

TREX CO INC  
Form 10-K  
February 21, 2018  
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**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, 2017**

**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)**

<b>Delaware</b> <b>(State or other jurisdiction of</b>  <b>incorporation or organization)</b> <b>160 Exeter Drive, Winchester, Virginia</b> <b>(Address of principal executive offices)</b>	<b>54-1910453</b> <b>(I.R.S. Employer</b>  <b>Identification No.)</b> <b>22603-8605</b> <b>(Zip Code)</b>
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(540) 542-6300

**Registrant's telephone number, including area code:**

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

<b>Title of each class:</b> <b>Common Stock, par value \$0.01 per share</b>	<b>Name of each exchange on which registered:</b> <b>New York Stock Exchange</b>
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**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 No

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 No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate web site, if any, every Interactive Data File required to be submitted and posed pursuant to Rule 405 of Regulation S-T during the preceding 12 months. Yes No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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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 (Do not check if a smaller reporting Company)

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, 2017, which was the last business day of the registrant's most recently completed second fiscal quarter, was approximately \$2.0 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 6, 2018 was 29,428,555.

**DOCUMENTS INCORPORATED BY REFERENCE**

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

<b>Document</b>	<b>Part of 10-K into which incorporated</b>
Proxy Statement relating to Registrant's	Part III
2018 Annual Meeting of Stockholders	

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**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 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.

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**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 and the 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 wood-alternative decking and railing products, which are marketed under the brand name Trex® and manufactured in the United States, and a leading national provider of custom-engineered railing systems and one of the leading suppliers of staging equipment. 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:* Trex Company, Inc. currently operates in two reportable segments: Trex Residential Products and Trex Commercial Products.

*Trex Residential Products* is the world's largest manufacturer of high-performance 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, trim, steel deck framing, and outdoor lighting categories. A majority of the products are eco-friendly and made in a proprietary process that combines reclaimed wood fibers and recycled polyethylene film. Trex Residential products are sold to distributors and two national retailers who, in turn, sell primarily to the residential market.

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Trex offers the following Trex Residential products:

***Decking*** Our principal decking products are Trex Transcend<sup>®</sup>, Trex Enhance<sup>®</sup> and Trex Select<sup>®</sup>. Our decking products are comprised of a blend of 95 percent recycled wood and recycled plastic film and feature a protective polymer shell for enhanced protection against fading, staining, mold and scratching. We also offer Trex Hideaway<sup>®</sup>, a hidden fastening system for grooved boards.

***Railing*** Our railing products are Trex Transcend Railing, Trex Select Railing, and Trex Signature aluminum railing. Trex Transcend Railing 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 is ideal for consumers who desire a simple clean finished look for their deck. Trex Signature aluminum railing is available in three colors and designed for consumers who want a sleek, contemporary look.

***Fencing*** Our Trex Seclusions<sup>®</sup> 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<sup>®</sup> 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.

***Outdoor Lighting*** Our outdoor lighting systems are Trex DeckLighting and Trex LandscapeLighting. 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. The Trex LandscapeLighting line includes an energy-efficient well light, path light, multifunction light and spotlight.

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.

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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:

***Trex Outdoor Furniture*** 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*** Pergolas made from low maintenance cellular PVC product, manufactured by Home & Leisure, Inc. dba Structureworks Fabrication.

***Trex Latticeworks*** Outdoor lattice boards manufactured and sold by Rhea Products, Inc. dba Acurio Latticeworks.

***Trex Cornhole Boards*** Cornhole boards manufactured and sold by IPC Global Marketing LLC.

***Diablo® Trex Blade*** A specialty saw blade for wood-plastic composite decking manufactured and sold by Freud America, Inc.

***Trex SpiralStairs and Structural Steel Posts*** An ultimate 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.

**Trex Commercial Products** is a leading national provider of custom-engineered railing systems and one of the leading suppliers of staging equipment. Trex Commercial Products 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 markets. With a team of devoted engineers, and industry-leading reputation for quality and dedication to customer service, Trex Commercial Products are sold through architects, specifiers, and contractors.

