beginning after December 15, 2018, and interim periods within those fiscal years, with early adoption permitted. The Company early adopted the guidance provided in the ASU during the first quarter of 2018 and reclassified $0.8 million of stranded deferred tax benefits related to its derivative instruments from accumulated other comprehensive loss to retained deficit.

Recent Accounting Guidance Not Yet Adopted

In December 2019, the FASB issued ASU No. 2019-12, *Simplifying the Accounting for Income Taxes (Topic 740)*. The new guidance simplifies the accounting for income taxes by eliminating certain exceptions related to the approach for intraperiod tax allocation, the methodology for calculating income taxes in an interim period, hybrid taxes, and the recognition of deferred tax liabilities for outside basis differences. It also clarifies and simplifies other aspects of the accounting for income taxes. For public companies, the amendments in this ASU are effective for fiscal years beginning after December 15, 2020 and interim periods within those fiscal years. Early adoption is permitted in interim or annual periods with any adjustments reflected as of the beginning of the annual period that includes that interim period. Additionally, entities that elect early adoption must adopt all the amendments in the same period. Amendments are to be applied prospectively, except for certain amendments that are to be applied either retrospectively or with a modified retrospective approach through a cumulative effect adjustment recorded to retained earnings. The effects of this standard on the Company's consolidated financial statements are not expected to be material.

3. Acquisitions and divestitures

The acquisitions described below have been accounted for as business combinations (except as discussed below) as defined by ASC 805. The Company allocated the purchase price to the individually identifiable assets acquired and liabilities assumed based on their estimated fair value on the date of acquisition. The excess purchase price over those fair values was recorded as goodwill. The determination of fair values of the acquired assets and assumed liabilities required significant judgment, including estimates impacting the determination of estimated lives of tangible and intangible assets, calculation of the fair value of property, plant and equipment, inventory, and various intangibles. The fair values of assets and liabilities were determined using level 3 inputs as defined by ASC 820.

2019 transactions

On March 1, 2019, the Company acquired certain assets of Texas limited liability companies Houston Buckner Precast, LLC, Buckner Precast, LLC, Montgomery 18905 E. Industrial, LLC, and 1763 Old Denton Road, LLC (altogether "Buckner") for consideration of $11.8 million in cash, inclusive of a working capital adjustment. The acquired Buckner assets did not meet the definition of a business and, as such, the transaction was accounted for as an asset acquisition pursuant to the guidance in subsection 805-50 of ASC 805, *Business Combinations*. The assets of the Buckner acquisition operate as part of the Company’s Drainage Pipe & Products segment.

2018 transactions

Acquisitions

On April 2, 2018, the Company acquired substantially all the assets of Watkins Industries, Inc. for aggregate consideration of $4.5 million in cash and accounted for the transaction as a business combination. During the third quarter of 2018, the Company acquired certain assets of Anchor Concrete Products, Ltd. in Kingston, Ontario, for aggregate consideration of $2.5 million in cash and accounted for the transaction as an asset acquisition. Both of these acquisitions operate in the Company's Drainage Pipe & Products segment.

Divestitures

On January 31, 2018, the Company divested assets relating to the operation of certain Drainage Pipe & Products facilities in Tennessee, Alabama, and Georgia to Foley Products Company (“Foley”) in exchange for $9.1 million in cash, land in Texas and a Drainage Pipe & Products facility located in Prentiss, Mississippi.

The acquisition side of the exchange transaction was accounted for as a business combination as defined by FASB ASC 805, *Business Combinations*. In accordance with ASC 805, the purchase price is measured as the acquisition date fair value of the assets transferred by the Company to Foley in the exchange. In the exchange, the Company divested of the net working capital and certain of the real property of its Drainage Pipe & Products plants in Tennessee and Alabama, as well as the net working capital of certain Drainage Pipe & Products plants in Georgia. The purchase price of $37.2 million was the fair value of the divested assets which resulted in the recognition of a gain of $6.0 million, recognized in Other income (expense), net. The Company allocated the purchase price to the individually identifiable assets acquired and liabilities assumed based on their estimated fair value on the date of acquisition. The excess purchase price over those fair values was recorded as goodwill.

The determination of fair values of the divested and acquired assets and assumed liabilities requires significant judgment, including estimates impacting the determination of estimated lives of tangible and intangible assets, calculation of the fair value of property, plant and equipment, inventory, and various intangibles. The fair values of assets and liabilities were determined using level 3 inputs as defined by ASC 820, *Fair Value Measurements and Disclosures*.

The final fair values of the assets acquired and liabilities assumed in the transaction, including $9.1 million in cash, the Prentiss plant, and a parcel of land in Texas, at the acquisition date are as follows *(in thousands)*:

Net working capital	$	10,984
Property, plant and equipment		9,221
Customer relationship intangible		2,100
Non-compete agreement intangible		5,600
Other intangibles		290
Net identifiable assets acquired		28,195
Goodwill		8,996
Consideration transferred	$	37,191

Goodwill recognized is attributable primarily to expected operating efficiencies and expansion opportunities in the business acquired. Goodwill is deductible for tax purposes.

Transaction costs

For the years ended December 31, 2020, 2019 and 2018, the Company recognized aggregate transaction costs, including legal, accounting, valuation, and advisory fees, specific to the transactions identified above of $24 thousand, $0.2 million and $0.8 million, respectively. These costs are recorded in the consolidated statements of operations within selling, general & administrative expenses.

4. Receivables, net

Receivables consist of the following at December 31, 2020 and 2019 *(in thousands)*:

	December 31, 2020	December 31, 2019
Trade receivables	$ 195,997	$ 178,698
Amounts billed, but not yet paid under retainage provisions	4,022	3,093
Other receivables	29,026	26,078
Total receivables	$ 229,045	$ 207,869
Less: Allowance for doubtful accounts	(1,097)	(2,068)
Receivables, net	$ 227,948	$ 205,801

The Company records provisions for doubtful accounts in selling, general and administrative expenses in the consolidated statements of operations. The table below summarizes the Company's allowance for doubtful accounts for the periods presented *(in thousands)*:

	Allowance for doubtful accounts
Balance at December 31, 2018	$ (2,141)
Provision for doubtful accounts	(387)
Write-offs and adjustments	460
Balance at December 31, 2019	$ (2,068)
Recovery on doubtful accounts	451
Write-offs and adjustments	520
Balance at December 31, 2020	$ (1,097)

5. Inventories

Inventories consist of the following at December 31, 2020 and December 31, 2019 *(in thousands)*:

	December 31, 2020	December 31, 2019
Finished goods	$ 145,872	$ 161,440
Raw materials	76,322	76,237
Work in process	734	806
Total inventories	$ 222,928	$ 238,483

6. Investment in equity method investee

The Company owns 50% of the Common Unit voting shares of Concrete Pipe & Precast LLC ("CP&P") and consequently, has recorded its investment in the Common Unit voting shares in accordance with ASC 323, *Investments – Equity Method and Joint Ventures*, under the equity method of accounting.

The Company's investment in the joint venture as of December 31, 2020 and 2019 was $48.3 million and $50.0 million, respectively, which is included within the Drainage Pipe & Products segment. At December 31, 2020, the difference between the amount at which the Company's investment is carried and the amount of the Company's share of the underlying equity in net assets of CP&P was approximately $13.0 million. The basis difference is primarily attributable to the value of land and equity method goodwill associated with the investment.

The following reflects the Company's distribution and earnings in the equity investment (in thousands):

	Year ended December 31,		
	2020	2019	2018
Distribution received from CP&P	$ (13,039)	$ (11,039)	(13,141)
Share of earnings in CP&P	11,363	10,538	10,234
Amortization of excess fair value of investment	(72)	(72)	(72)

Selected financial data for CP&P on a 100% basis is as follows (*in thousands*):

	Year ended December 31,		
	2020	2019	2018
Net sales	$ 157,499	$ 152,740	$ 140,494
Gross profit	41,245	40,369	37,473
Income from operations	23,172	21,720	20,570
Net income	22,642	20,844	19,804

7. Property, plant and equipment, net

Property, plant and equipment, net consist of the following at December 31, 2020 and 2019 *(in thousands)*:

	December 31,	
	2020	2019
Machinery and equipment	$ 410,436	$ 398,127
Land, buildings and improvements	234,251	240,403
Other equipment	12,633	8,660
Construction-in-progress	26,073	29,157
Total property, plant and equipment	683,393	676,347
Less: accumulated depreciation	(232,311)	(200,772)
Property, plant and equipment, net	$ 451,082	$ 475,575

Depreciation expense totaled $48.2 million, $49.8 million and $52.9 million for the years ended December 31, 2020, 2019 and 2018, respectively, which is included in cost of goods sold and selling, general and administrative expenses in the consolidated statements of operations.

As of December 31, 2020 and 2019, gross assets recorded under finance leases, consisting primarily of land and buildings, were $55.6 million and $53.8 million, respectively, and accumulated depreciation was $5.9 million and $3.8 million, respectively.

Impairments

For the year ended December 31, 2020, the Company recorded asset impairment charges of $1.2 million for its property, plant and equipment. For the year ended December 31, 2019, the Company recorded asset impairment charges of $0.1 million for its property, plant and equipment. For the year ended December 31, 2018, the Company recorded impairment charges primarily in conjunction with plant closings undertaken for purposes of achieving operating efficiencies and recognized asset impairment charges for its property, plant and equipment of $1.0 million. Asset impairments are included in impairment and exit charges on the consolidated statements of operations.

8. Goodwill and other intangible assets, net

The Company has goodwill which has been recorded in connection with its acquisition of businesses. The following table summarizes the changes in goodwill by operating segment for the years ended December 31, 2020 and December 31, 2019 *(in thousands)*:

	Drainage Pipe & Products	Water Pipe & Products	Total
Balance at December 31, 2018	$ 189,833	$ 318,360	$ 508,193
Foreign currency and other adjustments	633	—	633
Balance at December 31, 2019	190,466	318,360	508,826
Foreign currency and other adjustments	301	—	301
Balance at December 31, 2020	$ 190,767	$ 318,360	$ 509,127

Goodwill is required to be tested for impairment at the reporting unit level. The Company has three reporting units which have goodwill. We perform our annual impairment assessment of goodwill in the fourth quarter of each year, or more frequently if indicators of potential impairment exist. The analysis may include both qualitative and quantitative factors to assess the likelihood of an impairment. In accordance with ASC 350, *Intangibles – Goodwill & Other*, we first assess qualitative factors to determine whether it is more likely than *not* that the fair value of a reporting unit is less than its carrying amount as a basis for determining whether it is necessary to perform the quantitative goodwill impairment test. The more likely than *not* threshold is defined as having a likelihood of more than 50 percent. If, after assessing the totality and events or circumstances, we determine that it is *not* more likely than *not* that the fair value of a reporting unit is less than its carrying amount, then performing the quantitative impairment test is unnecessary and our goodwill is considered to be unimpaired. However, if based on our qualitative assessment we conclude that it is more likely than *not* that the fair value of a reporting unit is less than its carrying amount, we will proceed with performing the quantitative impairment test.

Qualitative factors include industry and market considerations, overall financial performance, and other relevant events and factors affecting the reporting unit. Additionally, as part of the qualitative assessment, we may perform a quantitative analysis to support the qualitative factors above by applying sensitivities to assumptions and inputs used in measuring a reporting unit's fair value.

For quantitative impairment test, the Company uses a combination of an income approach and a market approach to determine the fair value of the reporting unit. The income approach uses a reporting unit's estimated future cash flows, discounted at the weighted average cost of capital of a hypothetical third-party buyer. The market approach estimates fair value by applying cash flow multiples to the reporting unit's operating performance. The multiples are derived from comparable publicly traded companies with similar operating and investment characteristics to the reporting unit. The calculation of business enterprise value is based on significant unobservable inputs, such as price trends, customer demand, material costs and discount rates, and are classified as Level 3 in the fair value hierarchy. The Company's impairment determinations involve significant assumptions and judgments, as discussed above. Different assumptions regarding any of these inputs could have a significant effect on the various valuations.

The Company performed its annual goodwill impairment test as of October 1st of each year. In 2020, the fair value for all of our reporting units substantially exceeded their carrying value, and our annual qualitative assessment did not indicate that a more detailed quantitative test was necessary. In 2019 and 2018, we performed the quantitative impairment test and concluded that the calculated fair value of the reporting units exceeded book value in all circumstances; therefore, no annual impairment charge was recorded in either of these periods.

Intangible assets other than goodwill at December 31, 2020 included the following *(in thousands)*:

	Weighted average amortization period (in years)	Gross carrying amount as of December 31, 2020	Accumulated amortization	Net carrying value as of December 31, 2020
Customer relationships	10	$ 235,907	$ (165,404)	$ 70,503
Trade names	10	39,390	(24,455)	14,935
Patents	11	23,629	(18,600)	5,029
Customer backlog	0.8	13,211	(13,211)	—
Non-compete agreements	5	17,172	(12,210)	4,962
Developed technology	17	6,354	(748)	5,606
Other	10	867	(493)	374
Total intangible assets		$ 336,530	$ (235,121)	$ 101,409

Intangible assets other than goodwill at December 31, 2019 included the following *(in thousands)*:

	Weighted average amortization period (in years)	Gross carrying amount as of December 31, 2019	Accumulated amortization	Net carrying value as of December 31, 2019
Customer relationships	10	$ 235,907	$ (135,038)	$ 100,869
Trade names	10	39,390	(19,764)	19,626
Patents	11	23,629	(15,956)	7,673
Customer backlog	0.8	13,209	(13,209)	—
Non-compete agreements	5	17,090	(9,020)	8,070
Developed technology	17	$ 6,354	$ (374)	5,980
Other	10	867	(411)	456
Total intangible assets		$ 336,446	$ (193,772)	$ 142,674

Amortization expense totaled $41.3 million, $47.4 million and $52.5 million for the years ended December 31, 2020, December 31, 2019 and December 31, 2018, respectively, which is included in selling, general and administrative expenses in the consolidated statements of operations.

The estimated amortization expense relating to amortizable intangible assets for the next five years is as follows *(in thousands)*:

Year ended	Intangible assets subject to amortization
2021	$ 33,228
2022	23,992
2023	17,657
2024	12,742
2025	9,473
Total	$ 97,092

9. Fair value measurement

The Company's financial instruments consist primarily of cash and cash equivalents, trade and other receivables, derivative instruments, accounts payable, long-term debt, operating and finance lease liabilities, accrued liabilities and the tax receivable agreement obligation. The carrying value of the Company's trade receivables, other receivables, trade payables, the asset-based revolver and accrued liabilities approximates fair value due to their short-term maturity or other terms related to these financial instruments. The Company may adjust the carrying amount of certain non-financial assets to fair value on a non-recurring basis when they are impaired.

The estimated carrying amount and fair value of the Company’s financial instruments measured and recorded at fair value on a recurring basis are as follows for the dates indicated *(in thousands)*:

	Fair value measurements at December 31, 2020 using			
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total Fair Value December 31, 2020
Liabilities:				
Derivative liability	$ —	$ 572	$ —	$ 572

	Fair value measurements at December 31, 2019 using			
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total Fair Value December 31, 2019
Assets:				
Derivative asset	$ —	$ 258	$ —	$ 258

Liabilities and assets classified as level 2 which are recorded at fair value are valued using observable market inputs. The fair values of derivative assets and liabilities are determined using quantitative models that utilize multiple market inputs including interest rates and exchange rates to generate continuous yield or pricing curves and volatility factors to value the position. The majority of market inputs are actively quoted and can be validated through external sources, including brokers, market transactions and third-party pricing services. The fair values of derivative assets and liabilities include adjustments for market liquidity, counter-party credit quality and other instrument-specific factors, where appropriate. In addition, the Company incorporates within its fair value measurements a valuation adjustment to reflect the credit risk associated with the net position. Positions are netted by counter-parties, and fair value for net long exposures is adjusted for counter-party credit risk while the fair value for net short exposures is adjusted for the Company’s own credit risk.

