UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 10-K

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 For the fiscal year ended December 31, 2019

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: 001-14649



Trex Company, Inc.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization)

160 Exeter Drive, Winchester, Virginia (Address of principal executive offices) 54-1910453 (I.R.S. Employer Identification No.)

22603-8605 (Zip Code)

(540) 542-6300 Registrant's telephone number, including area code:

Securities registered pursuant to Section 12(b) of the Act:

Name of each exchange on which registered:

<u>Title of each class:</u> Common Stock, par value \$0.01 per share

New York Stock Exchange

.

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 🗵

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act. Yes \Box No \boxtimes 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 \boxtimes No \Box

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 \boxtimes No \square

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" and "smaller reporting Company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer 🔀 Non-accelerated filer

Accelerated filer Smaller reporting company Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act

Indicate by check mark whether the registrant is a shell Company (as defined in Rule 12b-2 of the Exchange Act). Yes 🗌 No 🗵

The aggregate market value of the registrant's common equity held by non-affiliates of the registrant at June 30, 2019, which was the last business day of the registrant's most recently completed second fiscal quarter, was approximately \$4.2 billion based on the closing price of the common stock as reported on the New York Stock Exchange on such date and assuming, for purposes of this computation only, that the registrant's directors, executive officers and beneficial owners of 10% or more of the registrant's common stock are affiliates.

The number of shares of the registrant's common stock outstanding on February 10, 2020 was 58,192,180.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the following documents are incorporated by reference in this Form 10-K as indicated herein:

Document		Part of 10-K into which incorporated
Proxy Statement relating to Registrant's 2020 Annual Meeting of Stockholders		Part III
Securities registered pursuant to Section 12(b) of the Act:		
Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common stock	TREX	New York Stock Exchange

TABLE OF CONTENTS

		Page
	PART I	
Item 1.	Business	1
Item 1A.	Risk Factors	12
Item 1B.	Unresolved Staff Comments	19
Item 2.	Properties	19
Item 3.	Legal Proceedings	19
Item 4.	Mine Safety Disclosures	19
	PART II	
Item 5.	Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities	20
Item 6.	Selected Financial Data	22
Item 7.	Management's Discussion and Analysis of Financial Condition and Results of Operations	25
Item 7A.	Quantitative and Qualitative Disclosures About Market Risk	37
Item 8.	Financial Statements and Supplementary Data	37
Item 9.	Changes in and Disagreements With Accountants on Accounting and Financial Disclosure	37
Item 9A.	Controls and Procedures	37
Item 9B.	Other Information	41
	PART III	
Item 10.	Directors, Executive Officers and Corporate Governance	42
Item 11.	Executive Compensation	42
Item 12.	Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	42
Item 13.	Certain Relationships and Related Transactions, and Director Independence	42
	Principal Accounting Fees and Services	42
PART IV		
Item 15.	Exhibits and Financial Statement Schedules	43
	Index to Consolidated Financial Statements	F-1

NOTE ON FORWARD-LOOKING STATEMENTS

This report, including the information it incorporates by reference, contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. We intend our forward-looking statements to be covered by the safe harbor provisions for forward-looking statements in these sections. All statements regarding our expected financial position and operating results, our business strategy, our financing plans, forecasted demographic and economic trends relating to our industry and similar matters are forward-looking statements. These statements can sometimes be identified by our use of forward-looking words such as "believe," "may," "will," "anticipate," "estimate," "expect," "intend" or similar expressions. We cannot promise you that our expectations in such forward-looking statements will turn out to be correct. Our actual results could be materially different from our expectations because of various factors, including the factors discussed under "Item 1A. Risk Factors" in this report.

EXPLANATORY NOTE: On May 2, 2018, the Board of Directors of the Company approved a two-for-one stock split of the Company's common stock, par value \$0.01. The stock split was in the form of a stock dividend distributed on June 18, 2018, to stockholders of record at the close of business on May 23, 2018. The stock split entitled each stockholder to receive one additional share of common stock, par value \$0.01, for each share they held as of the record date. All common stock share and per share data for all periods presented in the accompanying consolidated financial statements and notes thereto have been retroactively adjusted to reflect the stock split.

PART I

Some of the information contained in this report concerning the markets and industry in which we operate is derived from publicly available information and from industry sources. Although we believe that this publicly available information provided by these industry sources are reliable, we have not independently verified the accuracy of any of this information.

Item 1. Business

General

Trex Company, Inc. (Company, we, us or our), was incorporated as a Delaware corporation in 1998. The Company is the world's largest manufacturer of composite decking and railing products, which are marketed under the brand name Trex[®] and manufactured in the United States. In addition, Trex is a leading national provider of custom-engineered railing and staging, systems for the commercial and multi-family market, including sports stadiums and performing arts venues. Our principal executive offices are located at 160 Exeter Drive, Winchester, Virginia 22603, and our telephone number at that address is (540) 542-6300.

Products

Operations and Products: The Company currently operates in two reportable segments: Trex Residential Products (Trex Residential) and Trex Commercial Products (Trex Commercial).

<u>Trex Residential</u> is the world's largest manufacturer of high-performance, low-maintenance woodalternative composite decking and railing products, which are marketed under the brand name Trex[®] and manufactured in the United States. We offer a comprehensive set of aesthetically appealing and durable, low-maintenance product offerings in the decking, railing, fencing, steel deck framing, and outdoor lighting categories. A majority of the products are eco-friendly and leverage recycled materials to the extent possible. Trex Residential decking is made in a proprietary process that combines reclaimed wood fibers and recycled polyethylene film, making Trex the largest recycler of waste polyethylene plastic film in North America. Trex Residential products are sold to distributors and home centers for final resale primarily to the residential market. Trex offers the following products through Trex Residential:

Decking and Accessories	Our principal decking products are Trex Transcend [®] , Trex Select [®] , and Trex Enhance [®] . Late in 2018, we re-engineered our Enhance line to provide homeowners with a high-performance, lower-cost deck board designed to compete more directly with wood. Differentiating the Enhance collection is a scalloped profile that is lighter weight for easier handling and installation. Our high-performance, low-maintenance, eco-friendly composite decking products are comprised of a blend of 95 percent reclaimed wood fibers and recycled plastic film and feature a protective polymer shell for enhanced protection against fading, staining, mold and scratching. We also offer accessories to our decking products, including Trex Hideaway [®] , a hidden fastening system for grooved boards, and Trex DeckLighting [™] , an outdoor lighting system. Trex DeckLighting is a line of energy-efficient LED dimmable deck lighting, which is designed for use on posts, floors and steps. The line includes a post cap light, deck rail light, riser light
	and a recessed deck light.
Railing	Our railing products are Trex Transcend Railing, Trex Select Railing, Trex Enhance Railing and Trex Signature [®] aluminum railing. Trex Transcend Railing, made from approximately 40 percent recycled content, is available in the colors of Trex Transcend decking and finishes that make it appropriate for use with Trex decking products as well as other decking materials, which we believe enhances the sales prospects of our railing products. Trex Select Railing, made from approximately 40 percent recycled content, is offered in a white finish and is ideal for consumers who desire a simple clean finished look for their deck. Trex Enhance, made from approximately 40 percent recycled content, is available in three colors and is offered through home improvement retailers in kits that contain the complete railing system. Trex Signature aluminum railing, made from a minimum of 50 percent recycled content, is available in three colors and designed for consumers who want a sleek, contemporary look.
Fencing	Our Trex Seclusions [®] fencing product is offered through two specialty distributors. This product consists of structural posts, bottom rail, pickets, top rail and decorative post caps.
Steel Deck Framing	Our triple-coated steel deck framing system called Trex Elevations [®] leverages the strength and dimensional stability of steel to create a flat surface for our decking. Trex Elevations provides consistency and reliability that wood does not and is fire resistant.

Trex Residential products offer a number of significant aesthetic advantages over wood while eliminating many of wood's major functional disadvantages, which include warping, splitting and other damage from moisture. In addition to resisting fading and surface staining, Trex Residential products require no sanding, staining or sealing, resist moisture damage, provide a splinter-free surface and do not require chemical treatment against rot or insect infestation. Special characteristics (including resistance to splitting, the ability to bend, and ease and consistency of machining and finishing) facilitate installation, reduce contractor call-backs and afford consumers a wide range of design options. Combined, these aspects yield significant aesthetic advantages and lower maintenance than wood decking and railing and ultimately render Trex Residential products less costly than wood over the life of the deck. Trex decking products do not have the tensile strength of wood and, as a result, are not used as primary structural members in posts, beams or columns used in a deck's substructure. However, Trex does offer the Trex Elevations steel deck framing system.

We have received product building code listings from the major U.S. building code listing agencies for decking and railing and from the major Canadian building code listing agency for decking. The listings facilitate the acquisition of building permits by deck builders and promote consumer and industry acceptance of our products as an alternative to wood decking.

Trex Outdoor Furniture TM	A line of outdoor furniture products manufactured and sold by PolyWood, Inc.
Trex RainEscape®	An above joist deck drainage system manufactured and sold by DriDeck Enterprises, LLC.
Trex CustomCurve®	A system manufactured and sold by Curvelt, LLC that allows contractors to heat and bend Trex Products while on the job site.
Trex Pergola TM	Pergolas made from low maintenance cellular PVC product, manufactured by Home & Leisure, Inc. dba Structureworks Fabrication.
Trex Latticeworks TM	Outdoor lattice boards manufactured and sold by Rhea Products, Inc. dba Acurio Latticeworks.
$Trex \ Cornhole^{TM} \ Boards$	Cornhole boards manufactured and sold by IPC Global Marketing LLC.
Diablo [®] Trex Blade	A specialty saw blade for wood-alternative composite decking manufactured and sold by Freud America, Inc.
Trex SpiralStairs TM and Structural Steel Posts	A staircase alternative and structural steel posts for use with all deck substructures manufactured and sold by M. Cohen and Sons, Inc. dba The Iron Shop.
Trex Outdoor Kitchens, Cabinetry and Storage	Outdoor kitchens, cabinetry and storage manufactured and sold by NatureKast Products, LLC prior to December 31, 2019, and Danver Stainless Outdoor Kitchens on and after January 1, 2020.
Trex Outdoor Fire & Water TM	A line of outdoor fire features, water elements and decorative planters manufactured by Custom Molded Products, LLC.

We are a licensor in a number of licensing agreements with third parties to manufacture and sell products under the Trex trademark. Our licensed products are:

<u>Trex Commercial</u> is a leading national provider of custom-engineered railing and staging systems. Trex Commercial designs and engineers custom railing solutions, which are prevalent in professional and collegiate sports facilities, standardized architectural and aluminum railing systems, which target commercial and high-rise applications, and portable staging equipment for the performing arts, sports, and event production and rental market. With a team of devoted engineers, and an industry-leading reputation for quality and dedication to customer service, Trex Commercial markets to architects, specifiers, contractors, and building owners. Trex offers the following products through Trex Commercial:

Architectural Railing Systems	Our architectural railing systems are pre-engineered guardrails with options to accommodate styles ranging from classic and elegant wood top rail combined with sleek stainless components and glass infill, to modern and minimalist stainless cable and rod infill choices. Trex Commercial can also design, engineer and manufacture custom railing systems tailored to the customer's specific material, style and finish. Many railing styles are achievable, including glass, mesh, perforated railing and cable railing.
Aluminum Railing Systems	Our Trex Signature aluminum railings, made from a minimum of 50 percent recycled content, are a versatile, cost-effective and low-maintenance choice for a variety of interior and exterior applications that we believe blend form, function and style. The strength and durability of Trex Signature railings make them a choice for any commercial setting, from high-rise condominiums and resort projects to public walkways and balconies. Aluminum railings come in a variety of colors and stock lengths to accommodate project needs.
Staging Equipment and Accessories	Our advanced modular, lightweight custom staging systems include portable platforms, orchestral shells, guardrails, stair units, barricades, camera platforms, VIP viewing decks, ADA infills, DJ booths, pool covers, and other custom applications. Our systems provide superior staging product solutions for facilities and venues with custom needs. Our modular stage equipment is designed to appear seamless, feel permanent, and maximize the functionality of the space.

Customers and Distribution

<u>Trex Residential:</u> Wholesale Distributors/Retail Lumber Dealers. We generate most of our sales for our composite decking and railing products through our wholesale distribution network by selling Trex Residential products to wholesale distributors, who in turn, sell our products to retail lumber outlets. These retail dealers market to both homeowners and contractors, but they emphasize sales to professional contractors, remodelers and homebuilders. Contractor-installed decks generally are larger installations with professional craftsmanship. Our retail dealers generally provide sales personnel trained in Trex Residential products, contractor training, inventory commitment and point-of-sale display support. We believe that attracting wholesale distributors, who are committed to our products and marketing approach and can effectively sell higher value products to contractor-oriented lumber yards and other retail outlets, is important to our future growth. Our distributors are able to provide value-added service in marketing our products because they sell premium wood decking products and other innovative building materials that typically require product training and personal selling efforts. We typically appoint two distributors within a specified area to sell only Trex Residential decking products on an exclusive basis. The distributors, Boise Cascade Company and U.S. Lumber Group, LLC, each exceeded 10% of sales in 2019.

Home Depot and Lowe's. We sell our products through Home Depot and Lowe's stores. Home Depot and Lowe's stores products directly from us for stocking on their shelves. They also purchase product through our wholesale distributors for special orders placed by consumers. Home Depot and Lowe's serve both the contractor market and the "do-it-yourself" market. We believe that brand exposure through Home Depot and Lowe's distribution promotes consumer acceptance of our products. Sales to Lowe's stores exceeded 10% of sales in 2019.

We are committed to conducting business activities with the highest standards of business ethics and in accordance with all applicable laws and regulations. Our Vendor and Customer Code of Conduct and Ethics (Code), available at <u>www.trex.com/our-company</u>, applies to all parties providing goods and services to the Company, and all of our channel partners who distribute, sell and/or install our products (collectively, Business Partners). We expect all of our Business Partners, and all of our employees, agents and subcontractors to follow our high ethical standards set forth in the Code while they are conducting business with us or on our behalf. In addition, we expect our Business Partners to understand and comply with the Trex Company Code of Conduct and Ethics, available at <u>www.trex.com/our-company</u>, to do business with Business Partners who share the same commitment to human rights that we have and as set forth in our Human Rights Policy, available at www.trex.com/our-company.

<u>Trex Commercial:</u> We sell our modular and architectural railing and staging systems to the commercial and multifamily market, including sports stadiums and performing arts venues, primarily to facility owners and general contractors throughout the country. We market these products through our direct sales staff, independent sales representatives, and bidding on projects.

Manufacturing Process

Products manufactured at our Trex Residential manufacturing facilities in Winchester, Virginia (Virginia) and Fernley, Nevada (Nevada) manufacturing facilities are primarily manufactured from reclaimed wood fiber and scrap polyethylene. Our primary manufacturing process for the products involves mixing wood particles with plastic, heating and then extruding, or forcing, the highly viscous and abrasive material through a profile die. We use many proprietary and skill-based advantages in our eco-friendly manufacturing process. Products manufactured at our Trex Commercial manufacturing facility in Minnesota are primarily manufactured from aluminum and stainless steel. Our primary manufacturing process for these products involves cutting, machining, welding and finishing. We use Six Sigma and Lean Manufacturing methodologies throughout our Company within our plant operations and in the planning and execution of certain projects.

Our manufacturing processes require significant capital investment, expertise and time to develop. We have continuously invested the capital necessary to expand our manufacturing throughput and improve our manufacturing processes. We have also broadened the range of raw materials that we can use to produce a consistent and high-quality finished product. In connection with national building code listings, we maintain a quality control testing program.

Suppliers

We conduct supply chain assessments when considered necessary in relation to the significance of the purchase and business opportunity for the Company. Assessments include in-person reviews and tours of operating facilities. The Company is committed to conducting business activities with the highest standards of business ethics and in accordance with all applicable laws and regulations. As stated above, our Vendor and Customer Code of Conduct and Ethics, our Company Code of Conduct and Ethics, and our Human Rights Policy apply to all suppliers of the Company.

The production of most of our decking products requires a supply of reclaimed wood fiber and scrap polyethylene. We fulfill requirements for raw materials under both purchase orders and supply contracts. In the year ended December 31, 2019, we purchased substantially all of our reclaimed wood fiber requirements under purchase orders, which do not involve long-term supply commitments. All of our polyethylene purchases are under short-term supply contracts that generally have a term of approximately one to two years for which pricing is negotiated as needed, or under purchase orders that do not involve long-term supply commitments.

• *Reclaimed Wood Fiber*: Cabinet and flooring manufacturers are our preferred suppliers of reclaimed wood fiber because the reclaimed wood fiber produced by these operations contains little

contamination and is low in moisture. These facilities generate reclaimed wood fiber as a byproduct of their manufacturing operations. If the reclaimed wood fiber meets our specifications, our reclaimed wood fiber supply agreements generally require us to purchase at least a specified minimum and at most a specified maximum amount of reclaimed wood fiber. Depending on our needs, the amount of reclaimed wood fiber that we actually purchase within the specified range under any supply agreement may vary significantly from year to year.

• *Scrap Polyethylene*: The polyethylene we consume is primarily composed of scrap plastic film and plastic bags. We will continue to seek to meet our future needs for scrap polyethylene from the expansion of our existing supply sources and the development of new sources. We believe our use of multiple sources provides us with a cost advantage and facilitates an environmentally responsible approach to our procurement of polyethylene. Our ability to source and use a wide variety of polyethylene from third party distribution and manufacturing operations is important to our cost strategy. We maintain this ability through the continued expansion of our plastic reprocessing operations in combination with the advancement of our proprietary material preparation and extrusion processes.

In addition, we outsource the production of certain products to third-party manufacturers.

The production of our commercial products requires a supply of aluminum, stainless steel and glass components. We use multiple sources for each material to ensure consistent availability of material and competitive pricing. We purchase substantially all of our aluminum, stainless steel and glass under purchase orders, which do not involve long-term supply commitments.

Training

Trex University is our state-of-the-art training facility located near our Virginia manufacturing plant designed to educate and train retailers, contractors and other partners on the benefits of Trex Residential aesthetically pleasing, high-performance, low-maintenance, eco-friendly outdoor living products.

Growth Strategies

Our long-term goals are to perpetuate our position as the leading producer of branded superior composite decking, railing and other outdoor living products, expand our addressable market to achieve growth against wood and appeal to consumers who have not previously considered composites, and to extend our position as a leading national provider of custom-engineered railing and staging systems for the commercial and multi-family market, including performing arts venues and sports stadiums. To achieve our long-term goals, we intend to increase our market share and expand into new product categories and geographic markets through the design, creation and marketing of high-performance, low-maintenance, eco-friendly outdoor living products that offer superior aesthetics and quality, and by expanding our sales to commercial building projects. We will continue to explore opportunities that leverage our manufacturing and extrusion expertise and are tied to our recycling heritage. We intend to employ the following long-term strategies to achieve our goals:

- *Innovation*: Bring to the market new products that address unmet consumer and trade professional needs. Provide a compelling value proposition through ease of installation, low maintenance, long-term durability and superior aesthetics.
- *Brand*: Expand preference and commitment for the Trex brand with both consumers and trade professionals. Deliver on the brand's promise of superior quality, functionality, pleasing aesthetics and overall performance in outdoor living products and custom-engineered railing and staging systems. Leverage online efforts to extend the Trex brand digital presence, both nationally and globally.
- *Channels*: Achieve comprehensive market segment and geographic coverage for Trex products by increasing the number of stocking dealers and retailers and expanding our international presence for

our wood-alternative outdoor living products, thereby making our products available wherever our customers choose to purchase their decking, railing, steel deck framing and outdoor lighting products, and by continuing to develop our commercial market penetration for our railing and staging systems.

- *Quality*: Continuously advance the quality of all operational and business processes, with the goal of achieving superior product quality and service levels, thereby giving us a sustainable competitive advantage.
- *Cost*: Through capital investments and process engineering, continuously seek to lower the cost to
 manufacture Trex products. Investments in plastic recycling capabilities will allow us to expand our
 ability to use a wider breadth of waste materials thereby lowering raw material costs of our outdoor
 living products. We plan to continue to achieve significant improvements in manufacturing
 productivity by reducing waste and improving our production process.
- *Customer Service*: Through our commitment to superior customer service, continually deliver consistently outstanding, personalized service to all of our customers and prospects in all target segments.

Competition

Our primary competition for our composite decking and residential railing products consists of wood products, which constitutes a substantial majority of decking and railing sales, as measured by linear feet of lumber. Many of the conventional lumber suppliers with which we compete have established ties to the building and construction industry and have well-accepted products. A majority of the lumber used in wood decks is pressure-treated lumber. Southern yellow pine and fir have a porosity that readily allows the chemicals used in the pressure treating process to be absorbed. The same porosity makes southern yellow pine susceptible to absorbing moisture, which causes the lumber to warp, crack, splinter and expel fasteners. In addition to pine and fir, other segments of wood material for decking include redwood, cedar and tropical hardwoods, such as ipe, teak and mahogany. These products are often significantly more expensive than pressure-treated lumber, but do not eliminate some of the disadvantages of other wood products.

In addition to wood, we also compete with other manufacturers of wood-alternative products. Industry studies indicate that we have the leading market share of the wood-alternative segment of the decking and railing market. Our principal competitors include The Azek Building Products, Inc., and Fiberon (a division of Fortune Brands, Inc.).

Our ability to compete depends, in part, on a number of factors outside our control, including the ability of our competitors to develop new wood-alternative decking and railing products that are competitive with our products. We believe that the principal competitive factors in the decking and railing market include product quality, price, aesthetics, maintenance cost, and distribution and brand strength. We believe we compete favorably with respect to these factors. We believe that our products offer aesthetic and cost advantages over the life of a deck when compared to other types of decking and railing materials. Although a contractor-installed deck built with Trex products using a pressure-treated wood substructure generally costs more than a deck made entirely from pressure-treated wood, Trex products are low maintenance compared to the on-going maintenance required for a pressure-treated deck and are, therefore, less costly over the life of the deck. We believe that our manufacturing process and utilization of relatively low-cost raw material sources provide us with a competitive cost advantage relative to other manufacturers of wood-alternative decking and railing products. The scale of our operations also confers cost efficiencies in manufacturing, sales and marketing.

Our primary competition for our products in the commercial and multi-family market consists of companies that provide components to assemble guard rails, including C.R. Laurence Co., Inc., a CRH Group company, regional railing and metal fabricators, and Wenger Corporation. Our ability to compete depends on our product design advantages, relationships with architects and general contractors, and competitive manufacturing costs.

We believe we have a competitive advantage in products and markets in which we have established a leading market share versus our competition, including the stadium and arena railing market. We do not yet experience those favorable dynamics in markets in which we are a relatively new entrant, including the aluminum balcony market. These dynamics derive from familiarity with project and customer requirements, technical product requirements, and contractor and architect relationships.

Seasonality

Our operating results for Trex Residential have historically varied from quarter to quarter. Seasonal, erratic or prolonged adverse weather conditions in certain geographic regions reduce the level of home improvement and construction activity and can shift demand for its products to a later period. As part of its normal business practice and consistent with industry practice, Trex Residential Products has historically offered incentive programs to its distributors and dealers to build inventory levels before the start of the prime deck-building season in order to ensure adequate availability of its product to meet anticipated seasonal consumer demand. The seasonal effects are often offset by the positive effect of the incentive programs. The operating results for Trex Commercial have not historically varied from quarter to quarter as a result of seasonality. However, they are driven by the timing of individual projects, which may vary significantly each period.

Government Regulation

We are subject to federal, state and local environmental regulation. The emissions of particulates and other substances from our manufacturing facilities must meet federal and state air quality standards implemented through air permits issued to us by the Department of Environmental Quality of the Commonwealth of Virginia, and the Division of Environmental Protection of Nevada's Department of Conservation and Natural Resources. Our facilities are regulated by federal and state laws governing the disposal of solid waste and by state and local permits and requirements with respect to wastewater and storm water discharge. Compliance with environmental laws and regulations has not had a material adverse effect on our business, operating results or financial condition.

Our operations also are subject to work place safety regulation by the U.S. Occupational Safety and Health Administration, the Commonwealth of Virginia, and the States of Nevada, and Minnesota. Our compliance efforts include safety awareness and training programs for our production and maintenance employees.

Intellectual Property

Our success depends, in part, upon our intellectual property rights relating to our products, production processes and other operations. We rely upon a combination of trade secret, nondisclosure and other contractual arrangements, and patent, copyright and trademark laws, to protect our proprietary rights. We have made substantial investments in manufacturing process improvements that have enabled us to increase manufacturing line production rates, facilitate our development of new products, and produce improvements in our existing products' dimensional consistency, surface texture and color uniformity.

