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, 2021

☐ **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	**54-1910453**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
160 Exeter Drive, Winchester, Virginia	**22603-8605**
(Address of principal executive offices)	**(Zip Code)**

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

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

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

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 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 ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting Company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting Company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☒	Accelerated filer ☐
Non-accelerated filer ☐	Smaller reporting company ☐
	Emerging growth company ☐

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

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 762(b)) by the registered public accounting firm that prepared or issued its audit report. ☒

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

The aggregate market value of the registrant's common equity held by non-affiliates of the registrant at June 30, 2021, which was the last business day of the registrant's most recently completed second fiscal quarter, was approximately $11.7 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 4, 2022 was 114,606,684.

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 2022 Annual Meeting of Stockholders	Part III

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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 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 July 29, 2020, 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 September 14, 2020, to stockholders of record at the close of business on August 19, 2020. 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 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 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), the Company's principal business based on net sales, and Trex Commercial Products (Trex Commercial).

Trex Residential is the world's largest manufacturer of high-performance, low-maintenance wood-alternative composite decking and railing, with 30 years of product experience. Trex outdoor living products are marketed under the brand name Trex® and manufactured in the United States. Stocked in more than 6,700 retail locations worldwide, we offer a comprehensive set of aesthetically appealing and durable, low-maintenance product offerings in the decking, railing, fencing, and outdoor lighting categories. A majority of the products are eco-friendly and leverage recycled and reclaimed 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 one of the largest recyclers 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®. In addition, our Trex Transcend decking product can also be used as cladding. Our high-performance, low-maintenance, eco-friendly composite decking products are comprised of a blend of 95 percent reclaimed wood fibers and recycled polyethylene 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® 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 40 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.

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.

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.

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 Pergola™	Pergolas made from low maintenance cellular PVC and all-aluminum product, manufactured by Home & Leisure, Inc. dba Structureworks Fabrication.
Trex Latticeworks™	Outdoor lattice boards manufactured and sold by Structureworks Fabrication.
Trex Cornhole™ 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™ 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 Danver Stainless Outdoor Kitchens.

Trex Commercial 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. Trex Commercial has 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 40 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. Its straightforward, unobtrusive design features traditional balusters and contemporary vertical rods, and can be installed with continuously graspable rail options for added safety, comfort and functionality. 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

Trex Residential: 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 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 distributor purchases our products at prices in effect at the time we ship the product to the distributor.

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 promotes consumer acceptance of our products.

In the years ended December 31, 2021, 2020, and 2019 sales to certain customers of Trex Residential accounted for 10% or more of the Company's total net sales. For the years ended December 31, 2021, 2020, and 2019 three customers of Trex Residential represented approximately 61%, 56%, and 57%, respectively, of the Company's total net sales.

Trex Commercial: 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.

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 www.trex.com/our-company, applies to all parties providing goods and services to the Company, and all channel partners who distribute, sell and/or install our products (collectively, Business Partners). We expect all Business Partners, and all 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 www.trex.com/our-company, 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.

Manufacturing Process

Products manufactured at our Trex Residential manufacturing facilities in Virginia and Nevada 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. In June 2019, we announced a capital expenditure program to increase production capacity at our Trex Residential facilities in Virginia and Nevada. The program involved the construction of a new decking facility at the existing Virginia site and the installation of additional production lines at the Nevada site. The investment allowed us to increase production output for future projected growth related to our strategy of converting wood demand to Trex Residential wood-alternative composite decking. Our capacity expansion program increased our Trex Residential production capacity by approximately 70 percent when compared to 2019 volume levels. In addition to the recently completed the capacity expansion at our Virginia and Nevada facilities, our engineering team has installed incremental decking lines within our new Virginia facility that further expanded our production capability.

On October 26, 2021, we announced plans to add a third U.S.-based Trex Residential manufacturing facility in Little Rock, Arkansas. The new campus will sit on approximately 300 acres of land and will address increased demand for Trex Residential outdoor living products. Construction is slated to begin in early 2022 with the first production output anticipated in 2024. Funded primarily through ongoing cash generation, we expect to invest approximately $400 million over the next five years in the development of the new Arkansas site. Over time, we expect to create more than 500 new jobs to the Little Rock area. We will continue our recruiting efforts to staff the facility in 2022.

In addition, we prioritize cost reduction projects and continuous improvement opportunities, primarily related to automation, modernization, energy efficiency and raw material processing, and remain focused on innovation and new product development. 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, 2021, we purchased our reclaimed wood fiber requirements under purchase orders and long-term supply commitments not exceeding four years. 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. In addition, we purchase scrap select wood chips generated from various farming 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 continue leading the category with beautiful, high-performance, low-maintenance Trex products, including our outdoor living products, such as composite decking and railing for the residential market and custom-engineered railing systems for the commercial market. To do this, we will increase market share and expand into new product categories and geographic markets through the design, creation and marketing of outdoor living products that offer superior aesthetics and quality and by expanding our sales to the commercial market. Trex Residential will expand its offering of eco-friendly decking and railing products for a breadth of audiences, whether by converting wood buyers who have not previously considered composite decking or appealing to the most discriminating high-end homeowners seeking superior aesthetics and quality. Trex Commercial will extend its position as a leading national provider of custom-engineered railing for the commercial and multi-family market, including sports stadiums. Additionally, Trex will continue to explore opportunities that leverage our manufacturing and extrusion expertise and recycling heritage. We intend to employ the following long-term strategies to achieve our goals:

- *Innovation*: Introduce 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 awareness, 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 systems. Leverage omnichannel efforts to extend the Trex brand 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 eco-friendly wood-alternative outdoor living products, thereby making our products available wherever our customers choose to purchase their decking or railing , and by continuing to develop our commercial market penetration for our railing 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 residential and commercial products. Investments in polyethylene 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 customers and prospects in all segments.

Competition

Our primary competition for our composite decking and residential railing products consists of wood products, which constitute 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 Company 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

Our business activities are subject to various federal, state and local laws and regulations. Costs and accruals incurred to comply with these governmental regulations are presently not material to our capital expenditures, results of operations and competitive position. Although there is no assurance that existing or future government laws applicable to our operations or products will not have a material adverse effect on our capital expenditures, results of operations and competitive position, we do not currently anticipate material expenditures for government regulations.

We are also 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 workplace 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 for decking technology and four 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.

Human Capital

We are committed to furthering our stature as the highest quality, pre-eminent decking brand in the world, while delivering robust value to our shareholders. As we continue to grow, a differentiating factor continues to be the caliber of our talent. The Company embraces a culture of diverse thinking and perspectives. We strive for this by making human capital a key strategic pillar overseen by the Board of Directors and management.

Our focus is to attract, develop and retain a highly engaged and diverse workforce. We accomplish this through broad and transparent employment branding efforts, competitive and equitable compensation philosophies, proactive employee relations, and by offering a work environment with meaningful career growth opportunities.

At December 31, 2021, Trex Residential employed 1,924 full-time employees and Trex Commercial employed 150 full-time employees. Our employees are not covered by collective bargaining agreements. We believe that our relationships with our employees are favorable, and we have not had any serious complaints or claims over the last three years. Our Human Rights Policy sets forth our values related to working conditions and human rights, and it underscores our philosophy about the way we conduct our business. The policy is available at www.trex.com/our-company.

We believe that diversity, equity and inclusion enriches our organization, contributes to our long-term value creation, and fosters an environment of creativity and innovative thinking, which will bring forth new ideas and challenge the status quo. The strategy we have developed aims to advance our efforts to increase the diversity of our workforce, while we continue to be a destination workplace for talent and maximize returns to our shareholders.

We believe the best candidate or employee is someone who is driven, bold, hard-working, determined and tenacious; embodies our overarching ideals and identity; and who looks, thinks or acts differently than the majority. These differences could be represented by race, ethnicity, gender, or academic and professional backgrounds. When comparing our ethnicity demographics against those in the geographies where we operate, we seek to accurately represent the diversity of our local communities and beyond.

We added approximately 400 employees during 2021 in support of our expansion efforts and growth at Trex Residential and expect to continue to add additional employees to support our growth. We continue to build our employer brand by accurately and transparently reflecting our work culture to attract candidates with actions that include, but are not limited to:

- Developing a recruiting campaign specifically for Spanish-speaking job seekers with supporting documents and training to continue to engage them once employed;
- Leveraging large, diverse recruiting platforms to reach broader audiences;
- Creating a partnership with NW Works (www.nwworks.com), a local nonprofit that provides counseling and employment services to disabled adults in the Winchester, Virginia area, and providing a number of job opportunities for their clients;
- Further developing the Trex culture to improve retention and employee engagement at our manufacturing locations;
- Expanding our training department to sharpen our focus on the training and development of our employees;
- Completing diversity training with our workforce and partnering with a third-party firm to do a qualitative assessment of our strengths and weakness as it relates to diversity, equity and inclusion; and
- Further expanding a robust and engaging careers website designed to attract ideal candidates in a competitive job market, which replaces our previous solo landing page approach with details about our organization, locations, people and benefits.

Trex has taken these steps to ensure all employees feel comfortable, and to ensure that we remain an employer of choice, well-known for both innovation and opportunity. All Trex employees have completed live diversity, equity and inclusion training facilitated by outside experts, which addresses valuing differences, communicating inclusively, avoiding harassment and hostile work environment, and resolving unconscious bias. In addition, we provide Code of Conduct and Ethics training to our employees. As part of our Employee Engagement Survey in 2021, we developed additional questions to help gauge the level of satisfaction with our approach and progress among our employees. Additionally, of the employees who completed the survey, 72% of those employees are defined as “engaged”, which is above the industry norm as well as a slight increase from our 2019 survey.

Our recruitment strategy includes advanced education recruitment and veteran recruitment. We recognize the skills learned through these pursuits align with the skills necessary to be a successful employee, and our active involvement with these recruiting paths offers many opportunities to build partnerships and reach candidate pools at various career stages that are both diverse and geographically varied. The strategy also offers opportunities to partner with organizations that appeal to these talent groups, to increase our employer brand exposure, and to help sustain diversity and recruitment efforts.

As an equal opportunity employer, Trex is committed to providing fair and equitable pay for all employees across the Company. We strive to be an industry leader in terms of hourly wages, salary and total compensation. We use a compensation grade structure as part of our process to determine the appropriate grade level for each position at Trex. As a result, we set the pay range for each position before considering who we might hire to fill that role. In addition, we regularly review our compensation structures for signs of emerging inequities along gender or ethnicity lines as well as market competitiveness.