The estimated carrying amount and fair value of the Company’s financial instruments and liabilities for which fair value is only disclosed is as follows *(in thousands)*:

		Fair value measurements at December 31, 2020 using			
	Carrying Amount December 31, 2020	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total Fair Value December 31, 2020
Non-current liabilities					
Term Loan	$407,978	—	$415,386	—	$415,386
Senior Secured Notes	492,043	—	$539,760	—	539,760
Tax receivable agreement payable	64,240	—	—	40,586	40,586

		Fair value measurements at December 31, 2019 using			
	Carrying Amount December 31, 2019	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total Fair Value December 31, 2019
Non-current liabilities					
Term Loan	$1,098,303	—	$1,102,295	—	$1,102,295
Tax receivable agreement payable	77,385	—	—	47,625	47,625

The fair value of debt is valued using a market approach based on the indicative quoted prices for the Company's debt instruments traded in over-the-counter markets and, therefore, is classified as Level 2 within the fair value hierarchy. See Note 11, Debt and deferred financing costs, for a further discussion of Company debt.

The fair value of the tax receivable agreement payable was determined using a discounted cash flow methodology using level 3 inputs as defined by ASC 820, *Fair Value Measurements and Disclosures*. The determination of fair value required significant judgment, including estimates of the timing and amounts of various tax attributes. These estimates are based on management's best knowledge of current events and actions that the Company may undertake in the future. Actual results could differ from these estimates. See Note 16, Commitments and contingencies, for a further discussion of the Company's tax receivable agreement.

10. Accrued liabilities

Accrued liabilities consist of the following at December 31, 2020 and December 31, 2019 *(in thousands)*:

	December 31,	
	2020	2019
Accrued payroll and employee benefits	$ 49,434	$ 32,815
Short-term capital leases	17,009	16,542
Short-term operating leases	7,448	8,784
Accrued taxes	13,642	5,354
Accrued rebates	11,649	9,895
Warranty	7,069	5,536
Short-term derivative liability	333	—
Environmental obligation	63	718
Other miscellaneous accrued liabilities	9,046	9,195
Total accrued liabilities	$ 115,693	$ 88,839

11. Debt and deferred financing costs

The Company's debt consisted of the following *(in thousands)*:

		December 31, 2020		December 31, 2019
Term Loan, net of debt issuance costs and original issuance discount of $6,889 and $25,055, respectively	$	407,978	$	1,098,303
Senior Secured Notes, net of debt issuance costs and original issuance discount of $7,957 and $0, respectively		492,043		—
Total debt	$	900,021	$	1,098,303
Less: current portion debt		(12,510)		(12,510)
Total long-term debt	$	887,511	$	1,085,793

As of December 31, 2020, Forterra had no borrowings under its $350 million asset based revolving credit facility under its ABL Credit Agreement dated October 25, 2016 (the "ABL Credit Agreement") for working capital and general corporate purposes ("Revolver"), $414.9 million outstanding under its senior term loan facility ("Term Loan") and $500 million senior secured notes due 2025 (the "Notes").

Senior Secured Notes

On July 16, 2020, Forterra Finance, LLC and FRTA Finance Corp., both wholly-owned subsidiaries of the Company, completed the issuance of $500 million aggregate principal amount of senior secured notes due in 2025. The Notes have a fixed annual interest rate of 6.50% which will be paid semi-annually on January 15 and July 15 of each year. The Notes will mature on July 15, 2025. The Company used the net proceeds from the offering to repay $492.5 million of the principal amount of the Term Loan at par, plus accrued interest. The Company incurred debt issuance costs of $8.8 million and will amortize them over the term of the Notes under the effective interest method.

Obligations under the Notes are guaranteed by the Company and the Company's existing and future subsidiaries (other than the issuing companies) that guarantee the Term Loan and the obligations of the U.S. borrowers under the Revolver. The Notes and the related guarantees are secured by first-priority liens on the collateral that secures the Term Loan on a first-priority basis (which is generally all assets other than those that secure the Revolver on a first-priority basis as set forth below) and second-priority liens on the collateral that secures the Revolver on a first-priority basis (which is generally inventory, accounts receivable, deposit accounts, securities accounts, certain intercompany loans and related assets), which second-priority liens will be ratable with the liens on such assets securing the obligations under the Term Loan and junior to the liens on such assets securing the Revolver.

At any time prior to July 15, 2022, the Company may on any one or more occasions redeem all or part of the Notes at a redemption price equal to 100% of the principal amount of the Notes redeemed, plus a "make whole premium" as of, and accrued and unpaid interest to the date of redemption, subject to the right of holders of Notes on the relevant record date to receive interest due on an interest payment date occurring on or prior to the redemption date. In addition, at any time prior to July 15, 2022, the Company may on any one or more occasions redeem up to 40% of the aggregate principal amount of the Notes (calculated after giving effect to the issuance of any additional notes) issued under the Indenture at a redemption price equal to 106.500% of the principal amount of Notes redeemed, plus accrued and unpaid interest to the date of redemption (subject to the right of holders of Notes on the relevant record date to receive interest due on an interest payment date occurring on or prior to the redemption date), with the net cash proceeds of an equity offering. Furthermore, at any time on or after July 15, 2022, the Company may on any one or more occasions redeem all or part of the Notes at the redemption prices (expressed as percentages of principal amount) set forth below, plus accrued and unpaid interest on the Notes redeemed, to the applicable date of redemption, if redeemed during the 12-month period beginning on July 15 of the years indicated below, subject to the rights of holders of Notes on a relevant record date to receive interest on an interest payment date occurring on or prior to the redemption date:

	Percentage
2022	103.250 %
2023	101.625 %
2024 and thereafter	100.000 %

The Notes contain customary negative covenants, including, among other things, limitations or prohibitions on restricted payments, incurrence of additional indebtedness, liens, mergers, asset sales and transactions with affiliates. In addition, the Indenture contains customary events of default.

Senior Term Loan

The Term Loan provides for a $1.25 billion senior secured term loan. Subject to the conditions set forth in the term loan agreement, the Term Loan may be increased by (i) up to the greater of $285.0 million and 1.0x consolidated EBITDA (defined below) of Forterra and its restricted subsidiaries for the four quarters most recently ended prior to such incurrence plus (ii) the aggregate amount of any voluntary prepayments, plus (iii) an additional unlimited amount, provided (x) in the case of any incremental debt that is secured by a lien that is pari passu with the liens securing the Term Loan, the first lien leverage ratio does not exceed 4.10 to 1.00, (y) in the case of incremental debt that is secured by a lien that is junior to the liens securing the Term Loan, the total leverage ratio does not exceed 5.50 to 1.00 and (z) in the case of incremental debt that is unsecured, the total leverage ratio does not exceed 5.75 to 1.00, in each case, determined on a pro forma basis.

The Term Loan matures on October 25, 2023 and is subject to quarterly amortization equal to 0.25% of the initial principal amount. Interest accrues on outstanding borrowings thereunder at a rate equal to adjusted LIBOR (with a floor of 1.0%) or an alternate base rate (the base rate, which is the highest of the then current federal funds rate plus 0.50%, the prime rate most recently announced by the administrative agent under the Term Loan, and the one-month adjusted LIBOR plus 1.00%), in each case plus a margin of 3.00% or 2.00%, respectively. The weighted average interest rates for the Term Loan were 4.1% and 5.2% for the years ended December 31, 2020 and December 31, 2019, respectively.

During the year ended December 31, 2020, the Company repurchased $696.0 million of the Term Loan before its maturity at a market value of $695.1 million. Consequently, the Company wrote off a proportionate share of debt issuance costs of $13.1 million and recognized a net loss of $12.2 million which was included in the consolidated statements of operations.

Outstanding borrowings under the Term Loan are guaranteed by Forterra and each of its direct and indirect material wholly-owned domestic subsidiaries except certain excluded subsidiaries (the "Guarantors"). The Term Loan is secured by substantially all of the assets of Forterra, the borrower and the Guarantors; provided that the obligations under the Term Loan are not secured by any liens on more than 65% of the voting stock of foreign subsidiaries or assets of foreign subsidiaries. The Term Loan contains customary representations and warranties, and affirmative and negative covenants, that, among other things, restrict the ability of Forterra and its restricted subsidiaries to incur additional debt, incur or permit liens on assets, make investments and acquisitions, consolidate or merge with any other company, engage in asset sales and pay dividends and make distributions. The Term Loan does not contain any financial covenants. Obligations under the Term Loan may be accelerated upon certain customary events of default (subject to grace periods, as appropriate).

Asset Based Revolving Facility

On June 17, 2020, the Company entered into a First Amendment (the “Amendment”) to the ABL Credit Agreement. The Amendment, among other things, (i) increased the size of the Revolver from $300 million to $350 million of aggregate commitments, with up to $330 million to be made available to the U.S. Borrowers and up to $20 million to be made available to the Canadian Borrowers (the allocation may be modified periodically at the Company's request), (ii) extended the maturity date of the Revolver to June 17, 2025, subject to earlier maturity if greater than $75.0 million of the Company’s Term Loan remains outstanding 91 days prior to the scheduled maturity of the term loan credit facility or any refinancing thereof, and (iii) modified the interest rates on outstanding borrowings under the Revolver to a rate equal to LIBOR or CDOR plus a margin ranging from 1.75% to 2.25% per annum, or an alternate base rate, Canadian prime rate or Canadian base rate plus a margin ranging from 0.75% to 1.25% per annum, in each case, based upon the average excess availability under the Revolver for the most recently completed calendar quarter and the Company’s total leverage ratio as of the end of the most recent fiscal quarter for which financial statements have been delivered. The Company incurred $2.6 million of fees and expenses in connection with this Amendment and recorded it to “Other Long-term Assets” in its consolidated balance sheet. In addition, the Company wrote off $0.4 million of previously deferred issuance cost related to the banks that are no longer part of the ABL Credit Facility.

Subject to the conditions set forth in the ABL Credit Agreement, as amended, the Revolver may be increased by up to the greater of (i) $100.0 million and (ii) such amount as would not cause the aggregate borrowing base to be exceeded by more than $50.0 million. Borrowings under the Revolver may not exceed a borrowing base equal to the sum of (i) 100% of eligible cash, (ii) 85% of eligible accounts receivable and (iii) the lesser of (a) 75% of eligible inventory and (b) 85% of the orderly liquidation value of eligible inventory, with the U.S. and Canadian borrowings being subject to separate borrowing base limitations. The advance rates for accounts receivable and inventory are subject to increase by 2.5% during certain periods. As of December 31, 2020 and December 31, 2019, the Revolver had no outstanding borrowings. The weighted average interest rates for the borrowings under the Revolver were 2.00% and 3.72% for the years ended December 31, 2020 and December 31, 2019, respectively.

The Revolver also provides for the issuance of letters of credit of up to an agreed sublimit. The obligations of the borrowers under the Revolver are guaranteed by Forterra and its direct and indirect wholly-owned restricted subsidiaries other than certain excluded subsidiaries; provided that the obligations of the U.S. borrowers are not guaranteed by the Canadian subsidiaries. The Revolver is secured by substantially all of the assets of the borrowers; provided that the obligations of the U.S. borrowers are not secured by any liens on more than 65% of the voting stock of foreign subsidiaries or assets of foreign subsidiaries.

In addition, Forterra pays a facility fee of between 20.0 and 32.5 basis points per annum based upon the utilization of the total Revolver. Availability under the Revolver, based on draws, outstanding letters of credit of $16.7 million, as well as allowable borrowing base as of December 31, 2020, was $235.6 million.

The Revolver and the Term Loan contain customary representations and warranties, and affirmative and negative covenants, including representations, warranties, and covenants that, among other things, restrict the ability of Forterra and its restricted subsidiaries to incur additional debt, incur or permit liens on assets, make investments and acquisitions, consolidate or merge with any other company, engage in asset sales and pay dividends and make distributions. The Revolver contains a financial covenant restricting Forterra from allowing its fixed charge coverage ratio to drop below 1.00:1.00 during a compliance period, which is triggered when the availability under the Revolver falls below a threshold set forth in the ABL Credit Agreement, as amended. Obligations under the Revolver and the Term Loan may be accelerated upon certain customary events of default (subject to grace periods, as appropriate). The fixed charge coverage ratio is the ratio of consolidated earnings before interest, depreciation, and amortization (“EBITDA’’) less cash payments for capital expenditures and income taxes to consolidated fixed charges (interest expense plus scheduled payments of principal on indebtedness).

As of December 31, 2020, the Company was in compliance with all applicable covenants under the Revolver, the Term Loan, and the Notes.

As of December 31, 2020, scheduled maturities of long-term debt were as follows *(in thousands)*:

	Total	Term Loan	Notes
2021	$ 12,510	$ 12,510	$ —
2022	12,510	12,510	—
2023	389,847	389,847	—
2024	—	—	—
2025	500,000	—	500,000
	$ 914,867	$ 414,867	$ 500,000

12. Other long-term liabilities

Other long-term liabilities consist of the following for the years ended December 31, 2020 and 2019 *(in thousands)*:

	December 31,	
	2020	2019
Workers' compensation	$ 12,417	$ 12,039
Legal	6,758	4,115
Social Security Deferral	5,521	—
Long term bonus incentive plan	5,110	—
Employee benefits	3,322	2,945
Environmental remediation liability	1,535	872
Other miscellaneous long-term liabilities	2,255	1,935
	$ 36,918	$ 21,906

13. Derivatives and hedging

The Company uses derivatives to manage selected foreign exchange and interest rate exposures. The Company does not use derivative instruments for speculative trading purposes, and, except as discussed below, cash flows from derivative instruments are included in net cash provided by (used in) operating activities in the consolidated statements of cash flows.

On March 30, 2020, Forterra entered into an interest rate swap transaction with a notional value of $400 million to reduce exposure to interest rate fluctuations associated with a portion of the Term Loan. Under the terms of the swap transaction, Forterra agreed to pay a fixed rate of interest of 1.08% and receive floating rate of interest indexed to one-month LIBOR, subject to a minimum of 1.00%, with monthly settlement terms with the swap counterparty. The swap has a 30-month term and expires on September 30, 2022. The interest rate swap is not designated as a cash flow hedge, therefore all changes in the fair value of the instrument are captured as a component of interest expense in the consolidated statements of operations. Accordingly, cash flows from the monthly interest rate swap settlements are included in net cash provided by (used in) operating activities in the consolidated statements of cash flows.

At December 31, 2017, the Company had foreign exchange forward contracts, designated as net investment hedges in accordance with ASC 815-20 *Derivatives - Hedging*, which allowed for the effective portion of the changes in the fair value of the instruments to be captured in accumulated other comprehensive income, and ineffective portion recorded in earnings. These instruments were novated to Forterra by an affiliate concurrent with the Reorganization, directly prior to the IPO and refinancing described in Note 1 and were settled in March 2018 resulting in a cash outlay of $5.0 million. This cash outlay was recorded within the investing activities section of the consolidated statements of cash flows. The net investment hedges were intended to mitigate foreign exchange exposure related to non-U.S. dollar net investments in certain foreign subsidiaries against changes in foreign exchange rates. A quantitative analysis was utilized to assess hedge effectiveness for the hedges. The Company assessed the hedge effectiveness and measured the amount of ineffectiveness for the hedge relationships based on changes in forward exchange rates; any ineffectiveness was recorded immediately in current period earnings. The Company did not have any ineffectiveness related to net investment hedges during the years ended December 31, 2020, 2019 and 2018. Cumulative changes in fair value of the effective portion of the hedging instruments were recorded in Accumulated other comprehensive income and will be reclassified into earnings upon the sale or complete or substantially complete liquidation of the foreign entity.