Intellectual property rights may be challenged by third parties and may not exclude competitors from using the same or similar technologies, brands or works. We seek to secure effective rights for our intellectual property, but cannot provide assurance that third parties will not successfully challenge, or avoid infringing, our intellectual property rights.

We consider our trademarks to be of material importance to our business plans. The U.S. Patent and Trademark Office has granted us federal registrations for many of our trademarks. Federal registration of trademarks is effective for as long as we continue to use the trademarks and renew their registrations. We do not generally register any of our copyrights with the U.S. Copyright Office, but rely on the protection afforded to such copyrights by the U.S. Copyright Act. This law provides protection to authors of original works, whether published or unpublished, and whether registered or unregistered. We hold a number of U.S. Patents and U.S. Patent Applications for various technologies. We have one current U.S. Patent Application for decking technology and five U.S. Patents for various staging systems, accessories and related technologies. We intend to maintain our existing patents in effect until they expire as well as to seek additional patents as we consider appropriate.

We enter into confidentiality agreements with our employees and limit access to and distribution of our proprietary information. If it is necessary to disclose proprietary information to third parties for business reasons, we require that such third parties sign a confidentiality agreement prior to any disclosure.

Employees and Corporate Governance

At December 31, 2019, Trex Residential had 1,173 full-time employees, 933 of whom were employed in its manufacturing operations, and Trex Commercial had 159 full-time employees, 62 of whom were employed in its manufacturing operations. Our employees are not covered by collective bargaining agreements. We believe that our relationships with our employees are favorable. The Company has internal standards related to hiring practices that encourage diversity, formal programs to provide skill development for our employees, and anti-discrimination standards. The Company has not had any serious complaints or claims over the last three years. We have adopted a Human Rights Policy across all of our operations that sets forth our values related to working conditions and human rights and underscores our philosophy about the way we conduct our business. The policy is available at www.trex.com/our-company.

Information related to the Company's governance and related activities and programs may be found in the Company's Definitive Proxy Statement filed on March 19, 2019 in Schedule 14A. Also, a copy of the Company's Code of Conduct and Ethics (Code) is maintained on the Company's web site at www.trex.com/ our-company. The Company has a whistle-blowing policy included in its Code that encourages reporting by employees of activities the employee considers illegal or dishonest. Each employee is notified of the whistle-blower policy and a toll-free hotline is provided for reporting issues directly to the Board of Directors and the Company's General Counsel.

Environmental and Occupational Safety

Environmental

The Company's commitment to managing environmental impact includes developing and offering more sustainable products to the market as well as reducing the environmental impact of its corporate activities. From continuous improvement in its manufacturing practices that reduce the use of energy to making products using industry leading high levels of reclaimed and recycled materials, the Company is able to improve its use of resources, its greenhouse gas emissions, and its waste streams. Our Environmental Policy, located on our web site at www.trex.com/our-company, outlines our foundational commitment to conducting business in an ethical and socially responsible manner that respects the environment. Environmental matters relevant to the Company's operations are the responsibility of members of the executive management team, including the President and Chief Executive Officer, the Executive Vice President and Chief Financial Officer, and the General Counsel.

Trex Residential's eco-friendly composite decking products consist of a blend of 95 percent reclaimed wood and recycled plastic film. In addition, Trex Residential's proprietary, eco-friendly processing method minimizes greenhouse gas emissions and our bi-coastal factories reduce fuel consumption and CO_2 emissions. Almost 100 percent of our factory runoff and refuse are recycled back into the manufacturing line. Any product that does not meet quality specifications is reprocessed, which eliminates the need for landfill. In addition, it is Trex Commercial's goal to provide eco-friendly products for the architectural railing market and promote an effort for design innovation that decreases the environmental footprint.

The Company's primary resource usage consists of water, natural gas and electricity. The Company develops budgets and plans that improve shareholder return by ensuring the optimal use of each resource, which

promotes resource efficiency and minimal waste of the resource. Water management is of critical importance to us and we prioritize energy savings as part of our ongoing evaluation and optimization of business operations and manufacturing processes. We ensure that all of our manufacturing facilities meet emission standards for the locality in which they operate, and certify to applicable authorities that our emissions are within the relevant locality's standards.

Market Recognition of Trex Brand's Environmental Characteristics

The Company's internal standards for environmental stewardship and product integrity are recognized yearover-year in the marketplace. In 2019, Trex received the Green Builder Media 2019 Eco Leader award—the highest honor awarded by the publication's editorial team—and received the Green Builder Media 2019 Readers' Choice Award for "Greenest Decking—one of the most respected surveys issued by the publication. Trex is the only composite decking manufacturer to hold this title since 2009.

Trex Residential decking products meet LEED requirements for builders and our commercial products have contributed to the LEED certifications of some high profile venues. LEED is a point-based system created in part by the U.S. Green Building Council and designed to reward points to building projects that incorporate efficient, and safe eco-friendly products, leading to a building's designation as LEED Silver, Gold or Platinum. LEED buildings attract higher demand, premium rates and longer occupancy leases, thereby supporting continued and growing demand for products that can facilitate LEED designations. As a U.S. Green Building Council member, Trex works along with council members to transform the way buildings and communities are designed, built and operated with the goal of creating environmentally and socially responsible spaces that improve the quality of life.

Trex Commercial railing products also typically contribute to LEED certification points in the Materials and Resources category based on recycled aluminum, steel, stainless steel and glass content.

Occupational Safety

The Company is committed to plan and perform all operations at all facilities in a manner that is safe for its employees, and has adopted an Occupational Health and Safety Policy, located on our web site at www.trex.com/ our-company, that sets forth our commitment to sustaining a compliant and safety conscious work environment and keeping safety at the forefront of our business. The commitment is based on:

- A comprehensive understanding of worker expectations and requirements;
- Compliance to statutory, regulatory and other legal requirements;
- Prevention considerations in all designs and redesigns of facilities, equipment, processes, work methods and products, and incorporation of safe design methods into all phases of hazard and risk mitigation;
- Demonstrating employee safety leadership in all of our processes while striving for world class performance; and
- Continual improvement by analyzing this commitment through the use of leading and lagging key performance indicators, such as safety observation audit completions, attendance at monthly safety training, safety work order completions, and targets related to recordable and lost time incident rates and days away or restricted time.

The Company applies industry best-practices for monitoring and reporting near misses, lost days and frequency of incidents and for implementing safety systems similar to OHSAS 18001 including:

- Management leadership and employee involvement;
- Worksite analysis;

- Hazard prevention and control; and
- Safety and health training.

The Company's "Design for Safety" program incorporates reviewing and building safety into every project from conception through completion, beginning with a Pre-startup Safety Review (PSSR) that ensures safety items are addressed. A fully empowered Plant Safety Committee performs safety audits and observations, reviews and trends all incidents, writes their own Safety Work Orders, and participates in all PSSRs. Each member is required to successfully complete an Occupational Safety and Health Training course in General Industry Safety and Health, which is sanctioned and accredited by the U.S. Department of Labor/Occupational Safety and Health Administration. In addition, each manufacturing operation has an Employee Health and Safety Manager who is a Certified Occupational Safety Specialist and Certified Occupational Safety Manager. The Company is a member of the Voluntary Protection Program Participants Association, the National Safety Council, and the National Fire Protection Association.

Web Sites and Additional Information

The U. S. Securities and Exchange Commission (SEC) maintains an Internet web site at *www.sec.gov* that contains reports, proxy statements, and other information regarding our Company. In addition, we maintain an Internet corporate web site at <u>www.trex.com/our-company/investor-relations</u>. We make available through our web site our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and all amendments to those reports, as soon as reasonably practicable after we electronically file with or furnish such material to the SEC. We do not charge any fees to view, print or access these reports on our web site. The contents of our web site are not a part of this report.

Item 1A. Risk Factors

Our business operates in two reportable segments, Trex Residential and Trex Commercial, and is subject to a number of risks, including the following. If applicable to a particular segment, we have specified the respective segment subject to the risk factor.

Risk	Discussion
Description:	
We may not be able to grow unless we increase	Our primary competition for Trex Residential
market acceptance of our products, compete	products consists of wood products, which constitute

Impact:

applications.

Our failure to compete successfully could have a material adverse effect on the ability of Trex Residential to replace wood products or increase our market share amongst wood-alternative products.

effectively and develop new products and

- If our Trex Residential products do not meet emerging demands and preferences, we could lose market share, which could have a material adverse effect on our business.
- In addition, substantially all of our revenues are derived from sales of our proprietary wood/polyethylene composite material. Although we have developed, and continue to develop, new products made from other materials, if we should experience significant problems, real or perceived, with acceptance of the Trex wood/polyethylene composite material, our lack of product diversification could have a significant adverse impact on our net sales levels.

If our Trex Commercial products do not keep up with consumer trends, demands, and preferences we could lose market share, which could have a material adverse effect on our business. Our primary competition for Trex Residential products consists of wood products, which constitute a substantial majority of decking, railing, fencing, and deck framing sales. Since composite products were introduced to the market in the late 1980s, their market acceptance has increased. Our ability to grow depends, in part, on our success in continuing to convert demand for wood products into demand for composite Trex Residential products. Many of the conventional lumber suppliers with which we compete have established ties to the building and construction industry and have well-accepted products.

Our ability to compete depends, in part, upon a number of factors outside our control, including the ability of competitors to develop new alternatives that are more competitive with Trex products. Our ability to identify and respond to emerging consumer demands and preferences for Trex Residential products depends, in part, on how successfully we develop, manufacture and market new products.

To increase our market share, we must overcome:

- Lack of awareness of the enhanced value of composite products in general and Trex Residential brand products in particular;
- Resistance of many consumers and contractors to change from well-established wood products;
- Consumer lack of awareness that the greater initial expense of Trex Residential products compared to wood is a one-time cost that is reduced over time as Trex Residential products have lower maintenance costs and a longer life span than wood;
- Established relationships existing between suppliers of wood products and contractors and homebuilders;
- Actual and perceived quality issues with first generation composite products; and

	Competition from other wood-alternative manufacturers. Although Trex Commercial is a leading national provider of custom-engineered railing and staging systems for the commercial and multi-family market, including performing arts venues and sports stadiums, there is significant competition for projects. In order to effectively compete, we must continually produce and install high quality products and innovate with new products.
Risk	Discussion
Description:	
We may not be able to fully maintain our Trex Residential wholesaler and dealer channels. Impact: If Trex Residential fails to compete successfully for wholesale distributors and dealers, our business could experience material adverse effects, which could negatively impact profitability and cash flows.	Trex Residential sells most of our composite decking and railing products through our network of wholesale distributors who, in turn, sell to retail lumber outlets. Our Trex Residential growth strategy depends on maintaining this network and on our ability to compete with other entities for these channels. In order to successfully compete for wholesaler distributors, dealers and retail lumber outlets, we must accurately assess their customers' needs and preferences.
Risk	Discussion
Description:	

Certain of our Trex Residential product customers account for a significant portion of our sales, and the loss of one or more of these customers could have an adverse effect on our business.

Impact:

The loss of a significant customer could have a significant negative impact on our business, results of operations and financial condition.

A limited number of our Trex Residential product customers account for a significant percentage of our sales. We expect that a significant portion of our Trex Residential sales will continue to be sold through a small number of customers, and certain customers will continue to account for a significant portion of our sales.

Risk	Discussion
Description:	
Our Trex Residential business is dependent on consistently producing a product which is available when needed to meet the demands of our customers. As our business grows, we must adjust capacity to meet customer needs and provide increased throughput on our existing capacity.	In order to meet Trex Residential customer demand in a timely manner, we must adjust capacity to meet customer needs and provide increased throughput on our existing capacity. Our sourcing team must obtain raw materials on a timely basis at an appropriate volume.
Impact:	
Our Trex Residential sales growth and profitability could suffer from our failure to effectively pair supply and demand for our products. Our customers' demands for varying quantities of products and delivery items throughout the year, and increased demand year to year, require monitoring and the ability to adjust production in accordance with these demands. Failure to do so can lead to lost or reduced sales and have a negative effect on earnings.	
Risk	Discussion
Description:	
Our prospects for sales growth and profitability may be adversely affected if we fail to maintain product quality and product performance at an acceptable	In order to expand our net sales and sustain profitable operations we must maintain the quality and performance of our products.

quality and product performance at an acceptable cost.

Impact:

If we are unable to produce high-quality products at standard manufacturing rates and yields, unit costs may be higher. A lack of product performance could impede acceptance of our products in the marketplace and negatively affect our profitability.

Future increases to our Trex Residential warranty reserve could have a material adverse effect on our profitability and cash flows.

In the event lawsuits relating to alleged product quality issues are brought against us in the future, such lawsuits may be costly and could cause adverse publicity, which in turn could result in a loss of consumer confidence in our products and reduce our sales. Product quality claims could increase our expenses, have a material adverse effect on demand for our products and decrease net sales, net income and liquidity.

performance of our products.

Trex Residential continues to receive and settle claims and maintain a warranty reserve related to decking product produced at our Nevada facility prior to 2007 that exhibits surface flaking. We have limited our financial exposure by settling a nationwide class action lawsuit that provides that a consumer's remedy is limited to the replacement of product and a partial labor reimbursement. However, because the establishment of reserves is an inherently uncertain process involving estimates of the number of future claims and the average cost of claims, our ultimate losses may differ from our warranty reserve. Increases to the warranty reserve and payments for related claims have had a material adverse effect on our profitability and cash flows.

A number of class action lawsuits alleging defects in our products have been brought against us, all of which have been settled.

Risk

Description:

Our business is subject to risks in obtaining the raw materials we use at acceptable prices.

Impact:

Our business could suffer from the termination of significant sources of raw materials, the payment of higher prices for raw materials, the quality of available raw materials, or from the failure to obtain sufficient additional raw materials to meet planned increases in production.

The manufacture of our Trex Residential composite decking and railing products requires substantial amounts of wood fiber and scrap polyethylene. Our business strategy is to create a substantial cost advantage over our competitors by using scrap polyethylene. Our ability to obtain adequate supplies of wood fiber and scrap polyethylene depends on our success in developing new sources that meet our quality requirements, maintaining favorable relationships with suppliers and managing the collection of supplies from geographically dispersed locations. In addition to wood fiber and scrap polyethylene, we also use a small percentage of other materials in making our products, which are sometimes subject to volatility in supply and pricing and could negatively affect our profitability.

The manufacture of our Trex Commercial products requires substantial amounts of aluminum, steel, glass and wood. These materials are also sometimes subject to volatility in pricing, which could negatively affect our profitability.

Risk

Discussion

Description:

We have limited ability to project inventory build-ups in our Trex Residential distribution channel that can negatively affect our sales in subsequent periods.

Impact:

We cannot definitively determine the level of inventory in the Trex Residential distribution channels at any time and, therefore, have limited ability to precisely project inventory build-ups in the Trex Residential two-step distribution channel. Significant increases in inventory levels in the distribution channel without a corresponding change in end-use demand could have an adverse effect on the timing of future sales.

Trex Residential sells most of our composite decking and railing products through our network of wholesale distributors who, in turn, sell to retail outlets. The seasonal nature of, and changing conditions in, our industry can result in substantial fluctuations in inventory levels of Trex Residential products carried in our two-step distribution channel. Because of the seasonal nature of the demand for our products, our distribution channel partners must forecast demand for our products, place orders for the products, and maintain Trex Residential product inventories in advance of the prime deck-building season, which generally occurs in the latter part of the first calendar quarter through the third calendar quarter. Accordingly, our results for the second and third quarters are difficult to predict and past performance will not necessarily indicate future performance. Inventory levels respond to a number of changing conditions in our industry, including product price increases, increases in the number of competitive producers, the rapid pace of product introduction and innovation, changes in the levels of home-building and remodeling expenditures and the cost and availability of consumer credit.

Risk Discussion

Description:

The demand for our Trex Residential products is negatively affected by adverse weather conditions.

Impact:

Seasonal, erratic, or prolonged adverse weather conditions may shift sales of Trex Residential products to future periods or decrease overall sales given the limited decking season in many locations, which could have a negative impact on our results of operations and liquidity. Our Trex Residential products are generally purchased shortly before installation and used in outdoor environments. As a result, there is a correlation between the amount of product we sell and weather conditions during the time they are to be installed. Seasonal, erratic or prolonged adverse weather conditions in certain geographic regions may interfere with ordinary construction, delay projects or lead to cessation of construction involving our products.

Risk	Discussion

Description:

We depend on third parties for transportation services and the lack of availability of transportation and/or increases in cost could materially adversely affect our business and operations.

Impact:

If the required supply of third-party transportation services is unavailable when needed, we may be unable to deliver our products in a timely manner and, therefore, unable to sell our products at full value, or at all. Similarly, if any of these providers were unavailable to deliver raw materials to us in a timely manner, we may be unable to manufacture our products in response to customer demand. This could harm our reputation, negatively impact our customer relationships and have a material adverse effect on our financial condition and results of operations. In addition, a material increase in transportation rates or fuel surcharges could have a material adverse effect on our profitability. Our business depends on the transportation by third parties of both raw materials to us and finished goods to our customers. In particular, a significant portion of our finished goods are transported by flatbed trucks, which are occasionally in high demand (especially at the end of calendar quarters) and/or subject to price fluctuations based on market conditions and the price of fuel.

Description:

Risk

The demand for our products is influenced by the home improvement and commercial construction markets and could be adversely affected by conditions that negatively impact these markets.

Impact:

We cannot predict conditions that may negatively impact the home remodeling and new home construction environment. Any economic downturn or adverse changes in the home improvement market could reduce consumer income or equity capital available for spending on discretionary items, which could adversely affect the demand for our Trex Residential products.

We cannot predict conditions that may negatively impact the commercial construction environment. Any economic downturn could negatively impact the availability of funding for commercial construction projects and the ability of Trex Commercial customers to engage in commercial construction activity, which could adversely affect the demand for Trex Commercial products. The demand for Trex Residential composite decking and railing products is influenced by the general health of the economy, the level of home improvement activity and, to a much lesser extent, new home construction. These factors are affected by home equity values, credit availability and interest rates, consumer confidence, income and spending habits, employment, inflation and general economic conditions.

The demand for Trex Commercial railing and staging system products is influenced by the general health of the economy and the level of commercial construction activity, building variances, funding availability for large public use facilities, including sports stadiums and arenas, and the construction schedules of our projects.

Risk

Description:

We have significant capital invested in assets that may become obsolete or impaired and result in a charge to our earnings.

Impact:

The recognition of goodwill may result in an impairment charge to our earnings if circumstances change and reduce the fair value of the goodwill acquired below its carrying amount.

Significant replacement of equipment or changes in the expected cash flows related to our assets could result in reduced earnings or cash flows in future periods. We have made and may continue to make significant capital investments in order to acquire businesses or operations that allow us to diversify into new product markets. These investments have resulted in, and may in the future result in, the recognition of goodwill. In addition, we have made and may continue to make significant capital investments to our property plant and equipment in order to improve or expand our manufacturing capabilities. These investments sometimes involve the implementation of new technology and replacement of existing equipment at our manufacturing facilities, which may result in charges to our earnings if the existing equipment is not fully depreciated.

Discussion

Description:

Our ability to continue to obtain financing on favorable terms, and the level of any outstanding indebtedness, could adversely affect our financial health and ability to compete.

Impact:

Our ability to make future principal and interest payments, borrow and repay amounts under our senior credit facility and continue to comply with our loan covenants will depend primarily on our ability to generate sufficient cash flow from operations. Our failure to comply with our loan covenants might cause our lenders to accelerate our repayment obligations under our senior credit facility, which may be declared payable immediately based on a default.

Our ability to continue to obtain financing on favorable terms may limit our discretion on some business matters, which could make it more difficult for us to expand, finance our operations and engage in other business activities that may be in our interest. In addition, our senior credit facility may impose operating and financial restrictions.

At certain periods during the year, we may borrow significant amounts on our senior credit facility for working capital purposes. In addition, we may borrow on the senior credit facility to pursue strategic opportunities or other general business matters. Accordingly, our future level of indebtedness and the terms of our borrowings could have important consequences.

Risk	Discussion

Description:

Cyberattacks and other security breaches could compromise our proprietary and confidential information which could harm our business and reputation.

Impact:

While we have certain safeguards in place to reduce the risk of and detect cyber-attacks, our information technology networks and infrastructure may be vulnerable to unpermitted access by hackers or other breaches, or employee error or malfeasance. Any such compromise of our data security and access to, or public disclosure or loss of, confidential business or proprietary information could disrupt our operations, damage our reputation, provide our competitors with valuable information and subject us to additional costs, which could adversely affect our business. In the ordinary course of our business, we generate, collect and store confidential and proprietary information, including intellectual property and business information. The secure storage, maintenance, and transmission of and access to this information is important to our operations and reputation. Computer hackers may attempt to penetrate our computer systems and, if successful, misappropriate our proprietary and confidential information including e-mails and other electronic communications.

In addition, an employee, contractor, competitor, or other third party with whom we do business may attempt to obtain such information, and may purposefully or inadvertently cause a breach involving such information.

We also collect limited information on consumers. Although we do not collect any highly sensitive information, there is a risk that a cybersecurity attack could compromise consumer's names, addresses and other personal information.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

	Square Footage/ Acres	Leased / Owned	Lease Expiration Dates	Location	Purpose
Corporate Headquarters	39,250 SF	Leased	2025	Virginia	Office Space
Trex Residential	1,671,852 SF	Leased	2020 - 2028	Virginia / Nevada	Warehouse, Research and Development, Storage, Training and Manufacturing Facilities
Trex Residential	705,000 SF / 129 Acres	Owned	N/A	Virginia / Nevada	Manufacturing Facilities, Storage and Office Space
Trex Commercial	142,808 SF	Leased	2022 - 2028	Minnesota	Warehouse, Facility and Office Space

We own and lease certain properties, as noted in the below table:

We regularly evaluate our various facilities and equipment and make capital investments where necessary. In 2019, we spent a total of \$67 million on capital expenditures, including \$60 million related to capacity expansion and general plant cost reduction initiatives, \$5 million for other production improvements and \$2 million for general support initiatives. In order to keep pace with demand, in June 2019 we announced a new multi-year capital expenditure program projected at approximately \$200 million between 2019 and 2021. The program will increase production capacity by at least 70% at our Trex Residential facilities in Virginia and Nevada and will bring further manufacturing efficiencies to our production operations. In the third quarter of 2019, we installed two additional lines in our Nevada facility and three new lines will begin ramping up in Nevada in the second quarter of 2020. One new production line was operational in Virginia in the fourth quarter of 2019, and a new building being constructed in Virginia is scheduled to start ramping up production by early 2021 at the latest. These investments will allow us to increase production output for future projected growth related to our strategy of converting wood demand to Trex Residential composite decking.

For information about our leases, see Note 10 to our Consolidated Financial Statements appearing elsewhere in this report. The equipment and machinery we use in our operations consist principally of plastic and wood conveying and processing equipment. We own all of our manufacturing equipment. We lease some equipment, primarily forklifts, at our facilities under operating leases.

Item 3. Legal Proceedings

The Company has lawsuits, as well as other claims, pending against it which are ordinary routine litigation and claims incidental to the business. Management has evaluated the merits of these lawsuits and claims, and believes that their ultimate resolution will not have a material effect on the Company's consolidated financial condition, results of operations, liquidity or competitive position.

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

Market for Common Stock

Our common stock has been listed on the New York Stock Exchange (NYSE) since April 8, 1999. Between April 8, 1999 and November 22, 2009, it was listed under the symbol "TWP". Effective November 23, 2009, the symbol changed to "TREX".

Dividend Policy

We have never paid cash dividends on our common stock and our credit agreement places limitations on our ability to pay cash dividends. We intend to retain future earnings to finance the development and expansion of our business or the repurchase of our common shares and, therefore, have no current intention to pay cash dividends. However, we reconsider our dividend policy on a regular basis and may determine to pay dividends in the future.