Corporate Governance

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 23, 2021 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. Key policy tenets include:

- Using recycled, reclaimed and other waste resources whenever possible in our manufacturing process;
- Preventing pollution by maintaining environmental management as a core value;
- Developing and using environmentally acceptable, safe and efficient production methods; and
- Identifying and complying with all legal and statutory requirements.

The Nominating / Corporate Governance Committee of the Board of Directors oversees the Company's environmental, social and governance (ESG) matters that are significant to the Company. Periodically, the Committee reviews the Company's ESG strategy, initiatives and policies and receives updates from management on significant ESG activities. 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 President of Trex Residential, the President of Trex Commercial, the Senior Vice President and Chief Financial Officer, the Senior Vice President, Chief Legal Officer and Secretary, and the General Counsel.

Trex Residential's eco-friendly composite decking products consist of a blend of 95 percent reclaimed wood and recycled polyethylene film. Trex diverts from landfills and upcycles over 350 million pounds of plastic film, bags and wraps each year. 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. We strive to reduce energy use and associated greenhouse gas emissions in Trex manufacturing operations by designing our facilities to run efficiently. In addition, 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. Our Virginia and Nevada manufacturing facilities have closed-loop recirculation systems that run water through multiple cycles of re-use before being returned to the municipal wastewater stream. We prioritize energy savings as part of our ongoing evaluation and optimization of business operations and manufacturing processes. We regularly assess environmental impacts at each stage of our manufacturing process and seek to continually improve our performance. We ensure that all 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. Trex was named to Fortune magazine's 2020 list of the world's 100 Fastest-Growing Companies and to Forbes' 2021 List of America's Best Mid-Size Companies – ranking #12 overall on the list of 100 companies. In 2021, Trex received Green Builder Media's best Brand Index and the highest score for the decking category, Green Builder magazine's Readers' Choice Award for "Greenest Decking" – one of the most respected surveys issued by the publication – for an unprecedented 11-year streak, and Lifestory Research's America's Most Trusted® survey named Trex America's Most Trusted Outdoor Decking Brand – receiving the only five-star rating in the decking category.

Trex environmental benefits are recognized by the receipt of the Leadership in Energy and Environmental Design (LEED) certification by the United States Green Building Council. 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 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. Trex Residential decking can add up to five points to a project — four points in the Materials and Resources category for being composed of 95% recycled and reclaimed materials, and one point in the Innovation and Design category. 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. 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.

Occupational Health and Safety

The health and safety of our employees is our highest priority. We have a strong Environmental, Health and Safety program that focuses on developing and implementing policies and effective safety training programs, as well as performing internal safety assessments to ensure a company-wide culture of safety and accountability.

The Trex Occupational Health and Safety Policy, located on our website at www.trex.com/our-company, sets forth our commitment to sustaining a compliant and safety-conscious work environment, keeping safety at the forefront of our business, and is based on:

- Compliance with statutory, regulatory and other legal requirements;
- A comprehensive understanding of worker expectations;
- Demonstrating employee safety leadership in all processes while striving to consistently improve performance; and
- Tracking company and site level safety performance metrics including common lagging indicators, such as injury rates, but also leading indicators such as safety observations, near-misses, and proactive actions taken at the sites to ensure worker safety.

Our active Site Safety Committees perform safety audits and observations, review and trend all incidents, and participate in all Pre-Startup Safety Reviews and are an example of our robust employee engagement in safety. Long term, the Company is committed to pursuing Occupational Health and Safety Administration Voluntary Protection Program (VPP) recognition and is an active participant in state level VPP development programs. The Company is a member of the Voluntary Protection Program Participants Association, the National Safety Council, and the National Fire Protection Association.

Websites 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 www.trex.com/our-company/investor-relations. 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.

Risks Related to the Distribution and Sale of Our Product

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

Risk	Discussion
Description 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.

Risks Related to the Manufacture of Our Product

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 cost.	In order to expand our net sales and sustain profitable operations we must maintain the quality and performance of our products.
Impact	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.
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.	A number of class action lawsuits alleging defects in our products have been brought against us, all of which have been settled.

Risk	Discussion
Description Our business is subject to risks in obtaining the raw materials we use. *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 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 supply, which could negatively affect our profitability.

Risk	Discussion
Description Periods of significant or prolonged inflation could affect our ability to obtain raw materials and transportation at acceptable prices and may negatively impact our profitability. *Impact* In a competitive environment, we may be unable to increase prices of our products to offset higher costs resulting from significant or prolonged inflationary pressures, which could have a material adverse effect on our business, financial condition, and operating results. In addition, periods of sustained or rapidly increasing inflation may result in decreased spending in the residential and commercial markets and reduce demand for our products, which could further adversely impact our business.	Our business may be directly affected by significant or prolonged inflationary pressures on raw materials and transportation. We will look to offset increased input costs through cost reduction projects, purchasing strategies, and increased production efficiencies and improvement opportunities to enhance our margins. Specifically, our efforts would primarily center on increased automation, modernization, enhanced energy efficiency and improvements to raw material processing. To the extent that these actions would not offset the impact of inflation we would seek to increase the price of our products to our customers. At the same time, we would expand our marketing campaigns, including campaigns to highlight the advantages of Trex Residential decking over wood, as well as campaigns focused on innovation and new product development that further strengthens our consumer brand and distribution advantages.

	In general, we believe that an effect of inflation would be a short-term disruption and that, over time, we would offset increased input costs with through cost reduction projects, purchasing strategies, and increased production efficiencies and improvement opportunities to enhance our margins. In addition, we would be able to increase prices to counteract the majority of any inflationary effects of increasing costs and to generate sufficient cash flows to maintain our productive capability.

Risk	**Discussion**
Description Labor shortages or increases in labor costs could adversely impact our business and results of operations. *Impact* We rely heavily on our employees and any shortage of qualified labor could adversely affect our business. If we are not successful in our recruiting and retention efforts, we could encounter a shortage of qualified employees in future periods. Any such shortage would decrease our ability to produce sufficient quantities of our product to serve our customers effectively. Such a shortage may also require us to pay higher wages for employees and incur a corresponding reduction in our profitability.	Labor is one of the primary components of our production process. Our success is dependent upon recruiting qualified employees to manufacture our product. Our future success depends on, among other things, our ability to identify, attract, hire, train, retain and motivate operational personnel on a timely basis as we continue our pace of growth. If we fail to do so, our ability to maintain and grow our business could be adversely impacted. Further, improvements in the economy and labor markets could impact our ability to attract and retain key personnel.

Risk	**Discussion**
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. As further described in Note 2 and Note 5 in the Notes to the Consolidated Financial Statements in this Form 10-K, during the fourth quarter of 2021, we recognized a goodwill impairment charge at Trex Commercial's railing reporting unit and staging reporting unit of $42.5 million and $11.8 million, respectively, which was the amount by which the carrying amount of the respective reporting unit exceeded its fair value. As of December 31, 2021, the carrying amount of goodwill was $14.2 million at the Trex Residential reportable segment.

	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.

Risks Related to the Availability of Capital

Risk	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.

Risks Related to Other Matters

Risk	Discussion
Description Our business, results of operations and financial condition may be disrupted and adversely affected by global public health pandemics, including the strain of coronavirus known as COVID-19. *Impact* If our employees or the employees of our suppliers or transportation providers are unable to work because of illness related to the COVID-19 pandemic, or if we or our suppliers or transportation providers are forced to temporarily cease operations, either on a voluntary or mandatory basis, then we may have a period of reduced operations and be unable to supply our customers in a timely manner, which could have a material negative impact on our business. If the COVID-19 outbreak disrupts the operations of our distributors and retail outlets and negatively impacts economies in the United States, Canada and the rest of the world, our business, results of operations and financial condition may be adversely affected.	In December 2019, a novel strain of coronavirus, COVID-19, was reported to have surfaced in Wuhan, China. It spread to other countries, including the United States, and efforts to contain COVID-19 have intensified. In March 2020, the World Health Organization characterized COVID-19 as a pandemic. Our business, results of operations and financial condition may be adversely affected if COVID-19 interferes with the ability of our employees, suppliers and other business partners to perform their respective responsibilities and obligations relative to the conduct of our business. We continue to monitor the recent outbreak of COVID-19 and evaluate its impact on our business, including new information as it emerges concerning its severity and the continuation of the outbreak or a new surge in cases, and any actions to prevent, contain or treat it, among others. The extent to which COVID-19 may impact our business will depend on future developments, which are highly uncertain and cannot be predicted.

Risk	Discussion
Description Climate change and legal or regulatory responses thereto may have a long-term adverse impact on our business and results of operations. *Impact* There is increasing concern that a gradual increase in global average temperatures due to increased concentration of carbon dioxide and other greenhouse gases in the atmosphere could cause significant changes in weather patterns and an increase in the frequency, duration, and severity of natural disasters. In addition, the increasing concern over climate change may result in additional laws or regulations designed to reduce or mitigate the effects of carbon dioxide and other greenhouse gas emissions on the environment that could negatively impact our financial condition and results of operations.	We continue to strive to minimize the environmental impact of Trex operations, remain one of the largest recyclers of polyethylene in the U.S. and continue to benefit from increasing consumer interest in our environmentally friendly composite product offerings that leverage recycled and reclaimed materials. Any significant changes in weather patterns or increases in the frequency, duration and severity of natural disasters are beyond our control and could disrupt our supply chain, increase our product costs, impact demand for our product, or impair our ability to deliver product to our customers. In addition, we cannot predict what environmental legislation or regulations will be enacted in the future related to climate issues, or how existing or future laws or regulations will be administered or interpreted. Compliance with more stringent laws or regulations, or stricter interpretation of existing laws, may require additional expenditures. Any increased energy or compliance costs and expenses may cause disruptions in, or an increase in the costs associated with, the manufacturing and distribution of our products.