On February 9, 2017, Forterra entered into interest rate swap transactions with a combined notional value of $525 million. Under the terms of the swap transactions, Forterra agreed to pay a fixed rate of interest of 1.52% and receive floating rate interest indexed to one-month LIBOR with monthly settlement terms with the swap counterparties. The swaps had a three-year term and expired on March 31, 2020. The interest rate swaps were not designated as cash flow hedges, therefore all changes in the fair value of these instruments were captured as a component of interest expense in the consolidated statements of operations. Accordingly, cash flows from the monthly interest rate swap settlements were included in net cash provided by (used in) operating activities in the consolidated statements of cash flows.

The Company elects to present all derivative assets and derivative liabilities on a net basis on its consolidated balance sheets when a legally enforceable International Swaps and Derivatives Association, Inc. (“ISDA”) Master Agreement exists. An ISDA Master Agreement is an agreement between two counterparties, which may have multiple derivative transactions with each other governed by such agreement, and such ISDA Master Agreement generally provides for the net settlement of all or a specified group of these derivative transactions, through a single payment, in a single currency, in the event of a default on, or affecting any, one derivative transaction or a termination event affecting all, or a specified group of, derivative transactions. At December 31, 2020 and 2019, the Company’s derivative instruments fall under an ISDA master netting agreement.

The following table presents the fair values of derivative assets and liabilities in the balance sheets *(in thousands)*:

	December 31, 2020			
	Derivative Assets		Derivative Liabilities	
	Notional Amount	Fair Value	Notional Amount	Fair Value
Interest rate swaps	$ —	$ —	$ 400,000	$ 572
Total derivatives, gross		—		572
Less: Legally enforceable master netting agreements		—		—
Total derivatives, net		$ —		$ 572

	December 31, 2019			
	Derivative Assets		Derivative Liabilities	
	Notional Amount	Fair Value	Notional Amount	Fair Value
Interest rate swaps	$ 525,000	$ 258	$ —	$ —
Total derivatives, gross		258		—
Less: Legally enforceable master netting agreements		—		—
Total derivatives, net		$ 258		$ —

The following table presents the effect of derivative instruments on the consolidated statements of operations *(in thousands)*:

	Year ended December 31, 2020	Year ended December 31, 2019
Derivatives not designated as hedges		
Interest rate swaps		
Loss on derivatives not designated as hedges included in interest expense	(830)	(6,401)

14. Leases

The Company leases land and buildings, office spaces, vehicles, machinery and equipment under various lease agreements. A large portion of the Company's leases were the result of the sale and leaseback of land and buildings related to certain production facilities. These leases have an initial term of 25 years, followed by one optional renewal term of approximately ten years that may be exercised at the Company's discretion. See note 15, Sale-Leaseback transaction. These leases, with the exception of certain land leases, were classified as finance leases. The Company's operating leases are mainly comprised of land and buildings, office spaces, vehicles, machinery and equipment leases, and have remaining terms of one to 25 years, some of which include options to extend the leases for up to ten years.

The components of lease expense were as follows (in thousands):

Lease cost	Classification	Year ended December 31, 2020	Year ended December 31, 2019
Operating lease cost	Lease expense	$ 15,613	$ 16,464
Finance lease cost			
Amortization of leased assets	Depreciation, amortization, and accretion	2,259	2,276
Interest on lease liabilities	Interest expense	18,954	18,528

Lease term and discount rate	December 31, 2020	December 31, 2019
Weighted-average remaining lease term (years)		
Operating leases	15.7 years	15.5 years
Finance leases	31.7 years	33.1 years
Weighted-average discount rate (%)		
Operating leases	12.6 %	12.6 %
Finance leases	12.3 %	12.3 %

Supplemental cash flow information related to leases was as follows (in thousands):

	Year ended December 31, 2020	Year ended December 31, 2019
Cash paid for amounts included in lease liabilities		
Operating cash flows related to operating leases	$ 14,515	$ 14,945
Operating cash flows related to finance leases	16,621	16,090
Financing cash flows related to finance leases	805	583
Leased assets obtained in exchange for new finance lease liabilities	3,456	180
Leased assets obtained in exchange for new operating lease liabilities	2,032	4,925

Supplemental balance sheet information related to leases was as follows (in thousands):

	Classification	December 31, 2020	December 31, 2019
Operating leases			
Right of use assets	Operating lease right-of-use assets	$ 54,379	$ 60,253
Operating lease liabilities - current portion	Accrued liabilities	(7,448)	(8,784)
Operating lease liabilities - long term portion	Long-term operating lease liabilities	(50,943)	(54,411)
Finance leases			
Finance lease assets	Property, plant and equipment, net	51,360	49,999
Finance lease liabilities - current portion	Accrued liabilities	(17,009)	(16,542)
Finance lease liabilities - long term portion	Long-term finance lease liabilities	(142,195)	(137,365)

As of December 31, 2020, maturities of lease liabilities were as follows (in thousands):

	Operating leases	Finance leases	Total
2021	$ 11,889	$ 18,024	$ 29,913
2022	10,949	18,239	29,188
2023	10,689	18,366	29,055
2024	9,836	18,599	28,435
2025	9,446	18,803	28,249
Thereafter	100,230	634,968	735,198
Total lease payments	153,039	726,999	880,038
Less: imputed interest	(94,648)	(567,795)	(662,443)
Present value of lease liabilities	$ 58,391	$ 159,204	$ 217,595

15. Sale-Leaseback transaction

During April 2016, the Company sold 49 US and Canadian properties to Pipe Portfolio Owner (Multi) LP, (the "U.S. Buyer") and FORT-BEN Holdings (ONQC) Ltd., (the "Canadian Buyer") and entered into master land and building lease agreements under which the Company agreed to lease back each of the properties for an initial term of twenty years, followed by one optional renewal term of 9 years, 11 months. A deferred gain of $81.5 million related to the sale-leaseback transaction was being amortized over the life of the master leases. In addition, the Company concluded that the leases for land and buildings were operating leases, and the leases for the machinery equipment were capital leases. In October 2016, the Company entered into agreements to replace the original guarantor with Forterra, as the new guarantor, effective immediately following completion of the internal reorganization effected prior to the IPO. Due to the change in guarantor, the sale leaseback qualified for sales recognition and was classified as an operating lease beginning October 2016.

On June 5, 2018, the Company entered into exchange agreements and Amended and Restated Master Leases with each of the U.S Buyer and the Canadian Buyer (collectively, the “Exchange Transaction”). Under the exchange agreement between the Company and the U.S. Buyer, the Company exchanged ownership of a ductile iron pipe facility located in Bessemer, Alabama used in its Water Pipe & Products segment (the “Bessemer Facility”) for 21 facilities used in its Drainage Pipe & Products segment and the U.S. concrete and steel pressure pipe facilities previously part of the Water Pipe & Products segment, including a portion of one property used in both segments, all of which were previously included in the sale-leaseback transaction. Under the exchange agreement between the Company and the Canadian Buyer, the Company exchanged ownership of a smaller diameter ductile iron pipe facility located in Bessemer, Alabama used in its Water Pipe & Products segment (the “Mini Mill Facility”) for ownership of three Canadian concrete pressure pipe facilities that were previously included in the sale-leaseback transaction. No cash changed hands in the Exchange Transaction.

Under the Amended and Restated Master Leases, the Company leases 26 properties from the U.S. Buyer and 2 properties from an affiliate of the Canadian Buyer, each for an initial term of 25 years, through June 30, 2043, followed by one optional renewal term of nine years, eleven months that may be exercised at the Company's option. The initial base rent under the U.S. Amended and Restated Master Lease is $17.1 million per annum, payable monthly, and is subject to a 2% annual increase during the initial term. If the Company elects to extend the term of the U.S. Amended and Restated Master Lease, the base rent for the first year of the extension will be the greater of 95% of the fair market rental value of the properties and an amount equal to 102% of the prior year's base rent, subject to an annual increase based on changes in the Consumer Price Index, but capped at 4%. The U.S. Amended and Restated Master Lease restricts the Company's use of the U.S. properties to heavy manufacturing, industrial, and other related uses. The Company cannot sublease or assign the properties covered by the U.S. Amended and Restated Master Lease without the prior written consent of the U.S. Landlord and subject to certain other restrictions. The terms of the Canadian Amended and Restated Master Lease are similar to those of the U.S. Amended and Restated Master Lease described above, except that the initial base rent is $1.2 million (CAD) per annum. The Company's aggregate liability in connection with its representations, warranties, covenants and indemnification and other obligations is $5.0 million under the U.S. Exchange Agreement and $6.4 million (CAD) under the Canadian Exchange Agreement, subject to limited exceptions.

The Company accounted for the Exchange Transaction in accordance with the sale-leaseback accounting guidance under ASC 840, *Leases*. The fair value of the 24 facilities exchanged back was $86.1 million and was accounted for as the proceeds from the sale of the Bessemer and Mini Mill Facilities after adjusting for the transaction cost of $2.7 million. Consequently, a deferred gain of $67.3 million was recorded at June 5, 2018. The carrying value of the deferred gains of $35.0 million, the deferred rent of $3.1 million, and the deferred transaction costs of $2.4 million from the original sale-leaseback transaction were reclassified to reduce the carrying value of the 24 facilities exchanged back.

The Amended and Restated Master Leases extended the lease terms for all facilities, which caused the majority of the leases to be classified as capital leases instead of operating leases. Consequently, the Company recognized capital lease obligations as well as the gross value of the capital lease assets of $149.0 million, calculated by discounting minimum future lease payments using its incremental borrowing rate of 12.33%. The carrying value of the deferred gains of $100.0 million, the deferred rent of $3.8 million, and the deferred transaction cost of $5.7 million were reclassified to reduce the carrying value of capital lease assets.

During the year ended December 31, 2018, the Company recognized $10.0 million of rent expense in cost of goods sold for operating leases, related to payments made under the sales leaseback transaction. See Note 14 for rent expense relating to the years ended December 31, 2019 and 2020.

16. Commitments and contingencies

The Company is involved in legal proceedings and litigation in the ordinary course of business. In the opinion of management, the outcome of such matters will not have a material adverse effect on the Company's consolidated financial position, results of operations, or liquidity. Other than routine litigation incidental to the Company's business and those matters described below, there are no material legal proceedings to which the Company is a party or to which any of the Company's properties are subject.

Earnout Dispute

On March 13, 2015, through an indirect wholly owned subsidiary, Lone Star Fund IX (U.S.), L.P. (which is referred to, along with its affiliates and associates, but excluding Forterra and other companies that it owns as a result of its investment activity, as "Lone Star") acquired the building products business of HeidelbergCement AG, ("Heidelberg"), in the United States and Eastern Canada, (the "Acquisition"). The Acquisition purchase agreement included an earnout, which provided for the payment of contingent consideration of up to $100.0 million, if and to the extent the 2015 financial results of the businesses acquired by Lone Star in the Acquisition, including the Company and Heidelberg's former building products business in the United Kingdom, exceeded a specified Adjusted EBITDA target for fiscal year 2015, as calculated pursuant to the terms of the purchase agreement. If such Adjusted EBITDA calculation exceeded the specified target, LSF9 Concrete Holdings Ltd. ("LSF9") and, as a result of the internal reorganization transaction effected prior to the Company's initial public offering ("IPO"), the Company would be required to pay the U.S. affiliate of Heidelberg an amount equal to a multiple of such excess Adjusted EBITDA, with any payment capped at $100.0 million. In April 2016, the Company provided an earnout statement to affiliates of Heidelberg demonstrating that no payment was required. On June 13, 2016, Heidelberg provided notification that it disputed, among other things, the Company's calculation of Adjusted EBITDA under the purchase agreement and asserting that a payment should be made in the amount of $100.0 million. On October 5, 2016, affiliates of Heidelberg filed a lawsuit in the Delaware Court of Chancery seeking specific performance and claiming access to the Company's books, records, and personnel; seeking a declaratory judgment concerning the scope of the neutral accounting expert's authority; and in the alternative, claiming a breach of contract and seeking the $100.0 million and other damages (the "Delaware Action"). On December 8, 2017, the court granted the defendants' Motion to Dismiss the First Amended Complaint in the Delaware Action, finding that the earnout dispute should be heard before a neutral accounting arbitrator as set forth in the purchase agreement and that any claims that were required to be brought as indemnification claims under the purchase agreement were time-barred by the contractual limitations period. Following the dismissal of the Delaware Action, the Company and Heidelberg jointly engaged a neutral accounting expert to act as an arbitrator in the dispute as required by the purchase agreement. After briefing certain preliminary matters for the arbitrator and the production of additional documents, the parties began briefing the issues on the merits for the neutral accounting arbitrator, which was completed in April 2020. A hearing on the dispute was held in June 2020, and a written decision was issued by the neutral accounting arbitrator on September 10, 2020 in which the arbitrator ruled that no earnout payment was owed in the matter. The deadline for Heidelberg to take any action to overturn the ruling was in December 2020, and they took no action, so the Company believes the ruling is final. As of December 31, 2020, no liability for this contingency has been accrued as payment of any earnout is not considered probable.

Derivative Action

On January 15, 2019, a putative shareholder derivative complaint captioned *Lee v. Bradley, et al.,* was filed in the United States District Court for the District of Delaware, naming as defendants certain of the Company's current and former directors and officers (the "Lee Action"). The complaint alleges the defendants violated Section 14A of the Securities and Exchange Act of 1934, as amended, and related rules by failing to make certain disclosures in the Company's proxy solicitation in advance of the 2017 Annual Meeting of Stockholders, and that defendants breached their fiduciary duties, wasted corporate assets, and committed constructive fraud. The complaint also asserts unjust enrichment claims against certain defendants. The complaint seeks, on behalf of the Company, unspecified damages, an order directing the return of certain payments to the defendants, certain injunctive relief, and reasonable costs and attorneys' fees. After initially staying the case until the court in a prior, unrelated securities class action suit that has now been settled ruled on the motion to dismiss in that case, on December 11, 2019, the court in the Lee Action entered a Stipulation and Order consolidating the Lee Action and another derivative action filed in the same court into a single case (the "Consolidated Lee Action"), and providing a schedule for filing of an amended complaint and motions to dismiss, which has been further extended by agreement of the parties. A mediation of the dispute was held on June 12, 2020 but was not successful in resolving the dispute. Plaintiffs filed an amended complaint in August 2020 and Defendants filed a motion to dismiss the complaint in September 2020, which is now fully briefed and before the court and a decision is expected in the coming months.

The Company and other defendants are vigorously defending the Consolidated Lee Action. Given the stage of the proceedings, the Company cannot reasonably estimate at this time the possible loss or range of loss, if any, that may arise from the Consolidated Lee Action.

Long-term incentive plan

Following the Acquisition, Lone Star implemented a cash-based long term incentive plan (the "LTIP"), which entitles the participants in the LTIP a potential cash payout upon a monetization event as defined by the LTIP. Potential monetization events include the sale, transfer or otherwise disposition of all or a portion of the Company or successor entities of LSF9, an initial public offering where Lone Star sells/reduces its ownership in the Company or successor entities of LSF9, or through certain cash distribution as defined in the LTIP. Before the payout of any cash the LTIP requires Lone Star realize in cash the full return of their investment plus a specified internal rate of return, which is calculated by comparing the return to Lone Star over the timeline of its investment in the Company and certain successor entities of LSF9. As of December 31, 2020, no such monetization events that meet the required return for an LTIP payment have occurred, and therefore no amounts were accrued in the accompanying consolidated balance sheet. While no payments have occurred thus far, payments under the LTIP could be significant depending upon future monetization events. The timing and amount of such payments are unknown and is dependent upon future monetization events and market conditions that are outside of the control of the Company or the participants of the plan. Subsequent to the IPO, Forterra became directly liable for any payment obligations triggered under the LTIP, but LSF9 or one of its affiliates will remain obligated to make payments to the Company in amounts equal to any payment obligations triggered under the LTIP as and when such payment obligations are triggered.