Issuer Purchases of Equity Securities

The following table provides information relating to the purchases of our common stock during the three months ended December 31, 2019 in accordance with Item 703 of Regulation S-K:

Period	(a) Total Number of Shares (or Units) Purchased (1)	(b) Average Price Paid per Share (or Unit) (\$)	(c) Total Number of Shares (or Units) Purchased as Part of Publicly Announced Plans or Programs (2)	(d) Maximum number of Shares (or Units) that May Yet Be Purchased Under the Plan or Program
October 1, 2019 – October 31,				
2019	48,489	\$88.97	44,919	4,920,640
November 1, 2019 – November 30,				
2019	39,060	\$87.49	39,060	4,881,580
December 1, 2019 – December 31,				
2019	40,960	\$87.68	40,960	4,840,620
Quarter ended December 31, 2019	128,509		124,939	

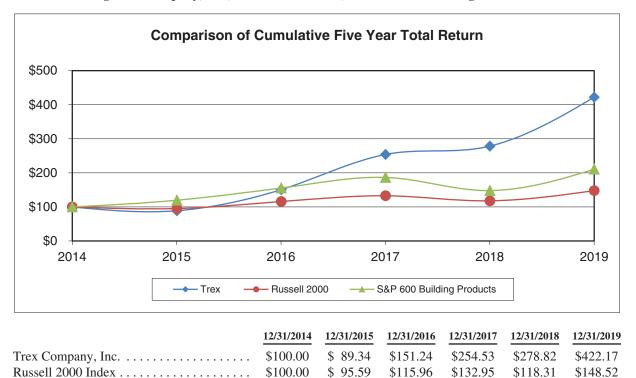
(1) During the three months ended December 31, 2019, 3,570 shares were withheld by, or delivered to, the Company pursuant to provisions in agreements with recipients of restricted stock granted under the Company's 2014 Stock Incentive Plan allowing the Company to withhold, or the recipient to deliver to the Company, the number of shares having the fair value equal to tax withholding due.

(2) On February 16, 2018, the Company's Board of Directors authorized a common stock repurchase program of up to 5.8 million shares of the Company's outstanding common stock (Stock Repurchase Program). The Stock Repurchase Program was publicly announced on February 21, 2018. During the three months ended December 31, 2019, the Company repurchased 124,939 shares under the Stock Repurchase Program.

Stockholder Return Performance Graph

The following graph and table show the cumulative total stockholder return on the Company's common stock for the last five fiscal years compared to the Russell 2000 Index and the Standard and Poor's 600 Building Products Index (S&P 600 Building Products). The graph assumes \$100 was invested on December 31, 2014 in (1) the Company's common stock, (2) the Russell 2000 Index and (3) the S&P 600 Building Products, and assumes reinvestment of dividends and market capitalization weighting as of December 31, 2015, 2016, 2017, 2018 and 2019.

Comparison of Cumulative Total Return



Among Trex Company, Inc., Russell 2000 Index, and S&P 600 Building Products Index

Other Stockholder Matters

S&P 600 Building Products

As of February 10, 2020, there were approximately 153 holders of record of our common stock, although we believe that there are a significantly larger number of beneficial owners of our common stock.

\$119.97

\$100.00

\$155.70

\$187.18

\$148.27

\$210.82

In 2019, we submitted to the NYSE in a timely manner the annual certification that our Chief Executive Officer was not aware of any violation by us of the NYSE corporate governance listing standards.

Item 6. Selected Financial Data

The following table presents selected financial data as of December 31, 2019, 2018, 2017, 2016, and 2015 for each year in the five-year period ended December 31, 2019.

The selected financial data should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our Consolidated Financial Statements and related notes thereto appearing elsewhere in this report.

	Year Ended December 31, (1)									
		2019 (2)		2018	_	2017 (3)	_	2016 (4)		2015 (5)
			(In	thousands, e	ex	cept share and	pe	er share data)		
Statement of Comprehensive Income										
Data: Net sales Cost of sales	\$	745,347 438,844	\$	684,250 389,356	9	5 565,153 321,780	\$	479,616 292,521	\$	440,804 285,935
Gross profit		306,503		294,894	-	243,373		187,095		154,869
expenses		118,304		118,225	_	100,993	_	83,140		77,463
Income from operations Interest (income) expense, net		188,199 (1,503)		176,669 (192))	142,380 461		103,955 1,125		77,406 619
Income before income taxes Provision for income taxes		189,702 44,964		176,861 42,289		141,919 46,791		102,830 34,983		76,787 28,689
Net income	\$	144,738	\$	134,572	9	5 95,128	\$	67,847	\$	48,098
Basic earnings per share	\$	2.48	\$	2.29	9	5 1.62	\$	1.15	\$	0.77
Basic weighted average shares outstanding	58	3,430,597	5	8,739,670	-	58,785,118		58,789,118	6	2,701,084
Diluted earnings per share	\$	2.47	\$	2.28	9	6 1.61	\$	1.15	\$	0.76
Diluted weighted average shares outstanding	58	3,657,749	5	9,067,302	-	59,150,920	_	59,225,338	6	3,365,018
Cash Flow Data:Cash provided by operating activitiesCash used in investing activitiesCash used in financing activities	\$	156,352 (67,244) (45,974)		138,121 (33,733) (29,203))	5 101,865 (86,789) (3,226)		85,293 (10,202) (62,422)		62,634 (23,329) (42,854)
Other Data (unaudited): EBITDA (non-GAAP) (6)	\$	202,230	\$	193,136	9	5 159,110	\$	118,136	\$	91,701
Balance Sheet Data:Cash and cash equivalentsWorking capitalTotal assetsTotal debt		148,833 224,534 592,239 —		105,699 177,450 465,122 —		86,289 326,227 —		54,264 221,430		5,995 38,581 211,998 7,000
Total stockholders' equity	\$	449,175	\$	342,963	9	5 231,250	\$	134,161	\$	116,463

 All common stock share and per share data in the above table are presented on a post-split basis to reflect the two-for-one stock split of our common stock in the form of a stock dividend distributed on June 18, 2018 to stockholders of record at the close of business on May 23, 2018.

2) In January 1, 2019, the Company adopted Financial Accounting Standards Board (FASB) Accounting Standards Update (ASU) No. 2016-02, "*Leases (Topic 842)*," and subsequent amendments to the initial

guidance within ASU Nos. 2018-01, 2018-10, 2018-11, 2018-20, and 2019-01 (collectively, the standard). The standard requires lessees to recognize operating leases on the balance sheet as a right-of-use (ROU) asset and a lease liability (current and non-current). The liability is equal to the present value of the lease payments over the remaining lease term. The asset is based on the liability, subject to certain adjustments. The Company elected the modified retrospective method of adoption, which allowed the Company to apply the standard as of the beginning of the period of adoption. As a result, at December 31, 2019 the Company reported an ROU asset in total assets and included the current portion of the lease liability in working capital.

- 3) On July 31, 2017, the Company's newly-formed, wholly-owned subsidiary, Trex Commercial Products, Inc. acquired certain assets and assumed certain liabilities of Staging Concepts Acquisition, LLC. The Consolidated Financial Statements include the accounts of Trex Commercial Products, Inc. from the date of acquisition. Also, the tax legislation H.R.1, "An Act to Provide for Reconciliation Pursuant to Titles II and V of the Concurrent Resolution on the Budget for Fiscal Year 2018," known as the Tax Cuts and Jobs Act (Act), was enacted on December 22, 2017. Accordingly, we have recognized the tax effects of the Act in our financial statements and related notes as of and for the year ended December 31, 2017. Deferred tax assets that existed as of the enactment date and that reversed after the Act's effective date of January 1, 2018 were adjusted to reflect the new Federal statutory tax rate of 21%. The effect of the change in tax rate on the deferred tax assets was allocated to continuing operations as a discrete item. We finalized our analysis of the Act in 2018, which did not give rise to new deferred tax amounts.
- 4) Year ended December 31, 2016 was materially affected by a pre-tax increase of \$9.8 million to the warranty reserve related to surface flaking. Also, during 2016, the Company adopted FASB ASU No. 2015-17, *"Income Taxes (Topic 740): Balance Sheet Classification of Deferred Taxes."* Because the Company applied ASU No. 2015-17 prospectively in the quarterly period ended December 31, 2016, prior periods have not been adjusted. As a result, in 2016 deferred tax assets are now reported net of deferred tax liabilities, included as either a non-current asset or liability, and are no longer a component of working capital. Deferred tax assets or liabilities of prior fiscal years that were previously included in current assets or current liabilities continue to be reported as a component of working capital.
- 5) Year ended December 31, 2015 was materially affected by a pre-tax increase of \$7.8 million to the warranty reserve, the majority of which related to surface flaking.
- 6) EBITDA represents net income before interest, income taxes, depreciation and amortization. EBITDA is not a measurement of financial performance under accounting principles generally accepted in the United States (GAAP). The Company has included data with respect to EBITDA because management evaluates and projects the performance of the Company's business using several measures, including EBITDA. Management considers EBITDA to be an important supplemental indicator of the Company's operating performance, particularly as compared to the operating performance of the Company's competitors, because this measure eliminates many differences among companies in capitalization and tax structures, capital investment cycles and ages of related assets, as well as some recurring non-cash and non-operating charges to net income or loss. For these reasons, management believes that EBITDA provides important supplemental information to investors regarding the operating performance of the Company and facilitates comparisons by investors between the operating performance of the Company and facilitates upplemental, because EBITDA has limitations as an analytical financial measure. These limitations include the following:
 - EBITDA does not reflect the Company's cash expenditures, or future requirements for capital expenditures, or contractual commitments;
 - EBITDA does not reflect the interest expense, or the cash requirements necessary to service interest or principal payments, on the Company's indebtedness;
 - Although depreciation and amortization are non-cash charges, the assets being depreciated and amortized will often have to be replaced in the future, and EBITDA does not reflect any cash requirements for such replacements;

- EBITDA does not reflect the effect of earnings or charges resulting from matters the Company considers not to be indicative of its ongoing operations; and
- Not all entities in the Company's industry may calculate EBITDA in the same manner in which the Company calculates EBITDA, which limits its usefulness as a comparative measure.

The Company compensates for these limitations by relying primarily on its GAAP results to evaluate its operating performance and by considering independently the economic effects of the foregoing items that are not reflected in EBITDA. As a result of these limitations, EBITDA should not be considered as an alternative to net income, as calculated in accordance with GAAP, as a measure of operating performance, nor should it be considered as an alternative to cash flows as a measure of liquidity. The following table sets forth, for the years indicated, a reconciliation of EBITDA to net income:

	Year Ended December 31,								
	2019	2018	2017	2016	2015				
		(In thousands)							
Net income	\$144,738	\$134,572	\$ 95,128	\$ 67,847	\$48,098				
Plus interest (income) expense, net	(1,503)	(192)	461	1,125	619				
Plus income tax provision	44,964	42,289	46,791	34,983	28,689				
Plus depreciation and amortization	14,031	16,467	16,730	14,181	14,295				
EBITDA (non-GAAP)	\$202,230	\$193,136	\$159,110	\$118,136	\$91,701				

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

This management's discussion and analysis contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. All statements regarding our expected financial position and operating results, our business strategy, our financing plans, forecasted demographic and economic trends relating to our industry and similar matters are forward-looking statements. These statements can sometimes be identified by our use of forward-looking words such as "may," "will," "anticipate," "estimate," "expect," "intend" or similar expressions. We cannot promise you that our expectations in such forward-looking statements will turn out to be correct. Our actual results could be materially different from our expectations because of various factors, including the factors discussed under "Item 1A. Risk Factors." These statements are also subject to risks and uncertainties that could cause the Company's actual operating results to differ materially. Such risks and uncertainties include, but are not limited to, the extent of market acceptance of the Company's current and newly developed products; the costs associated with the development and launch of new products and the market acceptance of such new products; the sensitivity of the Company's business to general economic conditions; the impact of seasonal and weatherrelated demand fluctuations on inventory levels in the distribution channel and sales of the Company's products; the availability and cost of third-party transportation services for our products and raw materials; the Company's ability to obtain raw materials at acceptable prices; the Company's ability to maintain product quality and product performance at an acceptable cost; the Company's ability to increase throughput and capacity to adequately match supply with demand; the level of expenses associated with product replacement and consumer relations expenses related to product quality; the highly competitive markets in which the Company operates; cyber-attacks, security breaches or other security vulnerabilities; and the impact of upcoming data privacy laws and the EU General Data Protection Regulation and the related actual or potential costs and consequences.

OVERVIEW

General. Trex Company, Inc. currently operates in two reportable segments: Trex Residential Products (Trex Residential) and Trex Commercial Products (Trex Commercial). The Company is focused on using renewable resources within both our Trex Residential and Trex Commercial segments.

Trex Residential is the world's largest manufacturer of wood-alternative composite decking and railing products marketed under the brand name Trex[®] and manufactured in the United States. We offer a comprehensive set of aesthetically pleasing, high-performance, low maintenance, eco-friendly products in the decking, railing, fencing, steel deck framing and outdoor lighting categories. We believe that the range and variety of our products allow consumers to design much of their outdoor living space using Trex brand products.

Decking and Accessories	Trex Transcend [®] decking Trex Enhance [®] decking Trex Select [®] decking Trex Hideaway [®] hidden fastening system Trex DeckLighting [™] outdoor lighting system
Railing	Trex Transcend Railing Trex Signature [®] aluminum railing Trex Select Railing Trex Enhance Railing
Fencing	Trex Seclusions [®]
Steel Deck Framing System	Trex Elevations®

We offer the following composite decking and railing products through Trex Residential:

Trex Commercial is a leading national provider of custom-engineered railing and staging systems. We offer modular and architectural railing and staging systems and solutions for the commercial and multifamily market, including sports stadiums and performing arts venues through Trex Commercial.

Highlights related to the twelve months ended December 31, 2019 include:

- Increase in net sales of 9%, or \$61.1 million, to \$745.3 million in the twelve months ended December 31, 2019 compared to \$684.3 million in the twelve months ended December 31, 2018. Net sales in 2019 were the highest of any year in our history.
- Trex Residential net sales increased \$81 million, or 13%, in 2019 compared to 2018, and were the highest of any year in our history.
- Increase in gross profit of 4%, or \$11.6 million, to \$306.50 million for the twelve months ended December 31, 2019 compared to \$294.9 million for the twelve months ended December 31, 2018.
- Increase in net income to \$144.7 million, also reflecting the highest of any year in our history.
- Cash flows from operating activities were \$156.4 million in the twelve months ended December 31, 2019 compared to \$138.1 million in the twelve months ended December 31, 2018.
- New capital expenditure program to increase production capacity at the Trex Residential facilities in Virginia and Nevada and projected at approximately \$200 million in the aggregate by 2021.
- Repurchase of 500,059 shares of our outstanding common stock under our Stock Repurchase Program in 2019, for a total of 959,380 shares repurchased under the program to date.

Business Acquisition. On July 31, 2017, through our wholly-owned subsidiary, Trex Commercial Products, Inc., we entered into a definitive agreement with Staging Concepts Acquisition, LLC (SC Company) and on that date acquired certain assets and liabilities of SC Company for \$71.8 million in cash. The acquisition provides us with the opportunity to offer full service railing systems in the growing commercial and multi-family markets, access to a complementary product category with a track record of substantial revenue growth, the ability to achieve economies of scale around raw material procurement, and an increase in the range of products the Company may offer its core customers. The Consolidated Financial Statements include the accounts of Trex Commercial Products, Inc. from the date of acquisition.

Net Sales. Net sales consist of sales and freight, net of returns and discounts. The level of net sales is principally affected by sales volume and the prices paid for Trex products. The operating results for Trex Residential have historically varied from quarter to quarter, often due to seasonal trends in the demand for outdoor living products. Seasonal, erratic or prolonged adverse weather conditions in certain geographic regions reduce the level of home improvement and construction activity and can shift demand for its products to a later period. As part of its normal business practice and consistent with industry practices, Trex Residential has historically offered incentive programs to its distributors and dealers to build inventory levels before the start of the prime deck-building season to ensure adequate availability of its product to meet anticipated seasonal consumer demand and to enable production planning. These incentives include prompt payment discounts and favorable payment terms. In addition, we offer price discounts or volume rebates on specified products and other incentive programs can significantly impact sales, receivables and inventory levels during the offering period. However, the timing and terms of the majority of our programs are generally consistent from year to year. In addition, the operating results for Trex Commercial have not historically varied from quarter to quarter as a result of seasonality, but are driven by the timing of individual projects, which may vary significantly each period.

Gross Profit. Gross profit represents the difference between net sales and cost of sales. Cost of sales consists of raw materials costs, direct labor costs, manufacturing costs, warranty costs, and freight. Raw materials costs generally include the costs to purchase and transport reclaimed wood fiber, scrap polyethylene and pigmentation

for coloring Trex products. Direct labor costs include wages and benefits of personnel engaged in the manufacturing process. Manufacturing costs consist of costs of depreciation, utilities, maintenance supplies and repairs, indirect labor, including wages and benefits, and warehouse and equipment rental activities.

Selling, General and Administrative Expenses. The largest component of selling, general and administrative expenses is personnel related costs, which include salaries, commissions, incentive compensation, and benefits of personnel engaged in sales and marketing, accounting, information technology, corporate operations, research and development, and other business functions. Another component of selling, general and administrative expenses is branding and other sales and marketing costs, which are used to build brand awareness of Trex. These costs consist primarily of advertising, merchandising, and other promotional costs. Other general and administrative expenses include professional fees, office occupancy costs attributable to the business functions previously referenced, and consumer relations expenses. As a percentage of net sales, selling, general and administrative expenses have varied from quarter to quarter due, in part, to the seasonality of our business.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

Our significant accounting policies are described in Note 2 to our Consolidated Financial Statements appearing elsewhere in this report. Our critical accounting estimates include the areas where we have made what we consider to be particularly difficult, subjective or complex judgments in making estimates, and where these estimates can significantly affect our financial results under different assumptions and conditions. We prepare our financial statements in conformity with accounting principles generally accepted in the United States. As a result, we are required to make estimates, judgments and assumptions that we believe are reasonable based upon the information available. These estimates, judgments and assumptions affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the periods presented. Actual results could be different from these estimates.

Product Warranty. We warrant that our Trex Residential products will be free from material defects in workmanship and materials. Generally, this warranty period is 25 years for residential use and 10 years for commercial use, excluding Trex Signature[®] Railing, which has a warranty period of 25 years for both residential and commercial use. We further warrant that Trex Transcend, Trex Enhance, Trex Select and Universal Fascia products will not fade in color more than a certain amount and will be resistant to permanent staining from food substances or mold, provided the stain is cleaned within seven days of appearance. This warranty extends for a period of 25 years for residential use and 10 years for commercial use. If there is a breach of such warranties, we have an obligation either to replace the defective product or refund the purchase price. Depending on the product and its use, the Company also warrants its Trex Commercial products will be free of manufacturing defects for one to three years.

We continue to receive and settle claims for Trex Residential products manufactured at our Nevada facility prior to 2007 that exhibit surface flaking and maintain a warranty reserve to provide for the settlement of these claims. Estimating the warranty reserve for surface flaking claims requires management to estimate (1) the number of claims to be settled with payment and (2) the average cost to settle each claim.

To estimate the number of claims to be settled with payment, we utilize actuarial techniques to quantify both the expected number of claims to be received and the percentage of those claims that will ultimately require payment (collectively, elements). Estimates for these elements are quantified using a range of assumptions derived from claim count history and the identification of factors influencing the claim counts. The number of claims received has declined each year since peaking in 2009. The cost per claim varies due to a number of factors, including the size of affected decks, the availability and type of replacement material used, the cost of production of replacement material and the method of claim settlement.

We monitor surface flaking claims activity each quarter for indications that our estimates require revision. Typically, a majority of surface flaking claims received in a year are received during the summer outdoor season, which spans the second and third quarters. It has been our practice to utilize the actuarial techniques discussed above during the third quarter, after a significant portion of all claims has been received for the fiscal year and variances to annual claims expectations are more meaningful. The number of incoming claims received in the year ended December 31, 2019, was slightly lower than our expectations for 2019 and the number of claims received in the year ended December 31, 2018, continuing the historical year-over-year decline in incoming claims. Average settlement cost per claim experienced in 2019 was considerably higher than our expectations for 2019 and the average settlement cost per claim experienced in 2018 due to an increase in larger claims settled and changes in the mix of settlement methods. We believe our reserve at December 31, 2019 is sufficient to cover future surface flaking obligations and no adjustments were required in the current year.

Our analysis is based on currently known facts and a number of assumptions, as discussed above, and current expectations. Projecting future events such as the number of claims to be received, the number of claims that will require payment and the average cost of claims could cause the actual warranty liabilities to be higher or lower than those projected, which could materially affect our financial condition, results of operations or cash flows. We estimate that the annual number of claims received will continue to decline over time and that the average cost per claim will increase slightly, primarily due to inflation. If the level of claims received or average cost per claim differs materially from expectations, it could result in additional increases or decreases to the warranty reserve and a decrease or increase in earnings and cash flows in future periods. We estimate that a 10% change in the expected number of remaining claims to be settled with payment or the expected cost to settle claims may result in approximately a \$1.9 million change in the surface flaking warranty reserve.

The following table details surface flaking claims activity related to our residential product warranty:

	Year F	oer 31,	
	2019	2018	2017
Claims unresolved beginning of period	2,021	2,306	2,755
Claims received (1)	1,394	1,481	2,250
Claims resolved (2)	(1,691)	(1,766)	(2,699)
Claims unresolved end of period	1,724	2,021	2,306
Average cost per claim (3)	\$ 3,447	\$ 2,631	\$ 2,546

(1) Claims received include new claims received or identified during the period.

(2) Claims resolved include all claims settled with or without payment and closed during the period.

(3) Average cost per claim represents the average settlement cost of claims closed with payment during the period.

For additional information about product warranties, see Notes 2 and 19 to the Consolidated Financial Statements appearing elsewhere in this report.

Goodwill. The Company evaluates the recoverability of goodwill in accordance with Accounting Standard Codification Topic 350, "*Intangibles—Goodwill and Other*," annually or more frequently if an event occurs or circumstances change in the interim that would more likely than not reduce the fair value of the asset below its carrying amount. Goodwill is considered to be impaired when the net book value of the reporting unit exceeds its estimated fair value. The Company first assesses qualitative factors to determine if it is more likely than not that the fair value of the reporting unit is less than its carrying amount to determine if it should proceed with the evaluation of goodwill for impairment. If the Company proceeds with the two-step impairment test, the Company first compares the fair value of the reporting unit to its carrying value. If the carrying value of a reporting unit exceeds its fair value, the goodwill of that reporting unit is potentially impaired and step two of the impairment analysis is performed. In step two of the analysis, an impairment loss is recorded equal to the excess of the carrying value of the reporting unit's goodwill over its implied fair value should such a circumstance arise. The Company measures fair value of the reporting unit based on a present value of future discounted cash flows and a market valuation approach.

Revenue Recognition

Effective January 1, 2018, we adopted the requirements of Financial Accounting Standards Board Accounting Standards Update 2014-09, *"Revenue from Contracts with Customers" (Topic 606)*. We determined the appropriate revenue recognition for our contracts with customers by analyzing the type, terms and conditions of our contracts with our customers. Topic 606 provides a single, comprehensive model for revenue recognition arising from contracts with customers. A performance obligation is a promise in a contract to transfer a distinct good or service to the customer and is the unit of account in Topic 606. A contract's transaction price is allocated to each distinct performance obligation and revenue is recognized when or as the Company satisfies the performance obligation. Revenue is recognized at an amount that reflects the consideration to which the entity expects to be entitled in exchange for transferring control of the goods or services to a customer. Adoption of Topic 606 did not have an impact on the Company's financial condition or results of operations. The following provides additional information about our contracts with customers.

Trex Residential Products

Trex Residential principally generates revenue from the manufacture and sale of its high-performance, low-maintenance, eco-friendly composite decking and railing products and accessories. Substantially all of its revenues are from contracts with customers, which are individual customer purchase orders of short-term duration of less than one year. Trex Residential satisfies its performance obligations at a point in time. The shipment of each product is a separate performance obligation as the customer is able to derive benefit from each product shipped and no performance obligation remains after shipment. Upon shipment of the product, the customer obtains control over the distinct product and Trex Residential satisfies its performance obligation. Any performance obligation that remains unsatisfied at the end of a reporting period is part of a contract that has an original expected duration of one year or less. Any variable consideration related to the unsatisfied performance obligation is allocated wholly to the unsatisfied performance obligation and recognized when the product ships and the performance obligation is satisfied.

Trex Commercial Products

Trex Commercial generates revenue from the manufacture and sale of its modular and architectural railing and staging systems. All of its revenues are from fixed-price contracts with customers. Trex Commercial contracts have a single performance obligation as the promise to transfer the individual goods or services is not separately identifiable from other promises in the contract and is, therefore, not distinct.

Trex Commercial satisfies its performance obligation over time as work progresses because control is transferred continuously to its customers. Revenue and estimated profit is recognized over time based on the proportion of actual costs incurred to date relative to total estimated costs at completion to measure progress toward satisfying the performance obligation. Incurred costs represent work performed, which corresponds with, and thereby best depicts, the transfer of control to the customer. Incurred costs include all direct material, labor, subcontract and certain indirect costs. The Company reviews and updates its estimates regularly and recognizes adjustments in estimated profit on contracts under the cumulative catch-up method. Under this method, the impact of the adjustment on revenue and estimated profit to date on a contract is recognized in the period the adjustment is identified. Revenues and profits in future periods are recognized using the adjusted estimate. If at any time the estimate of contract profitability indicates an anticipated loss on the contract, the Company recognizes the total loss in the period it is identified. During the year ended December 31, 2019, no adjustment to any one contract was material to the Company's Consolidated Financial Statements and no material impairment loss on any contract was recorded.