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Trex offers the following Trex Commercial products:

***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.

***Aluminum Railing Systems*** Our aluminum railings 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. They are often used in sports stadiums and arenas, office buildings, and high-rise condominium and resort projects and offer safety and durability to stairs, public walkways and balconies. They are available in picket or glass infills with a selection of top cap styles, color finishes and mounting capabilities.

***Custom Railing Options*** Trex Commercial can 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.

***Portable Stage Platforms*** Our advanced modular, lightweight custom staging systems include portable platforms, 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 equipment requires no tools, making it easy and efficient for set-up and take-down, and our staging products are designed to withstand the harshest of weather conditions. Our modular stages are designed to appear seamless, feel permanent, and maximize the functionality of the space.

**Customers and Distribution**

***Trex Residential Products: Wholesale Distributors/Retail Lumber Dealers.*** We generate most of our sales for our wood-alternative decking and railing products through our wholesale distribution network by selling Trex 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 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 on a non-exclusive basis to distribute Trex products within a specified area. The distributor purchases our products at prices in effect at the time

we ship the product to the distributor. Sales to two of our distributors, Boise Cascade Company and U.S. Lumber Group, LLC, each exceeded 10% of gross sales in 2017.

*Home Depot and Lowe's.* We sell our products through Home Depot and Lowe's stores. Home Depot and Lowe's purchase 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.

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*Trex Commercial Products:* We sell our modular and architectural railing systems and solutions for the commercial and multifamily markets and our staging, acoustical and seating systems for 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 Winchester, Virginia and Fernley, 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 manufacturing process. Products manufactured at our Minnesota manufacturing facility 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 projects that are important to our success.

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**

The Company's purchasing department is responsible for ensuring that purchases are made from sources that operate with ethical and responsible business practices. 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 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, 2017, 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 each year. 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

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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 staging and railing 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.

## **Research and Development and Training**

We maintain research and development operations in the Trex Technical Center in Winchester, Virginia and at our Minnesota location. Our research and development efforts focus on innovation and developing new products, lowering the cost of manufacturing our existing products and redesigning existing product lines to increase efficiency and enhance performance. For the years ended December 31, 2017, 2016 and 2015, research and development costs were \$3.8 million, \$3.7 million, and \$1.5 million, respectively, and have been included in Selling, general and administrative expenses in the accompanying Consolidated Statements of Comprehensive Income.

During 2016, we launched Trex University, our state-of-the-art training facility located near our Winchester manufacturing plant. Trex University is designed to educate and train retailers, contractors and other partners on the benefits of Trex aesthetically pleasing, high performance and low maintenance outdoor living products.

## **Growth Strategies**

Our long-term goal is to perpetuate our position as the leading producer of branded superior wood-alternative outdoor living products by increasing our market share and expanding into new product categories and geographic markets through the design, creation and marketing of high-performance outdoor living products that offer superior aesthetics and quality. Also, we will explore opportunities that leverage our manufacturing and extrusion expertise and are tied to our recycling heritage. To attain these goals, we intend to employ the following long-term strategies:

*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 the consumer and trade professional. Deliver on the brand's promise of superior quality, functionality, pleasing aesthetics and overall performance in outdoor living products. 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, thereby making our products available wherever our customers choose to purchase their decking, railing, steel deck framing and outdoor lighting products.

*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 our raw material costs. We plan to

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continue to achieve significant improvements in manufacturing productivity by reducing waste and improving our production process, from raw materials preparation through extrusion into finishing and packaging.

*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 wood-alternative 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 many 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 Advanced Environmental Recycling Technologies, Inc., The Azek Company, and Fiberon, LLC.

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

## **Seasonality**

Our operating results 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 our products to a later period. As part of our normal business practice and consistent with industry

practice, we have historically offered incentive programs to our distributors and dealers to build inventory levels before the start of the prime deck-building season in order to ensure adequate availability of our product to meet anticipated seasonal consumer demand. The seasonal effects are often offset by the positive effect of the incentive programs.