Leases

The Company leases certain property and equipment for various periods under non-cancelable operating and finance leases. See Note 14 for future minimum lease payments under such agreements.

Tax receivable agreement

The Company has a tax receivable agreement (the "TRA") with Lone Star that provides for, among other things, the payment by the Company to Lone Star of 85% of the amount of certain covered tax benefits, which may reduce the actual liability for certain taxes that the Company might otherwise be required to pay. The tax benefits subject to the TRA include: (i) all depreciation and amortization deductions, and any offset to taxable income and gain or increase to taxable loss, resulting from the tax basis that the Company had in its assets as of the time of the consummation of the IPO, (ii) the utilization of the Company's and its subsidiaries' net operating losses and tax credits, if any, attributable to periods prior to the IPO, (iii) deductions in respect of payments made, funded or reimbursed by an initial party to the tax receivable agreement (other than the Company or one of its subsidiaries) or an affiliate thereof to participants under the LTIP, (iv) deductions in respect of transaction expenses attributable to the acquisition of USP Holdings, Inc., and (v) certain other tax benefits attributable to payments made under the tax receivable agreement.

For purposes of the TRA, the aggregate reduction in income tax payable by the Company will be computed by comparing the Company's actual income tax liability with its hypothetical liability had it not been able to utilize the related tax benefits. The agreement will remain in effect for the period of time in which all such related tax benefits remain. The Company accounts for potential payments under the tax receivable agreement as a contingent liability, with amounts accrued when considered probable and reasonably estimable. The liabilities recorded by the Company for the tax receivable agreement at December 31, 2020 and December 31, 2019 were $64.2 million and $77.4 million, respectively. The timing and amount of future tax benefits associated with the TRA are subject to change, and additional payments may be required which could be materially different from the current accrued liability. The Company anticipates that it will have sufficient taxable income in future periods to realize the full value of the obligation recorded. Future tax receivable agreement payments related to the tax basis of assets at the time of the IPO will be recorded as a reduction to the liability and will be recorded as a financing activity in the consolidated statements of cash flows. For the years ended December 31, 2020 and December 31, 2019, the Company paid $13.1 million and $11.4 million, respectively on the TRA to Lone Star.

17. Earnings per share

Basic earnings per share ("EPS") is calculated by dividing net earnings by the weighted average number of common shares outstanding during the period. Potentially dilutive securities include employee stock options and shares of restricted stock. Diluted EPS reflects the assumed exercise or conversion of all dilutive securities. The restricted shares are considered participating securities for the purposes of the Company's EPS calculation.

The calculations of the basic and diluted EPS for the years ended December 31, 2020, 2019 and 2018 are presented below (in thousands, except per share data):

	Year ended December 31,		
	2020	2019	2018
Net income (loss)	$ 64,486	$ (7,331)	$ (24,365)
Earnings allocated to unvested restricted stock	40	—	—
Earnings (loss) allocated to common shareholders	$ 64,446	$ (7,331)	$ (24,365)
Common stock:			
Weighted average basic shares outstanding	65,260	64,232	63,904
Effect of dilutive securities	2,943	—	—
Weighted average diluted shares outstanding	68,203	64,232	63,904
Basic earnings (loss) per share:			
Net income (loss)	$ 0.99	$ (0.11)	$ (0.38)
Diluted earnings (loss) per share:			
Net income (loss)	$ 0.94	$ (0.11)	$ (0.38)

Potential dilutive common shares were anti-dilutive as a result of the Company's net loss for the years ended December 31, 2019 and 2018. As a result, basic weighted average shares were used in the calculations of basic earnings per share and diluted earnings per share for those periods.

The number of stock options and restricted shares that were excluded from the computation of diluted earnings per share because their inclusion would result in an anti-dilutive effect on per share amounts for the years ended December 31, 2020, 2019 and 2018 was 213,413, 2,192,048 and 2,749,348, respectively.

18. Employee benefit plans

Defined Contribution Plans

The Company’s employees are able to participate in a 401K defined contribution plan. The Company contributes funds into this plan subject to certain limits. For the years ended December 31, 2020, December 31, 2019, and December 31, 2018, the Company recorded an expense of $13.0 million, $7.0 million and $6.6 million, respectively.

19. Stock-based plans

Stock Incentive Plans

The Company's previous equity compensation plan under which it granted stock awards was the Forterra, Inc. 2016 Stock Incentive Plan, (the "2016 Incentive Plan"). The aggregate number of shares of common stock that was initially available for issuance under the 2016 Incentive Plan was 5,000,000 shares. The Company's board of directors has granted employees and independent directors options to purchase shares of common stock, shares of restricted common stock and restricted stock units. The options, restricted stock and restricted stock units awarded to employees are subject to either three-year or four-year vesting periods and the options, restricted stock and restricted stock units awarded to independent directors are subject to a one-year vesting period. The awards of stock options granted under the 2016 Incentive Plan have a term of ten years. In May 2018, the Company's shareholders approved the Forterra, Inc. 2018 Stock Incentive Plan, (the "2018 Incentive Plan"). The 2018 Incentive Plan serves as the umbrella plan for the Company’s stock-based and cash-based incentive compensation programs for its directors, officers and other eligible employees. The aggregate number of shares of common stock issuable under the 2018 Incentive Plan is 5,000,000 shares plus any shares subject to outstanding awards under the 2016 Incentive Plan as of the date of the approval of the 2018 Incentive Plan that on or after such date cease for any reason to be subject to such awards (other than by reason of exercise or settlement of the awards to the extent they are exercised for or settled in nonforfeitable shares).

In accordance with ASC 718, *Compensation-Stock Compensation*, the Company recognizes stock-based compensation expense over the requisite service period for the entire award, which is generally the maximum vesting period of the award or over a shorter period when employee retirement eligibility is a factor, in an amount equal to the fair value of share-based payments, which include stock options granted and restricted stock awards to employees and non-employees members of Forterra's Board of Directors. The Company records stock-based compensation expense in cost of goods sold and selling, general, and administrative expenses. Stock-based compensation expense was approximately $9.5 million, $7.9 million and $6.2 million for the years ended December 31, 2020, 2019 and 2018, respectively.

Stock Option Grants

The value of the options is determined by using a Black-Scholes pricing model that includes the following variables: 1) exercise price of the instrument, 2) fair market value of the underlying stock on date of grant, 3) expected life, 4) estimated volatility and 5) the risk-free interest rate. The Company utilized the following weighted-average assumptions in estimating the fair value of the option grants in the years ended December 31, 2020, December 31, 2019 and December 31, 2018:

	2020	2019	2018
Expected dividends	— %	— %	— %
Expected volatility	67.00 %	32.08 %	32.90 %
Risk-free interest rate	1.63 %	2.43 %	1.71 %
Expected lives in years	6	6	6
Weighted-average fair value of options:			
Granted at fair value	$ 8.90	$ 1.54	$ 2.76
Weighted-average exercise price of options:			
Granted at fair value	$ 14.63	$ 4.29	$ 7.92

The Black-Scholes model requires the use of subjective assumptions including expectations of future dividends and stock price volatility. Expected volatility was calculated using a weighted average of Forterra and a set of Forterra's peer companies based on an analysis of historical and implied volatility measures. The average expected life is based on the contractual term of the option and expected employee exercise and post-vesting employment termination behavior. Such assumptions are only used for making the required fair value estimate and should not be considered as indicators of future dividend policy or stock price appreciation. Because changes in the subjective assumptions can materially affect the fair value estimate, and because employee stock options have characteristics significantly different from those of traded options, the use of the Black-Scholes option pricing model may not provide a reliable estimate of the fair value of employee stock options.

A summary of the status of the Company's stock options is presented below:

	Shares	Weighted Average Exercise Price
	(in thousands)	
Outstanding, December 31, 2018	3,101,419	$9.19
Granted	2,771,930	$4.29
Exercised	(224,266)	$7.60
Forfeited	(1,975,987)	$7.50
Outstanding, December 31, 2019	3,673,096	$6.50
Granted	2,248	$14.63
Exercised	(366,814)	$6.61
Forfeited	(231,360)	$7.82
Outstanding, December 31, 2020	3,077,170	$6.39
Options vested or expected to vest at year end	3,077,170	$6.39
Options exercisable at year end	1,764,420	$7.23

As of December 31, 2020, the Company has approximately $1.0 million of unrecognized stock option compensation cost related to unvested stock options, which is expected to be recognized over a weighted average period of approximately 0.9 years.

Restricted Stock and Restricted Stock Unit Awards

Restricted stock are share awards that entitle the holder to receive shares of the Company's common stock which become freely transferable upon vesting. Restricted stock has the same dividend and voting rights as common stock and is considered to be issued and outstanding upon grant. Restricted stock units are share awards denominated in units of the Company's common stock and are subject to a service condition. The restricted stock units do not have the voting rights of common stock, and the shares underlying restricted stock units are not considered issued and outstanding upon grant. The restricted stock and restricted stock unit awards generally vest one to four years from the date of grant and are generally subject to forfeiture if employment terminates prior to the vesting date. The estimated compensation cost of the restricted stock and restricted stock unit awards, which is equal to the fair value of the awards on the date of grant, is recognized on a straight-line basis over the vesting period.

During 2020, the Company granted 0.8 million restricted stock units consisting of 0.6 million time-vested restricted stock units and 0.2 million performance-based restricted stock units. During 2019, the Company granted 2.6 million restricted stock units consisting of 1.2 million time-vested restricted stock units and 1.4 million performance-based restricted stock units. The performance-based restricted stock units vest in tranches based on the 20-day volume weighted average price of FRTA common stock based on a grant date market condition. If the performance condition is achieved, one-fourth of the tranche will vest immediately and the remainder of the tranche will be time-vested over one year from the date the performance condition was met. The Company accounts for the time-vested and performance-based restricted stock units as equity awards.

The following table summarizes the activity for restricted stock and restricted stock units:

	Shares	Weighted Average Grant Date Fair Value
	(in thousands)	
Unvested balance at December 31, 2018	744,363	$9.68
Grants	2,562,250	$4.58
Vested shares	(508,799)	$7.74
Forfeitures	(640,172)	$6.21
Unvested balance at December 31, 2019	2,157,642	$5.11
Grants	792,090	$8.87
Vested shares	(1,201,617)	$8.91
Forfeitures	(156,237)	$7.06
Unvested balance at December 31, 2020	1,591,878	$6.60

At December 31, 2020, there was $6.0 million of total unrecognized compensation cost related to unvested restricted stock and restricted stock units and that cost is expected to be recognized over a weighted average period of 1.4 years.

20. Income taxes

U.S. Tax Reform

On March 27, 2020, the U.S. government enacted the Coronavirus Aid, Relief, and Economic Security Act ("CARES Act"), that among other things, increased the net interest expense deduction limit to 50% of adjusted taxable income from 30% for tax years beginning January 1, 2019 and the tax year 2020, and amended Internal Revenue Code ("IRC") Section 168(e)(3)(E) to retroactively include the qualified improvement property inadvertently classified as 39-year property under the Tax Cuts and Jobs Act of 2017 ("TCJA") as property to which a 15-year recovery period applies and for which 100% bonus depreciation may be claimed. This enhanced bonus depreciation may be applied retro actively for additions after December 31, 2017.

In July of 2020, the Treasury Department released two significant final regulations: (1) final regulations with guidance on applying the limitations on the deductibility of business interest expense under IRC Section 163(j), which was significantly modified by TCJA and then temporarily modified by the CARES Act; and (2) final Section 951A regulations which allowed taxpayers to make an election to exclude certain high-taxed income of its controlled foreign corporations. The favorable impact of the CARES Act and these final regulations was reflected in the 2019 filed tax return, as well as in the preparation of the consolidated financial statements.

Deferred tax assets and liabilities are recognized principally for the expected tax consequences of temporary differences between the tax basis of assets and liabilities and their reported amounts, using currently enacted tax rates.

The Company's income (loss) from continuing operations before income taxes was as follows *(in thousands)*:

	Year ended December 31, 2020	Year ended December 31, 2019	Year ended December 31, 2018
U.S. companies	$ 61,146	$ (21,557)	$ (36,317)
Foreign companies	11,800	10,947	15,037
Income (loss) from continuing operations before income taxes	$ 72,946	$ (10,610)	$ (21,280)

The income tax (expense) benefit was as follows *(in thousands)*:

	Year ended December 31, 2020	2019	2018
Current income tax			
U.S. companies	$ (16,203)	$ (9,510)	$ (13,225)
State	(6,802)	(4,260)	(5,779)
Foreign companies	(4,694)	(3,018)	(4,849)
Total current tax expense	(27,699)	(16,788)	(23,853)
Deferred income tax			
U.S. companies	922	16,180	17,273
State	15,506	4,232	3,306
Foreign companies	2,811	(345)	189
Total deferred tax benefit	19,239	20,067	20,768
Income tax (expense) benefit	$ (8,460)	$ 3,279	$ (3,085)

The rate reconciliation for continuing operations presented below is based on the U.S. federal statutory tax rate of 21% for the years ended December 31, 2020, December 31, 2019 and December 31, 2018 because the predominant business activity is in the U.S. *(in thousands)*:

	Year ended December 31, 2020	2019	2018
Income (loss) from continuing operations	$ 72,946	$ (10,610)	$ (21,280)
Income tax (expense) benefit at statutory rate of 21%	$ (15,319)	$ 2,228	$ 4,469
State income taxes, net of federal (expense) benefit	(3,449)	113	1,494
Tax effect of equity and non-deductible executive compensation	(1,682)	(1,507)	(439)
Meals and entertainment and other non-deductible expenses	(516)	(763)	(452)
Change in valuation allowance	11,839	1,927	(6,601)
Other prior year adjustments	968	1,311	571
Divestiture of assets	—	—	(1,559)
Other	(301)	(30)	(568)
Total income tax (expense) benefit	$ (8,460)	$ 3,279	$ (3,085)

The income tax expense for the year ended December 31, 2020 is primarily attributable to statutory federal, state and international income tax expense on the continuing operations, the unfavorable impact of non-deductible executive compensation and other non-deductible expenses, partially offset with the release of the valuation allowance on assets now expected to be realized prior to expiration and the favorable effect of the retroactive tax law changes included in the prior year federal and state tax return filings.

The income tax benefit for the year ended December 31, 2019 is primarily attributable to the unfavorable impact of the non-deductible expenses, partially offset with the favorable effect of the partial reversal of the federal and state valuation allowances and the effect of the return to provision adjustments.

The income tax expense for the year ended December 31, 2018 is primarily attributable to the unfavorable impact of the federal and state valuation allowance increase, inclusion of global intangible low-taxed income, and impact of the disposition of nondeductible goodwill in connection with the Foley exchange described in Note 3, partially offset with the favorable impact of the tax credits and state tax benefit.

The Company evaluates the recoverability of its deferred tax assets quarterly to determine if valuation allowances are required or should be adjusted. The Company assesses whether valuation allowances should be established against deferred tax assets based on consideration of all available evidence, both positive and negative, using a “more likely than not” criteria. The analysis used in determining the valuation allowance involves considerable judgment and assumptions.

During the year ended December 31, 2020, after consideration of all evidence, including the analysis of the reversal pattern of the taxable and deductible temporary differences in the future, as well as the positive factors of the recent business performance, the Company released $11.8 million of the federal, state and international valuation allowance.