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, business information and employee data. 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. Proactive measures that reduce our risk of a cybersecurity incident include: • Maintaining cybersecurity insurance to protect against risks related to cyber-attacks and other security breaches. • Partnering with an enterprise grade security solutions integrator (SSI) that leverages deep industry expertise to help us build and run holistic cybersecurity programs designed to reduce our overall risk profile. The SSI performs regular audits to evaluate our current security posture and prioritize our improvement plans. • Implementing an information security training and compliance program for employees. We test our employees monthly with simulated "phishing" attacks. Additionally, we run annual security awareness video training programs and occasional ad hoc awareness sessions as needed. Despite these proactive measures, there is no guarantee that these measures will prevent a cybersecurity incident.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

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

	Square Footage/ Acres	Leased / Owned	Lease Expiration Dates	Location	Purpose
Corporate Headquarters	39,250 SF	Leased	2025	Virginia	Office Space
Corporate Headquarters	8 Acres	Owned	N/A	Virginia	Land
Trex Residential	1,573,424 SF	Leased	2021 – 2028	Virginia / Nevada	Warehouse, Research and Development, Storage, Training and Manufacturing Facilities
Trex Residential	1,202,660 SF / 439 Acres	Owned	N/A	Virginia / Nevada / Arkansas	Manufacturing Facilities, Storage and Office Space
Trex Commercial	142,808 SF	Leased	2022 – 2028	Minnesota	Warehouse, Facility and Office Space

We regularly evaluate our various facilities and equipment and make capital investments where necessary. In 2021, we spent a total of $159.4 million on capital expenditures, primarily at our Trex Residential facilities, including $126.3 million related to capacity expansion and general plant cost reduction initiatives, $24.9 million for other equipment expenditures and production improvements and $6.4 million for general support initiatives. In order to keep pace with demand, in June 2019, we announced a capital expenditure program to increase production capacity at our Trex Residential facilities in Virginia and Nevada. The multi-year capital expenditure program involved the construction of a new decking facility at the existing Virginia site and the installation of additional production lines at the Nevada site. The investment, completed in 2021, allowed us to increase production output for future projected growth related to our strategy of converting wood demand to Trex Residential wood-alternative composite decking. In addition, our engineering team installed incremental decking lines within our new Virginia facility that further expanded our production capability.

Additionally, we recently announced plans to develop a third U.S.-based Trex Residential manufacturing facility on approximately 300 acres in Little Rock, Arkansas. We plan to invest approximately $400 million in this project over the next five years, funded primarily through ongoing cash generation. With the potential to become our largest manufacturing facility over time, the Arkansas manufacturing campus will address increased demand for Trex Residential outdoor living products. Construction is slated to begin early in 2022 with a modular development approach calibrated in alignment with demand trends. We expect initial production output to begin in 2024 and, over time, the facility will employ approximately 500 people.

These expansion activities provide Trex Residential with additional capacity to flex with demand by adding capacity as needed, while providing bandwidth to pursue opportunities to expand domestically and internationally as we continue to drive wood conversion and capture incremental market share from the strength of Trex products and the brand.

For information about our leases, see Note 9 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. Effective November 23, 2009, our common stock is listed under the symbol "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, 2021 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, 2021 – October 31, 2021	232,385	$ 93.11	232,385	7,988,123
November 1, 2021 – November 30, 2021	15,977	$118.23	—	7,988,123
December 1, 2021 – December 31, 2021	—	$ —	—	7,988,123
Quarter ended December 31, 2021	248,362		232,385	

(1) During the three months ended December 31, 2021, 15,977 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.

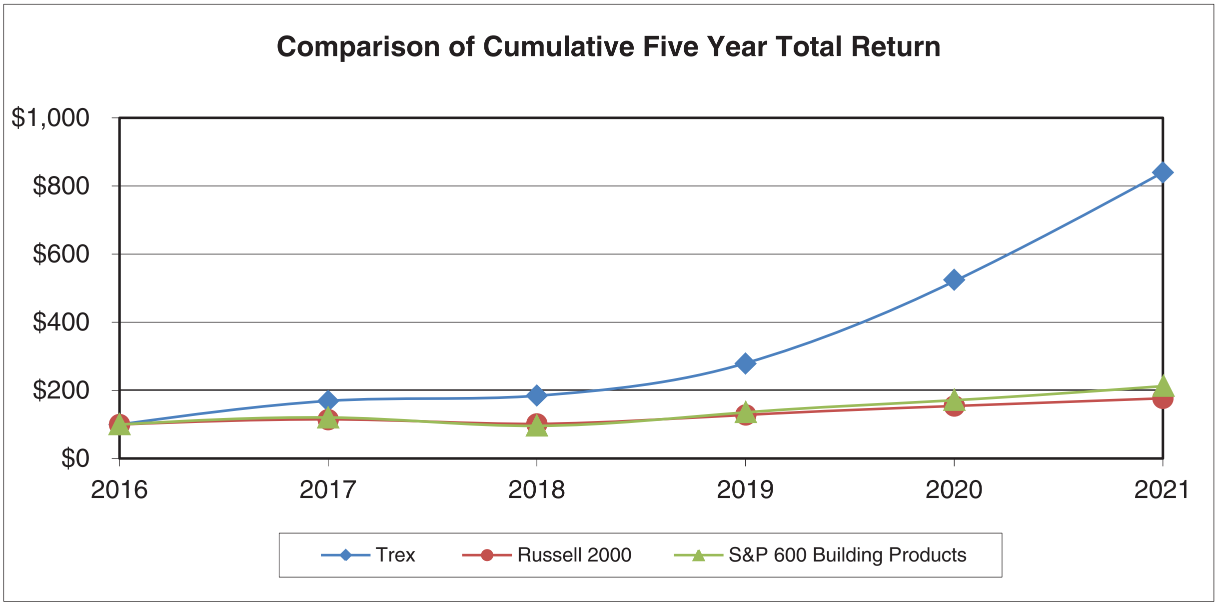
(2) On February 16, 2018, the Company's Board of Directors authorized a common stock repurchase program of up to 11.6 million shares of the Company's outstanding common stock (Stock Repurchase Program). The Stock Repurchase Program was publicly announced on February 21, 2018. The Company repurchased 232,385 shares of its common stock under the Stock Repurchase Program during the three months ended December 31, 2021.

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, 2016 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, 2017, 2018, 2019, 2020 and 2021.

Comparison of Cumulative Total Return

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



	12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021
Trex Company, Inc.	$100.00	$168.32	$184.35	$279.13	$520.00	$838.70
Russell 2000 Index	$100.00	$114.65	$102.03	$128.07	$153.64	$176.67
S&P 600 Building Products	$100.00	$120.22	$ 95.23	$135.41	$170.69	$211.99

Other Stockholder Matters

As of February 4, 2022, there were approximately 139 holders of record of our common stock, although we believe that there are a significantly larger number of beneficial owners of our common stock.

In 2021, 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 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

This Management's Discussion and Analysis of Financial Condition and Results of Operations (MD&A) 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 weather-related 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; the impact of upcoming data privacy laws and the EU General Data Protection Regulation and the related actual or potential costs and consequences; material adverse impacts from global public health pandemics, including the strain of coronavirus known as COVID-19; and material adverse impacts related to labor shortages or increases in labor costs.

OVERVIEW

The following MD&A is intended to help the reader understand the operations and current business environment of Trex Company, Inc. (Trex, Company, we or our). The MD&A is provided as a supplement to — and should be read in conjunction with — our Consolidated Financial Statements and the accompanying notes thereto contained in "*Item 8. Financial Statements and Supplementary Data*" of this report. MD&A includes the following sections:

- *Our Business* — a general description of our business, a brief overview of our reportable segments' products, highlights of our operations for the twelve months ended December 31, 2021, an update on our response to the COVID-19 pandemic, and a description of our plan for the Trex Residential Arkansas facility.
- *Critical Accounting Policies and Estimates* — a discussion of accounting policies that require critical judgments and estimates.
- *Results of Operations* — an analysis of our consolidated results of operations for 2021 and 2020 and year-to-year comparisons. An analysis of our consolidated results of operations for 2020 and 2019 and year-to-year comparisons between 2020 and 2019 can be found in MD&A in Part II, Item 7 of the Company's Form 10-K for the year ended December 31, 2020.
- *Liquidity and Capital Resources* — an analysis of cash flows; contractual obligations, and a discussion of our capital and other cash requirements.
- *New Accounting Standards* — a discussion of Financial Accounting Standards Board new accounting standards not yet adopted.

OUR BUSINESS

General. Trex is the world's largest manufacturer of high-performance, low-maintenance wood-alternative decking and residential railing and outdoor living products and accessories, marketed under the brand name Trex®, with 30 years of product experience. A majority of our products are manufactured in a proprietary process that combines reclaimed wood fibers and recycled polyethylene. Also, the Company is a leading national provider of custom-engineered commercial railing and staging systems for the commercial and multi-family market, including sports stadiums and performing arts venues. Trex currently operates in two reportable segments: Trex Residential Products (Trex Residential), the Company's principal business based on net sales, and Trex Commercial Products (Trex Commercial). The Company is focused on using renewable resources within both our Trex Residential and Trex Commercial segments.

Outdoor living remains one of the fastest growing categories within the repair and remodel sector, and the strength of the Trex Residential brand coupled with our expanded manufacturing capacity, our key competitive advantages, help us to effectively unlock potential market share and drive long term growth. We continue to benefit from increasing consumer interest in our environmentally friendly, low maintenance product portfolio that transforms and enhances the outdoor living experience.

We remain focused on ensuring the capacity to service our Trex Residential channel partners is aligned with both current demand and expected future growth. Having recently completed a manufacturing capacity expansion at our Virginia and Nevada facilities, our engineering team installed incremental decking and railing lines within our Virginia campus that further expanded our production capability.

Additionally, we recently announced plans to develop a third U.S. based Trex Residential manufacturing facility on approximately 300 acres in Little Rock, Arkansas. When this plant opens in 2024, Trex will have the strategic advantage of unmatched geographical coverage with sites servicing the East Coast, West Coast and Central regions that will provide our customers with better access to Trex Residential products when and where they need them. The new site represents a strategic investment in the Company's future and the success of our valued channel partners. Little Rock emerged as the best fit for our future needs, as it offers proximity to a center of raw materials, a strong pool of qualified and skilled labor, proximity to key growth regions for wood conversion and adjacency for major transportation hubs that can optimize freight costs. We plan to invest approximately $400 million over the next five years, funded primarily through ongoing cash generation. With the potential to become our largest manufacturing facility over time, the Arkansas manufacturing campus will address increased demand for Trex Residential outdoor living products. Construction is slated to begin early in 2022 with a modular development approach calibrated in alignment with demand trends. We expect initial production output to begin in 2024 and, over time, the facility will employ approximately 500 people. These expansion activities provide Trex Residential with additional capacity to flex with demand by adding capacity as needed, while providing bandwidth to pursue opportunities to expand domestically and internationally, as we continue to drive wood conversion and capture incremental market share from the strength of Trex Residential products and the brand.