RESULTS OF OPERATIONS

Below we have included a discussion of our operating results and material changes in our operating results for the year ended December 31, 2019 compared to the year ended December 31, 2018.

	Year Ended	December 31,			
	2019	2018	\$ Change	% Change	
		(dollars in thousands)			
Total net sales	\$745,347	\$684,250	\$ 61,097	8.9%	
Trex Residential net sales	\$694,267	\$613,229	\$ 81,038	13.2%	
Trex Commercial net sales	\$ 51,080	\$ 71,021	\$(19,941)	(28.1)%	

Year Ended December 31, 2019 Compared To Year Ended December 31, 2018

The 9% increase in total net sales in 2019 compared to 2018 was primarily due to an increase in net sales of 13% at Trex Residential, offset by a 28% decrease in Trex Commercial net sales. The primary driver of Trex Residential net sales was increased volume growth. Through the first quarter of 2019, and to a much lesser extent in the second and third quarters of 2019, Trex Residential net sales were constrained due to supply issues primarily caused by new product startup inefficiencies related to our new Enhance decking product. These inefficiencies resulted in lower throughput than was needed to support market demand. Net sales in 2018 were impacted by a \$6 million unfavorable charge related to expanded stocking positions in all residential sales channels. Excluding this impact, Trex Residential net sales increased by 12%. Trex Commercial net sales decreased mainly due to fewer large projects compared to the period of strong, large project completions experienced in 2018.

Gross Profit

Net Sales

	Year Ended D	ecember 31,		
	2019	2018	\$ Change	% Change
		(dollars in the	ousands)	
Cost of sales	\$438,844	\$389,356	\$49,488	12.7%
% of total net sales	58.9%	56.9%		
Gross profit	\$306,503	\$294,894	\$11,609	3.9%
Gross margin		43.1%		

Gross profit as a percentage of net sales, gross margin, was 41.1% in 2019 compared to 43.1% in 2018. Gross margin for Trex Residential and Trex Commercial products in 2019 totaled 42.4% and 23.5%, respectively, compared to 45.6% and 21.8%, respectively, in 2018. The decrease in gross margin was primarily due to a decrease in Trex Residential gross profit related to new product startup costs and manufacturing inefficiencies associated with the slower than normal production ramp up on those products, including reduced line rates, increased material usage and lower manufacturing yields. During March and through the third quarter, we made numerous changes to improve throughput. As a result, our production rates largely returned to planned levels and associated operating inefficiencies have been reduced. We believe these improvements will continue to result in improved throughput and efficiency. The startup costs are largely behind us and we expect continued improvement in throughput and efficiency in future periods. We have begun to reduce material added to the Enhance product in the first quarter of 2020 and expect to be essentially at the original design target by the end of the third quarter in 2020. Trex Commercial gross margin increased primarily due to initiatives aimed at improving project management, estimating and manufacturing. However, the increase was hampered due to under absorption of manufacturing overhead as a result of lower net sales.

Selling, General and Administrative Expenses

	Year Ended D	ecember 31,		
	2019	2018	\$ Change	% Change
		(dollars in the	ousands)	
Selling, general and administrative expenses	\$118,304	\$118,225	\$79	0.1%
% of total net sales	15.9%	17.3%		

Selling, general and administrative expenses in 2019 were comparable to those in 2018. Incentive compensation decreased \$4 million in 2019. In addition, amortization expense decreased \$2.7 million in 2019 due to the full amortization of intangible assets acquired as part of the SC Company acquisition in July 2017. The decreases were offset primarily by increases in other personnel expense of \$3.6 million, \$0.7 million in branding and advertising spend in support of our market growth programs, \$0.3 million in research and development expenses and an increase in other miscellaneous expenses.

Provision for Income Taxes

	Year Ended D	ecember 31,			
	2019	2018	\$ Change	% Change	
	(dollars in thousands)				
Provision for income taxes	\$44,964	\$42,289	\$2,675	6.3%	
Effective tax rate	23.7%	23.9%			

The effective tax rate for 2019 decreased by 0.2% compared to the effective tax rate for 2018 primarily due to an increase in excess tax benefits from the exercise of share-based payments.

Net Income and Earnings Before Interest, Taxes, Depreciation and Amortization (EBITDA)¹ (in thousands)

Reconciliation of net income (GAAP) to EBITDA (non-GAAP):

Year Ended December 31	2019 Trex Residential	2019 Trex Commercial	2019 Trex Consolidated
Net income	\$142,811	\$1,927	\$144,738
Interest income, net	(1,496)	(7)	(1,503)
Income tax expense	44,292	672	44,964
Depreciation and amortization	13,413	618	14,031
EBITDA	\$199,020	\$3,210	\$202,230
Year Ended December 31	2018 Trex Residential	2018 Trex Commercial	2018 Trex Consolidated
Year Ended December 31 Net income	Trex	Trex	Trex
	Trex Residential	Trex Commercial	Trex Consolidated
Net income	Trex Residential \$131,823	Trex Commercial	Trex Consolidated \$134,572
Net income Interest income, net	Trex Residential \$131,823 (192)	Trex Commercial \$2,749	Trex Consolidated \$134,572 (192)

¹ EBITDA represents net income before interest, income taxes, depreciation and amortization. EBITDA is not a measurement of financial performance under accounting principles generally accepted in the United States (GAAP). We have included data with respect to EBITDA because management evaluates the performance of its reportable segments using EBITDA. Management considers EBITDA to be an important supplemental indicator of our core operating performance because it eliminates interest, income taxes, and depreciation and amortization charges to net income and, in relation to its competitors, it eliminates differences among companies in capitalization and tax structures, capital investment cycles and ages of related assets. For these reasons, management believes that EBITDA provides important information regarding the operating performance of the Company and its reportable segments.

	Year Ended December 31,			
	2019	2018	\$ Change	% Change
		(dollars in th		
Total EBITDA	\$202,230	\$193,136	\$ 9,094	4.7%
Trex Residential EBITDA	\$199,020	\$186,268	\$12,752	6.9%
Trex Commercial EBITDA	\$ 3,210	\$ 6,868	\$(3,658)	(53.3)%

The Company uses EBITDA to assess performance as it believes EBITDA facilitates performance comparison between the Company and its competitors and between its reportable segments by eliminating interest, income taxes, and depreciation and amortization charges to income. Total EBITDA increased 4.7% to \$202 million for 2019 compared to \$193 million for 2018. The increase was primarily driven by a \$13 million increase in Trex Residential EBITDA driven by the increase in net sales. The increase was offset by a decrease in EBITDA at Trex Commercial primarily related to a decrease in net sales.

Year Ended December 31, 2018 Compared To Year Ended December 31, 2017

The Company hereby incorporates by reference the financial results from fiscal year 2017 and the comparison of financial results from fiscal year 2018 to fiscal year 2017 as set forth in the Company's Management's Discussion and Analysis of Financial Condition and Results of Operation in the Annual Report on Form 10-K for the year ended December 31, 2018 and filed with the U.S. Securities and Exchange Commission on February 14, 2019.

LIQUIDITY AND CAPITAL RESOURCES

We finance operations and growth primarily with cash flow from operations, borrowings, operating leases and normal trade credit terms from operating activities.

Sources and Uses of Cash. The following table summarizes our cash flows from operating, investing and financing activities for the years ended December 31, 2019, 2018, and 2017 (in thousands):

	Year Ended December 31,		
	2019	2018	2017
Net cash provided by operating activities	\$156,352	\$138,121	\$101,865
Net cash used in investing activities	(67,244)	(33,733)	(86,789)
Net cash used in financing activities	(45,974)	(29,203)	(3,226)
Net increase in cash and cash equivalents	\$ 43,134	\$ 75,185	\$ 11,850

Operating Activities

Cash provided by operating activities increased \$18.2 million in 2019 compared to 2018 primarily due to the increase in gross profit and related increase in net income resulting from the increase in net sales volume growth, offset by a decrease in working capital investment of \$2.9 million.

Investing Activities

Investing activities in 2019 consisted of \$67.3 million in capital expenditures, including \$59.8 million related to capacity expansion and general plant cost reduction initiatives, \$4.9 million for other production improvements and \$2.2 million for general support initiatives.

Financing Activities

Net cash used in financing activities in 2019 increased \$16.8 million compared to 2018 primarily due to the increase in stock repurchase activity in 2019 of \$16.5 million.

Stock Repurchase Program. On February 16, 2018, the Board of Directors adopted a stock repurchase program of up to 5.8 million shares of the Company's outstanding common stock (Stock Repurchase Program). As of the date of this report, the Company has repurchased 959,380 shares under the Stock Repurchase Program.

Inventory in Distribution Channels. We sell our Trex Residential decking and railing products through a tiered distribution system. We have over 50 distributors worldwide and two national retail merchandisers to which we sell our products. The distributors in turn sell the products to dealers and retail locations who in turn sell the products to end users. Significant increases in inventory levels in the distribution channel without a corresponding change in end-use demand could have an adverse effect on future sales. We cannot definitively determine the level of inventory in the distribution channels at any time. We are not aware of significant increases in the levels of inventory in the distribution channels at December 31, 2019 compared to inventory levels at December 31, 2018.

Business Acquisition. On July 31, 2017, through our wholly-owned subsidiary, Trex Commercial Products, Inc., we entered into a definitive agreement with SC Company and on that date acquired certain assets and liabilities of SC Company for \$71.8 million in cash. We used cash on hand and \$30.0 million from our existing revolving credit facility to acquire the business.

Seasonality. The operating results for Trex Residential have historically varied from quarter to quarter. Seasonal, erratic or prolonged adverse weather conditions in certain geographic regions reduce the level of home improvement and construction activity and can shift demand for its products to a later period. As part of its normal business practice and consistent with industry practice, Trex Residential has historically offered incentive programs to its distributors and dealers to build inventory levels before the start of the prime deck-building season in order to ensure adequate availability of its product to meet anticipated seasonal consumer demand. The seasonal effects are often offset by the positive effect of the incentive programs. The operating results for Trex Commercial have not historically varied from quarter to quarter as a result of seasonality. However, they are driven by the timing of individual projects, which may vary significantly each period.

Indebtedness.

Indebtedness after November 4, 2019. On November 5, 2019, the Company as borrower, Trex Commercial Products, Inc. (TCP), as guarantor; Bank of America, N.A. (BOA), as a Lender, Administrative Agent, Swing Line Lender and L/C Issuer; and certain other lenders including Wells Fargo Bank, N.A. (Wells Fargo), who is also Syndication Agent; SunTrust Bank (SunTrust); and Branch Banking and Trust Company (BB&T) (each, a Lender and collectively, the Lenders), arranged by Bank of America Securities, Inc., as Sole Lead Arranger and Sole Bookrunner, entered into a Fourth Amended and Restated Credit Agreement (Fourth Amended Credit Agreement) to amend and restate the Third Amended and Restated Credit Agreement dated as of January 12, 2016, as amended (Third Amended Credit Agreement), by and among the Company, as borrower; BOA, as a lender, Administrative Agent, Swing Line Lender and L/C Issuer; CitiBank, N.A. (Citi); Capital One, N.A. (Capital One); and SunTrust, each as a lender; and Bank of America Merrill Lynch, as Sole Lead Arranger and Sole Bookrunner.

Under the Fourth Amended Credit Agreement, the Lenders agreed to provide the Company with one or more Revolving Loans in a collective maximum principal amount of \$250 million from January 1 through June 30 of each year and a maximum principal amount of \$200 million from July 1 through December 31 of each year (Loan Limit) throughout the term, which ends November 5, 2024 (Term). Previously, under the Third Amended Credit Agreement, BOA, Citi, Capital One and SunTrust agreed to provide the Company with one or

more revolving loans in a collective maximum principal amount of \$250 million from January 1 through June 30 of each year and a maximum principal amount of \$200 million from July 1 through December 31 of each year throughout the term, which would have ended on January 12, 2021 if not replaced by the Fourth Amended Credit Agreement.

Included within the Loan Limit are sublimits for a Letter of Credit facility in an amount not to exceed \$15 million and Swing Line Loans in an aggregate principal amount at any time outstanding not to exceed \$5 million. The Revolving Loans, the Letter of Credit facility and the Swing Line Loans are for the purpose of raising working capital and supporting general business operations.

The Notes provide the Company, in the aggregate, the ability to borrow an amount up to the Loan Limit during the Term. The Company is not obligated to borrow any amount under the Loan Limit. Within the Loan Limit, the Company may borrow, repay and reborrow at any time or from time to time while the Notes are in effect. Base Rate Loans (as defined in the Fourth Amended Credit Agreement) under the Revolving Loans and the Swing Line Loans accrue interest at the Base Rate plus the Applicable Rate (as defined in the Fourth Amended Credit Agreement) and Eurodollar Rate Loans for the Revolving Loans and Swing Line Loans accrue interest at the Adjusted London InterBank Offered Rate plus the Applicable Rate (as defined in the Fourth Amended Credit Agreement). The Base Rate for any day is a fluctuating rate per annum equal to the highest of (a) the Federal Funds Rate plus 0.50%, (b) the rate of interest in effect for such day as publicly announced from time to time by BOA as its prime rate, and (c) the Eurodollar Rate plus 1.0%. Repayment of all then outstanding principal, interest, fees and costs is due on November 5, 2024.

Under the terms of the Fourth Amended and Restated Security and Pledge Agreement, the Company and TCP, subject to certain permitted encumbrances, as collateral security for the above-stated loans and all other present and future indebtedness of the Company owing to the Lenders grants to BOA, as Administrative Agent for the Lenders, a continuing security interest in certain collateral described and defined in the Fourth Amended and Restated Security and Pledge Agreement.

Indebtedness through November 4, 2019. On January 12, 2016, the Company entered into a Third Amended Credit Agreement with BOA as Lender, Administrative Agent, Swing Line Lender and Letter of Credit Issuer; and certain other lenders including Citi, Capital One, and SunTrust (collectively, Lenders) arranged by Bank of America Merrill Lynch as Sole Lead Arranger and Sole Bookrunner. The Third Amended Credit Agreement amended and restated the Second Amended Credit Agreement.

Under the Third Amended Credit Agreement, the Lenders agreed to provide the Company with one or more revolving loans in a collective maximum principal amount of \$250 million from January 1 through June 30 of each year and a maximum principal amount of \$200 million from July 1 through December 31 of each year throughout the term, which would have ended on January 12, 2021. Included within the revolving loan limit were sublimits for a letter of credit facility in an amount not to exceed \$15 million. The revolving loans, the letter of credit facility and the swing line loans were for the purpose of funding working capital needs and supporting general business operations. Additionally, within the Revolving Loan Limit, the Company could borrow, repay, and reborrow, at any time or from time to time while the Third Amended Credit Agreement was in effect.

The Company had the option to select interest rates for each loan request at the Base Rate or Eurodollar Rate. Base rate loans under the revolving loans and the swing line loans accrued interest at the Base Rate plus the Applicable Rate. Eurodollar Rate Loans for the revolving loans and swing line loans accrued interest at the Adjusted London InterBank Offered Rate plus the Applicable Rate. The Base Rate for any day was a fluctuating rate per annum equal to the highest of (a) the Federal Funds Rate plus 0.50%, (b) the rate of interest in effect for such day as publicly announced from time to time by BOA as its prime rate, and (c) the Eurodollar Rate plus 1.0%. Repayment of all then outstanding principal, interest, fees and costs would have been due on January 12, 2021.

The Third Amended Credit Agreement was secured by property with respect to which liens in favor of the Administrative Agent, for the benefit of itself and the other holders of the obligations, were purported to be granted pursuant to and in accordance with the terms of the collateral documents as referenced in the Third Amended Credit Agreement.

Compliance with Debt Covenants and Restrictions. Pursuant to the terms of the Fourth Amended Credit Agreement, the Company, is subject to certain loan compliance covenants. The Company was in compliance with all covenants as of December 31, 2019. Failure to comply with the financial covenants could be considered a default of repayment obligations and, among other remedies, could accelerate payment of any amounts outstanding.

Contractual Obligations. The following table summarizes our contractual obligations, which consist primarily of purchase commitments and operating leases, as of December 31, 2019 (in thousands):

Contractual Obligations Payments Due by Period

. ...

	Total	1 year	2-3 years	4-5 years	After 5 years
Purchase obligations (1)	\$33,051	\$26,763	\$ 6,274	\$ 14	\$ —
Operating leases, including imputed interest (2)	46,935	8,858	14,743	12,255	11,079
Total contractual obligations	\$79,986	\$35,621	\$21,017	\$12,269	\$11,079

(1) Purchase obligations represent supply contracts with raw material vendors and service contracts for hauling raw materials. Open purchase orders written in the normal course of business for goods or services that are provided on demand have been excluded as the timing of which is not certain.

(2) Operating leases represent office space, storage warehouses, manufacturing facilities and certain office and plant equipment under various operating leases, and include operating leases accounted for under Financial Accounting Standards Board Accounting Standards Codification Topic 842 and short-term leases.

Off-Balance Sheet Arrangements. We do not have off-balance sheet financing arrangements.

Capital and Other Cash Requirements. In order to meet future demand, in June 2019 we announced a new multi-year capital expenditure program projected at approximately \$200 million between 2019 and 2021. The program will increase production capacity by at least 70% at our Trex Residential facilities in Virginia and Nevada and will bring further manufacturing efficiencies to our production operations. In the third quarter of 2019, we installed two additional lines in our Nevada facility and three new lines will begin ramping up there in the second quarter of 2020. One new production line was operational in Virginia in the fourth quarter of 2019, and a new building being constructed in Virginia is scheduled to start ramping up production by early 2021 at the latest. The investment will allow us to increase production output for future projected growth related to our strategy of converting wood demand to Trex Residential composite decking. We currently estimate that capital expenditures in 2020 will be approximately \$140 million to \$160 million.

We believe that cash on hand, cash flows from operations and borrowings expected to be available under our revolving credit facility will provide sufficient funds to enable us to fund planned capital expenditures, make scheduled principal and interest payments, fund the warranty reserve, meet other cash requirements and maintain compliance with terms of our debt agreements for at least the next 12 months. We currently expect to fund future capital expenditures from operations and borrowings under the revolving credit facility. The actual amount and timing of future capital requirements may differ materially from our estimate depending on the demand for Trex products and new market developments and opportunities. Our ability to meet our cash needs during the next 12 months and thereafter could be adversely affected by various circumstances, including increases in raw materials and product replacement costs, quality control problems, higher than expected product warranty claims, service disruptions and lower than expected collections of accounts receivable. In addition, any failure to negotiate amendments to our existing debt agreements to resolve any future noncompliance with financial covenants could adversely affect our liquidity by reducing access to revolving credit borrowings needed primarily to fund seasonal borrowing needs. We may determine that it is necessary or desirable to obtain financing through bank borrowings or the issuance of debt or equity securities to address such contingencies or changes to our business plan. Debt financing would increase our level of indebtedness, while equity financing would dilute the ownership of our stockholders. There can be no assurance as to whether, or as to the terms on which, we would be able to obtain such financing, which would be restricted by covenants contained in our existing debt agreements.

NEW ACCOUNTING STANDARDS

In August 2018, the FASB issued ASU No. 2018-15, "Intangibles—Goodwill and Other—Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract (a consensus of FASB Emerging Issues Task Force)". The new guidance aligns the requirements for capitalizing implementation costs in a cloud computing arrangement service contract with the requirements for capitalizing implementation costs incurred for an internal-use software license. Under that model, implementation costs are capitalized or expensed depending on the nature of the costs and the project stage during which they are incurred. Capitalized implementation costs are amortized over the term of the associated hosted cloud computing arrangement service contract on a straight-line basis, unless another systematic and rational basis is more representative of the pattern in which the entity expects to benefit from its right to access the hosted software. Capitalized implementation costs would then be assessed for impairment in a manner similar to long-lived assets. The new guidance is effective for fiscal years beginning after December 15, 2019, and interim periods within those fiscal years. Early adoption is permitted. Entities can choose to adopt the new guidance either prospectively to eligible costs incurred on or after the date the guidance is first applied or retrospectively. The Company will adopt the guidance on January 1, 2020, and has determined that adoption will not have a material impact on its financial condition or results of operations.

In January 2017, the FASB issued ASU No. 2017-04, "Intangibles—Goodwill and Other (Topic 350), Simplifying the Test for Goodwill Impairment". The guidance removes Step 2 of the goodwill impairment test and eliminates the need to determine the fair value of individual assets and liabilities to measure goodwill impairment. A goodwill impairment will now be the amount by which a reporting unit's carrying value exceeds its fair value, not to exceed the carrying amount of goodwill. Entities will continue to have the option to perform a qualitative assessment to determine if a quantitative impairment test is necessary. The guidance will be applied prospectively, and is effective for annual and interim goodwill impairment tests in fiscal years beginning after December 15, 2019. Early adoption is permitted for any impairment tests performed on testing dates after January 1, 2017. The Company will adopt the guidance on January 1, 2020. The Company does not believe adoption will have a material impact on its financial condition or results of operations.

In June 2016, the FASB issued ASU 2016-13, "Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses in Financial Instruments," and issued subsequent amendments to the initial guidance in November 2018 within ASU No. 2018-09, April 2019 within ASU No. 2019-04, and May 2019 within ASU No. 2019-05. The ASU amends the guidance on the impairment of financial instruments and adds an impairment model, known as the current expected credit loss (CECL) model. The CECL model requires an entity to recognize its current estimate of all expected credit losses, rather than incurred losses, and applies to trade receivables and other receivables. The CECL model is designed to capture expected credit losses through the establishment of an allowance account, which will be presented as an offset to the amortized cost basis of the related financial asset. The new guidance is effective for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years, and is applied using the modified-retrospective approach. The Company will adopt the guidance on January 1, 2020. The Company has determined that adoption will not have a material impact on its financial condition or results of operations.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

We are subject to market risks from changing interest rates associated with our borrowings. To meet our seasonal working capital needs, we borrow periodically on our variable rate revolving line of credit. At December 31, 2019, we had no debt outstanding under our revolving line of credit. While variable rate debt obligations expose us to the risk of rising interest rates, an increase of 1% in interest rates would not have a material adverse effect on our overall financial position, results of operations or liquidity.

In certain instances, we may use interest rate swap agreements to modify fixed rate obligations to variable rate obligations, thereby adjusting the interest rates to current market rates and ensuring that the debt instruments are always reflected at fair value. We had no interest rate swap agreements outstanding as of December 31, 2019.

Item 8. Financial Statements and Supplementary Data

The financial statements listed in Item 15 and appearing on pages F-2 through F-33 are incorporated by reference in this Item 8 and are filed as part of this report.

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

The Company's management, with the participation of its President and Chief Executive Officer, who is the Company's principal executive officer, and its Executive Vice President and Chief Financial Officer, who is the Company's principal financial officer, has evaluated the effectiveness of the Company's disclosure controls and procedures as of December 31, 2019. Based on this evaluation, the President and Chief Executive Officer and the Executive Vice President and Chief Financial Officer and the procedures are effective.

Management's Report on Internal Control Over Financial Reporting

We, as members of management of Trex Company, Inc. (Company), are responsible for establishing and maintaining adequate internal control over financial reporting. The 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 U.S. generally accepted accounting principles. 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 U.S. 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 and procedures may deteriorate.

We assessed the Company's internal control over financial reporting as of December 31, 2019, based on criteria for effective internal control over financial reporting established in "Internal Control-Integrated Framework (2013)" issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO Framework). Based on this assessment, we concluded that, as of December 31, 2019, our internal control over financial reporting was effective, based on the COSO Framework.

The effectiveness of our internal control over financial reporting as of December 31, 2019, has been audited by Ernst & Young LLP, an independent registered public accounting firm, as stated in their report, which follows hereafter.

TREX COMPANY, INC.

February 24, 2020

February 24, 2020

By: _____/S/ JAMES E. CLINE

James E. Cline President and Chief Executive Officer (Principal Executive Officer)

By: _____/S/ Bryan H. Fairbanks

Bryan H. Fairbanks Executive Vice President and Chief Financial Officer (Principal Financial Officer)

Changes in Internal Control Over Financial Reporting

There have been no changes in the Company's internal control over financial reporting identified in connection with the evaluation described above in "Management's Report on Internal Control Over Financial Reporting" that occurred during the Company's fourth fiscal quarter that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of Trex Company, Inc.