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### **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, Minnesota and South Carolina. 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, as well as two pending U.S. Patent Applications, 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, 2017, we had approximately 1,120 full-time employees, approximately 815 of whom were employed in our 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.

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Information related to the Company's governance and related activities and programs may be found in the Company's Proxy Statement filed on March 23, 2017 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](http://www.trex.com). 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-blowing 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 recycled materials, the Company is able to improve its use of resources, its greenhouse gas emissions, and its waste streams. 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 Chief Financial Officer, the Vice President Operations, and the General Counsel.

Trex's eco-friendly composite decking products consist of a blend of 95 percent recycled wood and recycled plastic film. Trex uses locally sourced reclaimed wood that would otherwise end up in a landfill. An average 500-square foot composite Trex deck contains 140,000 recycled plastic bags, which makes Trex one of the largest plastic bag recyclers in the U.S. In addition, Trex's proprietary, eco-friendly processing method eliminates the use of smoke stacks and our bi-coastal factories reduce fuel consumption and CO2 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'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. 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 year-over-year in the marketplace. In 2016, Trex was honored as Environmental Vendor of the Year by The Home Depot. For the past 10 years Trex has won awards in the *BUILDER trade magazine's* Brand Use Study across numerous award categories. For the past 5 years, Trex has been an award recipient in the Green Builder trade magazine across numerous categories.

Our 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.

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### **Occupational Safety**

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.

In addition, 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](http://www.sec.gov) that contains reports, proxy statements, and other information regarding our Company. In addition, we maintain an Internet corporate web site at [www.trex.com](http://www.trex.com). 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 A. Risk Factors**

Our business is subject to a number of risks, including the following:

**We may not be able to grow unless we increase market acceptance of our products, compete effectively and develop new products and applications.**

Our primary competition consists of wood products, which constitute a substantial majority of decking, railing, fencing, and deck framing sales. Since wood-alternative products were introduced to the market in the late 1980s,

their market acceptance has increased. Our ability to grow will depend, in part, on our success in continuing to convert demand for wood products into demand for wood-alternative Trex products. To increase our market share, we must overcome:

lack of awareness of the enhanced value of wood-alternative products in general and Trex 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 products compared to wood is a one-time cost that is reduced over time as Trex products have lower maintenance costs and a longer life span than wood;

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established relationships existing between suppliers of wood products and contractors and homebuilders;

actual and perceived quality issues with first generation wood-alternative products; and

competition from other wood-alternative manufacturers.

Our failure to compete successfully in such markets could have a material adverse effect on our ability to replace wood or increase our market share amongst wood-alternatives. 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.

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.

### **Our prospects for sales growth and profitability may be adversely affected if we fail to maintain product quality and product performance at an acceptable cost.**

In order to expand our net sales and sustain profitable operations we must maintain the quality and performance of our products. 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. We continue to receive and settle claims and maintain a warranty reserve related to residential 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 lessens our exposure to provide replacement product and 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. Future increases to the warranty reserve could have 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. In the event future lawsuits relating to alleged product quality issues are brought against us, 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.

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

The manufacture of our wood-alternative 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 reclaimed wood fibers and scrap polyethylene. Our ability to obtain adequate supplies of reclaimed wood fibers 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.

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.

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### **Certain of our 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.**

A limited number of our customers account for a significant percentage of our sales. Specifically, sales through our 15 largest customers accounted for approximately 90.0% of gross sales during fiscal years 2017 and 2016, and 89% during fiscal year 2015.

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

### **We have limited ability to control or project inventory build-ups in our distribution channel that can negatively affect our sales in subsequent periods.**

The seasonal nature of, and changing conditions in, our industry can result in substantial fluctuations in inventory levels of Trex products carried in our two-step distribution channel. We have limited ability to control or precisely project inventory build-ups, which can adversely affect our net sales levels in subsequent periods. We make the substantial majority of our sales to wholesale distributors, who, in turn, sell our products to local dealers. 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 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.