We continue to focus on cost reduction projects and identifying continuous improvement opportunities to enhance our margins. Specifically, our efforts are primarily centered on increased automation, modernization, enhanced energy efficiency and improvements to raw material processing. At the same time, we intend to expand our marketing campaigns, continue highlighting the advantages of Trex Residential decking over wood, as well as focusing on innovation and new product development to further strengthen our consumer brand and distribution advantages. These initiatives should help drive continued topline and profit growth and accelerated market share conversion.

In addition to our capacity expansion efforts and profit growth, in 2021 we continued to focus on increasing staffing to meet future needs and support our growth and welcomed approximately 400 employees to the Trex team. As we continue to grow our employee base, additional focus on diversity, equity and inclusion remains important to our strategy. In 2021, we expanded our recruiting efforts to further increase diversity and sustained our focus on bringing new ideas and perspectives to our team. The safety and wellbeing of our employees is important to us, and we consistently prioritized safety practices by building new safety teams and changing the structure of our work areas to focus on safety. We continually emphasized employee wellbeing as we endured ongoing waves of COVID-19.

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 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.

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

Decking and Accessories	Trex Transcend® decking Trex Select® decking Trex Enhance® decking Trex Hideaway® hidden fastening system Trex DeckLighting™ outdoor lighting system
Railing	Trex Transcend Railing Trex Select Railing Trex Enhance Railing Trex Signature® aluminum railing
Fencing	Trex Seclusions® fencing product

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.

Highlights related to the twelve months ended December 31, 2021 include:

- Increase in net sales of 35.9%, or $316 million, to $1.2 billion in the twelve months ended December 31, 2021 compared to $881 million in the twelve months ended December 31, 2020 and were the highest of any year in our history.
- Trex Residential net sales increased $311 million, or 37.6%, to $1.14 billion in the twelve months ended December 31, 2021 compared to $828 million in the twelve months ended December 31, 2020. Trex Residential net sales were the highest of any year in its history.
- Increase in gross profit of 28.1%, or $101 million, to $461 million for the twelve months ended December 31, 2021 compared to $359 million for the twelve months ended December 31, 2020.
- Increase in net income to $209 million, a 18.8% increase over 2020 net income of $176 million.
- Cash flows from operating activities were $258 million in the twelve months ended December 31, 2021 compared to $187 million in the twelve months ended December 31, 2020.
- Capital expenditures of $159 million, primarily to increase production capacity at the Virginia and Nevada facilities and for general plant cost reduction initiatives.
- Repurchase of 809,099 shares of our outstanding common stock under our Stock Repurchase Program in 2021, for a total of 3.6 million shares repurchased under the program as of December 31, 2021.

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 incentives based on increases in purchases as part of specific promotional programs. The timing of sales incentive programs can impact sales, receivables and inventory levels during the offering period. 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.

COVID-19. Our results of operations are affected by economic conditions, including macroeconomic conditions and levels of business and consumer confidence. The COVID-19 pandemic increased the level of volatility and uncertainty globally and created macroeconomic disruption. The pandemic remains an evolving situation and while macro-economic recovery seems likely, the duration and extent of the recovery remains uncertain. However, we continue to manage our business to ensure the continuity of operations and the safety of our employees. Trex Residential has not experienced any decline in demand for its outdoor living products. Trex Commercial had not experienced any material reduction to its net sales. However, measures taken to contain the spread of the virus have reduced new project commitments from its customer base. The reduction in project commitments was influenced by a delay in new projects due to lingering uncertainty created in the commercial railing and staging markets by the COVID-19 virus. The delay in new projects, coupled with the Company's successful fulfillment of its pre-pandemic projects, resulted in lower project backlog and reduced forecasted net sales and EBITDA, which became apparent in the fourth quarter of 2021. The Company continued to assess the impact on project commitments throughout the year and, during the fourth quarter of 2021, determined that the impact will adversely affect Trex Commercial's financial condition and results of operations in future periods. The continued impact of COVID-19 and its effect on project commitments was a consideration in the Company's quantitative assessment for goodwill impairment testing at its railing and staging reporting units as of October 31, 2021. Refer to the below discussion in "Critical Accounting Policies and Estimates" for additional information.

Trex Residential Arkansas Manufacturing Facility. On October 26, 2021, we announced our plan to add a third U.S.-based Trex Residential manufacturing facility in Little Rock, Arkansas. The new campus will sit on nearly 300 acres of land and will address increased demand for Trex Residential outdoor living products.

Construction is slated to begin in early 2022 with the first production output anticipated in 2024. Funded primarily through ongoing cash generation, we expect to invest approximately $400 million over the next five years in the development of the new Arkansas site.

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 periods ranging from 1 year to 3 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 surface flaking 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 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, 2021 was lower than the number of claims received in the year ended December 31, 2020 and lower than our expectations for 2021. Average cost per claim experienced in the year ended December 31, 2021 was higher than that experienced in the year ended December 31, 2020 but was slightly lower than our expectations for 2021. We believe the reserve at December 31, 2021 is sufficient to cover future surface flaking obligations.

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 Ended December 31,		
	2021	**2020**	**2019**
Claims unresolved beginning of period	1,799	1,724	2,021
Claims received (1)	894	1,441	1,394
Claims resolved (2)	(934)	(1,366)	(1,691)
Claims unresolved end of period	1,759	1,799	1,724
Average cost per claim (3)	$3,519	$ 3,390	$ 3,447

(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 18 to the Consolidated Financial Statements appearing elsewhere in this report.

Goodwill. We evaluate the recoverability of goodwill in accordance with Accounting Standard Codification (ASC) 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. We evaluate the recoverability of goodwill at the reporting unit level. We have determined that the Company has three reporting units: a residential reporting unit in the Trex Residential reportable segment, and a commercial railing reporting unit and a staging reporting unit in the Trex Commercial reportable segment. Goodwill is considered impaired when the carrying amount of a reporting unit exceeds its fair value, and an impairment loss is recognized in an amount equal to that excess but limited to the total amount of goodwill allocated to that reporting unit. We first assess 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, including goodwill. Qualitative factors we consider include events and circumstances such as macroeconomic conditions, industry and market considerations, cost factors, overall financial performance, and other relevant Company-specific events. We evaluate, based on the weight of evidence, the significance of all identified events and circumstances in the context of determining whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount. Weighing the effect of various positive and negative factors is challenging and requires the use of significant judgment. The weight we place on each factor depends on certain conditions, including uncertainty about future events. If different conditions exist in future periods, future impairment charges could result.

If the qualitative assessment indicates that the carrying amount of the reporting unit exceeds its fair value, including goodwill, we are then required to perform a quantitative goodwill impairment test. The quantitative goodwill impairment test, used to identify both the existence of impairment and the amount of impairment loss, compares the fair value of a reporting unit with its carrying amount, including goodwill. The fair value of a reporting unit refers to the price that would be received to sell the unit as a whole in an orderly transaction between market participants at the measurement date. If the carrying amount of a reporting unit is in excess of the estimated fair value of that reporting unit, a goodwill impairment charge is recognized in the amount by which the reporting unit's carrying amount exceeds its fair value, but not to exceed the total goodwill assigned to the reporting unit.

We measure the fair value of a reporting unit based on a combination of the Income Approach (i.e., the Discounted Cash Flow Method) and a Market Approach. The Discounted Cash Flow Method is a multiple period discounting model in which the fair value of the reporting units are determined by discounting the projected free cash flows using an appropriate discount rate and indicates the fair value of the reporting units 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 Flow Method include: the weighted average cost of capital (or discount rate); long-term rate of growth and profitability of the business (residual growth rate); and working capital effects. The Market Approach uses prices and other relevant information generated by market transactions involving identical or comparable assets, liabilities or a group of assets and liabilities, such as a business. Significant estimates in the Market Approach model may include identifying appropriate market multiples and assessing earnings before interest, income taxes, depreciation and amortization (EBITDA) in estimating the fair value of the reporting units. The use of different assumptions, estimates or judgements, including estimated future cash flows and the discount rate used to discount estimated cash flows to their net present value, could materially increase or decrease the fair value of the reporting unit and impact our assessment of any goodwill impairment charges. Also, if different conditions exist in future periods, future impairment charges could result.

At December 31, 2021 and December 31, 2020, the Company had goodwill of $14.2 million and $68.5 million, respectively. We perform the annual impairment testing of goodwill as of October 31 of each year. For fiscal years 2021, 2020, and 2019, we completed our annual impairment test of goodwill for our residential reporting unit utilizing the qualitative assessment and concluded it was not more likely than not that the fair value of the reporting unit was less than its carrying amount. For fiscal years 2020 and 2019, we completed our annual impairment test of goodwill for our commercial railing reporting unit and our staging reporting unit utilizing the qualitative assessment and concluded it was not more likely than not that the fair values of the reporting units were less than their respective carrying amounts. For fiscal year 2021 the Company determined that it was necessary to perform the goodwill impairment test for our railing and staging reporting units utilizing the quantitative assessment. We performed a quantitative assessment primarily due to a reduction in project commitments, which adversely impacted project backlog and forecasted net sales and EBITDA. The reduction in project commitments was influenced by a delay in new projects due to lingering uncertainty created in the commercial railing and staging markets by the COVID-19 virus. The delay in new projects, coupled with the Company's successful fulfillment of its pre-pandemic projects, resulted in lower project backlog and reduced forecasted net sales and EBITDA, which became apparent in the fourth quarter of 2021. As a result, during the fourth quarter of 2021, we recognized an impairment charge at our commercial railing reporting unit and at our staging reporting unit of $42.5 million and $11.8 million, respectively. Refer to Note 2 and Note 5 to the Consolidated Financial Statements in this Form 10-K for additional discussion related to the goodwill impairment charge in 2021.