Opinion on Internal Control over Financial Reporting

We have audited Trex Company, Inc.'s internal control over financial reporting as of December 31, 2019, 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, Trex Company, Inc., (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, 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 2019 consolidated financial statements of the Company and our report dated February 24, 2020 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

Richmond, Virginia February 24, 2020

Item 9B. Other Information

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

Information responsive to this Item 10 is incorporated herein by reference to our definitive proxy statement for our 2020 annual meeting of stockholders, which we will file with the SEC on or before 120 days after our 2019 fiscal year-end.

We have adopted a Code of Conduct and Ethics, which is applicable to all of our directors, officers and employees, including our Chief Executive Officer and Chief Financial Officer. The code is available on our corporate web site and in print to any stockholder who requests a copy. We also make available on our web site, at *www.trex.com/our-company/corporate-governance*, and in print to any stockholder who requests them, copies of our corporate governance principles and the charters of each standing committee of our board of directors. Requests for copies of these documents should be directed to Corporate Secretary, Trex Company, Inc., 160 Exeter Drive, Winchester, Virginia 22603-8605. To the extent required by SEC rules, we intend to disclose any amendments to our code of conduct and ethics, and any waiver of a provision of the code with respect to our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions, on our web site referred to above within four business days following any such amendment or waiver, or within any other period that may be required under SEC rules from time to time.

Item 11. Executive Compensation

Information responsive to this Item 11 is incorporated herein by reference to our definitive proxy statement for our 2020 annual meeting of stockholders, which we will file with the SEC on or before 120 days after our 2019 fiscal year-end.

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

Information responsive to this Item 12 is incorporated herein by reference to our definitive proxy statement for our 2020 annual meeting of stockholders, which we will file with the SEC on or before 120 days after our 2019 fiscal year-end.

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

Information responsive to this Item 13 is incorporated herein by reference to our definitive proxy statement for our 2020 annual meeting of stockholders, which we will file with the SEC on or before 120 days after our 2019 fiscal year-end.

Item 14. Principal Accounting Fees and Services

Information responsive to this Item 14 is incorporated herein by reference to our definitive proxy statement for our 2020 annual meeting of stockholders, which we will file with the SEC on or before 120 days after our 2019 fiscal year-end.

PART IV

Item 15. Exhibits and Financial Statement Schedules

(a)(1) The following Consolidated Financial Statements of the Company appear on pages F-2 through F-33 of this report and are incorporated by reference in Part II, Item 8:

Report of Independent Registered Public Accounting Firm	F-2
Consolidated Financial Statements	
Consolidated Statements of Comprehensive Income for the three years ended December 31, 2019	F-4
Consolidated Balance Sheets as of December 31, 2019 and 2018	F-5
Consolidated Statements of Changes in Stockholders' Equity for the three years ended December 31,	
2019	F-6
Consolidated Statements of Cash Flows for the three years ended December 31, 2019	F-7
Notes to Consolidated Financial Statements	F-8
(a)(2) The following financial statement schedule is filed as part of this report:	
Schedule II—Valuation and Qualifying Accounts and Reserves	F-34

All other schedules for which provision is made in the applicable accounting regulations of the SEC are not required under the related instructions or are inapplicable or not material and, therefore, have been omitted.

(a)(3) See Exhibit Index at the end of the Annual Report on Form 10-K for the information required by this Item.

Index to Consolidated Financial Statements

P	Page
Report of Independent Registered Public Accounting Firm F	F-2
Consolidated Financial Statements	
Consolidated Statements of Comprehensive Income for the three years ended December 31, 2019 F	F-4
Consolidated Balance Sheets as of December 31, 2019 and 2018 F	F-5
Consolidated Statements of Changes in Stockholders' Equity for the three years ended December 31,	
2019 F	F-6
Consolidated Statements of Cash Flows for the three years ended December 31, 2019 F	F-7
Notes to Consolidated Financial Statements	F-8

The following Consolidated Financial Statement Schedule of the Registrant is filed as part of this Report as required to be included in Item 15(a)(2):

	Page
Schedule II—Valuation and Qualifying Accounts and Reserves	F-34

Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of Trex Company, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Trex Company, Inc. (the Company) as of December 31, 2019 and 2018, the related consolidated statements of comprehensive income, changes in stockholders' equity and cash flows for each of the three years in the period ended December 31, 2019, and the related notes and financial statement schedule listed in the Index at Item 15(a)(2) (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019, 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, 2019, 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 24, 2020 expressed an unqualified opinion thereon.

Adoption of New ASU No. 2016-02

As discussed in Note 2 to the consolidated financial statements, the Company changed its method of accounting for leases in 2019 due to the adoption of ASU No. 2016-02, Leases (Topic 842), as amended, effective January 1, 2019, using the modified retrospective approach.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the 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 the 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 accounts or disclosures to which it relates.

	Surface Flaking Warranty
Description of the Matter	At December 31, 2019, the Company's surface flaking warranty reserve was \$19.0 million. As discussed in Note 19 of the consolidated financial statements, the Company continues to receive and settle claims for decking products manufactured at its Nevada facility prior to 2007 that exhibit surface flaking and maintains a warranty reserve to provide for the settlement of these claims. The Company's warranty reserve is based on an actuarial analysis of the number of claims to be settled and management's estimate of the average cost to settle each claim. The actuarial analysis utilized determines a reasonably possible range of claims to be received and the percentage of those claims that will ultimately require payment.
	Auditing the surface flaking warranty reserve is complex and required the involvement of a specialist due to the highly judgmental nature of the actuarially determined number of claims. Auditing the reserve is also complex due to the judgmental nature of the significant assumptions made by management (e.g., the size of the affected decks, the availability and type of replacement material used, the cost of production of replacement material and the method of claim settlement) and used in the measurement process. These determinations, assumptions and judgments have a significant effect on the surface flaking reserve.
How We Addressed the Matter in Our Audit	We obtained an understanding, evaluated the design and tested the operating effectiveness of the controls over the Company's measurement and valuation of the surface flaking warranty reserve. For example, we tested controls over the appropriateness of the assumptions used and the completeness and accuracy of the underlying data.
	To test the surface flaking warranty reserve, our audit procedures included, among others, evaluating the methodologies and the significant assumptions used. For example, we involved an actuarial specialist to assist us in independently calculating a range of the expected number of claims and compared that to the Company's range. We also performed sensitivity analyses to evaluate changes in the liability that would result from changes in significant assumptions. In addition, we assessed the historical accuracy of management's estimates to identify potential changes in the measurement and valuation of the surface flaking reserve. We performed audit procedures on the completeness and accuracy of the underlying data used by the Company in its analysis.
/s/ Ernst & Young LI	_P

We have served as the Company's auditor since 1995. Richmond, Virginia February 24, 2020

	Year Ended December 31,			
	2019	2018	2017	
	(In thousands,	except share and	per share data)	
Net sales	\$ 745,347	\$ 684,250	\$ 565,153	
Cost of sales	438,844	389,356	321,780	
Gross profit	306,503	294,894	243,373	
Selling, general and administrative expenses	118,304	118,225	100,993	
Income from operations	188,199	176,669	142,380	
Interest (income) expense, net	(1,503)	(192)	461	
Income before income taxes	189,702	176,861	141,919	
Provision for income taxes	44,964	42,289	46,791	
Net income	\$ 144,738	\$ 134,572	\$ 95,128	
Basic earnings per common share	\$ 2.48	\$ 2.29	\$ 1.62	
Basic weighted average common shares outstanding	58,430,597	58,739,670	58,785,118	
Diluted earnings per common share	\$ 2.47	\$ 2.28	\$ 1.61	
Diluted weighted average common shares outstanding	58,657,749	59,067,302	59,150,920	
Comprehensive income	\$ 144,738	\$ 134,572	\$ 95,128	

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

CONSOLIDATED BALANCE SHEETS

	Decem	ber 31,	
	2019	2018	
	(In tho	isands)	
ASSETS			
Current Assets: Cash and cash equivalents Accounts receivable, net Inventories Prepaid expenses and other assets	\$ 148,833 78,462 56,106 19,803	\$ 105,699 91,163 57,801 15,562	
Total current assets Property, plant and equipment, net Goodwill and other intangible assets, net Operating lease assets Other assets	303,204 171,300 74,084 40,049 3,602	270,225 117,144 74,503 	
Total Assets	\$ 592,239	\$ 465,122	
LIABILITIES AND STOCKHOLDERS' EQUITY Current Liabilities:			
Accounts payable	\$ 15,227 58,265	\$ 31,084	
Accrued expenses and other liabilities	58,265	56,291	
Accrued warranty	5,178	5,400	
Total current liabilities	78,670	92,775	
Operating lease liabilities	34,242	2 125	
Deferred income taxes	9,831 20,317	2,125 25,354	
Other long-term liabilities	20,317	1,905	
Total Liabilities	143,064	122,159	
Commitments and contingencies Stockholders' Equity:	—	—	
Preferred stock, \$0.01 par value, 3,000,000 shares authorized; none issued and outstanding Common stock, \$0.01 par value, 120,000,000 shares authorized; 70,187,463 and 69,998,336 shares issued and 58,240,721 and 58,551,653 shares outstanding at	_	_	
December 31, 2019 and 2018, respectively	702	700	
Additional paid-in capital	123,996	124,224	
Retained earnings Treasury stock, at cost, 11,946,742 and 11,446,683 shares at December 31, 2019	561,680	416,942	
and 2018, respectively	(237,203)	(198,903)	
Total Stockholders' Equity	449,175	342,963	
Total Liabilities and Stockholders' Equity	\$ 592,239	\$ 465,122	

CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY

	Common Stock		Additional Paid-In	Retained	Treasury Stock		
	Shares	Amount	Capital	Earnings	Shares	Amount	Total
Balance, December 31, 2016	58,801,104	\$698	\$119,733	\$187,242	10,987,362	\$(173,512)	\$134,161
Net income			_	95,128	—	—	95,128
Employee stock plans	33,228	2	391				393
Shares withheld for taxes on							
awards	(58,470)	(2)	(3,617)	_		—	(3,619)
Stock-based compensation	80,998		5,187				5,187
Balance, December 31, 2017	58,856,860	698	121,694	282,370	10,987,362	(173,512)	231,250
Net income			_	134,572	_	_	134,572
Employee stock plans	63,448	1	881	_		_	882
Shares withheld for taxes on							
awards	(13,028)		(4,695)	_		—	(4,695)
Stock-based compensation	103,694	1	6,344	_		—	6,345
Repurchases of common stock	(459,321)				459,321	(25,391)	(25,391)
Balance, December 31, 2018	58,551,653	700	124,224	416,942	11,446,683	(198,903)	342,963
Net income		_	_	144,738		_	144,738
Employee stock plans	77,141	1	1,088				1,089
Shares withheld for taxes on							
awards	(108,378)		(8,245)	_		—	(8,245)
Stock-based compensation	220,364	1	6,929	_		—	6,930
Repurchases of common stock	(500,059)				500,059	(38,300)	(38,300)
Balance, December 31, 2019	58,240,721	\$702	\$123,996	\$561,680	11,946,742	\$(237,203)	\$449,175

(In thousands, except share data)

CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year	er 31,	
	2019	2018	2017
		(In thousands)	
Operating Activities			
Net income	\$144,738	\$ 134,572	\$ 95,128
Adjustments to reconcile net income to net cash provided by operating			
activities:	14.021	16 505	16.060
Depreciation and amortization	14,031	16,597	16,860
Deferred income taxes	7,706	1,037	194
Stock-based compensation	6,930	6,344	5,187
Loss on disposal of property, plant and equipment	285	47	1,738
Other non-cash adjustments	(218)	(406)	(406)
Changes in operating assets and liabilities:	10 701	(24.201)	(10,400)
Accounts receivable	12,701	(24,281)	(10,486)
Inventories	1,695	(23,276)	(3,635)
Prepaid expenses and other assets	(1,652)	(613)	(2,194)
Accounts payable	(16,666)	21,131	(4,804)
Accrued expenses and other liabilities	(10,823)	5,040	2,488
Income taxes receivable/payable	(2,375)	1,929	1,795
Net cash provided by operating activities	156,352	138,121	101,865
Investing Activities			
Expenditures for property, plant and equipment and intangibles	(67,265)	(33,816)	(15,040)
Proceeds from sales of property, plant and equipment	21	83	55
Acquisition of business, net of cash acquired	—		(71,804)
Net cash used in investing activities	(67,244)	(33,733)	(86,789)
Financing Activities			
Borrowings under line of credit	89,500	172,250	201,000
Principal payments under line of credit	(89,500)	(172,250)	(201,000)
Repurchases of common stock	(46,545)	(30,085)	(3,617)
Proceeds from employee stock purchase and option plans	1,089	882	391
Financing costs	(518)	_	_
Net cash used in financing activities	(45,974)	(29,203)	(3,226)
Net increase in cash and cash equivalents	43,134	75,185	11,850
Cash and cash equivalents at beginning of year	105,699	30,514	18,664
Cash and cash equivalents at end of year	\$148,833	\$ 105,699	\$ 30,514
Supplemental disclosures of cash flow information:			
Cash paid for interest	\$ 321	\$ 662	\$ 418
Cash paid for income taxes, net	-	\$ 48,238	\$ 44,802
r	,,012	,====	,,

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. BUSINESS AND ORGANIZATION

Trex Company, Inc. (together with its subsidiaries, the Company), a Delaware corporation, was incorporated on September 4, 1998. The Company's principal business based on net sales is the manufacture and distribution of wood and plastic composite products, as well as related accessories, primarily for residential and commercial decking and railing applications. A majority of its products are manufactured in a proprietary process that combines reclaimed wood fibers and scrap polyethylene. On July 31, 2017, through its newly-formed, wholly-owned subsidiary, Trex Commercial Products, Inc., the Company acquired certain assets and assumed certain liabilities of Staging Concepts Acquisition, LLC (SC Company) and thus expanded its markets to include the design, engineering and marketing of modular and architectural railing and staging systems for the commercial and multi-family market, including sports stadiums and performing arts venues. Additional information on the acquisition of SC Company is presented in Note 3. The principal executive offices are located at 160 Exeter Drive, Winchester, Virginia 22603, and the telephone number at that address is (540) 542-6300. Subsequent to the acquisition, the Company operates in two reportable segments, Trex Residential Products (Trex Residential) and Trex Commercial Products (Trex Commercial).

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Accounting

The accompanying consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States. The consolidated financial statements include the accounts of the Company, its wholly-owned subsidiary, Trex Commercial Products, Inc. (Trex Commercial Products), from date of acquisition of July 31, 2017. Intercompany accounts and transactions have been eliminated in consolidation.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and the accompanying notes. Actual results could differ from those estimates.

Cash and Cash Equivalents

Cash equivalents consist of highly liquid investments purchased with original maturities of three months or less.

Concentrations and Credit Risk

The Company's financial instruments that are exposed to concentrations of credit risk consist primarily of cash and cash equivalents and trade accounts receivable. The Company from time to time may have bank deposits in excess of insurance limits of the Federal Deposit Insurance Corporation. As of December 31, 2019, substantially all deposits are maintained in one financial institution. The Company has not experienced any losses in such accounts and believes it is not exposed to any significant credit risk related to its cash and cash equivalents.

The Company routinely assesses the financial strength of its customers and believes that its trade receivables credit risk exposure is limited. Trade receivables are recognized at the amount of revenue recognized on each shipment for Trex Residential products and for satisfied performance obligations for Trex Commercial

products as the Company has an unconditional right to consideration from the customer and payment is due based solely on the passage of time. A valuation allowance is provided for known and anticipated credit losses and disputed amounts, as determined by management in the course of regularly evaluating individual customer receivables. This evaluation takes into consideration a customer's financial condition and credit history, as well as current economic conditions. There was no material valuation allowance recorded as of December 31, 2019 and 2018.

In the years ended December 31, 2019, 2018 and 2017, sales to certain customers of Trex Residential accounted for 10% or more of the Company's total net sales. For the year ended December 31, 2019, three customers of Trex Residential represented approximately 57% of the Company's total net sales. For the year ended December 31, 2018, two customers of Trex Residential represented approximately 42% of the Company's total net sales. For the year ended December 31, 2018, two customers of Trex Residential represented approximately 42% of the Company's total net sales. For the year ended December 31, 2017, two customers of Trex Residential represented approximately 41% of the Company's total net sales. At December 31, 2019, three customers of Trex Residential represented 30%, 24% and 10%, respectively, of the Company's total accounts receivable balance.

For each year ended December 31, 2019, 2018 and 2017, approximately 27%, 33% and 33%, respectively, of the Company's materials purchases at Trex Residential were purchased from its four largest suppliers.

Inventories

Inventories for the Company's composite decking and railing products are stated at the lower of cost (last-in, first-out, or LIFO, method) and market. The Company periodically reviews its inventory for slow moving or obsolete items and writes down the related products to estimated realizable value. The Company's reserves for estimated slow moving products or obsolescence are not material. At December 31, 2019, the excess of the replacement cost of inventory over the LIFO value of inventory was approximately \$19.1 million. Due to the nature of the LIFO valuation methodology, liquidations of inventories will result in a portion of the Company's cost of sales being based on historical rather than current year costs.

A majority of the Company's products at Trex Residential are made in a proprietary process that combines reclaimed wood fibers and scrap polyethylene. The Company grinds up scrap materials generated from its manufacturing process and inventories deemed no longer salable and reintroduces the reclaimed material into the manufacturing process as a substitute for raw materials. The reclaimed material is valued at the costs of the raw material components of the material.

Inventories for the Company's railing and staging products at Trex Commercial for the commercial and multi-family market are stated at the lower of cost (first-in, first-out or FIFO method), using actual cost, and net realizable value. Work-in process includes estimated production costs.

Property, Plant and Equipment

Property, plant and equipment are stated at historical cost. The costs of additions and improvements are capitalized, while maintenance and repairs are expensed as incurred. Unpaid liabilities related to property, plant and equipment are included in accounts payable and were \$0.8 million at December 31, 2019. Depreciation is provided using the straight-line method over the following estimated useful lives:

Buildings	40 years
Machinery and equipment	3-11 years
Furniture and equipment	10 years
Forklifts and tractors	5 years
Computer equipment and software	5 years

Leasehold improvements are amortized over the shorter of the lease term or the estimated useful life of the asset.

The Company reviews its long-lived assets, including property, plant and equipment, whenever events or changes in circumstances indicate that the carrying amount of the assets may not be fully recoverable. To determine the recoverability of its long-lived assets, the Company evaluates the probability that future estimated undiscounted net cash flows will be less than the carrying amount of the long-lived assets. If the estimated cash flows are less than the carrying amount of the long-lived assets are written down to their fair value. The Company's estimates of anticipated cash flows and the remaining estimated useful lives of long-lived assets could be reduced in the future. As a result, the carrying amount of long-lived assets could be reduced in the future. Long-lived assets held for sale are stated at the lower of cost or fair value less cost to sell.

Fair Value Measurement

Assets and liabilities measured at fair value are measured at the amount that would be received for selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date and classified into one of the following fair value hierarchy:

- Level 1 Quoted prices for identical instruments in active markets.
- Level 2 Quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model derived valuations in which all significant inputs and significant value drivers are observable in active markets.
- Level 3 Valuations derived from management's best estimate of what market participants would use in pricing the asset or liability at the measurement date. Consideration is given to the risk inherent in the valuation technique and the risk inherent in the inputs to the model.

Goodwill

Goodwill represents the excess of cost over net assets acquired resulting from the Company's 1996 purchase of the Mobil Composite Products Division, the 2011 purchase of the assets of the Iron Deck Corporation, and the 2017 purchase of certain assets and the assumption of certain liabilities of SC Company. The Company evaluates the recoverability of goodwill in accordance with Accounting Standard Codification Topic 350, "*Intangibles – Goodwill and Other*," annually or more frequently if an event occurs or circumstances change in the interim that would more likely than not reduce the fair value of the asset below its carrying amount. Goodwill is considered to be impaired when the net book value of the reporting unit exceeds its estimated fair value.

The Company first assesses qualitative factors to determine if it is more likely than not that the fair value of the reporting units is less than the carrying amount to determine if it should proceed with the evaluation of goodwill for impairment. The Company identified its reporting units based on the way it manages its operating segments. Each reporting unit constitutes a business with discrete financial information and operating segment management, at a level below the Company's chief operating decision maker, regularly reviews the operating results of the reporting unit. The Company assigned goodwill to the reporting units based on the excess of the fair values acquired over the fair value of the sum of the individual assets acquired and liabilities assumed that were assigned to the reporting units. If the Company proceeds with the two-step impairment test, the Company first compares the fair value of the reporting unit to its carrying value. If the carrying value of a reporting unit exceeds its fair value, the goodwill of that reporting unit is potentially impaired and step two of the impairment analysis is performed. In step two of the analysis, an impairment loss is recorded equal to the excess of the carrying value of the reporting unit's goodwill over its implied fair value should such a circumstance arise.

The Company measures fair value of the reporting units based on a present value of future discounted cash flows and a market valuation approach. The discounted cash flows model indicates the fair value of the reporting unit based on the present value of the cash flows that the reporting unit is expected to generate in the future. Significant estimates in the discounted cash flows model include: the weighted average cost of capital; long-term rate of growth and profitability of the business; and working capital effects. The market valuation approach

indicates the fair value of the business based on a comparison of the Company against certain market information. Significant estimates in the market approach model include identifying appropriate market multiples and assessing earnings before interest, income taxes, depreciation and amortization (EBITDA) in estimating the fair value of the reporting unit.

For the years ended December 31, 2019, 2018 and 2017, the Company completed its annual impairment test of goodwill utilizing the qualitative assessment and concluded it was not more likely than not that the fair value of the reporting units was less than the carrying amounts. The Company performs the annual impairment testing of its goodwill as of October 31 of each year. However, actual results could differ from the Company's estimates and projections, which would affect the assessment of impairment. As of December 31, 2019, the Company had goodwill of \$68.5 million that is reviewed annually for impairment.

Product Warranty

The Company warrants that its Trex Residential decking products will be free from material defects in workmanship and materials. This warranty generally extends for a period of 25 years for residential use and 10 years for commercial use. With respect to Trex Signature[®] Railing, the warranty period is 25 years for both residential and commercial use. With respect to the Company's Transcend[®], Enhance[®], Select[®] and Universal Fascia product, the Company further warrants that the product will not fade in color more than a certain amount and will be resistant to permanent staining from food substances or mold, provided the stain is cleaned within seven days of appearance. This warranty extends for a period of 25 years for residential use and 10 years for commercial use. If there is a breach of such warranties, the Company has an obligation either to replace the defective product or refund the purchase price. Depending on the product and its use, the Company also warrants its Trex Commercial products will be free of manufacturing defects for one to three years. The Company establishes warranty reserves to provide for estimated future expenses as a result of product defects that result in claims. Reserve estimates are based on management's judgment, considering such factors as cost per claim, historical experience, anticipated rates of claims, and other available information. Management reviews and adjusts these estimates, if necessary, based on the differences between actual experience and historical estimates.

Treasury Stock

The Company records the repurchase of shares of its common stock at cost. These shares are considered treasury stock, which is a reduction to stockholders' equity. Treasury stock is included in authorized and issued shares but excluded from outstanding shares.

Revenue Recognition

Effective January 1, 2018, the Company retrospectively adopted the requirements of Financial Accounting Standards Board (FASB) Accounting Standards Update (ASU) 2014-09, "Revenue from Contracts with Customers" (Topic 606). The Company determined the appropriate revenue recognition for its contracts with customers by analyzing the type, terms and conditions of the contracts with customers. Topic 606 provides a single, comprehensive model for revenue recognition arising from contracts with customers. A performance obligation is a promise in a contract to transfer a distinct good or service to the customer and is the unit of account in Topic 606. A contract's transaction price is allocated to each distinct performance obligation and revenue is recognized when or as the Company satisfies the performance obligation. Revenue is recognized at an amount that reflects the consideration to which the entity expects to be entitled in exchange for transferring control of the goods or services to a customer. Adoption of Topic 606 did not have an impact on the Company's financial condition or results of operations. The following provides additional information about the Company's contracts with customers.

Trex Residential Products

Trex Residential principally generates revenue from the manufacture and sale of its high-performance, low-maintenance, eco-friendly composite decking and railing products and accessories. Substantially all of its revenues are from contracts with customers, which are individual customer purchase orders of short-term duration of less than one year. Trex Residential satisfies its performance obligations at a point in time. The shipment of each product is a separate performance obligation as the customer is able to derive benefit from each product shipped and no performance obligation remains after shipment. Upon shipment of the product, the customer obtains control over the distinct product and Trex Residential satisfies its performance obligation. Any performance obligation that remains unsatisfied at the end of a reporting period is part of a contract that has an original expected duration of one year or less. Any variable consideration related to the unsatisfied performance obligation is allocated wholly to the unsatisfied performance obligation and recognized when the product ships and the performance obligation is satisfied.