Deferred income taxes are provided for the effects of temporary differences between the tax basis of an asset or liability and its reported amount in the accompanying consolidated balance sheets. These temporary differences result in taxable or deductible amounts in future years. The net deferred tax asset (liability) balances were comprised of the following components as of December 31, 2020 and 2019 *(in thousands)*:

	December 31, 2020	December 31, 2019
Deferred tax assets:		
Inventory	$ 6,670	$ 6,891
Reserves	7,419	4,112
Accrued liabilities	8,034	4,656
Net operating losses	3,909	2,964
Capitalized transaction costs	3,513	3,599
Finance leases	53,794	55,063
Interest expense limitation	160	6,566
Tax receivable agreement	1,618	1,655
Other assets	3,609	4,687
Total deferred tax assets	88,726	90,193
Valuation allowance	(1,675)	(13,555)
Total deferred tax assets, net	$ 87,051	$ 76,638
Deferred tax liabilities:		
Fixed assets	$ (53,386)	$ (53,156)
Lease assets	(23,742)	(25,378)
Intangible assets	(13,931)	(20,221)
Other liabilities	(5,663)	(6,812)
Total deferred tax liabilities	$ (96,722)	$ (105,567)
Net deferred tax asset (liability)	$ (9,671)	$ (28,929)

As of December 31, 2020, the Company had tax loss carryforwards as follows *(in thousands)*:

	Amount	Expiration Date
Federal net operating losses	$ —	—
State net operating losses	$ 28,338	2022-2040
Foreign net operating losses	$ 9,436	2031-2040

Uncertain tax positions

The Company is subject to audit examinations at federal, state, local, and foreign levels by tax authorities in those jurisdictions who may challenge the treatment or reporting of any tax return item. The tax matters challenged by the tax authorities are typically complex; therefore, the ultimate outcomes of these challenges are subject to uncertainty. The Company’s U.S. federal income tax audit for the years ended December 31, 2016 and 2017 was finalized during the year with no changes identified for either period, respectively. State income tax returns are generally subject to examination for a period of three to five years after filing of the respective return.

Each period the Company assesses uncertain tax positions for recognition, measurement and effective settlement. Based on the Company's assessment, it determined that no liabilities for uncertain tax positions should be recorded as of December 31, 2020 and 2019.

21. Segment reporting

Segment information is presented in accordance with ASC 280, *Segment Reporting*, which establishes standards for reporting information about operating segments. It also establishes standards for related disclosures about products and geographic areas. Operating segments are defined as components of an enterprise that engage in business activities that earn revenues, incur expenses and prepare separate financial information that is evaluated regularly by the Company’s chief operating decision maker (“CODM”) in order to allocate resources and assess performance. The Company's Chief Executive Officer is its CODM. The Corporate and Other segment includes expenses related to certain executive salaries, interest costs related to the Company's credit agreements, acquisition related costs, and other corporate costs that are not directly attributable to the Company's operating segments. The Company's segments follow the same accounting policies as the Company. During the year ended December 31, 2020, the Company moved its concrete and steel pressure pipe business from the Water Pipe & Products segment to the Drainage Pipe & Products segment to better align with how the CODM manages the businesses. The prior years have been restated to conform with the re-segmentation, which resulted in an immaterial impact to the prior periods' segment information.

Net sales from the major products sold to external customers include drainage pipe and precast products, and concrete and steel water transmission pipe.

The Company’s three geographic areas consist of the United States, Canada and Mexico for which it reports net sales, fixed assets and total assets. For purposes of evaluating segment profit, the CODM reviews earnings before interest, taxes, depreciation and amortization (“EBITDA”) as a basis for making the decisions to allocate resources and assess performance.

The following tables set forth the disaggregation of revenue earned from contracts with customers based on the Company's reportable segments as well as other financial information attributable to the Company's reportable segments for the periods presented *(in thousands)*:

	Year ended December 31, 2020	Year ended December 31, 2019	Year ended December 31, 2018
Net sales:			
Drainage Pipe & Products	$ 887,420	$ 913,033	$ 839,689
Water Pipe & Products	707,086	616,719	640,023
Corporate and Other	—	—	—
Total	$ 1,594,506	$ 1,529,752	$ 1,479,712
Depreciation and amortization:			
Drainage Pipe & Products	$ 33,420	$ 38,260	$ 42,866
Water Pipe & Products	53,885	57,547	61,546
Corporate and Other	2,191	1,451	1,011
Total	$ 89,496	$ 97,258	$ 105,423
Segment EBITDA and reconciliation to income (loss) before income taxes:			
Drainage Pipe & Products	$ 187,547	$ 173,006	$ 160,295
Water Pipe & Products	145,451	82,831	60,987
Corporate and Other	(90,666)	(74,219)	(58,802)
Less: Interest expense	(79,890)	(94,970)	(78,337)
Depreciation and amortization	(89,496)	(97,258)	(105,423)
Loss before income taxes	$ 72,946	$ (10,610)	$ (21,280)
Capital expenditures:			
Drainage Pipe & Products	$ 17,066	$ 23,096	
Water Pipe & Products	19,500	14,246	
Corporate and Other	1,039	2,531	
Total	$ 37,605	$ 39,873	
Total assets:			
Drainage Pipe & Products	$ 819,046	$ 857,880	
Water Pipe & Products	795,292	824,035	
Corporate and Other	41,474	58,143	
Total	$ 1,655,812	$ 1,740,058	

In addition, the Company also has an investment in an equity method investee included in the Drainage Pipe & Products segment for which earnings from equity method investee were $11.3 million, $10.5 million and $10.2 million for the years ended December 31, 2020, 2019 and 2018, respectively, and with the following balances *(in thousands)*:

	December 31, 2020	December 31, 2019
Investment in equity method investee	$ 48,285	$ 50,034

Disaggregated revenue by geographic location is provided in the tables below. The Company has operations in the United States, Canada and Mexico. The economic characteristics of the Company's customers does not significantly vary across geographic locations or product lines. The Company has both revenues and long-lived assets in each country and those assets and revenues are recorded within geographic location as follows *(in thousands)*:

Property, plant, and equipment, net:	December 31, 2020	December 31, 2019
United States	$ 409,338	$ 422,486
Canada	33,250	43,754
Mexico	8,494	9,335
	$ 451,082	$ 475,575

Net Sales:	Year ended December 31, 2020	Year ended December 31, 2019	Year ended December 31, 2018
United States	$ 1,513,925	$ 1,448,492	$ 1,389,115
Canada	71,906	73,270	80,868
Mexico	8,675	7,990	9,729
	$ 1,594,506	$ 1,529,752	$ 1,479,712

22. Related party transactions

CP&P

The Company sold certain goods and services to its joint venture, CP&P, including spare parts for repairs, and property rentals. For the year ended December 31, 2020, Forterra sold $1.4 million of product to CP&P and purchased goods and services from CP&P for an amount of $1.0 million. For the year ended December 31, 2019, the Company sold $0.4 million of product to CP&P and received $0.5 million in exchange for purchased goods and services from CP&P. For the year ended December 31, 2018, Forterra sold $0.1 million of product to CP&P and purchased $0.2 million of goods and services from CP&P.

Master Builders Solutions US, LLC

During the year ended December 31, 2020, Forterra sold $0.1 million of product to Master Builders Solutions US, LLC, an affiliate of Lone Star, and purchased goods from Master Builders Solutions US, LLC for an amount of $0.9 million.

Tax receivable agreement

In connection with the IPO, the Company entered into a tax receivable agreement with Lone Star that provides for, among other things, the payment by the Company to Lone Star of 85% of the amount of certain covered tax benefits, which may reduce the actual liability for certain taxes that the Company might otherwise be required to pay. See further discussion in Note 16, Commitments and contingencies.

Bricks Joint Venture

Prior to the IPO, LSF9 distributed its brick operations in the United States and Eastern Canada to a joint venture formed by an affiliated of Lone Star (the "Bricks Disposition"). In connection with the Bricks Disposition, Forterra entered into a transition services agreement with the joint venture, whereby Forterra would continue to provide certain administrative services, including but not limited to information technology, accounting and treasury for a limited period of time. Such transition services ended in February 2018. The Company recognized a total of $10 thousand in Other operating income, net pursuant to the transition services agreement for the year ended December 31, 2018.

23. Quarterly Financial Data (Unaudited)

The following is a summary of the quarterly results of operations:

Year ended December 31, 2020:

(in thousands, except per share amounts)	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Net sales	$ 330,876	$ 426,186	$ 457,557	$ 379,887
Cost of goods sold	272,134	320,607	331,284	293,808
Gross profit	58,742	105,579	126,273	86,079
Income (loss) from continuing operations before taxes	(13,988)	34,570	38,751	13,613
Net income (loss)	(14,066)	27,115	28,827	22,610
Basic earnings (loss) per share:				
Net income (loss)	$ (0.22)	$ 0.42	$ 0.44	$ 0.34
Diluted earnings (loss) per share:				
Net income (loss)	$ (0.22)	$ 0.40	$ 0.42	$ 0.33

Year ended December 31, 2019:

(in thousands, except per share amounts)	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Net sales	$ 291,858	$ 410,219	$ 464,526	$ 363,149
Cost of goods sold	250,053	324,405	362,362	296,550
Gross profit	41,805	85,814	102,164	66,599
Income (loss) from continuing operations before taxes	(32,336)	3,835	28,327	(10,436)
Net income (loss)	(25,039)	2,954	22,430	(7,676)
Basic earnings (loss) per share:				
Net income (loss)	$ (0.39)	$ 0.05	$ 0.35	$ (0.12)
Diluted earnings (loss) per share:				
Net income (loss)	$ (0.39)	$ 0.05	$ 0.34	$ (0.12)

24. Supplemental Cash Flow Disclosures

(in thousands)	Year ended December 31, 2020	Year ended December 31, 2019	Year ended December 31, 2018
SUPPLEMENTAL DISCLOSURES:			
Cash interest paid	$ 53,175	$ 77,086	$ 69,381
Income taxes paid, net of refunds received	16,472	12,343	11,068
SUPPLEMENTAL NON-CASH INVESTING AND FINANCING DISCLOSURES:			
Assets and liabilities acquired in non-cash exchange	—	—	18,140
Capital lease obligation resulting from the sale-leaseback exchange transaction	—	—	(148,962)
Fair value changes of derivatives recorded in OCI, net of tax	—	—	970

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

As required by Rule 13a-15(b) under the Exchange Act, our management, under the supervision and with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures (as defined in Rule 13a-15(e) of the Securities Exchange Act of 1934, as amended, or the Exchange Act) as of December 31, 2020.

Based on the evaluation referenced above, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective at the reasonable assurance level as of December 31, 2020.

Management's Report on Internal Control over Financial Reporting

Our management, under the supervision and with the participation of our Chief Executive Officer and Chief Financial Officer, is responsible for establishing and maintaining adequate internal control over financial reporting as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act.

Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. GAAP. Internal control over financial reporting includes policies and procedures that: (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with U.S. GAAP, and that receipts and expenditures of the Company are being made only in accordance with authorizations of management and directors of the Company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the Company's assets that could have a material effect on the financial statements.

Management assessed the Company's internal control over financial reporting as of December 31, 2020 using the criteria for effective internal control over financial reporting established in "Internal Control - Integrated Framework" issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework). Based on this assessment, management concluded that as of December 31, 2020, our internal control over financial reporting was effective.

Ernst & Young LLP, our independent registered public accounting firm that audited the consolidated financial statements included in this Annual Report on Form 10-K, also audited the effectiveness of the Company's internal control over financial reporting as of December 31, 2020, as stated in their report included below.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting during the quarter ended December 31, 2020 that have a materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Inherent Limitations on Effectiveness of Controls

Our management, including our principal executive officer and principal financial officer, does not expect that our disclosure controls and procedures or our system of internal control over financial reporting will prevent or detect all errors and all fraud. A control system, no matter how well designed or operated, can provide only reasonable, but not absolute, assurance that the objectives of the system of internal control are met. The design of our control system reflects the fact that there are resource constraints, and that the benefits of such control system must be considered relative to their costs. Further, because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control failures and instances of fraud, if any, within the Company have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the intentional acts of individuals, by collusion of two or more people, or by management override of the controls. The design of any system of controls is also based in part on certain assumptions about the likelihood of future events, and there can be no assurance that the design of any particular control will always succeed in achieving its objective under all potential future conditions.

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of Forterra, Inc.

Opinion on Internal Control over Financial Reporting
We have audited Forterra, Inc.'s internal control over financial reporting as of December 31, 2020, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission 2013 framework (the COSO criteria). In our opinion, Forterra, Inc. (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2020, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2020 and 2019, and the related consolidated statements of operations, comprehensive income (loss), shareholders' equity and cash flows for each of the three years in the period ended December 31, 2020, and the related notes, and our report dated February 25, 2021 expressed an unqualified opinion thereon.

Basis for Opinion
The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting
A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.
/s/ Ernst & Young LLP

Dallas, Texas
February 25, 2021

Item 9B. Other Information

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

The information required by this Item is herein incorporated by reference to the Company's definitive proxy statement relating to the 2021 Annual Meeting of Stockholders, which will be filed with the SEC not later than 120 days after December 31, 2020.

Item 11. Executive Compensation

The information required by this Item is herein incorporated by reference to the Company's definitive proxy statement relating to the 2021 Annual Meeting of Stockholders, which will be filed with the SEC not later than 120 days after December 31, 2020.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

Information with Respect to Securities Authorized for Issuance Under Equity Compensation Plans

The following table summarizes, as of December 31, 2020, information with respect to (a) the number of securities to be issued upon exercise of outstanding options, warrants and rights, (b) the weighted average exercise price of outstanding options, warrants and rights and (c) the number of securities remaining available for future issuance, in each case under our 2016 Stock Incentive Plan or 2018 Stock Incentive Plan. We do not have any equity compensation plans not approved by security holders.

Plan Category	(a) Number of Securities to Be Issued Upon Exercise of Outstanding Options, Warrants and Rights	(b) Weighted Average Exercise Price of Outstanding Options, Warrants and Rights	(c) Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column(a))
Equity compensation plans approved by security holders	3,077,170	$ 6.39	3,139,639

All other information required by this Item is herein incorporated by reference to the Company's definitive proxy statement relating to the 2021 Annual Meeting of Stockholders, which will be filed with the SEC not later than 120 days after December 31, 2020.

Item 13. Certain Relationships and Related Transactions, and Director Independence

The information required by this Item is herein incorporated by reference to the Company's definitive proxy statement relating to the 2021 Annual Meeting of Stockholders, which will be filed with the SEC not later than 120 days after December 31, 2020.

Item 14. Principal Accounting Fees and Services

The information required by this Item is herein incorporated by reference to the Company's definitive proxy statement relating to the 2021 Annual Meeting of Stockholders, which will be filed with the SEC not later than 120 days after December 31, 2020.

PART IV

Item 15. Exhibits, Financial Statement Schedules

The following documents are filed as part of this Annual Report on Form 10-K, or incorporated herein by reference:

1. Financial Statements. The Company's financial statements are included in Part II, Item 8, Financial Statements and Supplementary Data.

2. Financial Statement Schedules. All schedules are omitted since they are not applicable, not required, or the information required to be set forth herein is included in the Consolidated Financial Statements.

3. Exhibits. The exhibits listed in the Exhibit Index immediately below are filed as part of this Annual Report on Form 10-K or are incorporated by reference herein.