Revenue Recognition

Trex Residential Products

Trex Residential principally generates revenue from the manufacture and sale of its high-performance, low-maintenance, eco-friendly outdoor living products, consisting of composite decking and railing products, hidden fasteners, and a broad offering of outdoor living 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 and is included in "Accrued expenses and other liabilities, Sales and marketing" in Note 7 to the Consolidated Financial Statements presented in this Form 10-K.

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 payment discounts. It estimates the payment discount that it believes will be taken by the customer based on prior history using the most-likely-amount method of estimation.

Trex Commercial Products

Trex Commercial generates revenue from the manufacture and sale of its custom, 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 are 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, 2021, 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, 2021 compared to the year ended December 31, 2020.

Year Ended December 31, 2021 Compared To Year Ended December 31, 2020

Net Sales

	Year Ended December 31,			
	2021	2020	$ Change	% Change
	(dollars in thousands)			
Total net sales	$1,196,952	$880,831	$316,121	35.9%
Trex Residential net sales	$1,139,266	$827,792	$311,474	37.6%
Trex Commercial net sales	$ 57,686	$ 53,039	$ 4,647	8.8%

The 35.9% increase in total net sales in 2021 compared to 2020 was substantially due to volume growth at Trex Residential across all product lines. Our capacity expansion program and the additional lines installed at our new Virginia facility were fully operational in 2021 enabling our ability to capture additional growth. The increase in Trex Residential net sales was primarily driven by sustained broad-based demand, driven by continued strong, secular trends across Trex Residential's outdoor living products, and market share gains from wood. The increase in net sales at Trex Residential was also impacted by our price increases on certain products to address inflationary pressures across many key raw materials and transportation. Trex Commercial contributed $57.7 million to consolidated net sales.

Gross Profit

	Year Ended December 31,			
	2021	2020	$ Change	% Change
	(dollars in thousands)			
Cost of sales	$736,448	$521,374	$215,074	41.3%
% of total net sales	61.5%	59.2%		
Gross profit	$460,504	$359,457	$101,047	28.1%
Gross margin	38.5%	40.8%		

Gross profit as a percentage of net sales, gross margin, was 38.5% in 2021 compared to 40.8% in 2020. Gross margin for Trex Residential and Trex Commercial products in 2021 were 39.3% and 22.0%, respectively, compared to 41.6% and 29.2%, respectively, in 2020. Excluding a $6.5 million provision during 2020 to the Trex Residential legacy surface flaking warranty reserve, consolidated gross margin for 2020 was 41.5% compared to 38.5% for 2021. Gross margin at Trex Residential was unfavorably impacted by inflationary pressures on key raw materials and transportation, by start-up costs and increased depreciation related to the capacity expansion program at Trex Residential, and reduced overhead absorption due to the fire at the Virginia facility. The decrease in gross margin was partially offset by price increases on certain product lines at Trex Residential.

Selling, General and Administrative Expenses

	Year Ended December 31,			
	2021	2020	$ Change	% Change
	(dollars in thousands)			
Selling, general and administrative expenses	$139,624	$125,822	$13,802	11.0%
% of total net sales	11.7%	14.3%		

Selling, general and administrative expenses increased $13.8 million in 2021 compared to 2020 primarily resulting from a $7.3 million increase in personnel related expenses, a $2.6 million increase in research and development expenses, and a $3.7 million increase in system and technology expenses.

Goodwill Impairment Loss

	Year Ended December 31,			
	2021	2020	$ Change	% Change
	(dollars in thousands)			
Goodwill impairment loss	$54,245	$ —	$54,245	N/A
% of total net sales	4.5%	N/A		

During the fourth quarter of 2021, our annual goodwill impairment testing resulted in the recognition of an impairment charge to goodwill at our commercial railing reporting unit and our staging reporting unit within the Trex Commercial reportable segment of $42.5 million and $11.8 million, respectively. For fiscal year 2021, the Company determined that it was necessary to perform the goodwill impairment test for our railing and staging reporting units utilizing the quantitative assessment. We performed a quantitative assessment primarily due to a reduction in project commitments, which adversely impacted project backlog and forecasted net sales and EBITDA. The reduction in project commitments was influenced by a delay in new projects due to lingering uncertainty created in the commercial railing and staging markets by the COVID-19 virus. The delay in new projects, coupled with the Company's successful fulfillment of its pre-pandemic projects, resulted in lower project backlog and reduced forecasted net sales and EBITDA, which became apparent in the fourth quarter of 2021. Refer to Note 2 and Note 5 in the Notes to the Consolidated Financial Statements in this Form 10-K for additional discussion of the goodwill impairment charge.

Gain on Insurance Proceeds

	Year Ended December 31, 2021	2020	$ Change	% Change
	(dollars in thousands)			
Gain on insurance proceeds	$8,741	$ —	$8,741	N/A
% of total net sales	0.7%	N/A		

In March 2021, an electrical fire occurred at one of our manufacturing buildings in our Virginia complex. No injuries occurred from the event. The building was temporarily off-line while damage to the building's electrical systems was addressed. We have insurance coverage for repairs, incremental direct costs to serve our customers, and losses in operating income from the loss in net sales. During 2021, gains on insurance proceeds primarily related to the settlement from our insurance company of $6.8 million related to the fire at the Virginia facility.

Provision for Income Taxes

	Year Ended December 31, 2021	2020	$ Change	% Change
	(dollars in thousands)			
Provision for income taxes	$66,654	$59,003	$7,651	13.0%
Effective tax rate	24.2%	25.2%		

The effective tax rate for 2021 was comparable to the effective tax rate for 2020.

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	2021 Trex Residential	2021 Trex Commercial	2021 Trex Consolidated
Net income (loss)	$247,059	$(38,322)	$208,737
Interest income, net	(15)	—	(15)
Income tax expense (benefit)	79,500	(12,846)	66,654
Depreciation and amortization	34,941	1,005	35,946
EBITDA	$361,485	$(50,163)	$311,322

Year Ended December 31	2020 Trex Residential	2020 Trex Commercial	2020 Trex Consolidated
Net income	$171,197	$4,434	$175,631
Interest income, net	(999)	—	(999)
Income tax expense	57,488	1,515	59,003
Depreciation and amortization	17,131	809	17,940
EBITDA	$244,817	$6,758	$251,575

[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 believes it facilitates performance comparison between the Company and its competitors, and 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, EBITDA eliminates differences among companies in capitalization and tax structures, capital investment cycles and ages of related assets, especially when comparing financial results to prior periods. For these reasons, management believes that EBITDA provides important information regarding the operating performance of the Company and its reportable segments. Non-GAAP measures are not meant to be considered superior to or a substitute for our GAAP results.

	Year Ended December 31,			
	2021	2020	$ Change	% Change
	(dollars in thousands)			
Total EBITDA	$311,322	$251,575	$ 59,747	23.7%
Trex Residential EBITDA	$361,485	$244,817	$116,668	47.7%
Trex Commercial EBITDA	$ (50,163)	$ 6,758	$ (56,921)	NM

Total EBITDA increased 23.7% to $311.3 million for 2021 compared to $251.6 million for 2020. The increase was due to a $116.7 million increase in Trex Residential EBITDA, primarily driven by volume growth in net sales, and to a lesser extent, an $8.7 million gain on insurance proceeds. The increase was offset in part by a $56.9 million decrease in Trex Commercial EBITDA, primarily related to a $54.2 million goodwill impairment charge recognized in the fourth quarter of 2021. Excluding the impairment charge and gain on insurance proceeds in 2021, and the $6.5 million surface flaking warranty charge in 2020, EBITDA increased 38.3% to $356.8 million for 2021 compared to $258.1 million for 2020. Refer to Note 2 and Note 5 to the Consolidated Financial Statements in this Form 10-K for additional discussion of the goodwill impairment charge.

Year Ended December 31, 2020 Compared To Year Ended December 31, 2019

The Company hereby incorporates by reference the financial results from fiscal year 2019 and the comparison of financial results from fiscal year 2020 to fiscal year 2019 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, 2020 and filed with the U.S. Securities and Exchange Commission on February 22, 2021.

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.

S*ources and Uses of Cash.* The following table summarizes our cash flows from operating, investing and financing activities for the years ended December 31, 2021, 2020, and 2019 (in thousands):

	Year Ended December 31,		
	2021	2020	2019
Net cash provided by operating activities	$ 258,064	$ 187,294	$156,352
Net cash used in investing activities	(158,039)	(170,658)	(67,244)
Net cash used in financing activities	(80,673)	(43,768)	(45,974)
Net increase (decrease) in cash and cash equivalents	$ 19,352	$ (27,132)	$ 43,134

Operating Activities

Cash provided by operating activities increased $71 million in 2021 compared to 2020. The increase resulted from a $117 million increase in Trex Residential EBITDA, offset in part by a $44 million increase in working capital, including an increase in accounts receivable and accounts payable, which are expected to be collected or paid in the first quarter of 2022.

Investing Activities

Investing activities in 2021 consisted of $159.4 million in capital expenditures, primarily at our Trex Residential facilities, and included $126.3 million related to capacity expansion and general plant cost reduction initiatives, $24.9 million in other equipment expenditures and production improvements, $6.4 million for general support initiatives.

Financing Activities

Net cash used in financing activities in 2021 consisted primarily of $82.5 million in repurchases of our common stock under our Stock Repurchase Program.

Stock Repurchase Program. On February 16, 2018, the Board of Directors adopted a stock repurchase program of up to 11.6 million shares of the Company's outstanding common stock (Stock Repurchase Program). As of December 31, 2021, the Company has repurchased 3.6 million 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.

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. Our Fourth Amended and Restated Credit Agreement (Fourth Amended Credit Agreement) provides us with revolving loan capacity 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 ends November 5, 2024.

On May 26, 2020, the Company entered into a First Amendment to the Original Credit Agreement (the First Amendment) to provide for an additional $100 million line of credit. As a matter of convenience, the parties incorporated the amendments to the Original Credit Agreement made by the First Amendment into a new Fourth Amended and Restated Credit Agreement (New Credit Agreement). In the New Credit Agreement, the revolving commitments under the Original Credit Agreement are referred to as Revolving A Commitments and the new $100 million line of credit is referred to as Revolving B Commitments. In the New Credit Agreement, all material terms and conditions related to the original line of credit (Revolving A Commitments) remain unchanged from the Original Credit Agreement.