Trex Commercial Products

Trex Commercial generates revenue from the manufacture and sale of its modular and architectural railing and staging systems. All of its revenues are from fixed-price contracts with customers. Trex Commercial contracts have a single performance obligation as the promise to transfer the individual goods or services is not separately identifiable from other promises in the contract and is, therefore, not distinct.

Trex Commercial satisfies its performance obligation over time as work progresses because control is transferred continuously to its customers. Revenue and estimated profit is recognized over time based on the proportion of actual costs incurred to date relative to total estimated costs at completion to measure progress toward satisfying the performance obligation. Incurred costs represent work performed, which corresponds with, and thereby best depicts, the transfer of control to the customer. Incurred costs include all direct material, labor, subcontract and certain indirect costs. The Company reviews and updates its estimates regularly and recognizes adjustments in estimated profit on contracts under the cumulative catch-up method. Under this method, the impact of the adjustment on revenue and estimated profit to date on a contract is recognized in the period the adjustment is identified. Revenues and profits in future periods are recognized using the adjusted estimate. If at any time the estimate of contract profitability indicates an anticipated loss on the contract, the Company recognizes the total loss in the period it is identified. During the year ended December 31, 2019, no adjustment to any one contract was material to the Company's Consolidated Financial Statements and no material impairment loss on any contract was recorded.

Stock-Based Compensation

The Company measures stock-based compensation at the grant date of the award based on the fair value. For stock options, stock appreciation rights and time-based restricted stock and time-based restricted stock units, stock-based compensation is recognized on a straight line basis over the vesting periods of the award. The Company recognizes forfeitures as they occur. For performance-based restricted stock and performance-based restricted stock units, expense is recognized ratably over the performance and vesting period of each tranche based on management's judgment of the ultimate award that is probable to be paid out based on the achievement of predetermined performance measures. Stock-based compensation expense is included in "Selling, general and administrative expenses" in the accompanying Consolidated Statements of Comprehensive Income.

Income Taxes

The Company recognizes deferred tax assets and liabilities based on the difference between the financial statement basis and tax basis of assets and liabilities using enacted rates expected to be in effect during the year in which the differences reverse. The Company assesses the likelihood that its deferred tax assets will be realized. Deferred tax assets are reduced by a valuation allowance when, after considering all available positive and negative evidence, it is determined that it is more likely than not that some portion, or all, of the deferred tax asset will not be realized. The tax legislation H.R.1, "An Act to Provide for Reconciliation Pursuant to Titles II and V of the Concurrent Resolution on the Budget for Fiscal Year 2018," known as the Tax Cuts and Jobs Act (Act), was enacted on December 22, 2017. The Act reduces the corporate tax rate to 21 percent, effective

January 1, 2018. Accordingly, we recognized the tax effects of the Act in our financial statements and related notes as of and for the year ended December 31, 2017. Accordingly, the Company recognized the tax effects of the Act in its financial statements and related notes. As of December 31, 2019, the Company has a valuation allowance of \$3.0 million against these deferred tax assets. The Company analyzes its position in subsequent reporting periods, considering all available positive and negative evidence, in determining the expected realization of its deferred tax assets.

Research and Development Costs

Research and development costs are expensed as incurred. For the years ended December 31, 2019, 2018 and 2017, research and development costs were \$4.5 million, \$4.2 million, and \$3.8 million, respectively, and have been included in "Selling, general and administrative expenses" in the accompanying Consolidated Statements of Comprehensive Income.

Advertising Costs

The Company expenses its branding and advertising communication costs as incurred. Production costs are deferred and recognized as expense in the period that the related advertisement is first used. At December 31, 2019 \$0.5 million was included in prepaid expenses for production costs. At December 31, 2018 there were no production costs included in prepaid expenses.

For the years ended December 31, 2019, 2018 and 2017, branding expenses, including advertising expenses as described above, were \$35.7 million, \$35.0 million, and \$31.0 million, respectively.

Fair Value of Financial Instruments

The Company considers the recorded value of its financial assets and liabilities, consisting primarily of cash and cash equivalents, accounts receivable, accounts payable, accrued expenses and other current liabilities, and debt to approximate the fair value of the respective assets and liabilities on the Consolidated Balance Sheets at December 31, 2019 and 2018.

Recently Adopted Accounting Standards

In June 2018, the FASB issued ASU No. 2018-07, "Compensation—Stock Compensation (Topic 718)." The ASU expands the scope of Topic 718, which currently only includes share-based payments issued to employees, to also include share-based payments issued to nonemployees for goods or services. The ASU supersedes Subtopic 505-50, "Equity—Equity-Based Payment to Non-Employees." Consequently, the accounting for share-based payments to nonemployees and employees will be substantially aligned. The ASU was effective for fiscal years beginning after December 15, 2018, including interim periods within that fiscal year. The Company adopted the guidance on January 1, 2019. Adoption did not have an impact on the Company's financial condition or results of operations.

In February 2016, the FASB issued ASU No. 2016-02, "Leases (Topic 842)," and issued subsequent amendments to the initial guidance in January 2018 within ASU No. 2018-01, in July 2018 within ASU Nos. 2018-10 and 2018-11, in December 2018 within ASU No. 2018-20, and in March 2019 within ASU No. 2019-01 (collectively, the standard). The standard requires lessees to recognize operating leases on the balance sheet as a right-of-use asset and a lease liability. The liability is equal to the present value of the lease payments over the remaining lease term. The asset is based on the liability, subject to certain adjustments. Operating leases result in straight-line expense. The Company adopted the standard on January 1, 2019, and elected the modified retrospective method of adoption that allowed the Company to apply the standard as of the beginning of the period of adoption. The Company opted to elect the package of practical expedients to not reassess prior conclusions related to contracts containing leases, lease classification and initial direct costs, and certain other

practical expedients, including the use of hindsight to determine the lease term for existing leases and in assessing impairment of the right-of-use asset, and the exception for short-term leases. For its current classes of underlying assets, the Company did not elect the practical expedient under which the lease components would not be separated from the nonlease components. Nonlease components include certain maintenance services provided by the lessor and the related consideration is specified on a stand-alone basis in the applicable lease agreements. Adoption of the standard had a significant impact on the Company's condensed consolidated balance sheet due to the recognition of a right-of-use asset and lease liability (current and non-current) of \$45.8 million and \$47.2 million, respectively, upon adoption. As the Company's leases do not provide an implicit rate that can be readily determined, the Company used its incremental borrowing rate based on the information available at the implementation date in determining the present value of lease payments.

New Accounting Standards Not Yet Adopted

In August 2018, the FASB issued ASU No. 2018-15, "Intangibles—Goodwill and Other—Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract (a consensus of FASB Emerging Issues Task Force)". The new guidance aligns the requirements for capitalizing implementation costs in a cloud computing arrangement service contract with the requirements for capitalizing implementation costs incurred for an internal-use software license. Under that model, implementation costs are capitalized or expensed depending on the nature of the costs and the project stage during which they are incurred. Capitalized implementation costs are amortized over the term of the associated hosted cloud computing arrangement service contract on a straight-line basis, unless another systematic and rational basis is more representative of the pattern in which the entity expects to benefit from its right to access the hosted software. Capitalized implementation costs would then be assessed for impairment in a manner similar to long-lived assets. The new guidance is effective for fiscal years beginning after December 15, 2019, and interim periods within those fiscal years. Early adoption is permitted. Entities can choose to adopt the new guidance either prospectively to eligible costs incurred on or after the date the guidance is first applied or retrospectively. The Company will adopt the guidance on January 1, 2020, and has determined that adoption will not have a material impact on its financial condition or results of operations.

In January 2017, the FASB issued ASU No. 2017-04, "Intangibles—Goodwill and Other (Topic 350), Simplifying the Test for Goodwill Impairment". The guidance removes Step 2 of the goodwill impairment test and eliminates the need to determine the fair value of individual assets and liabilities to measure goodwill impairment. A goodwill impairment will now be the amount by which a reporting unit's carrying value exceeds its fair value, not to exceed the carrying amount of goodwill. Entities will continue to have the option to perform a qualitative assessment to determine if a quantitative impairment test is necessary. The guidance will be applied prospectively, and is effective for annual and interim goodwill impairment tests in fiscal years beginning after December 15, 2019. Early adoption is permitted for any impairment tests performed on testing dates after January 1, 2017. The Company will adopt the guidance on January 1, 2020. The Company believes adoption will have no material impact on its financial condition or results of operations.

In June 2016, the FASB issued ASU 2016-13, "Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses in Financial Instruments," and issued subsequent amendments to the initial guidance in November 2018 within ASU No. 2018-09, April 2019 within ASU No. 2019-04, and May 2019 within ASU No. 2019-05. The ASU amends the guidance on the impairment of financial instruments and adds an impairment model, known as the current expected credit loss (CECL) model. The CECL model requires an entity to recognize its current estimate of all expected credit losses, rather than incurred losses, and applies to trade receivables and other receivables. The CECL model is designed to capture expected credit losses through the establishment of an allowance account, which will be presented as an offset to the amortized cost basis of the related financial asset. The new guidance is effective for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years, and is applied using the modified-retrospective approach. The Company will adopt the guidance on January 1, 2020. The Company has determined that adoption will not have a material impact on its financial condition or results of operations.

3. ACQUISITION

On July 31, 2017, through its newly-formed, wholly-owned subsidiary, Trex Commercial Products, Inc., the Company acquired certain assets and assumed certain liabilities of SC Company for \$71.8 million in cash. The acquired business designs, engineers and markets modular architectural railing and staging systems for the commercial and multi- family market, including sports stadiums and performing arts venues. As a result of the purchase, the Company gained access to growing commercial markets, expanded its custom design and engineering capabilities, and added the contract architect and specifier communities as new channels for its products.

The acquisition was accounted for using the acquisition method of accounting under U.S. Generally Accepted Accounting Principles, which requires, among other things, that the assets acquired and liabilities assumed be recognized at their fair values as of the acquisition date. The fair values of consideration transferred and net assets acquired were determined using a combination of Level 2 and Level 3 inputs as specified in the fair value hierarchy in ASC 820, "*Fair Value Measurements and Disclosures*." The Company believes that the fair values assigned to the assets acquired and liabilities assumed were based on reasonable assumptions. The Company's consolidated results of operations include the operating results of the acquired business from the date of acquisition.

Goodwill of \$57.9 million is primarily attributable to the potential opportunity for the Company to offer full service railing systems in the growing commercial and multi-family markets, access to a complementary product category with a track record of substantial revenue growth, the ability to achieve economies of scale around raw material procurement, an increase in the range of products the Company may offer its core customers, and intangible assets that do not qualify for separable or legal criterion, such as an assembled workforce. The amount of goodwill that was amortized and deductible for tax purposes in 2019, 2018 and 2017 was \$3.9 million, \$3.9 million and \$1.6 million, respectively. Primarily all of the goodwill was recorded to Trex Commercial.

4. INVENTORIES

Inventories at LIFO value consist of the following as of December 31 (in thousands):

	2019	2018
Finished goods	\$ 42,281	\$ 46,638
Raw materials	31,686	27,321
Total FIFO inventories	73,967	73,959
Reserve to adjust inventories to LIFO value	(19,062)	(18,442)
Total LIFO inventories	\$ 54,905	\$ 55,517

Inventory related to Trex Residential composite decking and railing products is stated at the lower of LIFO cost or market. The Company periodically reviews its inventory for slow moving or obsolete items and writes down the related products to estimated market.

Under the LIFO method, reductions in inventory cause a portion of the Company's cost of sales to be based on historical costs rather than current year costs. There was no material inventory reduction during 2019 or 2018.

Inventories valued at lower of cost (FIFO method) and net realizable value as of December 31, 2019 and December 31, 2018, consist of \$1.2 million and \$2.3 million, respectively, of raw materials. The Company utilizes the FIFO method of accounting related to its Trex Commercial products.

5. PREPAID EXPENSES AND OTHER ASSETS

Prepaid expenses and other assets consist of the following as of December 31 (in thousands):

	2019	2018
Prepaid expenses	\$ 8,282	\$ 3,390
Revenues in excess of billings	6,664	7,987
Contract retainage	1,832	2,469
Income tax receivable	2,675	471
Other	350	1,245
Total prepaid expenses and other assets	\$19,803	\$15,562

6. GOODWILL AND OTHER INTANGIBLE ASSETS, NET

The carrying amount of goodwill by reportable segment at December 31, 2019 and 2018 was \$14.2 million for Trex Residential and \$54.3 million for Trex Commercial.

The Company's intangible assets consist of domain names purchased in May 2018. At December 31, 2019 and 2018, intangible assets were \$6.3 million, net of accumulated amortization of \$0.7 million and \$0.3 million, respectively. Intangible asset amounts were determined based on the estimated economics of the asset and are amortized over the estimated useful lives on a straight-line basis over 15 years, which approximates the pattern in which the economic benefits are expected to be received. The Company evaluates the recoverability of intangible assets periodically and considers events or circumstances that may warrant revised estimates of useful lives or that may indicate an impairment. Intangible asset amortization expense for the years ended December 31, 2019 and December 31, 2018, was \$0.4 million and \$3.1 million, respectively. Intangible asset amortization expense for the year ended December 31, 2018 included amortization expense for customer backlog and trade names and trademarks, which were fully amortized as of December 31, 2018.

7. PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment consist of the following as of December 31 (in thousands):

	2019	2018
Machinery and equipment	\$ 248,633	\$ 233,464
Building and improvements	51,547	50,240
Forklifts and tractors	10,870	10,872
Computer equipment	10,647	10,142
Furniture and fixtures	1,441	1,625
Construction in process	59,257	16,392
Land	11,417	11,417
Total property, plant and equipment	393,812	334,152
Accumulated depreciation	(222,512)	(217,008)
Total property, plant and equipment, net	\$ 171,300	\$ 117,144

The Company had construction in process as of December 31, 2019 of approximately \$59.3 million. The Company expects that the construction in process will be completed and put into service in the year ending December 31, 2021.

Depreciation expense for the years ended December 31, 2019, 2018, and 2017 totaled \$13.6 million, \$13.4 million, and \$14.7 million, respectively.

8. ACCRUED EXPENSES AND OTHER LIABILITIES

Accrued expenses and other liabilities consist of the following as of December 31 (in thousands):

	2019	2018
Sales and marketing	\$28,402	\$25,379
Compensation and benefits	13,475	19,124
Operating lease liabilities	7,079	
Manufacturing costs	2,564	3,744
Customer deposits	2,905	2,058
Billings in excess of revenues	816	512
Other	3,024	5,474
Total accrued expenses	\$58,265	\$56,291

9. DEBT

The Company's debt consists of a revolving credit facility. At December 31, 2019 and 2018, the Company had no outstanding indebtedness. Available borrowing capacity at December 31, 2019, was \$200 million.

Revolving Credit Facility

Indebtedness after November 4, 2019. On November 5, 2019, the Company as borrower, Trex Commercial Products, Inc. (TCP), as guarantor; Bank of America, N.A. (BOA), as a Lender, Administrative Agent, Swing Line Lender and L/C Issuer; and certain other lenders including Wells Fargo Bank, N.A. (Wells Fargo), who is also Syndication Agent; SunTrust Bank (SunTrust); and Branch Banking and Trust Company (BB&T) (each, a Lender and collectively, the Lenders), arranged by BOA Securities, Inc., as Sole Lead Arranger and Sole Bookrunner, entered into a Fourth Amended and Restated Credit Agreement (Fourth Amended Credit Agreement) to amend and restate the Third Amended and Restated Credit Agreement dated as of January 12, 2016, as amended (Third Amended Credit Agreement), by and among the Company, as borrower; BOA, as a lender, Administrative Agent, Swing Line Lender and L/C Issuer; CitiBank, N.A. (Citi); Capital One, N.A. (Capital One); and SunTrust, each as a lender; and Bank of America Merrill Lynch, as Sole Lead Arranger and Sole Bookrunner.

Under the Fourth Amended Credit Agreement, the Lenders agreed to provide the Company with one or more Revolving Loans in a collective maximum principal amount of \$250 million from January 1 through June 30 of each year and a maximum principal amount of \$200 million from July 1 through December 31 of each year (Loan Limit) throughout the term, which ends November 5, 2024 (Term). Previously, under the Third Amended Credit Agreement, BOA, Citi, Capital One and SunTrust agreed to provide the Company with one or more revolving loans in a collective maximum principal amount of \$250 million from January 1 through June 30 of each year and a maximum principal amount of \$250 million from January 1 through June 30 of each year and a maximum principal amount of \$250 million from July 1 through June 30 of each year and a maximum principal amount of \$200 million from July 1 through December 31 of each year throughout the term, which would have ended on January 12, 2021 if not replaced by the Fourth Amended Credit Agreement.

Included within the Loan Limit are sublimits for a Letter of Credit facility in an amount not to exceed \$15 million and Swing Line Loans in an aggregate principal amount at any time outstanding not to exceed \$5 million. The Revolving Loans, the Letter of Credit facility and the Swing Line Loans are for the purpose of raising working capital and supporting general business operations.

The Notes provide the Company, in the aggregate, the ability to borrow an amount up to the Loan Limit during the Term. The Company is not obligated to borrow any amount under the Loan Limit. Within the Loan Limit, the Company may borrow, repay and reborrow at any time or from time to time while the Notes are in effect. Base Rate Loans (as defined in the Fourth Amended Credit Agreement) under the Revolving Loans and

the Swing Line Loans accrue interest at the Base Rate plus the Applicable Rate (as defined in the Fourth Amended Credit Agreement) and Eurodollar Rate Loans for the Revolving Loans and Swing Line Loans accrue interest at the Adjusted London InterBank Offered Rate plus the Applicable Rate (as defined in the Fourth Amended Credit Agreement). The Base Rate for any day is a fluctuating rate per annum equal to the highest of (a) the Federal Funds Rate plus 0.50%, (b) the rate of interest in effect for such day as publicly announced from time to time by BOA as its prime rate, and (c) the Eurodollar Rate plus 1.0%. Repayment of all then outstanding principal, interest, fees and costs is due on November 5, 2024.

Under the terms of the Fourth Amended and Restated Security and Pledge Agreement, the Company and TCP, subject to certain permitted encumbrances, as collateral security for the above-stated loans and all other present and future indebtedness of the Company owing to the Lenders grants to BOA, as Administrative Agent for the Lenders, a continuing security interest in certain collateral described and defined in the Fourth Amended and Restated Security and Pledge Agreement.

Indebtedness through November 4, 2019. On January 12, 2016, the Company entered into a Third Amended Credit Agreement with BOA as Lender, Administrative Agent, Swing Line Lender and Letter of Credit Issuer; and certain other lenders including Citi, Capital One, and SunTrust (collectively, Lenders) arranged by Bank of America Merrill Lynch as Sole Lead Arranger and Sole Bookrunner. The Third Amended Credit Agreement amended and restated the Second Amended Credit Agreement.

Under the Third Amended Credit Agreement, the Lenders agreed to provide the Company with one or more revolving loans in a collective maximum principal amount of \$250 million from January 1 through June 30 of each year and a maximum principal amount of \$200 million from July 1 through December 31 of each year throughout the term, which would have ended on January 12, 2021. Included within the revolving loan limit were sublimits for a letter of credit facility in an amount not to exceed \$15 million. The revolving loans, the letter of credit facility and the swing line loans were for the purpose of funding working capital needs and supporting general business operations. Additionally, within the Revolving Loan Limit, the Company could borrow, repay, and reborrow, at any time or from time to time while the Third Amended Credit Agreement was in effect.

The Company had the option to select interest rates for each loan request at the Base Rate or Eurodollar Rate. Base rate loans under the revolving loans and the swing line loans accrued interest at the Base Rate plus the Applicable Rate. Eurodollar Rate Loans for the revolving loans and swing line loans accrued interest at the Adjusted London InterBank Offered Rate plus the Applicable Rate. The Base Rate for any day was a fluctuating rate per annum equal to the highest of (a) the Federal Funds Rate plus 0.50%, (b) the rate of interest in effect for such day as publicly announced from time to time by BOA as its prime rate, and (c) the Eurodollar Rate plus 1.0%. Repayment of all then outstanding principal, interest, fees and costs would have been due on January 12, 2021.

The Third Amended Credit Agreement was secured by property with respect to which liens in favor of the Administrative Agent, for the benefit of itself and the other holders of the obligations, were purported to be granted pursuant to and in accordance with the terms of the collateral documents as referenced in the Third Amended Credit Agreement.

Compliance with Debt Covenants and Restrictions

Pursuant to the terms of the Fourth Amended Credit Agreement, the Company is subject to certain loan compliance covenants. The Company was in compliance with all covenants as of December 31, 2019. Failure to comply with the financial covenants could be considered a default of repayment obligations and, among other remedies, could accelerate payment of any amounts outstanding.

10. LEASES

The Company leases office space, storage warehouses and certain plant equipment under various operating leases. At inception of an arrangement, the Company evaluates, among other things, whether it has the right to control the use of an identified asset in order to determine if the arrangement is or contains a lease. Operating leases are included in operating lease right-of-use (ROU) assets, accrued expenses and other current liabilities, and operating lease liabilities in the consolidated balance sheets. Operating leases with an initial term of 12 months or less are not included in the consolidated balance sheet. The Company recognizes lease expense for these leases on a straight-line basis over the lease term. ROU assets represent the right to use an underlying asset for the lease term and operating lease liabilities represent the 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 the Company's leases do not provide an implicit rate, the Company uses its incremental borrowing rate based on the information available at the commencement date in determining the present value of lease payments. The Company gives consideration to instruments with similar characteristics when calculating its incremental borrowing rate. Certain events, such as a modification to the arrangement or a change in the lease term, are assessed by the Company to determine if it is required to reassess estimates and judgments and remeasure the lease liability and ROU asset. Our operating leases have remaining lease terms of 1 year to 10 years. Lease terms may include options to extend or terminate the lease when the Company determines that it is reasonably certain it will exercise the option. Lease expense for operating 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 accounted for separately. Consideration for non-lease components is stated on a stand-alone basis in the applicable agreements.

For the year ended December 31, 2019, total operating lease cost was \$8.4 million. The weighted average remaining lease term and weighted average discount rate at December 31, 2019 were 6.5 years and 3.66%, respectively.

The following table includes supplemental cash flow information for the year ended December 31, 2019 and supplemental balance sheet information at December 31, 2019 related to operating leases:

Supplemental cash flow information (in thousands)

Cash paid for amounts included in the measurement of operating lease liabilities Operating ROU assets obtained in exchange for lease liabilities	\$ 8,479 \$ 1,319
Supplemental balance sheet information (in thousands)	
Operating lease right-of-use assets	\$40,049
Operating lease liabilities:	
Accrued expenses and other current liabilities	\$ 7,079
Operating lease liabilities	34,242
Total operating lease liabilities	\$41,321

The following table summarizes maturities of operating lease liabilities at December 31, 2019 (in thousands):

....

.

Maturities of operating lease liabilities	
2020	\$ 8,472
2021	8,279
2022	6,464
2023	6,109
2024	6,146
Thereafter	11,079
Total lease payments	46,549
Less imputed interest	(5,228)
Total operating liabilities	\$41,321

Minimum annual payments under non-cancelable leases as of December 31, 2018 were as follows (in thousands):

Year Ending December 31,	
2019	\$10,998
2020	9,317
2021	8,952
2022	6,901
2023	6,576
Thereafter	19,080
Total minimum lease payments	\$61,824

For the years ended December 31, 2018 and 2017, the Company recognized rental expenses of approximately \$10.0 million and \$9.1 million, respectively.

11. FINANCIAL INSTRUMENTS

The Company considers the recorded value of its financial assets and liabilities, consisting primarily of cash and cash equivalents, accounts receivable, accounts payable, accrued expenses and other current liabilities, and debt to approximate the fair value of the respective assets and liabilities on the Consolidated Balance Sheets at December 31, 2019 and 2018.

12. STOCKHOLDERS' EQUITY

Stock Split

On May 2, 2018, the Board of Directors of the Company approved a two-for-one stock split of the Company's common stock, par value \$0.01. The stock split was in the form of a stock dividend distributed on June 18, 2018, to stockholders of record at the close of business on May 23, 2018. The stock split entitled each stockholder to receive one additional share of common stock, par value \$0.01, for each share they held as of the record date. All common stock share and per share data for all periods presented in the accompanying consolidated financial statements and notes thereto have been retroactively adjusted to reflect the stock split.