Exhibit No.	Description of Exhibit	
2.1	Agreement and Plan of Merger, dated February 19, 2021, by and among Quikrete Holdings, Inc., Jordan Merger Sub, Inc. and Forterra, Inc.	(r)
3.1	Amended and Restated Certificate of Incorporation of the Registrant.	(d)
3.2	Amended and Restated Bylaws of the Registrant.	(b)
4.1	Registration Rights Agreement dated as of October 19, 2016 between Forterra, Inc. and LSF9 Concrete Mid-Holdings Ltd.	(b)
4.2	Form of Certificate of Common Stock of the Registrant.	(e)
4.3	Indenture, dated as of July 16, 2020 among Forterra Finance, LLC, FRTA Finance Corp., the guarantors party thereto and Deutsche Bank Trust Company Americas, as trustee.	(p)
4.4	Form of Global Note for 6.50% Senior Secured Notes due 2025 (included as Exhibit A to Exhibit 4.3 hereto).	(p)
4.5	Description of Registrant's Securities	*
10.1	Amended and Restated Master Land and Building Lease dated June 5, 2018 between Pipe Portfolio Owner (Multi) LP and Forterra Pipe & Precast LLC and certain affiliates.	(l)
10.2	Amended and Restated Master Land and Building Lease dated June 5, 2018 between FORT-NOM HOLDINGS (ONQC) INC. and Forterra Pipe & Precast, Ltd.	(l)
10.3	Amended and Restated Limited Liability Company Agreement of Concrete Pipe & Precast, LLC, dated as of August 3, 2012, by and among Concrete Pipe & Precast, LLC, Americast, Inc. and Hanson Pipe & Precast LLC.	(a)
10.4	Form of Tax Receivable Agreement.	(e)
10.5	Form of Indemnification Agreement for executive officers and directors.	(b)
10.6#	Employment Agreement between HBP Pipe and Precast LLC and Jeff Bradley dated as of July 8, 2015.	(a)
10.7#	LSF9 Concrete Holdings Ltd. Long Term Incentive Plan (with form of award agreement).	(a)

10.8#	Notice regarding LSF9 Concrete Holdings Ltd. Long Term Incentive Plan dated December 14, 2016.	(h)
10.9#	Forterra, Inc. 2016 Stock Incentive Plan.	(g)
10.10#	Form of Grant Notice for 2016 Stock Incentive Plan Nonqualified Stock Options Award.	(c)
10.11#	Form of Grant Notice for 2016 Stock Incentive Plan Incentive Stock Options Award.	(c)
10.12#	Form of Grant Notice for 2016 Stock Incentive Plan Restricted Stock Award.	(c)
10.13#	Form of Grant Notice for 2016 Stock Incentive Plan Restricted Stock Unit Award.	(c)
10.14#	Form of Grant Notice for 2016 Stock Incentive Plan Performance Restricted Stock Unit Award.	(c)
10.15#	Forterra, Inc. 2018 Stock Incentive Plan.	(m)
10.16	Senior Lien Term Loan Credit Agreement dated October 25, 2016 by and among Forterra, Inc., Forterra Finance, LLC, as borrower, the lenders party thereto and Credit Suisse AG, Cayman Islands Branch, as administrative agent.	(f)
10.17	ABL Credit Agreement dated October 25, 2016 by and among Forterra, Inc. and certain of its subsidiaries, as borrowers, the lenders party thereto and Bank of America, N.A., as agent.	(f)
10.18	First Amendment to Senior Lien Term Loan Credit Agreement dated May 1, 2017 by and among Forterra, Inc., Forterra Finance, LLC, as borrower, the lenders party thereto and Credit Suisse AG, Cayman Islands Branch, as administrative agent.	(i)
10.19#	Employment Agreement, dated as of September 6, 2017 by and between the Company and Charlie Brown.	(j)
10.20#	Employment Agreement, dated as of December 18, 2017 by and between the Company and Lori Browne.	(k)
10.21#	Employment Agreement, dated as of May 22, 2019 by and between the Company and Richard Hunter.	(n)
10.22#	Employment Agreement, dated as of May 22, 2019 by and between the Company and Vikrant Bhatia.	(n)
10.23#	Employment Agreement, dated as of June 21, 2019 by and between the Company and Karl Watson, Jr.	(o)
10.24#	Separation and General Release Agreement between Jeff Bradley and Forterra, Inc. and USP Holdings, Inc. dated as of June 30, 2019.	(q)
10.25#	Form of Grant Notice for 2018 Stock Incentive Plan Nonqualified Stock Options Award.	(q)
10.26#	Form of Grant Notice for 2018 Stock Incentive Plan Restricted Stock Unit Award.	(q)
10.27#	Form of Grant Notice for 2018 Stock Incentive Plan Performance Restricted Stock Unit Award.	(q)

10.28	First Amendment, dated as of June 17, 2020 to the ABL Credit Agreement dated as of October 25, 2016 by and among Forterra, Inc. and certain of its subsidiaries, as borrowers, the lenders party thereto and Bank of America, N.A., as agent.	(s)
21.1	Subsidiaries of the Registrant.	*
23.1	Consent of Ernst & Young LLP.	*
23.2	Consent of Moss Adams LLP.	*
31.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	*
31.2	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	*
32.1	Certification of Chief Executive Officer and Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.	^
99.1	Financial Statements of Concrete Pipe & Precast, LLC as of December 31, 2020 and 2019 and for the years ended December 31, 2020, 2019 and 2018.	*
101.INS	XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.	*
101.SCH	Inline XBRL Taxonomy Extension Schema Document.	*
101.CAL	Inline XBRL Taxonomy Calculation Linkbase Document.	*
101.DEF	Inline XBRL Taxonomy Definition Linkbase Document.	*
101.LAB	Inline XBRL Taxonomy Label Linkbase Document.	*
101.PRE	Inline XBRL Taxonomy Presentation Linkbase Document.	*
104	Cover Page Interactive Data File – The cover page from the Company's Annual Report on Form 10-K for the year ended December 31, 2020 is formatted in Inline XBRL (included as Exhibit 101).	*

*	Filed herewith
#	Denotes management compensatory plan or arrangement
^	Exhibit 32.1 shall not be deemed filed with the SEC, nor shall it be deemed incorporated by reference in any filing with the SEC under the Exchange Act or the Securities Act of 1933, as amended, whether made before or after the date hereof and irrespective of any general incorporation language in any filings.
(a)	Previously filed on July 8, 2016 as an exhibit to the Company's Registration Statement on Form S-1 (File No. 333-212449) and incorporated herein by reference.
(b)	Previously filed on August 15, 2016 as an exhibit to Amendment No. 1 to the Company's Registration Statement on Form S-1 (File No. 333-212449) and incorporated herein by reference.
(c)	Previously filed on September 8, 2016 as an exhibit to Amendment No. 2 to the Company's Registration Statement on Form S-1 (File No. 333-212449) and incorporated herein by reference.
(d)	Previously filed on October 7, 2016 as an exhibit to Amendment No. 4 to the Company's Registration Statement on Form S-1 (File No. 333-212449) and incorporated herein by reference.
(e)	Previously filed on October 17, 2016 as an exhibit to Amendment No. 5 to the Company's Registration Statement on Form S-1 (File No. 333-212449) and incorporated herein by reference.
(f)	Previously filed on November 11, 2016 as an exhibit to the Company's Current Report on Form 8-K/A and incorporated herein by reference.
(g)	Previously filed on January 10, 2017 as an exhibit to the Company's Registration Statement on Form S-8 (File No. 333-215504) and incorporated herein by reference.
(h)	Previously filed on March 31, 2017 as an exhibit to the Company Annual Report on Form 10-K for the fiscal year ended December 31, 2017 and incorporated herein by reference.
(i)	Previously filed on May 15, 2017 as an exhibit to the Company Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2017 and incorporated herein by reference.
(j)	Previously filed on September 7, 2017 as an exhibit to the Company's Current Report on Form 8-K and incorporated herein by reference.
(k)	Previously filed on December 20, 2017 as an exhibit to the Company's Current Report on Form 8-K and incorporated herein by reference.
(l)	Previously filed on June 11, 2018 as an exhibit to the Company's Current Report on Form 8-K and incorporated herein by reference.
(m)	Previously filed on April 20, 2018 as an exhibit to the Company's Definitive Proxy Statement and incorporated herein by reference.
(n)	Previously filed on May 23, 2019 as an exhibit to the Company's Current Report on Form 8-K and incorporated herein by reference.
(o)	Previously filed on Jun 24, 2019 as an exhibit to the Company's Current Report on Form 8-K and incorporated herein by reference.
(p)	Previously filed on July 17, 2020 as an exhibit to the Company's Current Report on Form 8-K and incorporated herein by reference.
(q)	Previously filed on February 27, 2020 as an exhibit to the Company Annual Report on Form 10-K for the fiscal year ended December 31, 2019 and incorporated herein by reference.
(r)	Previously filed on February 22, 2021 as an exhibit to the Company's Current Report on Form 8-K and incorporated herein by reference.
(s)	Previously filed on July 28, 2020 as an exhibit to the Company Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 2020 and incorporated herein by reference.

Item 16. Form 10-K Summary

None.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

FORTERRA, INC.
(Registrant)

/s/ Karl Watson, Jr.	February 25, 2021
By: Karl Watson, Jr. Chief Executive Officer (Principal Executive Officer)	

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

/s/ Karl Watson, Jr. Karl Watson, Jr.	Chief Executive Officer and Director (Principal Executive Officer)	February 25, 2021
/s/ Charles R. Brown, II Charles R. Brown, II	Executive Vice President and Chief Financial Officer (Principal Financial Officer, Principal Accounting Officer)	February 25, 2021
/s/ Chris Meyer Chris Meyer	Chairman of the Board, Director	February 25, 2021
/s/ Richard Cammerer, Jr. Richard Cammerer, Jr.	Director	February 25, 2021
/s/ Rafael Colorado Rafael Colorado	Director	February 25, 2021
/s/ Maureen Harrell Maureen Harrell	Director	February 25, 2021
/s/ Chad Lewis Chad Lewis	Director	February 25, 2021
/s/ Clint McDonnough Clint McDonnough	Director	February 25, 2021
/s/ John McPherson John McPherson	Director	February 25, 2021
/s/ Jacques Sarrazin Jacques Sarrazin	Director	February 25, 2021

Exhibit 4.5

DESCRIPTION OF THE REGISTRANT'S SECURITIES REGISTERED PURSUANT TO SECTION 12 OF THE SECURITIES EXCHANGE ACT OF 1934

Forterra, Inc. has one class of securities registered under Section 12 of the Securities Exchange Act of 1934, as amended: our common stock.

The following is a summary of some of the general terms and provisions of our common stock. Because this is a summary description, it does not contain all of the information that may be important to you. For a more detailed description of our common stock, you should refer to the provisions of our amended and restated certificate of incorporation and our amended and restated bylaws which are exhibits to our Annual Report on Form 10-K to which this description is an exhibit. References to the "Company," "we," "us" and "our" refer to Forterra, Inc. and not to any of our subsidiaries.

Authorized Capitalization

Our authorized capital stock consists of 190,000,000 shares of common stock, par value $0.001 per share ("Common Stock"), and 10,000,000 shares of undesignated preferred stock, par value $0.001 per share.

Common Stock

Voting Rights

Each share of Common Stock entitles the holder to one vote with respect to each matter on which the holders of Common Stock are entitled to vote. Holders of our Common Stock do not have cumulative voting rights. Except in respect of matters relating to the election of directors and as otherwise provided in our amended and restated certificate of incorporation or required by law, all matters to be voted on by our stockholders must be approved by a majority of the shares present in person or by proxy at the meeting and entitled to vote on the subject matter. In the case of the election of directors, nominees must be approved by a plurality of the votes cast. Our Common Stock votes as a single class on all matters.

Dividend Rights

The holders of our outstanding shares of Common Stock are entitled to receive dividends, if any, as may be declared from time to time by our board of directors out of legally available funds.

Liquidation Rights

In the event of any voluntary or involuntary liquidation, dissolution or winding up of our affairs, holders of our Common Stock would be entitled to share ratably in our assets that are legally available for distribution to stockholders after payment of our debts and other liabilities. If we have any preferred stock outstanding at such time, holders of the preferred stock may be entitled to distribution and/or liquidation preferences, in which case we must pay the holders of our preferred stock before we may pay distributions to the holders of our Common Stock.

Other Rights

Our stockholders have no preemptive, conversion or other rights to subscribe for additional shares. All outstanding shares are validly issued, fully paid and nonassessable. The rights, preferences and privileges of the holders of our Common Stock are subject to and may be adversely affected by the rights of the holders of shares of any series of our preferred stock that we may designate and issue in the future.

Anti-takeover Effects of Delaware Law and our Amended and Restated Certificate of Incorporation and our Amended and Restated Bylaws

Provisions of the Delaware General Corporation Law, or the DGCL, and our amended and restated certificate of incorporation and amended and restated bylaws could make it more difficult to acquire our company by means of a tender offer, a proxy contest or otherwise, or to remove incumbent officers and directors. These provisions, summarized below, are intended to discourage coercive takeover practices and inadequate takeover bids and to encourage persons seeking to acquire control of us to first negotiate with our board of directors. We believe that the benefits of these provisions outweigh the disadvantages of discouraging certain takeover or acquisition proposals because, among other things, negotiation of these proposals could result in an improvement of their terms and enhance the ability of our board of directors to maximize stockholder value. However, these provisions may delay, deter or prevent a merger or acquisition of us that a stockholder might consider is in its best interest, including those attempts that might result in a premium over the prevailing market price of our common stock.

Undesignated Preferred Stock

Our amended and restated certificate of incorporation provides that our board of directors has the authority, without further action by the stockholders, to issue up to 10,000,000 shares of preferred stock. Our board of directors may issue preferred stock in one or more series and determine the rights, preferences, privileges, qualifications and restrictions granted to or imposed upon our preferred stock, including dividend rights, conversion rights, voting rights, rights and terms of redemption, liquidation preferences and sinking fund terms, any or all of which may be greater than the rights of our common stock. Issuances of preferred stock could adversely affect the voting power of holders of our common stock and reduce the likelihood that holders of our common stock will receive dividend payments and payments upon liquidation. Any issuance of preferred stock could also have the effect of decreasing the market price of our common stock and could delay, deter or prevent a change in control of our company.

Requirements for Advance Notification of Stockholder Meetings, Nominations and Proposals

Our amended and restated bylaws provide that special meetings of the stockholders may be called only by or at the direction of the board of directors, the chairman of our board or the chief executive officer with the concurrence of a majority of the board of directors. Our amended and restated bylaws prohibit the conduct of any business at a special meeting other than as specified in the notice for such meeting. These provisions may have the effect of deferring, delaying or discouraging hostile takeovers, or changes in control or management of our company.

Our amended and restated bylaws establish advance notice procedures with respect to stockholder proposals and the nomination of candidates for election as directors. In order for any matter to be “properly brought” before a meeting, a stockholder must comply with advance notice procedures and provide us with certain information. Our amended and restated bylaws allow the presiding officer at a meeting of the stockholders to adopt rules and regulations for the conduct of meetings which may have the effect of precluding the conduct of certain business at a meeting if such rules and regulations are not followed. These provisions may also defer, delay or discourage a potential acquirer from conducting a solicitation of proxies to elect the acquirer’s own slate of directors or otherwise attempting to influence or obtain control of our company.

Supermajority Voting for Amendments to Our Governing Documents

Any amendment to our amended and restated certificate of incorporation requires the affirmative vote of at least 66⅔% of the voting power of all shares of our common stock then outstanding. Our amended and restated certificate of incorporation provides that the board of directors is expressly authorized to adopt, amend or repeal our bylaws and that our stockholders may amend our bylaws only with the approval of at least 66⅔% of the voting power of all shares of our common stock then outstanding.

No Cumulative Voting

The DGCL provides that a stockholder’s right to vote cumulatively in the election of directors does not exist unless the certificate of incorporation specifically provides otherwise. Our amended and restated certificate of incorporation does not provide for cumulative voting.

Classified Board of Directors

Our amended and restated certificate of incorporation provides that our board of directors is divided into three classes of directors, with the classes to be as nearly equal in number as possible. The members of each class serve for a three-year term. Beginning with the 2020 annual meeting of stockholders, directors of each class the term of which shall then expire shall be elected to hold office for a one-year term. Following the 2022 annual meeting of stockholders, the board of directors will be fully de-classified. The classification of directors has the effect of making it more difficult for stockholders to change the composition of our board of directors. Our amended and restated certificate of incorporation provides that the number of directors will be fixed from time to time pursuant to a resolution adopted by the board of directors, but must consist of not less than two or more than 15 directors.