The Company entered into the First Amendment, 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; Truist Bank (Truist); and Regions Bank (Regions) (each, a Lender and collectively, the Lenders), arranged by BofA Securities, Inc. as Sole Lead Arranger and Sole Bookrunner. The First Amendment further provides that the New Credit Agreement is amended and restated by changing Schedule 2.01 to add applicable Lender percentages related to the Revolving B Commitment for BOA of 47.5%, Well Fargo of 28.0% and Regions of 24.5%.

At December 31, 2021, we had no outstanding indebtedness under the revolving credit facilities and borrowing capacity under the facilities of $300 million.

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 at December 31, 2021. 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. Our contractual obligations consist primarily of purchase commitments and operating leases.

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. As of December 31, 2021, we have purchase obligations under material supply contracts of $47 million for the year ending December 31, 2022, $49.9 million in 2023, $25.0 million in 2024, $13.3 million in 2025 and $5.6 million in 2026. Please refer to Note 18 to the Consolidated Financial Statements in this filing for additional information on our purchase commitments.

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. As of December 31, 2021, we have operating lease liabilities of $7.9 million for the year ending December 31, 2022, $21.9 million for the years 2023 through 2026 and $8.1 million thereafter. Please refer to Note 9 to the Consolidated Financial Statements in this filing for additional information on our operating leases.

The Company believes that its cash on hand and cash generated through operating activities, both over the next 12 months and beyond the next 12 months, should be sufficient to cover purchase obligations and operating leases.

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

Capital and Other Cash Requirements. On October 26, 2021, we announced plans to add a third U.S.-based Trex Residential manufacturing facility in Little Rock, Arkansas. The new campus will sit on nearly 300 acres of land and will address increased demand for Trex Residential outdoor living products. Construction is slated to begin in early 2022 with the first production output anticipated in 2024. Funded primarily through ongoing cash generation, we expect to invest approximately $400 million over the next five years in the development of the new Arkansas site.

Our capital expenditure guidance for 2022 is $200 million to $220 million. In addition to our capital expenditure program, our capital allocation priorities include expenditures for internal growth opportunities, manufacturing cost reductions, upgrading equipment and support systems, and acquisitions which fit our long-term growth strategy as we continue to evaluate opportunities that would be a good strategic fit for Trex, and return of capital to shareholders.

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 the cost of 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 March 2020, the FASB issued ASU No. 2020-04, "*Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting*". The guidance provides temporary optional expedients and exceptions related to contract modifications and hedge accounting to ease entities' financial reporting burdens as the market transitions from the London Interbank Offered Rate and other interbank offered rates to alternative reference rates. The new guidance allows entities to elect not to apply certain modification accounting requirements, if certain criteria are met, to contracts affected by what the guidance calls reference rate reform. An entity that makes this election would consider changes in reference rates and other contract modifications related to reference rate reform to be events that do not require contract remeasurement at the modification date or reassessment of a previous accounting determination. The ASU notes that changes in contract terms that are made to effect the reference rate reform transition are considered related to the replacement of a reference rate if they are not the result of a business decision that is separate from or in addition to changes to the terms of a contract to effect that transition. The guidance is effective upon issuance and generally can be applied as of March 12, 2020 through December 31, 2022. The Company does not expect adoption of the guidance to have a material effect on its consolidated financial statements.

In November 2021, the FASB issued ASU No. 2021-10, "*Government Assistance (Topic 832): Disclosures by Business Entities About Government Assistance*". The guidance requires business entities to make annual disclosures about material transactions with a government that are accounted for by analogizing to a grant or contribution accounting model, such as International Accounting Standards 20, ASC 958-605. The annual disclosure requirements include: the nature of the transactions, the entity's related accounting policy used, the line items on the balance sheet and income statement that are affected and the amounts applicable to each financial statement line item, and significant terms and conditions of the transactions. The disclosure requirements can be applied either prospectively to all transactions in the scope of the amendments that are reflected in the financial statements at the date of initial application and new transactions that are entered into after the date of initial application, or retrospectively. The guidance is effective for fiscal years beginning after December 15, 2021, with early application permitted. The Company does not expect adoption of the guidance to have a material effect on its consolidated financial statements.

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, 2021, 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, 2021.

Item 8. Financial Statements and Supplementary Data

The financial statements listed in Item 15 of this Form 10-K 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 Senior 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, 2021. Based on this evaluation, the President and Chief Executive Officer and the Senior Vice President and Chief Financial Officer have concluded that the Company's disclosure controls and 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, 2021, 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, 2021, 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, 2021, 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 28, 2022

By: /s/ Bryan H. Fairbanks

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

February 28, 2022

By: /s/ Dennis C. Schemm

Dennis C. Schemm
Senior 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, 2021, 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, 2021, 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 2021 consolidated financial statements of the Company and our report dated February 28, 2022 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 28, 2022

Item 9B. Other Information

Amendment of Amended and Restated 1999 Incentive Plan for Outside Directors

On February 23, 2022, the Board of Directors approved an amendment to the Amended and Restated 1999 Incentive Plan for Outside Directors (Outside Directors Plan), effective February 23, 2022, as follows:

- The annual cash retainer for service on the Board was increased from $73,750 to $82,500.
- The annual equity award for service on the Board was increased from $110,000 to $120,000.

The Nominating and Corporate Governance Committee and the Board of Directors of the Company amended the Outside Directors Plan as described above based upon a Board of Directors compensation study undertaken by Korn Ferry Hay Group, which is the Company's independent compensation consultant.

The foregoing description of the amendment to the Outside Directors Plan is qualified in its entirety by reference to the full text of the Outside Directors Plan, which is filed as Exhibit 10.3 to this Form 10-K.

Trex Residential Arkansas Manufacturing Facility

On October 26, 2021, the Company announced its plan to add a third U.S.-based Trex Residential manufacturing facility in Little Rock, Arkansas. The new campus will sit on nearly 300 acres of land and will address increased demand for Trex Residential outdoor living products. Construction is slated to begin in early 2022 with the first production output anticipated in 2024. Funded primarily through ongoing cash generation, the Company expects to invest approximately $400 million over the next five years in the development of the new Arkansas site.

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 2022 annual meeting of stockholders, which we will file with the SEC on or before 120 days after our 2021 fiscal year-end.

We have adopted a Code of Conduct and Ethics, which is applicable to all 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 2022 annual meeting of stockholders, which we will file with the SEC on or before 120 days after our 2021 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 2022 annual meeting of stockholders, which we will file with the SEC on or before 120 days after our 2021 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 2022 annual meeting of stockholders, which we will file with the SEC on or before 120 days after our 2021 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 2022 annual meeting of stockholders, which we will file with the SEC on or before 120 days after our 2021 fiscal year-end.

PART IV

Item 15. Exhibits and Financial Statement Schedules

(a)(1) The following Consolidated Financial Statements of the Company are incorporated by reference in Part II, Item 8 of this Form 10-K:

(a)(2) The following financial statement schedule is filed as part of this report:

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.

TREX COMPANY, INC.

Index to Consolidated Financial Statements

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):

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, 2021 and 2020, 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, 2021, 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, 2021 and 2020, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2021, 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, 2021, 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 28, 2022 expressed an unqualified opinion thereon.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on 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 Matters

The critical audit matters communicated below are matters arising from the current period audit of the financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate 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 matters 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 matters below, providing a separate opinion on the critical audit matters or on the accounts or disclosures to which they relate.

Surface Flaking Warranty

Description of the Matter	At December 31, 2021, the Company's surface flaking warranty reserve was $18.5 million. As discussed in Note 18 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, and the cost of production of replacement material) 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.

Valuation of Goodwill

Description of the Matter	At December 31, 2021, the Company's goodwill totaled $14.2 million. As discussed in Note 2 of the consolidated financial statements, goodwill is tested for impairment annually during the fourth quarter and when events or changes in circumstances indicate the carrying value of reporting units might exceed their current fair values. The Company determined that it was necessary to perform a quantitative annual goodwill impairment test as of October 31, 2021 of its commercial railing and staging reporting units utilizing a combination of the income and market approaches. As a result of the annual test performed, the Company recorded $54.2 million of impairment losses in the fourth quarter of 2021. Auditing management's annual goodwill impairment test was complex and highly judgmental due to the significant estimation required in determining the fair value of the reporting units. In particular, the fair value estimates were sensitive to changes in significant assumptions, such as the weighted average cost of capital and assumptions used in the prospective financial information (including the long-term rate of growth and profitability of the business), which are affected by expectations about future market or economic conditions.

How We Addressed the Matter in Our Audit	We obtained an understanding, evaluated the design and tested the operating effectiveness of controls over the Company's annual goodwill impairment review process, including controls over management's review of the significant assumptions described above and the completeness and accuracy of the underlying data. To test the estimated fair value of the Company's reporting units, we performed audit procedures that included, among others, assessing methodologies and testing the significant assumptions discussed above as well as the underlying data used by the Company in its analysis. For example, we compared the significant assumptions used by management in the prospective financial information to current industry and economic trends and to historical results. We performed sensitivity analyses of significant assumptions to evaluate the changes in the fair value of the reporting units that would result from changes in the assumptions. We inquired of the Company's executives to understand the business initiatives supporting the assumptions in the prospective financial information and assessed the historical accuracy of management's estimates. We also involved a valuation specialist to assist in our evaluation of the Company's valuation methodology and certain significant assumptions, such as the weighted average cost of capital.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 1995.
Richmond, Virginia
February 28, 2022

TREX COMPANY, INC.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

	Year Ended December 31,		
	2021	2020	2019
	(In thousands, except share and per share data)		
Net sales	$ 1,196,952	$ 880,831	$ 745,347
Cost of sales	736,448	521,374	438,844
Gross profit	460,504	359,457	306,503
Selling, general and administrative expenses	139,624	125,822	118,304
Goodwill impairment losses	54,245	—	—
Gain on insurance proceeds	8,741	—	—
Income from operations	275,376	233,635	188,199
Interest income, net	15	999	1,503
Income before income taxes	275,391	234,634	189,702
Provision for income taxes	66,654	59,003	44,964
Net income	$ 208,737	$ 175,631	$ 144,738
Basic earnings per common share	$ 1.81	$ 1.52	$ 1.24
Basic weighted average common shares outstanding	115,461,016	115,888,859	116,861,194
Diluted earnings per common share	$ 1.80	$ 1.51	$ 1.24
Diluted weighted average common shares outstanding	115,762,843	116,252,866	117,315,498
Comprehensive income	$ 208,737	$ 175,631	$ 144,738

See Notes to Consolidated Financial Statements.