Earnings Per Share

The following table sets forth the computation of basic and diluted earnings per share (in thousands, except share and per share data):

	Year Ended December 31,		
	2019	2018	2017
Numerator:			
Net income	\$ 144,738	\$ 134,572	\$ 95,128
Denominator:			
Basic weighted average shares outstanding	58,430,597	58,739,670	58,785,118
Effect of dilutive securities:			
Stock appreciation rights	124,425	176,700	198,642
Restricted stock	102,727	150,932	167,160
Diluted weighted average shares outstanding	58,657,749	59,067,302	59,150,920
Basic earnings per share	\$ 2.48	\$ 2.29	\$ 1.62
Diluted earnings per share	\$ 2.47	\$ 2.28	\$ 1.61

Diluted earnings per share is computed using the weighted average number of shares determined for the basic earnings per share computation plus the dilutive effect of common stock equivalents using the treasury stock method. The computation of diluted earnings per share excludes the following potentially dilutive securities because the effect would be anti-dilutive:

	Year Ended December 31,		
	2019	2018	2017
Restricted stock	_	214	166
Stock appreciation rights	20,770	13,347	21,234

Stock Repurchase Program

On February 16, 2018, the Board of Directors adopted new stock repurchase program of up to 5.8 million shares of the Company's outstanding common stock (Stock Repurchase Program). As of the date of this report, the Company has repurchased 959,380 shares under the Stock Repurchase Program.

13. REVENUE FROM CONTRACTS WITH CUSTOMERS

Topic 606 provides a single, comprehensive model for revenue recognition arising from contracts with customers. A performance obligation is a promise in a contract to transfer a distinct good or service to the customer and is the unit of account in Topic 606. A contract's transaction price is allocated to each distinct performance obligation and revenue is recognized when or as the Company satisfies the performance obligation. Revenue is recognized at an amount that reflects the consideration to which the entity expects to be entitled in exchange for transferring control of the goods or services to a customer.

Trex Residential Products

Trex Residential principally generates revenue from the manufacture and sale of its high-performance, low-maintenance, eco-friendly wood-alternative composite decking and residential railing products and accessories. Substantially all of its revenues are from contracts with customers, which are purchase orders of short-term duration of less than one year. Its customers, in turn, sell primarily to the residential market, which includes replacement, remodeling and new construction related to outdoor living products. Trex Residential satisfies its performance obligations at a point in time. The shipment of each product is a separate performance obligation as the customer is able to derive benefit from each product shipped and no performance obligation remains after shipment. Upon shipment of the product, the customer obtains control over the distinct product and Trex Residential satisfies its performance obligation. Any performance obligation that remains unsatisfied at the end of a reporting period is part of a contract that has an original expected duration of one year or less. Any variable consideration related to the unsatisfied performance obligation is allocated wholly to the unsatisfied performance obligation and recognized when the product ships and the performance obligation is satisfied.

For each product shipped, the transaction price by product is specified in the purchase order. The Company recognizes revenue on the transaction price less any amount offered under a sales incentive program. The Company recognizes an account receivable (contract asset) for the amount of revenue recognized as it has an unconditional right to consideration at the time of shipment and payment from the customer is due based solely on the passage of time. The Company receives payments from its customers based on the payment terms applicable to each individual contract and the customer pays in accordance with the billing terms specified in the purchase order, which is less than one year. The related accounts receivables are included in "Accounts receivable, net" in the Consolidated Balance Sheets.

Trex Residential may offer various sales incentive programs throughout the year. It estimates the amount of sales incentive to allocate to each performance obligation, or product shipped, based on direct sales to the customer. The estimate is updated each reporting period and any changes are allocated to the performance obligations on the same basis as at inception. Changes in estimate allocated to a previously satisfied performance obligation are recognized as a reduction of revenue in the period in which the change occurs under the cumulative catch-up method. In addition to sales incentive programs, Trex Residential may offer a payment discount. It estimates the payment discount that it believes will be taken by the customer based on prior history.

Trex Residential pays commissions to certain employees. However, the sales commissions are not directly attributable to identifiable contracts, are discretionary in nature and are based on other factors not related to obtaining a contract, such as individual performance, profitability of the entity, annual sales targets, etc. These costs are included in selling, general and administrative expenses as incurred. Trex Residential does not grant contractual product return rights to customers other than pursuant to its assurance product warranty (see related disclosure on product warranties in Note 19, "Commitments and Contingencies"). Trex Residential accounts for all shipping and handling fees invoiced to the customer in net sales and the related costs in cost of sales.

Trex Commercial Products

Trex Commercial generates revenue from the manufacture and sale of its modular and architectural railing and staging systems. All of its revenues are from fixed-price contracts with customers. Trex Commercial contracts have a single performance obligation as the promise to transfer the individual goods or services is not separately identifiable from other promises in the contract and is, therefore, not distinct.

Trex Commercial satisfies its performance obligation over time as work progresses because control is transferred continuously to its customers. Revenue and estimated profit is recognized over time based on the proportion of actual costs incurred to date relative to total estimated costs at completion to measure progress toward satisfying the performance obligation. Incurred costs represent work performed, which corresponds with, and thereby best depicts, the transfer of control to the customer. Incurred costs include all direct material, labor, subcontract and certain indirect costs. The Company reviews and updates its estimates regularly and recognizes adjustments in estimated profit on contracts under the cumulative catch-up method. Under this method, the impact of the adjustment on revenue and estimated profit to date on a contract is recognized in the period the adjustment is identified. Revenues and profits in future periods are recognized using the adjusted estimate. If at any time the estimate of contract profitability indicates an anticipated loss on the contract, the Company recognizes the total loss in the period it is identified. During the year ended December 31, 2019, no adjustment to any one contract was material to the Company's Consolidated Financial Statements. The Company discloses only the transaction price allocated to its remaining performance obligations on contracts with an original duration

greater than one year, which was \$51.6 million as of December 31, 2019. The Company will recognize this revenue as performance obligations are satisfied, which is expected to occur within the next 18 months.

The Company recognizes an account receivable (contract asset) for satisfied performance obligations as it has an unconditional right to consideration and payment from the customer is due based solely on the passage of time. The Company receives payments from its customers on the accounts receivable based on the payment terms applicable to each individual contract and the customer pays in less than one year. Accounts receivables are included in "Accounts receivable, net" in the Consolidated Balance Sheets.

In addition, the timing of revenue recognition, billings and cash collections may result in revenues in excess of billings and contract retainage (contract assets), and billings in excess of revenues and customer deposits (contract liabilities). These assets and liabilities are reported on a contract-by-contract basis at the end of each reporting period in prepaid expenses and other assets (contract assets), and accrued expenses and other liabilities (contract liabilities). These assets and liabilities and changes in these assets and liabilities, respectively, were not material as of and for the year ended December 31, 2019.

Trex Commercial pays sales commissions that are directly attributable to identifiable contracts to certain of its employees. If the amortization period of the commission is one year or less, then the Company recognizes the commission expense as incurred. Otherwise, the Company capitalizes the commission and amortizes it on a straight-line basis over the life of the contract. Trex Commercial does not grant contractual product return rights to customers other than pursuant to its assurance product warranty. All shipping and handling fees invoiced to the customer are included in net sales and the related costs are included in cost of sales.

For each year in the three years ended December 31, 2019, net sales were disaggregated in the following tables by (1) market (2) timing of revenue recognition, and (3) type of contract. The tables also include a reconciliation of the respective disaggregated net sales with the Company's reportable segments (in thousands):

Year Ended December 31, 2019	Reportable Segment		nt
	Trex Residential	Trex Commercial	Total
Timing of Revenue Recognition and Type of Contract			
Products transferred at a point in time and variable consideration contracts	\$694,267	\$ —	\$694,267
Products transferred over time and fixed price			
contracts		51,080	51,080
	\$694,267	\$51,080	\$745,347
Year Ended December 31, 2018	R	eportable Segme	nt
	Trex Residential	Trex Commercial	Total
Timing of Revenue Recognition and Type of			
Contract			
Contract Products transferred at a point in time and variable consideration contracts	\$613,229	\$ —	\$613,229
Products transferred at a point in time and variable consideration contracts	\$613,229	\$ —	\$613,229
Products transferred at a point in time and variable	\$613,229	\$	\$613,229

Reportable Segment			
Trex Residential	Trex Commercial	Total	
\$543,346	\$ —	\$543,346	
	21,807	21,807	
\$543,346	\$21,807	\$565,153	
	Trex Residential \$543,346	Trex Trex Residential Commercial \$543,346 \$ 21,807	

14. STOCK-BASED COMPENSATION

On April 30, 2014, the Company's stockholders approved the Trex Company, Inc. 2014 Stock Incentive Plan (Plan), which was previously approved by the Board of Directors on February 19, 2014. The Plan amended and restated in its entirety the Trex Company, Inc. 2005 Stock Incentive Plan, as previously disclosed. The Plan is administered by the Compensation Committee of the Company's Board of Directors. Stock-based compensation is granted to officers, directors and certain key employees in accordance with the provisions of the Plan. The Plan provides for grants of stock options, restricted stock, restricted stock units, stock appreciation rights (SARs), and unrestricted stock. The total aggregate number of shares of the Company's common stock that may be issued under the Plan is 12,840,000.

The Company recognizes stock-based compensation expense ratably over the period from grant date to the earlier of (1) the vesting date of the award, or (2) the date the grantee is eligible to retire without forfeiting the award. For performance-based restricted stock and performance-based restricted stock units, expense is recognized ratably over the performance and vesting period of each tranche based on management's judgment of the ultimate award that is probable to be paid out based on the achievement of the predetermined performance measures. For the employee stock purchase plan, compensation expense is recognized related to the discount on purchases. The following table summarizes the Company's stock-based compensation expense (in thousands):

	Year Ended December 31,		
	2019	2018	2017
Time-based restricted stock and restricted stock units	\$3,676	\$2,687	\$1,992
Performance-based restricted stock and restricted stock			
units	2,399	3,144	2,805
Stock appreciation rights	662	370	251
Employee stock purchase plan	193	143	139
Total stock-based compensation	\$6,930	\$6,344	\$5,187

Stock-based compensation expense is included in "Selling, general and administrative expenses" in the accompanying Consolidated Statements of Comprehensive Income.

Time-Based Restricted Stock and Time-Based Restricted Stock Units

The fair value of time-based restricted stock and time-based restricted stock units is determined based on the closing price of the Company's shares on the grant date. Time-based restricted stock and time-based restricted stock units vest based on the terms of the awards. Unvested time-based restricted stock and unvested time-based restricted stock units are generally forfeitable upon the resignation of employment or termination of employment with cause. The total fair value of vested time-based restricted shares and vested time-based restricted stock units for the years ended December 31, 2019, 2018 and 2017 was \$6.0 million, \$5.1 million, and \$5.5 million, respectively. At December 31, 2019, there was \$3.2 million of total compensation expense related to unvested

time-based restricted stock and unvested time-based restricted stock units remaining to be recognized over a weighted-average period of approximately 2 years.

Time-based restricted stock and restricted stock unit activity under the Plan and all predecessor stock incentive plans is as follows:

There haved

	Time-based Restricted Stock and Restricted Stock Unit	Weighted-Average Grant Price Per Share
Nonvested at December 31, 2016	243,600	\$15.80
Granted	72,402	\$36.27
Vested	(162,372)	\$14.45
Forfeited	(512)	\$18.68
Nonvested at December 31, 2017	153,118	\$26.90
Granted	87,264	\$54.72
Vested	(84,550)	\$26.65
Forfeited	(284)	\$35.05
Nonvested at December 31, 2018	155,548	\$42.68
Granted	35,650	\$76.23
Vested	(81,325)	\$37.34
Forfeited	(640)	\$62.33
Nonvested at December 31, 2019	109,233	\$57.49

Performance-based Restricted Stock and Performance-Based Restricted Stock Units

The fair value of performance-based restricted stock and performance-based restricted stock units is determined based on the closing price of the Company's shares on the grant date. Unvested performance-based restricted stock and unvested performance-based restricted stock units are generally forfeitable upon the resignation of employment or termination of employment with cause. The performance-based restricted shares and performance-based restricted stock units have a three-year vesting period, vesting one-third each year based on target earnings before interest, taxes, depreciation and amortization (EBITDA) for 1 year, cumulative 2 years and cumulative 3 years, respectively. The number of shares that will vest, with respect to each vesting, will be between 0% and 200% of the target number of shares. At December 31, 2019, 2018, and 2017 there was \$0.8 million, \$1.6 million, and \$1.8 million, respectively, of total compensation expense related to unvested performance-based restricted stock and unvested performance-based restricted stock units remaining to be recognized over a weighted-average period of approximately 1.7 years.

Performance-based restricted stock activity under the Plan is as follows:

	Performance-based Restricted Stock and Performance-based Restricted Stock Units	Weighted-Average Grant Price Per Share
Nonvested at December 31, 2016	116,832	\$18.32
Granted	86,614	\$28.77
Vested	(86,788)	\$18.64
Forfeited		\$ —
Nonvested at December 31, 2017	116,658	\$25.85
Granted	80,570	\$35.26
Vested	(106,022)	\$23.52
Forfeited		\$ —
Nonvested at December 31, 2018	91,206	\$36.86
Granted	82,135	\$47.64
Vested	(111,002)	\$31.10
Forfeited	(511)	\$58.45
Nonvested at December 31, 2019	61,828	\$61.34

Stock Appreciation Rights

SARs are granted with a grant price equal to the closing market price of the Company's common stock on the date of grant. These awards expire ten years after the date of grant and vest based on the terms of the individual awards. The SARs are generally forfeitable upon the resignation of employment or termination of employment with cause. The Company recognizes forfeitures as they occur. The Company recognizes compensation cost on a straight-line basis over the vesting period for the award.

As of December 31, 2019, there was \$0.4 million of unrecognized compensation cost related to SARs. The fair value of each SAR is estimated on the date of grant using a Black-Scholes option-pricing model. For SARs issued in the years ended December 31, 2019, December 31, 2018 and December 31, 2017, respectively, the assumptions shown in the following table were used:

	Year Ended December 31,		
	2019	2018	2017
Dividend yield	0%	0%	0%
Average risk-free interest rate	2.5%	2.7%	2.0%
Expected term (years)	5	5	5
Expected volatility	39.1%	40.5%	42.3%

Dividend Yield. The Company has never paid cash dividends on its common stock.

Average Risk-Free Interest Rate. The Company uses the U.S. Treasury rate having a term that most closely resembles the expected term of the option.

Expected Term. The expected term is the period of time that the SARs granted are expected to remain unexercised. SARs granted during the years ended December 31, 2019, December 31, 2018 and December 31, 2017 had a maximum term of ten years. The Company used historical exercise behavior with further consideration given to the class of employees to whom the equity awards were granted to estimate the expected term of the SAR.

Expected Volatility. Volatility is a measure of the amount by which a financial variable such as a share price has fluctuated (historical volatility) or is expected to fluctuate (expected volatility) during a period. The Company has used the historical volatility over the average expected term of the options granted as the expected volatility.

The weighted-average grant date fair value of SARs granted during the years ended December 31, 2019, December 31, 2018 and December 31, 2017 was \$29.56, \$22.09 and \$13.99, respectively.

SAR activity under the Plan and all predecessor stock incentive plans is as follows:

	SARs	Weighted-Average Grant Price Per Share	Weighted- Average Remaining Contractual Life (Years)	Aggregate Intrinsic Value as of December 31, 2019
Outstanding at December 31, 2016	275,450	\$ 9.79		
Granted	37,478	\$35.38		
Exercised	(34,812)	\$ 8.07		
Canceled		\$ —		
Outstanding at December 31, 2017	278,116	\$13.45		
Granted	21,260	\$56.59		
Exercised	(60,900)	\$ 5.27		
Canceled		\$ —		
Outstanding at December 31, 2018	238,476	\$19.26		
Granted	24,536	\$77.70		
Exercised	(108,764)	\$13.89		
Canceled	(2,229)	\$77.70		
Outstanding at December 31, 2019	152,019	\$31.58	5.5	\$8,862,501
Vested at December 31, 2019	103,094	\$18.14	4.1	\$7,396,470
Exercisable at December 31, 2019	103,094	\$18.14	4.1	\$7,396,470

Employee Stock Purchase Plan

The Company has an employee stock purchase plan (ESPP) that permits eligible employees to purchase shares of common stock of the Company at a purchase price which is the lesser of 85% of the market price on either the first day of the calendar quarter or the last day of the calendar quarter. Eligible employees may elect to participate in the plan by authorizing payroll deductions of up to 15% of gross compensation for each payroll period. On the last day of each quarter, each participant's contribution account is used to purchase the maximum number of whole shares of common stock determined by dividing the contribution account balance by the purchase price. The aggregate number of shares of common stock that may be purchased under the plan is 1,200,000. Through December 31, 2019, employees had purchased approximately 891,065 shares under the plan.

15. EMPLOYEE BENEFIT PLANS

The Company has two 401(k) Profit Sharing Plans for the benefit of its employees who meet certain eligibility requirements and it matches qualifying employee contributions. The Company's contributions to the plans totaled \$4.6 million, \$4.2 million, and \$3.0 million for the years ended December 31, 2019, 2018 and 2017, respectively.

16. INCOME TAXES

Income tax provision (benefit) consists of the following (in thousands):

	Year Ended December 31,			
	2019	2018	2017	
Current income tax provision:				
Federal	\$30,306	\$33,578	\$41,177	
State	6,952	7,674	5,420	
	37,258	41,252	46,597	
Deferred income tax provision:				
Federal	6,928	988	1,177	
State	778	49	(983)	
	7,706	1,037	194	
Total income tax provision	\$44,964	\$42,289	\$46,791	

The income tax provision differs from the amount of income tax determined by applying the U.S. Federal statutory rate to income before taxes as a result of the following (in thousands):

	Year Ended December 31,			
	2019	2018	2017	
U.S. Federal statutory taxes	\$39,838	\$37,141	\$49,671	
State and local taxes, net of U.S. Federal benefit	8,412	7,716	5,110	
Permanent items	1,266	470	576	
Excess tax benefits from vesting or settlement of stock				
compensation awards	(3,540)	(2,368)	(1,454)	
Domestic production activities deduction	—	—	(4,376)	
Federal credits	(654)	(662)	(534)	
Other	(358)	(8)	(2,202)	
Total income tax provision	\$44,964	\$42,289	\$46,791	

	As of December 31,	
	2019	2018
Deferred tax assets:		
Net operating losses	\$ 88	\$ 79
Residential product warranty reserve	6,486	7,804
Stock-based compensation	1,055	1,725
Accruals not currently deductible and other	2,245	3,928
Inventories	5,780	4,682
Operating lease liability	10,618	—
State tax credit carryforwards	3,461	3,400
Gross deferred tax assets, before valuation allowance	29,733	21,618
Valuation allowance	(2,988)	(3,015)
Gross deferred tax assets, after valuation allowance	26,745	18,603
Deferred tax liabilities:		
Depreciation	(17,267)	(13,893)
Operating lease right-of-use asset	(10,162)	_
Goodwill amortization	(4,782)	(3,774)
Inventories and other	(4,365)	(3,061)
Gross deferred tax liabilities	(36,576)	(20,728)
Net deferred tax liability	\$ (9,831)	\$ (2,125)

Deferred tax assets and liabilities consist of the following (in thousands):

The Company recognizes deferred tax assets and liabilities based on the difference between the financial statement basis and tax basis of assets and liabilities using enacted rates expected to be in effect during the year in which the differences reverse. In accordance with accounting standards, the Company assesses the likelihood that its deferred tax assets will be realized. Deferred tax assets are reduced by a valuation allowance when, after considering all available positive and negative evidence, it is determined that it is more likely than not that some portion, or all, of the deferred tax asset will not be realized. As of December 31, 2019, the Company had a valuation allowance of \$3.0 million against deferred tax assets it estimates will not be realized. The Company will analyze its position in subsequent reporting periods, considering all available positive and negative evidence, in determining the expected realization of its deferred tax assets.

The Company realized \$3.5 million, \$2.4 million and \$1.5 million of excess tax benefits during 2019, 2018 and 2017, respectively, related to share-based compensation awards.

The Company recognizes interest and penalties related to tax matters as a component of "Selling, general and administrative expenses" in the accompanying Consolidated Statements of Comprehensive Income. As of December 31, 2019, the Company has identified no uncertain tax position and, accordingly, has not recorded any unrecognized tax benefits or associated interest and penalties.

The Company operates in multiple tax jurisdictions and, in the normal course of business, its tax returns are subject to examination by various taxing authorities. Such examinations may result in future assessments by these taxing authorities, and the Company has accrued a liability when it believes that it is not more likely than not that it will realize the benefits of tax positions that it has taken or for the amount of any tax benefit that exceeds the cumulative probability threshold in accordance with accounting standards. As of December 31, 2019 Federal tax years 2016 through 2019 remain subject to examination. The Company's returns filed with the state of Oregon for the tax years 2015 through 2017 are currently under examination. No material adjustments are expected as a result of the audit. The Company believes that adequate provisions have been made for all tax returns subject to examination. Sales made to foreign distributors are not taxable in any foreign jurisdictions as the Company does not have a taxable presence.

17. SEGMENT INFORMATION

Prior to July 31, 2017, the Company operated in one reportable segment. Subsequent to the acquisition of certain assets and assumption of certain liabilities of SC Company on July 31, 2017, the Company operates in two reportable segments:

- Trex Residential manufactures composite decking and railing and related products marketed under the brand name Trex[®]. The products are sold to its distributors and two national retailers who, in turn, sell primarily to the residential market, which includes replacement, remodeling and new construction related to outdoor living products. Trex Residential net sales were \$694.3 million, \$613.2 million, and \$543.3 million in the years ended December 31, 2019, December 31, 2018, and December 31, 2017, respectively.
- Trex Commercial designs, engineers, and markets modular and architectural railing and staging
 systems for commercial and multi-family market, including sports stadiums and performing arts
 venues. The segment's products are sold through architects, specifiers, contractors, and others doing
 business within the segment's commercial market. Trex Commercial net sales were \$51.1 million and
 \$71.0 million in the year ended December 31, 2019 and December 31, 2018, respectively, and
 \$21.8 million from the date of acquisition through December 31, 2017.

The Company's reportable segments have been determined in accordance with its internal management structure, which is organized based on residential and commercial operations. The Company evaluates performance of each segment primarily based on net sales and earnings before interest, taxes, depreciation and amortization (EBITDA). The Company uses net sales to assess performance and allocate resources as this measure represents the amount of business the segment engaged in during a given period of time, is an indicator of market growth and acceptance of segment products, and represents the segment's customers' spending habits along with the amount of product the segment sells relative to its competitors. The Company uses EBITDA to assess performance and allocate resources because it believes that EBITDA facilitates performance comparison between the segment by eliminating interest, taxes, and depreciation and amortization charges to income. The below segment data includes data for Trex Residential for the years ended December 31, 2019, December 31, 2017, and data for Trex Commercial for the years ended December 31, 2019 and December 31, 2018, and from the date of the acquisition of SC Company through December 31, 2017, for the year ended December 31, 2017 (in thousands):

Segment Data:

	Net Sales	Net Income (Loss)	EBITDA	Depreciation and Amortization	Income Tax Expense (Benefit)	Capital Expenditures	Total Assets
December 31, 2019							
Trex Residential	\$694,267	\$142,811	\$199,020	\$13,413	\$44,292	\$65,399	\$503,883
Trex Commercial	51,080	1,927	3,210	618	672	1,866	88,356
Total	\$745,347	\$144,738	\$202,230	\$14,031	\$44,964	\$67,265	\$592,239
December 31, 2018							
Trex Residential	\$613,229	\$131,823	\$186,268	\$13,216	\$41,421	\$31,392	\$380,682
Trex Commercial	71,021	2,749	6,868	3,251	868	2,424	84,440
Total	\$684,250	\$134,572	\$193,136	\$16,467	\$42,289	\$33,816	\$465,122
December 31, 2017							
Trex Residential	\$543,346	\$ 97,412	\$160,382	\$14,598	\$47,911	\$14,989	\$247,817
Trex Commercial	21,807	(2,284)	(1,272)	2,132	(1,120)	51	78,410
Total	\$565,153	\$ 95,128	\$159,110	\$16,730	\$46,791	\$15,040	\$326,227

Reconciliation of Net Income (Loss) to EBITDA:

	Net Income (Loss)	Interest (Income) Expense, Net	Income Tax Expense (Benefit)	Depreciation and Amortization	EBITDA
December 31, 2019					
Trex Residential	\$142,811	\$(1,496)	\$44,292	\$13,413	\$199,020
Trex Commercial	1,927	(7)	672	618	3,210
Total	\$144,738	\$(1,503)	\$44,964	\$14,031	\$202,230
December 31, 2018					
Trex Residential	\$131,823	\$ (192)	\$41,421	\$13,216	\$186,268
Trex Commercial	2,749		868	3,251	6,868
Total	\$134,572	\$ (192)	\$42,289	\$16,467	\$193,136
December 31, 2017					
Trex Residential	\$ 97,412	\$ 461	\$47,911	\$14,598	\$160,382
Trex Commercial	(2,284)		(1,120)	2,132	(1,272)
Total	\$ 95,128	\$ 461	\$46,791	\$16,730	\$159,110

18. SEASONALITY

The operating results for Trex Residential have historically varied from quarter to quarter. Seasonal, erratic or prolonged adverse weather conditions in certain geographic regions reduce the level of home improvement and construction activity and can shift demand for its products to a later period. As part of its normal business practice and consistent with industry practice, Trex Residential has historically offered incentive programs to its distributors and dealers to build inventory levels before the start of the prime deck-building season in order to ensure adequate availability of its product to meet anticipated seasonal consumer demand. The seasonal effects are often offset by the positive effect of the incentive programs. The operating results for Trex Commercial have not historically varied from quarter to quarter as a result of seasonality. However, they are driven by the timing of individual projects, which may vary significantly each period.