Removal of Directors; Vacancies

Our amended and restated certificate of incorporation and amended and restated bylaws provide that (i) prior to the date on which Lone Star and its affiliates cease to beneficially own, in the aggregate, at least a majority of the voting power of all outstanding shares entitled to vote generally in the election of directors, directors may be removed with or without cause upon the affirmative vote of holders of at least a majority of the voting power of all the then outstanding shares of stock entitled to vote generally in the election of directors, voting together as a single class and (ii) on and after the date Lone Star and its affiliates cease to beneficially own, in the aggregate, at least a majority of the voting power of all outstanding shares entitled to vote generally in the election of directors, directors may be removed only for cause and only upon the affirmative vote of holders of at least 66⅔% of the voting power of all the then outstanding shares of stock entitled to vote generally in the election of directors, voting together as a single class. In addition, our amended and restated certificate of incorporation and amended and restated bylaws also provide that any newly created directorships and any vacancies on our board of directors will be filled only by the affirmative vote of the majority of remaining directors.

Stockholder Action by Written Consent

The DGCL permits any action required to be taken at any annual or special meeting of the stockholders to be taken without a meeting, without prior notice and without a vote if a consent or consents in writing, setting forth the action so taken, is signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares of stock entitled to vote thereon were present and voted, unless the certificate of incorporation provides otherwise. Our amended and restated certificate of incorporation and amended and restated bylaws preclude stockholder action by written consent after the date on which Lone Star and its affiliates cease to beneficially own, in the aggregate, at least a majority of the voting power of all outstanding shares of our stock entitled to vote generally in the election of directors.

Limitations on Liability and Indemnification of Officers and Directors

The DGCL authorizes corporations to limit or eliminate the personal liability of directors to corporations and their stockholders for monetary damages for breaches of fiduciary duties. Our amended and restated certificate of incorporation and amended and restated bylaws include provisions that eliminate, to the extent allowable under the DGCL, the personal liability of directors for monetary damages for actions taken as a director. Our organizational documents also provide that we must indemnify and advance reasonable expenses to our officers and directors to the fullest extent authorized by the DGCL. We are also expressly authorized to carry directors' and officers' insurance for our officers and directors as well as certain employees for certain liabilities.

The limitation of liability and indemnification provisions in our amended and restated certificate of incorporation and amended and restated bylaws may discourage stockholders from bringing a lawsuit against officers and directors for breach of their fiduciary duty. These provisions may also have the effect of reducing the likelihood of derivative litigation against officers and directors, even though such an action, if successful, might otherwise benefit our company and our stockholders. In addition, your investment may be adversely affected to the extent that, in a class action or direct suit, we pay the costs of settlement and damage awards against officers and directors pursuant to these indemnification provisions.

Authorized but Unissued Shares

Our authorized but unissued shares of common stock and preferred stock are available for future issuance without stockholder approval. The DGCL does not require stockholder approval for any issuance of authorized shares. However, Nasdaq listing rules require stockholder approval of certain issuances equal to or exceeding 20% of the then-outstanding voting power or the then-outstanding number of shares of common stock. No assurances can be given that our shares will remain so listed. We may use additional shares for a variety of corporate purposes, including future public offerings to raise additional capital, corporate acquisitions and employee benefit plans. As discussed above, our board of directors has the ability to issue preferred stock with voting rights or other preferences, without stockholder approval. The existence of authorized but unissued shares of common stock and preferred stock could render more difficult or discourage an attempt to obtain control of our company by means of a proxy contest, tender offer, merger or otherwise.

Exclusive Forum Clause

Our amended and restated certificate of incorporation provides that, unless we consent in writing to the selection of an alternative forum, to the fullest extent permitted by law, the sole and exclusive forum for any stockholder (including any beneficial owner) to bring (i) any derivative action or proceeding brought on our behalf, (ii) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers, or employees to us or to our stockholders, (iii) any action asserting a claim arising pursuant to any provision of the DGCL or our certificate of incorporation or bylaws, or (iv) any action asserting a claim governed by the internal affairs doctrine, will be a state court located within the State of Delaware (or, if no state court located within the State of Delaware has jurisdiction, the federal district court for the District of Delaware); in all cases subject to such court having personal jurisdiction over the indispensable parties named as defendants. Any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock is deemed to have notice of and consented to the foregoing provisions. See "Risk Factors—Our amended and restated certificate of incorporation includes an exclusive forum clause, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us" in our Annual Report on Form 10-K.

EXHIBIT 21.1

SUBSIDIARIES OF FORTERRA, INC.

Name of Subsidiary	Jurisdiction of Organization
Bio Clean Environmental Services, Inc.	California
Concrete Pipe & Precast, LLC	Delaware
Constructure Fabrication, LLC	Delaware
Custom Fab, Inc.	Florida
DIP Acquisition LLC	Delaware
Fab Pipe LLC	Delaware
Forterra Brick America, Inc.	Michigan
Forterra Concrete Industries, Inc.	Tennessee
Forterra Concrete Operations, LLC	Texas
Forterra Concrete Products, Inc.	Iowa
Forterra Finance, LLC	Delaware
Forterra Pipe & Precast, LLC	Delaware
Forterra Pipe & Precast, Ltd.	Canada (British Columbia)
Forterra Pipe & Precast BC, ULC	Canada (British Columbia)
Forterra Precast Concepts, LLC	Delaware
Forterra Pressure Pipe, Inc.	Ohio
Forterra Pressure Pipe, ULC	Canada (British Columbia)
Forterra Properties Idaho, LLC	Idaho
Forterra Properties Utah, LLC	Utah
Forterra Structural Precast, LLC	Delaware
Forterra Transportation, LLC	Delaware
FRTA Finance Corp.	Delaware
Griffin Pipe Products Co., LLC	Delaware
Mill Handling LLC	Delaware
Modular Wetland Systems, Inc.	California
Stardust Holdings (USA), LLC	Delaware
United States Pipe and Foundry Company, LLC	Alabama
US Pipe Fabrication, LLC	Delaware
U.S. Pipe Mexico S. de R.L. de C.V.	Mexico
USP Holdings Inc.	Delaware
USP Land Holdings FCP, LLC	Delaware
USP Land Holdings FP&P, LLC	Delaware

Exhibit 23.1

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the following Registration Statements: (1) Registration Statement (Form S-3 No. 333-235501) of Forterra, Inc., (2) Registration Statement (Form S-8 No. 333-215504) pertaining to the 2016 Stock Incentive Plan of Forterra, Inc., and (3) Registration Statement (Form S-8 No. 333-229964) pertaining to the 2018 Stock Incentive Plan of Forterra, Inc.; of our reports dated February 25, 2021, with respect to the consolidated financial statements of Forterra, Inc. and the effectiveness of internal control over financial reporting of Forterra, Inc. included in this Annual Report (Form 10-K) of Forterra, Inc. for the year ended December 31, 2020.

/s/ Ernst & Young LLP

Dallas, Texas
February 25, 2021

Exhibit 23.2

Consent of Independent Auditor

We consent to the incorporation by reference in the Registration Statements (Form S-3 No. 333-235501, Form S-8 Nos. 333-215504 and 333-229964) of our report dated February 25, 2021, relating to the financial statements of Concrete Pipe & Precast, LLC, appearing in this Annual Report (Form 10-K) of Forterra, Inc. for the year ended December 31, 2020.

/s/ Moss Adams LLP

Houston, Texas
February 25, 2021

EXHIBIT 31.1

SECTION 302 CERTIFICATION

I, Karl Watson, Jr., certify that:

1. I have reviewed this Annual Report on Form 10-K for the fiscal year ended December 31, 2020 of Forterra, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 25, 2021

/s/ Karl Watson, Jr.
Karl Watson, Jr.
Chief Executive Officer

EXHIBIT 31.2

SECTION 302 CERTIFICATION

I, Charles R. Brown II, certify that:

1. I have reviewed this Annual Report on Form 10-K for the fiscal year ended December 31, 2020 of Forterra, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

    (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 25, 2021

/s/ Charles R. Brown, II

Charles R. Brown, II
Executive Vice President and Chief Financial Officer

Exhibit 32.1

CERTIFICATION
Pursuant to 18 U.S.C. Section 1350
Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

In connection with the Annual Report on Form 10-K for the fiscal year ended December 31, 2020 of Forterra, Inc. (the "Company") as filed with the U.S. Securities and Exchange Commission on the date hereof (the "Report"), and pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, each of the undersigned officers of the Company certifies to his knowledge that:

- the Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and
- the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date:	February 25, 2021	/s/ Karl Watson, Jr.
		Karl Watson, Jr. *President and Chief Executive Officer*

Date:	February 25, 2021	/s/ Charles R. Brown, II
		Charles R. Brown, II *Executive Vice President and Chief Financial Officer*

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

EXHIBIT 99.1

CONCRETE PIPE & PRECAST, LLC

FINANCIAL STATEMENTS
AS OF DECEMBER 31, 2020 AND 2019 AND FOR THE THREE YEARS ENDED DECEMBER 31, 2020

Report of Independent Auditors

The Board of Managers and Members
Concrete Pipe & Precast, LLC

Report on the Financial Statements

We have audited the accompanying financial statements of Concrete Pipe & Precast, LLC, which comprise the balance sheets as of December 31, 2020 and 2019, and the related statements of income, changes in members' equity, and cash flows for each of the three years in the period ended December 31, 2020, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Concrete Pipe & Precast, LLC as of December 31, 2020 and 2019, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2020, in accordance with accounting principles generally accepted in the United States of America.

/s/ Moss Adams LLP

Houston, Texas
February 25, 2021

CONCRETE PIPE & PRECAST, LLC

BALANCE SHEETS
DECEMBER 31, 2020 and 2019

	2020	2019
ASSETS		
CURRENT ASSETS		
Cash	$ 33,468	$ 82,923
Trade accounts receivable - net	17,333,169	16,200,492
Inventories	19,001,648	18,839,714
Prepaid insurance and other assets	1,020,374	585,525
Due from affiliates	24,831	158,789
Total current assets	37,413,490	35,867,443
PROPERTY, PLANT, AND EQUIPMENT - NET	54,003,847	58,931,042
OTHER ASSETS		
Deposits and other assets	58,895	79,953
Total other assets	58,895	79,953
Total Assets	$ 91,476,232	$ 94,878,438
LIABILITIES AND MEMBERS' EQUITY		
CURRENT LIABILITIES		
Cash overdraft	$ 3,184,566	$ 1,282,100
Accounts payable	6,878,707	8,329,370
Due to affiliates	195,009	222,137
Other current liabilities	2,956,639	2,743,874
Total current liabilities	13,214,921	12,577,481
LONG-TERM LIABILITIES		
Other long-term liabilities	535,409	—
Notes payable	22,855,218	23,993,601
Total liabilities	36,605,548	36,571,082
Commitments and contingencies (see Note 6 and Note 8)		
MEMBERS' EQUITY	54,870,684	58,307,356
Total Liabilities and Members' Equity	$ 91,476,232	$ 94,878,438

The accompanying notes are an integral part of these financial statements

CONCRETE PIPE & PRECAST, LLC

STATEMENTS OF INCOME
FOR THE YEARS ENDED DECEMBER 31, 2020, 2019, and 2018

	2020	2019	2018
Net sales	$ 157,499,099	$ 152,739,737	$ 140,494,299
Cost of sales	116,254,084	112,370,896	103,021,478
Gross profit	41,245,015	40,368,841	37,472,821
Operating Expenses			
Selling expenses	4,581,005	4,721,079	4,530,571
General and administrative expenses	13,802,338	14,198,208	12,843,245
Other operating income	(310,422)	(270,635)	(471,151)
Income from Operations	23,172,094	21,720,189	20,570,156
Other income (expense)			
Interest expense, net	(529,922)	(875,902)	(766,574)
Net income	$ 22,642,172	$ 20,844,287	$ 19,803,582

The accompanying notes are an integral part of these financial statements

CONCRETE PIPE & PRECAST, LLC

STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED DECEMBER 31, 2020, 2019, and 2018

	2020	2019	2018
CASH FLOWS FROM OPERATING ACTIVITIES			
Net income	$ 22,642,172	$ 20,844,287	$ 19,803,582
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation	7,385,108	7,146,957	7,082,851
Amortization of debt issuance costs	21,993	21,993	21,991
Bad debt expense (recovery)	40,623	50,803	(80,265)
Net loss (gain) on disposal of assets	—	(12,758)	(669,816)
Changes in working capital:			
Trade accounts receivable	(1,173,300)	(3,543,718)	2,428,822
Inventories	(161,934)	744,576	(1,212,185)
Prepaids and other assets	(435,784)	304,746	346,198
Due from / to affiliates	106,830	(23,593)	(244,377)
Accounts payable and accrued expenses	(1,237,898)	1,067,218	727,071
Cash overdraft	1,902,466	580,068	(2,020,193)
Other long-term liabilities	535,409	—	—
Net cash provided by operating activities	29,625,685	27,180,579	26,183,679
CASH FLOWS FROM INVESTING ACTIVITIES			
Capital expenditures	(2,457,913)	(4,444,156)	(3,020,894)
Proceeds from disposal of assets	—	13,000	2,306,405
Principal received on notes receivable	—	—	897,435
Net cash provided by (used in) investing activities	(2,457,913)	(4,431,156)	182,946
CASH FLOWS FROM FINANCING ACTIVITIES			
Distributions paid	(26,078,844)	(22,077,086)	(26,281,569)
Net (repayments) proceeds on revolving line of credit	(1,138,383)	(759,679)	(69,104)
Loan origination costs	—	—	—
Net cash used in financing activities	(27,217,227)	(22,836,765)	(26,350,673)
NET INCREASE (DECREASE) IN CASH	(49,455)	(87,342)	15,952
CASH, BEGINNING OF YEAR	82,923	170,265	154,313
CASH, END OF YEAR	$ 33,468	$ 82,923	$ 170,265
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION			
Cash paid for:			
Interest	$ 535,357	$ 861,888	$ 744,322

The accompanying notes are an integral part of these financial statements

CONCRETE PIPE & PRECAST, LLC

STATEMENTS OF CHANGES IN MEMBERS' EQUITY
FOR THE YEARS ENDED DECEMBER 31, 2020, 2019, and 2018

BALANCE AT DECEMBER 31, 2017	$	66,018,142
Distributions		(26,281,569)
Net income		19,803,582
BALANCE AT DECEMBER 31, 2018		59,540,155
Distributions		(22,077,086)
Net income		20,844,287
BALANCE AT DECEMBER 31, 2019		58,307,356
Distributions		(26,078,844)
Net income		22,642,172
BALANCE AT DECEMBER 31, 2020	$	54,870,684

The accompanying notes are an integral part of these financial statements

1. NATURE OF BUSINESS

Concrete Pipe & Precast, LLC (“CP&P” or the “Company”) commenced operations on August 3, 2012, through a joint venture formation agreement by and between two pipe and precast companies; Americast, Inc., a Virginia corporation (“Americast”), and Hanson Pipe & Precast, LLC, a Delaware limited liability company (“Hanson”) (collectively, the “Members”). The Members formed CP&P, a limited liability company under the laws of the State of Delaware. Both Members made initial contributions of tangible and intangible assets such as human resources, inventory, and property, plant, and equipment at the formation of CP&P. On March 13, 2015, Forterra Pipe and Precast, LLC (“Forterra”) acquired Hanson’s interest in CP&P. As such, Forterra became a member of CP&P. On September 30, 2019, Americast assigned its units in CP&P to Eagle Corporation (Americast’s parent company, or “Eagle”) and was subsequently dissolved.

CP&P is engaged primarily in the manufacture, marketing, sale, and distribution of concrete pipe and precast products. Operations are primarily in Virginia, West Virginia, Maryland, North Carolina, Pennsylvania, South Carolina, and Georgia, with sales to contiguous states.