TREX COMPANY, INC.

CONSOLIDATED BALANCE SHEETS

	December 31, 2021	December 31, 2020
	(In thousands)	
ASSETS		
Current Assets:		
Cash and cash equivalents	$ 141,053	$ 121,701
Accounts receivable, net	151,096	106,748
Inventories	83,753	68,238
Prepaid expenses and other assets	25,152	25,310
Total current assets	401,054	321,997
Property, plant and equipment, net	460,365	336,537
Goodwill and other intangible assets, net	19,001	73,665
Operating lease assets	34,571	34,382
Other assets	5,330	3,911
Total Assets	$ 920,321	$ 770,492
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current Liabilities:		
Accounts payable	$ 24,861	$ 38,622
Accrued expenses and other liabilities	58,041	62,331
Accrued warranty	5,800	5,400
Total current liabilities	88,702	106,353
Operating lease liabilities	28,263	28,579
Non-current accrued warranty	22,795	24,073
Deferred income taxes	43,967	22,956
Other long-term liabilities	11,560	—
Total Liabilities	195,287	181,961
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, 180,000,000 shares authorized; 140,734,753 and 140,577,005 shares issued and 115,148,152 and 115,799,503 shares outstanding at December 31, 2021 and 2020, respectively	1,407	1,406
Additional paid-in capital	127,787	126,087
Retained earnings	946,048	737,311
Treasury stock, at cost, 25,586,601 and 24,777,502 shares at December 31, 2021 and 2020, respectively	(350,208)	(276,273)
Total Stockholders' Equity	725,034	588,531
Total Liabilities and Stockholders' Equity	$ 920,321	$ 770,492

See Notes to Consolidated Financial Statements.

TREX COMPANY, INC.

CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY

(In thousands, except share data)

	Common Stock		Additional Paid-In Capital	Retained Earnings	Treasury Stock		Total
	Shares	Amount			Shares	Amount	
Balance, December 31, 2018	117,103,306	$1,400	$123,524	$416,942	22,893,366	$(198,903)	$342,963
Net income	—	—	—	144,738	—	—	144,738
Employee stock plans	154,282	2	1,087	—	—	—	1,089
Shares withheld for taxes on awards	(216,756)	—	(8,245)	—	—	—	(8,245)
Stock-based compensation	440,728	2	6,928	—	—	—	6,930
Repurchases of common stock	(1,000,118)	—	—	—	1,000,118	(38,300)	(38,300)
Balance, December 31, 2019	116,481,442	$1,404	$123,294	$561,680	23,893,484	$(237,203)	$449,175
Net income	—	—	—	175,631	—	—	175,631
Employee stock plans	68,061	—	1,446	—	—	—	1,446
Shares withheld for taxes on awards	(111,433)	—	(5,784)	—	—	—	(5,784)
Stock-based compensation	245,451	2	7,131	—	—	—	7,133
Repurchases of common stock	(884,018)	—	—	—	884,018	(39,070)	(39,070)
Balance, December 31, 2020	115,799,503	$1,406	$126,087	$737,311	24,777,502	$(276,273)	$588,531
Net income	—	—	—	208,737	—	—	208,737
Employee stock plans	113,242	—	1,800	—	—	—	1,800
Shares withheld for taxes on awards	(78,626)	—	(8,538)	—	—	—	(8,538)
Stock-based compensation	123,132	1	8,438	—	—	—	8,439
Repurchases of common stock	(809,099)	—	—	—	809,099	(73,935)	(73,935)
Balance, December 31, 2021	115,148,152	$1,407	$127,787	$946,048	25,586,601	$(350,208)	$725,034

See Notes to Consolidated Financial Statements.

TREX COMPANY, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year Ended December 31,		
	2021	2020	2019
		(In thousands)	
Operating Activities			
Net income	$ 208,737	$ 175,631	$144,738
Adjustments to reconcile net income to net cash provided by operating activities:			
Goodwill impairment losses	54,245	—	—
Depreciation and amortization	35,946	17,939	14,031
Deferred income taxes	21,012	13,125	7,706
Stock-based compensation	8,438	7,131	6,930
(Gain) loss on disposal of property, plant and equipment	(45)	(56)	285
Other non-cash adjustments	40	51	(218)
Changes in operating assets and liabilities:			
Accounts receivable	(44,349)	(28,286)	12,701
Inventories	(15,515)	(12,132)	1,695
Prepaid expenses and other assets	(8,715)	(358)	(1,652)
Accounts payable	(3,473)	11,353	(16,666)
Accrued expenses and other liabilities	(5,285)	7,655	(10,823)
Income taxes receivable/payable	7,028	(4,759)	(2,375)
Net cash provided by operating activities	258,064	187,294	156,352
Investing Activities			
Expenditures for property, plant and equipment and intangibles	(159,394)	(172,823)	(67,265)
Proceeds from sales of property, plant and equipment	1,355	2,165	21
Net cash used in investing activities	(158,039)	(170,658)	(67,244)
Financing Activities			
Borrowings under line of credit	494,500	276,000	89,500
Principal payments under line of credit	(494,500)	(276,000)	(89,500)
Repurchases of common stock	(82,473)	(44,854)	(46,545)
Proceeds from employee stock purchase and option plans	1,800	1,446	1,089
Financing costs	—	(360)	(518)
Net cash used in financing activities	(80,673)	(43,768)	(45,974)
Net increase (decrease) in cash and cash equivalents	19,352	(27,132)	43,134
Cash and cash equivalents at beginning of year	121,701	148,833	105,699
Cash and cash equivalents at end of year	$ 141,053	$ 121,701	$148,833
Supplemental disclosures of cash flow information:			
Cash paid for interest, net of capitalized interest	$ —	$ —	$ —
Cash paid for income taxes, net	$ 38,614	$ 50,744	$ 39,612

See Notes to Consolidated Financial Statements.

TREX COMPANY, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. BUSINESS AND ORGANIZATION

Trex Company, Inc. (together with its wholly-owned subsidiary, the Company), a Delaware corporation, was incorporated on September 4, 1998. The Company operates in two reportable segments, Trex Residential Products (Trex Residential) and Trex Commercial Products (Trex Commercial). The Company's principal business based on net sales is the manufacture and distribution of Trex Residential high-performance, low-maintenance wood-alternative decking and residential railing and outdoor living products and accessories, marketed under the brand name Trex®. A majority of its products are manufactured in a proprietary process that combines reclaimed wood fibers and recycled polyethylene. Trex Commercial designs, engineers and markets modular and architectural railing and staging systems for the commercial and multi-family market, including sports stadiums and performing arts venues. The principal executive offices are located at 160 Exeter Drive, Winchester, Virginia 22603, and the telephone number at that address is (540) 542-6300.

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 and its wholly-owned subsidiary, Trex Commercial Products, Inc. Intercompany accounts and transactions have been eliminated in consolidation. The COVID-19 pandemic remains an evolving situation and while macro-economic recovery seems likely, the duration and extent of the recovery remains uncertain. However, the Company continues to manage its business to ensure the continuity of its operations and the safety of its employees. Trex Residential has not experienced any decline in demand for its outdoor living products. Trex Commercial had not experienced any material reduction to its net sales. However, measures taken to contain the spread of the virus have reduced new project commitments from its customer base. The reduction in project commitments was influenced by a delay in new projects due to lingering uncertainty created in the commercial railing and staging markets by the COVID-19 virus. The delay in new projects, coupled with the Company's successful fulfillment of its pre-pandemic projects, resulted in lower project backlog and reduced forecasted net sales and EBITDA, which became apparent in the fourth quarter of 2021. The Company continued to assess the impact on project commitments throughout the year and, during the fourth quarter of 2021, determined that the impact will adversely affect Trex Commercial's financial condition and results of operations in future periods. The continued impact of COVID-19 and its effect on project commitments was a consideration in the Company's quantitative assessment for goodwill impairment testing at its commercial railing and staging reporting units as of October 31, 2021.

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, 2021, 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. An estimate of expected credit losses is recognized as a valuation allowance and adjusted each reporting period. The estimate is based on the current expected credit loss model and is determined using an aging schedule, including past events, current conditions and reasonable and supportable forecasts about the future. There was no material valuation allowance recorded as of December 31, 2021 and December 31, 2020.

In the years ended December 31, 2021, 2020, and 2019 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, 2021, three customers of Trex Residential represented approximately 61% of the Company's total net sales. For the year ended December 31, 2020, three customers of Trex Residential represented approximately 56% 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. At December 31, 2021 two customers represented 29% and 25%, respectively, of the Company's total accounts receivable balance. At December 31, 2020 two customers represented 27% and 15%, respectively, of the Company's accounts receivable balance.

For each year ended December 31, 2021, 2020, and 2019, approximately 26%, 28%, and 27%, 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 at Trex Residential are valued at the lower of cost (last-in, first-out, or LIFO, method) and market as this method results in a better matching of costs and revenues. The Company periodically reviews its inventory for slow moving or obsolete items and writes down the related products to the lower of cost or market. The Company's reserves for estimated slow moving products or obsolescence are not material. At December 31, 2021, the excess of the replacement cost of inventory over the LIFO value of inventory was approximately $36.5 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. There were no LIFO inventory liquidations or related impact on cost of sales in 2021.

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 valued 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 $2.6 million and $12.9 million at December 31, 2021 and December 31, 2020, respectively. Cash flows for capital expenditures as reported in cash flows from investing activities in the Consolidated Statements of Cash Flows are adjusted to exclude unpaid amounts accrued at period end. Depreciation is provided using the straight-line method generally 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, the 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.

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 considers 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. The Company reviews its ROU asset for impairment whenever events or changes in circumstances indicate that the carrying amount of the asset may not be fully recoverable. The carrying amount of the ROU asset is not recoverable if it exceeds the sum of the undiscounted cash flows expected to result from the use of the asset. An impairment loss is measured as the amount by which the carrying amount of the ROU asset exceeds its fair value. The Company's operating leases have remaining lease terms of 1 year to 8 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.