19. COMMITMENTS AND CONTINGENCIES

Legal Matters

The Company has lawsuits, as well as other claims, pending against it which are ordinary routine litigation and claims incidental to the business. Management has evaluated the merits of these lawsuits and claims, and believes that their ultimate resolution will not have a material effect on the Company's consolidated financial condition, results of operations, liquidity or competitive position.

Purchase Commitments

The Company fulfills requirements for raw materials under both purchase orders and supply contracts. In the year ended December 31, 2019, the Company purchased substantially all of its reclaimed wood fiber requirements under purchase orders which do not involve long-term supply commitments. All of the Company's scrap polyethylene, aluminum and stainless steel purchases are under short-term supply contracts that may average approximately one to two years, for which pricing is negotiated as needed, or under purchase orders that do not involve long-term supply commitments.

The wood and polyethylene supply contracts generally provide that the Company is obligated to purchase all of the wood or polyethylene a supplier provides, if the wood or polyethylene meets certain specifications. The amount of wood and polyethylene the Company is required to purchase under these contracts varies with the

production of its suppliers and, accordingly, is not fixed or determinable. As of December 31, 2019, the Company has purchase commitments under material supply contracts of \$26.8 million, \$6.2 million for the years ending December 31, 2020 and 2021, respectively, and a total of \$0.1 million for the years ending December 31, 2022 and 2023.

Product Warranty

The Company warrants that its Trex Residential products will be free from material defects in workmanship and materials. This warranty generally extends for a period of 25 years for residential use and 10 years for commercial use, excluding Trex Signature[®] Railing, which has a warranty period of 25 years for both residential and commercial use. The Company further warrants that Trex Transcend[®], Trex Enhance[®], Trex Select[®] and Universal Fascia products will not fade in color more than a certain amount and will be resistant to permanent staining from food substances or mold, provided the stain is cleaned within seven days of appearance. This warranty extends for a period of 25 years for residential use and 10 years for commercial use. If there is a breach of such warranties, the Company has an obligation either to replace the defective product or refund the purchase price. Depending on the product and its use, the Company also warrants its Trex Commercial products will be free of manufacturing defects for one to three years.

The Company continues to receive and settle claims for decking products manufactured at its Nevada facility prior to 2007 that exhibit surface flaking and maintains a warranty reserve to provide for the settlement of these claims. Estimating the warranty reserve for surface flaking claims requires management to estimate (1) the number of claims to be settled with payment and (2) the average cost to settle each claim.

To estimate the number of claims to be settled with payment, the Company utilizes actuarial techniques to determine a reasonable possible range of claims to be received and the percentage of those claims that will ultimately require payment. Management utilizes a range of assumptions derived from claim count history and the identification of factors influencing the claim counts to determine its best estimate of future claims for which to record a related liability. The number of claims received has declined each year since peaking in 2009, although the rate of decline has decelerated in recent years. The cost per claim varies due to a number of factors, including the size of affected decks, the availability and type of replacement material used, the cost of production of replacement material and the method of claim settlement.

The Company monitors surface flaking claims activity each quarter for indications that its estimates require revision. Typically, a majority of surface flaking claims received in a year are received during the summer outdoor season, which spans the second and third quarters. It has been the Company's practice to utilize the actuarial techniques discussed above during the third quarter, after a significant portion of all claims has been received for the fiscal year and variances to annual claims expectations are more meaningful. The number of incoming claims received in the year ended December 31, 2019, was slightly lower than the Company's expectations for 2019 and the number of claims received in the year ended December 31, 2019, was settlement cost per claim experienced in 2019 was considerably higher than the Company's expectations for 2019 and the average settlement cost per claim experienced in 2019 was considerably higher than the Company's expectations for 2019 and the average settlement cost per claim experienced in 2019 was considerably higher than the Company's expectations for 2019 and the average settlement cost per claim experienced in 2018 due to an increase in larger claims settled and changes in the mix of settlement methods. The Company believes its reserve at December 31, 2019 is sufficient to cover future surface flaking obligations and no adjustments were required in the current year.

The Company's analysis is based on currently known facts and a number of assumptions, as discussed above, and current expectations. Projecting future events such as the number of claims to be received, the number of claims that will require payment and the average cost of claims could cause the actual warranty liabilities to be higher or lower than those projected, which could materially affect the Company's financial condition, results of operations or cash flows. The Company estimates that the annual number of claims received will continue to decline over time and that the average cost per claim will increase slightly, primarily due to inflation. If the level of claims received or average cost per claim differs materially from expectations, it could result in additional increases or decreases to the warranty reserve and a decrease or increase in earnings and cash flows in future periods. The Company estimates that a 10% change in the expected number of remaining claims to be settled with payment or the expected cost to settle claims may result in approximately a \$1.9 million change in the surface flaking warranty reserve.

The Company also maintains a warranty reserve for the settlement of other residential product warranty claims and records the provision at the time of product sale.

The following is a reconciliation of the Company's residential product warranty reserve (in thousands):

	Year Ended December 31, 2019		
	Surface Flaking	Other Residential	Total
Beginning balance, January 1	\$23,951	\$ 6,803	\$30,754
Provisions and changes in estimates		979	979
Settlements made during the period	(4,927)	(1,312)	(6,239)
Ending balance, December 31	\$19,024	\$ 6,470	\$25,494
	Year En	ded December	31, 2018
	Year En Surface Flaking	ded December Other Residential	31, 2018 Total
Beginning balance, January 1	Surface	Other	,
Beginning balance, January 1 Provisions and changes in estimates	Surface Flaking	Other Residential	Total
	Surface Flaking	Other Residential \$ 6,841	<u>Total</u> \$34,999

20. INTERIM FINANCIAL DATA (Unaudited)

	Three Months Ended							
1	December 31, 2019	September 30, 2019	June 30, 2019	March 31, 2019	December 31, 8 2018	eptember 30, 2018	June 30, 2018	March 31, 2018
_			(In thousa	ands, except sh	are and per shar	e data)		
Net sales	5 164,772	\$ 194,551 \$	206,453 5	5 179,571	\$ 139,971 \$	166,380 9	5 206,692 9	5 171,207
Gross profit\$	5 71,263	\$ 82,431 \$	83,444 9	69,365	\$ 59,856 \$	67,210 5	§ 91,115 9	5 76,713
Net income	35,497	\$ 41,976 \$	35,710 9	\$ 31,555	\$ 25,171 \$	29,471 9	42,820 \$	5 37,110
Basic earnings per common share \$	6 0.61	\$ 0.72 \$	0.61 9	6 0.54	\$ 0.43 \$	0.50 5	5 0.73 S	6 0.63
Basic weighted average common								
shares outstanding	58,295,717	58,400,060	58,486,192	58,543,478	58,603,537	58,741,973	58,760,753	58,855,156
Diluted earnings per common								
share\$	6 0.61	\$ 0.72 \$	0.61 9	6 0.54	\$ 0.43 \$	0.50 5	6 0.73 5	6 0.63
Diluted weighted average common								
shares outstanding	58,512,733	58,604,603	58,687,540	58,829,177	58,936,795	59,084,117	59,051,413	59,199,622

The operating results for Trex Residential have historically varied from quarter to quarter. Seasonal, erratic or prolonged adverse weather conditions in certain geographic regions reduce the level of home improvement and construction activity and can shift demand for its products to a later period. The operating results for Trex Commercial have not historically varied from quarter to quarter as a result of seasonality; however, they are driven by the timing of individual projects, which may vary significantly each period.

On May 2, 2018, the Board of Directors of the Company approved a two-for-one stock split of the Company's common stock, par value \$0.01. The stock split was in the form of a stock dividend distributed on June 18, 2018, to stockholders of record at the close of business on May 23, 2018. The stock split entitled each stockholder to receive one additional share of common stock, par value \$0.01, for each share they held as of the record date. All common stock share and per share data for all periods presented have been retroactively adjusted to reflect the stock split.

TREX COMPANY, INC.

SCHEDULE II—VALUATION AND QUALIFYING ACCOUNTS AND RESERVES

(In thousands)

Descriptions	Balance at Beginning of Period	Additions Charged to Cost and Expenses	Deductions	Balance at End of Period
Year ended December 31, 2019:				
Trex Residential product warranty reserve	\$30,754	<u>\$ 979</u>	\$(6,239)	\$25,494
Income tax valuation allowance	\$ 3,015	\$	\$ (27)	\$ 2,988
Year ended December 31, 2018:				
Trex Residential product warranty reserve	\$34,999	\$1,104	\$(5,349)	\$30,754
Income tax valuation allowance	\$ 3,096	<u>\$ </u>	<u>\$ (81)</u>	\$ 3,015
Year ended December 31, 2017:				
Trex Residential product warranty reserve	\$37,692	\$4,268	\$(6,961)	\$34,999
Income tax valuation allowance	\$ 4,061	<u>\$ </u>	\$ (965)	\$ 3,096

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) 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.

Trex Company, Inc.

Date: February 24, 2020

By:	/s/ James E. Cline
	James E. Cline President and Chief Executive Officer (Duly Authorized Officer)

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed as of February 24, 2020 by the following persons on behalf of the registrant and in the capacities indicated.

Signature	Title
/s/ James E. Cline	President and Chief Executive Officer (Principal
James E. Cline	Executive Officer); Director
/s/ Bryan H. Fairbanks	Executive Vice President and Chief Financial Officer
Bryan H. Fairbanks	(Principal Financial Officer and Principal Accounting Officer)
/s/ Ronald W. Kaplan	Chairman
Ronald W. Kaplan	
/s/ Michael F. Golden	Director
Michael F. Golden	
/s/ Jay M. Gratz	Director
Jay M. Gratz	
/s/ Kristine L. Juster	Director
Kristine L. Juster	
/s/ Richard E. Posey	Director
Richard E. Posey	
/s/ Patricia B. Robinson	Director
Patricia B. Robinson	
/s/ Gerald Volas	Director
Gerald Volas	

EXHIBIT INDEX

		Incorporated by reference			
Exhibit Number	Description	Form	Exhibit	Filing Date	File No.
2.1	Asset Purchase Agreement by and among Trex Commercial Products, Inc., Staging Concepts Acquisition, LLC and Stadium Consolidation, LLC.	8-K	2.1	July 31, 2017	001-14649
3.1	Restated Certificate of Incorporation of Trex Company, Inc.	S-1/A	3.1	March 24, 1999	333-63287
3.2	Certificate of Amendment to the Restated Certificate of Incorporation of Trex Company, Inc. dated April 30, 2014.	10-Q	3.2	May 5, 2014	001-14649
3.3	Second Certificate of Amendment to the Restated Certificate of Incorporation of Trex company, Inc. dated May 2, 2018.	10-Q	3.3	May 7, 2018	001-14649
3.4	Third Certificate of Amendment to the Restated Certificate of Incorporation of Trex Company, Inc. dated May 1, 2019.	8-K	3.1	May 1, 2019	001-14649
3.5	Amended and Restated By-Laws of the Company.	8-K	3.2	May 1, 2019	001-14649
4.1	Specimen certificate representing the Company's common stock.	S-1/A	4.1	March 24, 1999	333-63287
4.2	Third Amended and Restated Credit Agreement dated as of January 12, 2016 between the Company, as borrower; the subsidiaries of the Company as guarantors; Bank of America, N.A., as a Lender, Administrative Agent, Swing Line Lender and Letter of Credit Issuer; and certain other lenders arranged by Bank of America Merrill Lynch as Sole Lead Arranger and Sole Bookrunner.	8-K	4.1	January 14, 2016	001-14649
4.3	Revolver Note dated January 12, 2016 payable by the Company to Bank of America, N.A. in the amount of the lesser of \$110,000,000 or the outstanding revolver advances made by Bank of America, N.A.	8-K	4.2	January 14, 2016	001-14649
4.4	Revolver Note dated January 12, 2016 payable by the Company to Citibank, N.A. in the amount of the lesser of \$75,000,000 or the outstanding revolver advances made by Citibank, N.A.	8-K	4.3	January 14, 2016	001-14649
4.5	Revolver Note dated January 12, 2016 payable by the Company to Capital One, N.A. in the amount of the lesser of \$35,000,000 or the outstanding revolver advances made by Capital One, N.A.	8-K	4.4	January 14, 2016	001-14649

		Incorporated by reference			
Exhibit Number	Description	Form	Exhibit	Filing Date	File No.
4.6	Revolver Note dated January 12, 2016 payable by the Company to SunTrust Bank in the amount of the lesser of \$30,000,000 or the outstanding revolver advances made by SunTrust Bank.	8-K	4.5	January 14, 2016	001-14649
4.7	Third Amended and Restated Security and Pledge Agreement dated as of January 12, 2016 between the Company, as debtor, and Bank of America, N.A. as Administrative Agent (including Notices of Grant of Security Interest in Copyrights and Trademarks).	8-K	4.6	January 14, 2016	001-14649
4.8	Assignment of Amended and Restated Credit Line Deed of Trust, Substitution of Trustee and Amendment, dated as of January 12, 2016, by and among the Company as grantor, PRLAP, INC, as trustee, and Bank of America, N.A., as Administrative Agent for Bank of America, N.A., Citibank, N.A., Capital One, N.A., and SunTrust Bank, as Beneficiaries relating to real property partially located in the County of Frederick, Virginia and partially located in the City of Winchester, Virginia.	8-K	4.7	January 14, 2016	001-14649
4.9	Amended and Restated Deed of Trust, dated as of January 12, 2016, by and among the Company as grantor, First American Title Insurance Company, as trustee, and Bank of America, N.A., Citibank, N.A., Capital One, N.A., and SunTrust Bank, as Beneficiaries relating to real property located in the County of Fernley, Nevada.	8-K	4.8	January 14, 2016	001-14649
4.10	Fourth Amended and Restated Credit Agreement dated as of November 5, 2019 between the Company, as borrower; Trex Commercial Products, Inc., as guarantor, Bank of America, N.A., as a Lender, Administrative Agent, Swing Line Lender and L/C Issuer; and certain other lenders including Wells Fargo Bank, N.A., who is also Syndication Agent, SunTrust Bank, and Branch Banking and Trust Company arranged by BofA Securities, Inc. as Sole Lead Arranger and Sole Bookrunner.	8-K	4.1	November 6, 2019	001-14649
4.11	Note dated November 5, 2019 payable by the Company to Bank of America, N.A. in the amount of the lesser of \$125,000,000 or the outstanding revolver advances made by Bank of America, N.A.	8-K	4.2	November 6, 2019	001-14649

T 1114		Incorporated by reference			
Exhibit Number	Description	Form	Exhibit	Filing Date	File No.
4.12	Note dated November 5, 2019 payable by the Company to Wells Fargo Bank, N.A. in the amount of the lesser of \$70,000,000 or the outstanding revolver advances made by Wells Fargo Bank, N.A.	8-K	4.3	November 6, 2019	001-14649
4.13	Note dated November 5, 2019 payable by the Company to SunTrust Bank in the amount of the lesser of \$30,000,000 or the outstanding revolver advances made by SunTrust Bank.	8-K	4.4	November 6, 2019	001-14649
4.14	Note dated November 5, 2019 payable by the Company to Branch Banking and Trust Company in the amount of the lesser of \$25,000,000 or the outstanding revolver advances made by Branch Banking and Trust Company.	8-K	4.5	November 6, 2019	001-14649
4.15	Fourth Amended and Restated Security and Pledge Agreement dated as of November 5, 2019 between the Company, as debtor, Trex Commercial Products, Inc., as additional obligor; and Bank of America, N.A. as Administrative Agent (including Notices of Grant of Security Interest in Copyrights and Trademarks).	8-K	4.6	November 6, 2019	001-14649
4.16*	Description of Securities registered pursuant to Section 12 of the Securities Exchange Act of 1934				
10.1	Description of Management Compensatory Plans and Arrangements. **	10-K	10.1	February 14, 2019	001-14649
10.2	Trex Company, Inc. Amended and Restated 2014 Stock Incentive Plan. **	10-Q	10.1	May 7, 2018	001-14649
10.3	Trex Company, Inc. Amended and Restated 1999 Incentive Plan for Outside Directors as amended on October 24, 2018. **	10-Q	10.1	October 29, 2018	001-14649
10.4	Form of Trex Company, Inc. 2014 Stock Incentive Plan Stock Appreciation Rights Agreement. **	10-Q	10.1	July 29, 2019	001-14649
10.5	Form of Trex Company, Inc. 2014 Stock Incentive Plan Time-Based Restricted Stock Unit Agreement. **	10-Q	10.2	July 29, 2019	001-14649
10.6	Form of Trex Company, Inc. 2014 Stock Incentive Plan Performance-Based Restricted Stock Unit Agreement. **	10-Q	10.3	July 29, 2019	001-14649
10.7	Form of Trex Company, Inc. Amended and Restated 1999 Incentive Plan for Outside Directors Restricted Stock Unit Agreement. **	10-Q	10.2	August 3, 2015	001-14649

Incorporated by reference

		Incorporated by reference			
Exhibit Number	Description	Form	Exhibit	Filing Date	File No.
10.8	Change in Control Severance Agreement dated May 6, 2015 by and between Trex Company, Inc. and James E. Cline. **	8-K	10.1	May 8, 2015	001-14649
10.9	Severance Agreement dated May 6, 2015 by and between Trex Company, Inc. and James E. Cline. **	8-K	10.2	May 8, 2015	001-14649
10.10	Form of Change in Control Severance Agreement between Trex Company, Inc. and Officers other than the Chief Executive Officer. **	10-K	10.16	February 21, 2017	001-14649
10.11	Form of Severance Agreement between Trex Company, Inc. and Officers other than the Chief Executive Officer. **	10-Q	10.1	May 8, 2015	001-14649
10.12	Retention Agreement dated as of July 24, 2012 between Trex Company, Inc. and James E. Cline **	10-Q	10.4	November 1, 2012	001-14649
10.13	Form of Retention Agreement for Company Officers dated May 2, 2018. **	10-Q	10.2	May 7, 2018	001-14649
10.14	Form of Indemnity Agreement for Directors.	10-K	10.19	March 12, 2009	001-14649
10.15	Form of Indemnity Agreement for Officers.	10-K	10.20	March 12, 2009	001-14649
10.16	Form of Indemnity Agreement for Director/ Officers.	10-K	10.21	March 12, 2009	001.14649
10.17	Form of Distributor Agreement of Trex Company, Inc.	10-K	10.23	March 12, 2009	001-14649
10.18	Form of Trex Company, Inc. Fencing Agreement for Installers/Retailers.	10-Q	10.4	November 9, 2006	001-14649
21*	Subsidiaries of the Company.				
23*	Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm.				
31.1*	Certification of Chief Executive Officer of the Company pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934.				
31.2*	Certification of Chief Financial Officer of the Company pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934.				
32***	Certifications of Chief Executive Officer and Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. § 1350).				
101.INS*	Inline 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.				

			Incorporated by reference		
Exhibit Number	Description	Form	Exhibit	Filing Date	File No.
101.SCH*	Inline XBRL Taxonomy Extension Schema Document.				
101.CAL*	Inline XBRL Taxonomy Extension Calculation Linkbase Document.				
101.DEF*	Inline XBRL Taxonomy Extension Definition Linkbase Document.				
101.LAB*	Inline XBRL Taxonomy Extension Label Linkbase Document.				
101.PRE*	Inline XBRL Taxonomy Extension Presentation Linkbase Document.				
104.1	Cover Page Interactive Data File—The cover page interactive data file does not appear in the interactive data file because its XBRL tags are embedded within the inline XBRL document.				
 Filed herewith. ** Management contract or compensatory plan or agreement. *** Furnished herewith. 					

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

Trex Company, Inc. has two classes of securities registered under Section 12 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"): (1) our Common Stock; (2) our Preferred Stock.

Description of Common Stock

The following description of our Common Stock is a summary and does not purport to be complete. It is subject to and qualified in its entirety by reference to our Amended and Restated Articles of Incorporation (the "Articles of Incorporation") and our Amended and Restated Bylaws (the "Bylaws"), each of which are incorporated by reference as an exhibit to the Annual Report on Form 10-K of which this Exhibit 4.16 is a part. We encourage you to read our Articles of Incorporation, our Bylaws for additional information.

Authorized Capital Shares

Our authorized capital shares consist of 120,000,000 shares of common stock, \$0.01 par value per share ("Common Stock"), and 3,000,000 shares of series preferred stock, \$0.01 par value per preferred share ("Preferred Stock"). The outstanding shares of our Common Stock are fully paid and nonassessable.

Voting Rights

Holders of Common Stock are entitled to one vote per share on all matters voted on by the stockholders, including the election of directors. Our Common Stock does not have cumulative voting rights.

Dividend Rights

Subject to the rights of holders of outstanding shares of Preferred Stock, if any, the holders of Common Stock are entitled to receive dividends, if any, as may be declared from time to time by the Board of Directors in its discretion out of funds legally available for the payment of dividends.

Liquidation Rights

Subject to any preferential rights of outstanding shares of Preferred Stock, holders of Common Stock will share ratably in all assets legally available for distribution to our stockholders in the event of dissolution.

Other Rights and Preferences

Our Common Stock has no sinking fund or redemption provisions or preemptive, conversion or exchange rights. Holders of Common Stock may act by unanimous written consent.

Listing

The Common Stock is traded on the New York Stock Exchange under the trading symbol "TREX."

DESCRIPTION OF PREFERRED STOCK

The Board of Directors is authorized without further stockholder action to provide for the issuance from time to time of up to 3,000,000 shares of Preferred Stock in one or more series with such powers, designations, preferences and relative, participating, optional or other rights, qualifications, limitations or restrictions as will be set forth in the resolutions providing for the issuance of such series adopted by the Board of Directors. The holders of Preferred Stock have no preemptive rights (unless otherwise provided in the applicable certificate of designation) and are not subject to future assessments by the Company. Such Preferred Stock may have voting or other rights which could adversely affect the rights of holders of the Common Stock.

Subsidiaries of Trex Company, Inc.

<u>Name of the Subsidiary</u> Trex Wood Polymer Espana, S.L. Trex Commercial Products, Inc. Jurisdiction of Formation Spain Delaware

Exhibit 23

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the following Registration Statements:

- Registration Statement (Form S-8, No. 333-76847),
- Registration Statement (Form S-8, No. 333-83998),
- Registration Statement (Form S-8, No. 333-124685),
- Registration Statement (Form S-8, No. 333-150690), and
- Registration Statement (Form S-3, No. 333-161732);

of our reports dated February 24, 2020, with respect to the consolidated financial statements and schedule of Trex Company, Inc. and the effectiveness of internal control over financial reporting of Trex Company, Inc. included in this Annual Report (Form 10-K) of Trex Company, Inc. for the year ended December 31, 2019.

/s/ Ernst & Young LLP

Richmond, Virginia February 24, 2020

CERTIFICATION

I, James E. Cline, certify that:

- 1. I have reviewed this annual report on Form 10-K of Trex Company, 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 24, 2020

/s/ JAMES E. CLINE

James E. Cline President and Chief Executive Officer (Principal Executive Officer)

CERTIFICATION

I, Bryan H. Fairbanks, certify that:

- 1. I have reviewed this annual report on Form 10-K of Trex Company, 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 function(s)):
 - (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 24, 2020

/s/ BRYAN H. FAIRBANKS

Bryan H. Fairbanks Executive Vice President and Chief Financial Officer (Principal Financial Officer)

Written Statement of Chief Executive Officer and Chief Financial Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. Section 1350)

The undersigned, the President and Chief Executive Officer and the Chief Financial Officer of Trex Company, Inc. (Company), each hereby certifies that, on the date hereof:

(a) the Annual Report on Form 10-K of the Company for the Period Ended December 31, 2019 filed on the date hereof with the U. S. Securities and Exchange Commission (Report) fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(b) information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: February 24, 2020

/s/ JAMES E. CLINE

James E. Cline President and Chief Executive Officer

Date: February 24, 2020

/s/ BRYAN H. FAIRBANKS

Bryan H. Fairbanks Executive Vice President and Chief Financial Officer