### **The demand for our products is negatively affected by adverse weather conditions.**

Our 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. Adverse weather conditions may interfere with ordinary construction, delay projects or lead to cessation of construction involving our products. These interferences may shift sales to subsequent reporting periods or decrease overall sales, given the limited decking season in many locations. Prolonged adverse weather conditions could have a negative impact on our results of operations and liquidity.

### **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.**

Our business depends on the transportation of both finished goods to our distributors and the transportation of raw materials to us. We rely on third parties for transportation of these items. 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.

If the required supply of transportation services is unavailable when needed, we may be 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.

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### **The demand for our products is influenced by general economic conditions and could be adversely affected by economic downturns.**

The demand for our wood-alternative 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, consumer confidence and spending habits, employment, interest rates, inflation and general economic conditions. Devaluation in home equity values can adversely affect the availability of home equity withdrawals and result in decreased home improvement spending. We cannot predict general economic conditions or the home remodeling and new home construction environments. Any economic downturn could reduce consumer income or equity capital available for spending on discretionary items, which could adversely affect the demand for our products. The demand for our commercial staging and railing products is influenced by 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.

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

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. We have also 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 may also result in the recognition of goodwill, which 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.

### **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.**

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 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 could have important consequences. For example, it may:

- increase our vulnerability to general adverse economic and industry conditions, including interest rate fluctuations;

- require us to dedicate a substantial portion of our cash flow from operations to payments on our indebtedness, thereby reducing the availability of our cash flow to fund working capital, capital expenditures and other general corporate purposes;

limit our ability to borrow additional funds to alleviate liquidity constraints, as a result of financial and other restrictive covenants in our indebtedness;

limit our flexibility in planning for, or reacting to, changes in our business and the industry in which we operate;

place us at a competitive disadvantage relative to companies that have less indebtedness; and

limit our ability to refinance our principal secured indebtedness.

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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.

### **Item 1B. Unresolved Staff Comments**

None.

### **Item 2. Properties**

We lease our corporate headquarters in Winchester, Virginia, which consists of approximately 36,000 square feet of office space, under a lease that expires in March 2020. In addition, we lease 55,047 square feet of office and storage space in Dulles, Virginia, that we do not occupy. We have sublet all of the office space in Dulles, Virginia, for the remainder of the term of the lease obligation, which expires in mid-2019.

We own approximately 92 acres of land in Winchester, Virginia and the buildings on this land. The site includes our research and development technical facility and manufacturing facility, which contains approximately 465,000 square feet of space, and outside open storage. We own approximately 37 acres of land in Fernley, Nevada and the buildings on this land. The site includes our manufacturing facility, which contains approximately 240,000 square feet of space, and outside open storage. These facilities provide adequate capacity for current and anticipated future consumer demand.

In September 2007, we suspended operations at our Olive Branch, Mississippi facility (Olive Branch facility) and consolidated all of our manufacturing operations into our Winchester and Fernley sites. In January 2016, we sold a portion of the Olive Branch facility that contained the buildings. As of the date of this report, we continue to own approximately 62 acres of undeveloped land at the Olive Branch facility.

We lease a total of approximately 1.6 million square feet of warehouse and facility space under leases with expiration dates ranging from 2018 to 2026. For information about these leases, see Note 13 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 forklift equipment at our facilities under operating leases.

We regularly evaluate our various facilities and equipment and make capital investments where necessary. In 2017, we spent a total of \$15.0 million on capital expenditures, primarily related to general plant cost reduction initiatives, and equipment and new product development. We estimate that our capital expenditures in 2018 will be approximately \$20 million to \$25 million. We expect to use these expenditures principally to support cost reduction initiatives, new product launches in current and adjacent categories and general business support.

### **Item 3. Legal Proceedings**

The Company has lawsuits, as well as other claims, pending against it which are ordinary routine litigation and claim