CP&P’s operating agreement stipulates how capital contributions, distributions, and income or losses of CP&P are to be allocated to each Member, which is not always in accordance with each Member’s respective ownership percentage. Each of the Member’s loss is limited to the amount of capital contributed. CP&P shall continue in existence until dissolved in accordance with the provisions of the agreement.

2. SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation

The accompanying financial statements and footnotes have been prepared in accordance with United States generally accepted accounting principles ("U.S. GAAP").

Accounting Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. The more significant estimates made by management relate to useful lives of property, plant, and equipment, inventory reserves, allowance for uncollectible accounts, and impairment of long-lived assets.

Cash and Cash Equivalents

For purposes of the statement of cash flows, CP&P considers all highly-liquid investments purchased with an original maturity of three months or less to be cash equivalents. Cash accounts in excess of federally-insured limits are subject to risk of loss.

Accounts and Notes Receivable

Accounts receivable, net consists of amounts billed to customers less an allowance for doubtful accounts. CP&P accounts for estimated uncollectible amounts by reducing earnings through a valuation allowance. This allowance is based on the judgment of management as to the estimated collectability of the receivables balance at year-end and is adjusted as experience, economic conditions, and other factors dictate. CP&P established an allowance for uncollectible accounts receivable of $440,000 and $450,000 as of December 31, 2020 and 2019, respectively, to report receivables at their net realizable value. Generally, accounts receivable balances are unsecured and subject to certain credit risks. However, certain accounts receivable balances are secured through liens or bonding agents.

Accounts receivable balances are considered delinquent once they are 90 days past due. Finance charges begin to accrue once an account is 30 days past due and continue to accrue regardless of status. Trade receivable balances that remain outstanding after CP&P has used reasonable collection efforts are written off by reducing accounts receivable and the valuation allowance.

Allowances for non-trade note receivable losses are determined primarily on the basis of management's best estimate of probable losses, including specific allowances for known troubled accounts. Interest income on notes receivable is accrued monthly.

In October of 2014, CP&P obtained a non-trade note receivable related to the sale of property, plant, and equipment. The total principal balance of the note amounted to $1,050,000. The note accrued interest at an annual rate of 5.0% and required monthly payments of $6,138 beginning on December 1, 2014. In October 2017, the note was amended such that principal and all accrued interest was payable in full on January 31, 2018. All payments of principal and interest were current as of December 31, 2017. The note was secured by the respective property, plant, and equipment. The outstanding balance of the note was $897,435 at December 31, 2017 and was paid in full on January 19, 2018.

Concentration of credit risk and supplier risk

Financial instruments that potentially subject the Company to concentrations of credit risk are primarily receivables. The Company performs ongoing credit evaluations of its customers' financial condition and generally requires no collateral other than partial advance payments or deposits from its customers on major projects. At December 31, 2020, an individual supplier accounted for more than 10% of annual purchases. That supplier represented 12% of annual purchases for the year ended December 31, 2020.

Inventories

Inventories are valued at the lower of cost or net realizable value using several cost flow assumptions including FIFO (first-in, first-out method) and average cost.

Property, Plant, and Equipment

All initial capital contributions of property, plant, and equipment by each Member were contributed at that Member's respective book values. Property, plant, and equipment is recorded at cost and depreciated using the straight-line method over the following estimated useful lives:

	Estimated Useful Lives in Years
Buildings and improvements	15 - 39
Machinery and equipment	5 - 20
Vehicles and delivery equipment	5 - 12
Office equipment	3 - 7

Depreciation expense, included in cost of sales and general and administrative expenses on the statements of income, were $7,385,108 in 2020, $7,146,957 in 2019, and $7,082,851 in 2018.

The Company evaluates the recoverability of its long-lived assets in accordance with the provisions in Accounting Standards Codification (ASC) 360, Property, Plant, and Equipment (ASC 360). ASC 360 requires that long-lived assets be reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets is measured by comparing the carrying amount of an asset to future undiscounted net cash flows expected to be generated by the asset. No indication of impairment existed during any of the years presented. Such evaluations for impairment are significantly impacted by estimates of future prices for the Company's products, capital needs, economic trends in the construction sector, and other factors. If such assets are considered to be impaired, the impairment to be recognized is measured at the amount by which the carrying amount of the assets exceeds their fair value. Assets to be disposed of by sale are reflected at the lower of their carrying amount or fair value less cost to sell.

Shipping and Handling Costs

Shipping and handling costs are included in cost of sales on the statements of income. Delivery revenue is included in net sales on the statements of income.

Income Taxes

CP&P is a limited liability company. Accordingly, under the Internal Revenue Code, all taxable income or loss flows through to its Members. All state income taxes are passed through to the Members also. Therefore, no income tax expense or liability is recorded in the accompanying financial statements.

CP&P has reviewed and evaluated the relevant technical merits of each of its tax positions in accordance with guidance established by the Financial Accounting Standards Board (FASB) and determined that there are no uncertain tax positions that would have a material impact on the financial statements of CP&P. The open tax years related to state tax filings are 2016 – 2020 and will expire in 2020 – 2024. When and if applicable, potential interest and penalty costs are accrued as incurred with expenses recognized in general and administrative expenses on the statements of income.

Revenue Recognition

Substantially all of CP&P's revenue contracts are single performance obligations for the sale of products. All revenue recognized by the Company is recognized at the point in time when control is transferred to customers, in an amount that reflects the consideration the Company expects to be entitled to in exchange for the products. Revenues are recognized when the risks and rewards associated with the transaction have been transferred to the purchaser, which is demonstrated when all the following conditions are met: evidence of a binding arrangement exists, products have been delivered, there is no future performance required, fees are fixed or determinable and amounts are collectible under normal payment terms. The Company considers several indicators for the transfer of control to its customers, including the significant risks and rewards of ownership of products, the Company's right to payment and the legal title of the products. Based upon the assessment of control indicators, sales to trade customers and distributors are recognized at the point in time when products are delivered to customers. In most cases, the final delivery to the customers is within the same day that the shipment is picked up by a third party hauler.

All variable consideration that may affect the total transaction price, including contractual discounts, rebates, returns and credits are included in net sales. Estimates for variable consideration are based on historical experience, anticipated performance and management's judgment.Substantially all of CP&P's revenue contracts are single performance obligations for the sale of products. All revenue recognized by the Company is recognized at the point in time when control is transferred to customers, in an amount that reflects the consideration the Company expects to be entitled to in exchange for the products. Revenues are recognized when the risks and rewards associated with the transaction have been transferred to the purchaser, which is demonstrated when all the following conditions are met: evidence of a binding arrangement exists, products have been delivered, there is no future performance required, fees are fixed or determinable and amounts are collectible under normal payment terms. The Company considers several indicators for the transfer of control to its customers, including the significant risks and rewards of ownership of products, the Company's right to payment and the legal title of the products. Based upon the assessment of control indicators, sales to trade customers and distributors are recognized at the point in time when products are delivered to customers. In most cases, the final delivery to the customers is within the same day that the shipment is picked up by a third party hauler.

Effective January 1, 2019, the Company adopted accounting standards codification ("ASC") Topic 606 *Revenue from Contracts with Customers* using the modified retrospective method applied to those contracts which were not completed as of December 31, 2018. As a result of electing the modified retrospective adoption approach, results for reporting periods beginning after December 31, 2018 are presented under ASC 606. There was no material impact upon the adoption of ASC 606. As revenue is primarily related to product sales accounted for at a point in time, the Company did not record any adjustments to retained earnings at December 31, 2018 or for any periods previously presented.

All variable consideration that may affect the total transaction price, including contractual discounts, rebates, returns and credits are included in net sales. Estimates for variable consideration are based on historical experience, anticipated performance and management's judgment.

Sales Taxes

CP&P collects sales tax from customers and remits the entire amount to the taxing jurisdictions. CP&P's accounting policy is to exclude the tax collected and remitted to the taxing jurisdictions from revenues and cost of sales.

Fair Value

CP&P follows current accounting standards relating to fair value measurements and disclosures, which define fair value, establish guidelines for measuring fair value, establish a framework for measuring fair value, and expand disclosures regarding fair value measurement. The Company's financial instruments consist primarily of cash, trade receivables, accounts payable, other current liabilities, and debt. The carrying value of the Company's financial instruments approximates the fair value due to their highly liquid nature, short-term maturity, or competitive rates assigned to these financial instruments.

Members' Equity

At the formation of CP&P, each member received 500 common voting units. As of December 31, 2020, each Member has 500 common units. Income and losses are allocated to the members based upon their relative share of common units, with the exception that depreciation, gains, and losses related to property, plant, and equipment as part of the initial contribution to CP&P are allocated back to the Members who originally contributed the assets. Depreciation, gains, and losses related to property, plant, and equipment acquired subsequent to the formation of CP&P are allocated based on common units.

CP&P distributes cash to the Members in an amount equal to the estimated tax amount on its taxable income. All distributions are divided equally among the Members.

Recent Accounting Pronouncements

In June 2020, the FASB issued ASU 2020-05, *Leases (Topic 842)*, amending the existing accounting standards for lease accounting, including requiring lessees to recognize most leases on their balance sheets and making targeted changes to lessor accounting. The amendments in this update are effective for annual reporting periods beginning after December 15, 2021, and interim periods within fiscal years beginning after December 15, 2022, and early adoption is permitted as of the standard's issuance date. ASU 2016-02 requires a modified retrospective transition approach for all leases existing at, or entered into after, the date of initial application, with an option to use certain transition relief. The Company believes this ASU will have a material impact on the financial statements, as it will result in most of the Company's operating leases and associated right of use assets being presented on the balance sheet.

Risks and Uncertainties

The COVID 19 pandemic has caused an economic decline affecting many industries in the United States and globally, including certain of the Company's customers which are primarily in construction industries. The ultimate impact on the Company's financial results, cash flows and liquidity will depend on the extent and duration of these conditions as well as the United States' government policies and thus cannot be reasonable estimated.

Subsequent Events

Management has evaluated subsequent events through February 25, 2021, which is the date the financial statements were available to be issued.

3. INVENTORIES

Inventories consisted of the following at December 31:

	2020	2019
Finished goods	$ 15,454,289	$ 15,806,040
Raw materials	3,481,943	2,986,068
Supplies	65,416	47,606
Total inventories	$ 19,001,648	$ 18,839,714

4. PROPERTY, PLANT, AND EQUIPMENT

Property, plant, and equipment consisted of the following at December 31:

	2020	2019
Land, buildings, and improvements	$ 47,300,782	$ 47,167,974
Machinery and equipment	118,726,820	115,677,357
Vehicles and delivery equipment	778,851	778,851
Office equipment	1,725,555	1,695,876
Assets under development	308,992	1,061,781
Total	168,841,000	166,381,839
Less: Accumulated depreciation	(114,837,153)	(107,450,797)
Net property, plant, and equipment	$ 54,003,847	$ 58,931,042

5. NOTES PAYABLE

Effective June 1, 2017, the Company amended its Wells Fargo Bank revolving line of credit (WF Revolver) in its Second Amended and Restated Credit Agreement with Wells Fargo Bank (Amended WF Revolver). Per the terms of the Amended WF Revolver, interest is payable monthly at a rate equal to LIBOR plus an applicable margin based upon performance, which approximated 1.4% as of December 31, 2020. The Amended WF Revolver also includes an unused commitment fee. The credit limit is the lower of $40,000,000 or the Company's borrowing base, as defined in the amended credit agreement. Availability on the Amended WF Revolver as of December 31, 2020 and 2019 was $17,112,982 and $15,974,599, respectively, based on draws, outstanding letters of credit, and the allowable borrowing base. The Amended WF Revolver becomes due on May 31, 2022.

Effective December 19, 2018, the Company entered into the First Amendment to the Amended WF Revolver to, among other things, replace one of the loan covenants of basic Fixed Charge Coverage Ratio with Tangible Net worth (as defined in the First amendment).

The WF Revolver is secured by certain real property and all machinery and equipment, vehicles and delivery equipment, office equipment, other personal property, accounts receivable, general intangibles, and inventory.

The outstanding balance of the WF Revolver consisted of the following at December 31:

	2020	2019
Current portion	$ —	$ —
Long-term portion	22,855,218	23,993,601
Notes payable	$ 22,855,218	$ 23,993,601

CP&P is subject to three loan covenants: a Funded Debt to EBITDA (earnings before interest, taxes, depreciation, and amortization) Ratio, a Fixed Charge Coverage Ratio considering only tax distributions, and a Tangible Net Worth (as defined in the First Amendment). CP&P was in compliance with all financial loan covenants as of December 31, 2020 and 2019.

6. PROFIT SHARING PLANS AND COLLECTIVE BARGAINING AGREEMENT

CP&P has adopted a plan allowing all qualified employees to invest a portion of their current earnings in an employees' 401(k) retirement fund. CP&P matches a portion of the elective contributions made by the employees based on the terms of the plan. CP&P may also, at its sole discretion, make additional contributions for all eligible employees. Employer contributions to the plan amounted to approximately $922,000 in 2020, $941,000 in 2019, and $899,000 in 2018.

CP&P entered into a collective bargaining agreement on August 28, 2012, with the union workforce at one production facility. The terms of the current agreement are up for renewal on August 28, 2021. Approximately 5% of the total production workforce is covered under this agreement as of December 2020.

7. RELATED PARTY TRANSACTIONS

CP&P, in its ordinary course of business, sells products to Americast, Eagle, as well as Eagle's other subsidiaries. CP&P also purchases products and services from subsidiaries of Eagle and subsidiaries of Forterra.

On August 3, 2012, CP&P entered into a Management Services Agreement with Eagle. For a monthly fee, Eagle is providing general and administrative services including information technology, payroll processing, 401(k) profit sharing plan management, and insurance coverage allocations. The agreement is subject to a Consumer Price Index (CPI) adjustment beginning in 2015. The agreement will automatically renew annually until terminated as described in the agreement.

Following table summarizes the related party transactions between CP&P and its affiliates during the years ended December 31, 2020, 2019 and 2018:

	2020	2019	2018
Sale of products to affiliates	$ 852,855	$ 499,212	$ 37,490
Purchase of products and services from affiliates	1,524,751	681,176	340,291
Management fees paid to affiliates	556,092	544,571	529,842

During 2018, CP&P sold certain properties at its Hanover Plant in Ashland, Virginia, to an affiliate of Eagle, for cash proceeds of $2,000,000.

The amount due from / to affiliates on the balance sheets as of December 31, 2020 and 2019 were the results of the transactions disclosed above.

8. COMMITMENTS AND CONTINGENT LIABILITIES

The Company is involved in legal proceedings and litigation in the ordinary course of business. In the opinion of management, the outcome of such matters will not have a material adverse effect on the Company's financial position, results of operations, or liquidity. Other than routine litigation incidental to the Company's business, there are no other material legal proceedings to which the Company is a party or to which any of the Company's properties are subject.

Self-Insurance

CP&P participates in self-funding programs for workers' compensation and liability insurance. The plans are administered by insurance companies who determine current funding requirements. CP&P has individual and aggregate stop-loss arrangements with the insurance companies to cover substantial claims. CP&P had approximately $117,000 at December 31, 2020, and $416,000 at December 31, 2019, as an estimated self-insurance liability recorded as part of other current liabilities.

Operating Leases

CP&P is obligated under various non-cancellable operating leases for property, equipment, vehicles, and computers, which have varying terms. Lease expense under these agreements approximated $954,000 in 2020, $1,069,000 in 2019, and $1,048,000 in 2018.

Approximate minimum future operating lease rental payments required for the five-year period subsequent to December 31, 2020, are as follows:

2021	$	576,000
2022		426,000
2023		221,000
2024		109,000
2025		46,000
Total	$	1,378,000