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 assigned its goodwill to reporting units and tests each reporting unit's goodwill for impairment at least on an annual basis, or more frequently if an event occurs or circumstances change in the interim that indicate the carrying amount of reporting unit goodwill exceeds the implied fair value of that goodwill. The Company identified its reporting units based on the way it manages its operating segments. The Company has determined that it has three reporting units: a residential reporting unit in the Trex Residential reportable segment, and a commercial railing reporting unit and a staging reporting unit in the Trex Commercial reportable segment. 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.

In testing for goodwill impairment, the Company first assesses qualitative factors to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount, including goodwill. If the qualitative assessment indicates that the carrying amount of the reporting unit exceeds its fair value, including goodwill, the Company is then required to perform a quantitative goodwill impairment test. The quantitative goodwill impairment test, used to identify both the existence of impairment and the amount of impairment loss, compares the fair value of a reporting unit with its carrying amount, including goodwill. The fair value of a reporting unit refers to the price that would be received to sell the unit as a whole in an orderly transaction between market participants at the measurement date. If the carrying amount of a reporting unit exceeds its fair value, an impairment loss is recognized in an amount equal to that excess, limited to the total amount of goodwill allocated to that reporting unit.

The Company measures fair value of the reporting units based on a combination of the Income Approach (i.e., the Discounted Cash Flow Method) and a Market Approach. The Discounted Cash Flow Method is a multiple period discounting model in which the fair value of the reporting units are determined by discounting the projected free cash flows using an appropriate discount rate and indicates the fair value of the reporting units based on the present value of the cash flows that the reporting unit is expected to generate in the future.

Significant assumptions in the Discounted Cash Flow Method include: the weighted average cost of capital (or discount rate); residual growth rate; future cash flow projections; and working capital effects. The Market Approach uses prices and other relevant information generated by market transactions involving identical or comparable assets, liabilities or a group of assets and liabilities, such as a business. Significant estimates in the Market Approach model may include identifying appropriate market multiples and assessing earnings before interest, income taxes, depreciation and amortization (EBITDA) in estimating the fair value of the reporting units. The use of different assumptions, estimates or judgements, including estimated future cash flows and the discount rate used to discount estimated cash flows to their net present value, could materially increase or decrease the fair value of the reporting unit and impact our assessment of any goodwill impairment charges. Also, if different conditions exist in future periods, future impairment charges could result.

The Company performs the annual impairment testing of its goodwill as of October 31 of each year. For fiscal years 2021, 2020 and 2019, the Company completed its annual impairment test of goodwill for its residential reporting unit utilizing the qualitative assessment and concluded it was not more likely than not that the fair value of the residential reporting unit was less than its carrying amount. Qualitative factors the Company considered include events and circumstances such as macroeconomic conditions, industry and market considerations, cost factors, overall financial performance and other relevant Company-specific events, as applicable.

For fiscal years 2020 and 2019, the Company completed its annual impairment test of goodwill for its commercial railing reporting unit and its staging reporting unit utilizing the qualitative assessment and concluded that it was not more likely than not that the fair value of the respective reporting unit was less than its carrying amount. For fiscal year 2021, the Company determined that it was necessary to perform the goodwill impairment test for its railing and staging reporting units utilizing the quantitative assessment. The Company performed a quantitative assessment primarily due to a reduction in project commitments, which adversely impacted project backlog and forecasted net sales and EBITDA. The reduction in project commitments was influenced by a delay in new projects due to lingering uncertainty created in the commercial railing and staging markets by the COVID-19 virus. The delay in new projects, coupled with the Company's successful fulfillment of its pre-pandemic projects, resulted in lower project backlog and reduced forecasted net sales and EBITDA, which became apparent in the fourth quarter of 2021. As a result, the Company recognized an impairment charge at its commercial railing reporting unit and at its staging reporting unit of $42.5 million and $11.8 million, respectively, which was the amount by which the carrying amount of the respective reporting unit exceeded its fair value. The Company also considered the income tax effects from any tax-deductible goodwill on the carrying amount of the reporting unit when measuring the goodwill impairment loss. For additional information regarding impairments of goodwill in the year ended December 31, 2021, see Note 5, "*Goodwill and Other Intangible Assets, Net*".

The Company uses assumptions that are consistent with those it believes a market participant would use. However, the use of different events and circumstances or different assumptions, estimates or judgements, including estimated future cash flows, and the discount rate used to discount estimated cash flows to their net present value and the residual growth rate, could materially increase or decrease the fair value of the reporting unit and impact our assessment of any goodwill impairment charge.

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

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 and is included in "Accrued expenses and other liabilities, Sales and marketing" in Note 7 to these Consolidated Financial Statements.

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 are 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, 2021, 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.

Insurance Proceeds

The Company maintains insurance coverage for losses it may incur from identifiable insurable events resulting in facility repairs, incremental direct costs to serve its customers and losses in operating income from the loss in net sales. The Company recognizes a gain in the amount of any related insurance proceeds received in excess of any losses incurred. The gain on insurance proceeds is presented in a separate line item in the Consolidated Statements of Comprehensive Income. During the year ended December 31, 2021, the Company recognized gains on insurance proceeds of $8.7 million primarily related to the fire at its Virginia Facility.

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 tax laws and statutory tax rates. 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, 2021, the Company has a valuation allowance of $2.2 million against these deferred tax assets related to certain state tax credits. 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, 2021, 2020, and 2019, research and development costs were $6.0 million, $3.4 million, and $4.5 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, 2021 and December 31, 2020, $3.1 million and $0.01 million was included in prepaid expenses for production costs, respectively.

For the years ended December 31, 2021, 2020, and 2019, branding expenses, including advertising expenses as described above, were $30.7 million, $31.7 million, and $35.7 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, 2021 and 2020.

Recently Adopted Accounting Standards

In December 2019, the FASB issued ASU No. 2019-12, "*Income Taxes (Topic 740), Simplifying the Accounting for Income Taxes*". The guidance eliminates certain exceptions related to the approach for intraperiod tax allocation, the methodology for calculating income taxes in an interim period, and the recognition of deferred tax liabilities for outside basis differences related to changes in ownership of equity method investments and foreign subsidiaries. The guidance also simplifies aspects of accounting for franchise taxes and enacted changes in tax laws or rates and clarifies the accounting for transactions that result in a step-up in the tax basis of goodwill. The Company adopted the standard on a prospective basis on January 1, 2021. Adoption did not have a material effect on its consolidated financial statements.

New Accounting Standards Not Yet Adopted

In March 2020, the FASB issued ASU No. 2020-01, "*Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting*". The guidance provides temporary optional expedients and exceptions related to contract modifications and hedge accounting to ease entities' financial reporting burdens as the market transitions from the London Interbank Offered Rate and other interbank offered rates to alternative reference rates. The new guidance allows entities to elect not to apply certain modification accounting requirements, if certain criteria are met, to contracts affected by what the guidance calls reference rate reform. An entity that makes this election would consider changes in reference rates and other contract modifications related to reference rate reform to be events that do not require contract remeasurement at the modification date or reassessment of a previous accounting determination. The ASU notes that changes in contract terms that are made to effect the reference rate reform transition are considered related to the replacement of a reference rate if they are not the result of a business decision that is separate from or in addition to changes to the terms of a contract to effect that transition. The guidance is effective upon issuance and generally can be applied as of March 12, 2020 through December 31, 2022. The Company does not expect adoption of the guidance to have a material effect on its consolidated financial statements.

In November 2021, the FASB issued ASU No. 2021-10, "*Government Assistance (Topic 832): Disclosures by Business Entities about Government Assistance*". The guidance requires business entities to make annual disclosures about material transactions with a government that are accounted for by analogizing to a grant or contribution accounting model, such as IAS 20, ASC 958-605. The annual disclosure requirements include: the nature of the transactions, the entity's related accounting policy used, the line items on the balance sheet and income statement that are affected and the amounts applicable to each financial statement line item, and significant terms and conditions of the transactions. The disclosure requirements can be applied either prospectively to all transactions in the scope of the amendments that are reflected in the financial statements at the date of initial application and new transactions that are entered into after the date of initial application, or retrospectively. The guidance is effective for fiscal years beginning after December 15, 2021, with early application permitted. The Company does not expect adoption of the guidance to have a material effect on its consolidated financial statements.

3. INVENTORIES

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

	2021	2020
Finished goods	$ 58,401	$ 39,048
Raw materials	56,441	44,475
Total FIFO inventories	114,842	83,523
Reserve to adjust inventories to LIFO value	(36,467)	(16,821)
Total LIFO inventories	$ 78,375	$ 66,702

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 inventory reduction during 2021 or 2020.

Inventories valued at lower of cost (FIFO method) and net realizable value as of December 31, 2021 and December 31, 2020, were $5.4 million and $1.5 million, respectively, consisting primarily of raw materials. The Company utilizes the FIFO method of accounting related to its Trex Commercial products.

4. PREPAID EXPENSES AND OTHER ASSETS

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

	2021	2020
Prepaid expenses	$15,061	$ 7,285
Revenues in excess of billings	9,109	8,879
Income tax receivable	406	7,823
Other	576	1,323
Total prepaid expenses and other assets	$25,152	$25,310

5. GOODWILL AND OTHER INTANGIBLE ASSETS, NET

The carrying amount of goodwill by reportable segment at December 31, 2021 and 2020 was as follows (in thousands):

	Trex Residential Segment	Trex Commercial Segment		Trex Consolidated
	Residential Reporting Unit	Railing Reporting Unit	Staging Reporting Unit	
Balance, December 31, 2020	$14,216	$42,491	$11,754	$68,461
Impairment Charge	—	42,491	11,754	54,245
Balance, December 31, 2021	**$14,216**	**$ —**	**$ —**	**$14,216**

For fiscal years 2021, 2020 and 2019, the Company completed its annual impairment test of goodwill for its residential reporting unit in Trex Residential utilizing the qualitative assessment and concluded it was not more likely than not that the fair value of the residential reporting unit was less than its carrying amount.

For fiscal years 2020 and 2019, the Company completed its annual impairment test of goodwill for its commercial railing reporting unit and its staging reporting unit in Trex Commercial utilizing the qualitative assessment and concluded that it was not more likely than not that the fair value of the respective reporting unit was less than its carrying amount.

For fiscal year 2021, the Company elected to perform the impairment test of goodwill for its commercial railing reporting unit and its staging reporting unit utilizing the quantitative assessment. The Company performed a quantitative assessment primarily due to a reduction in project commitments, which adversely impacted project backlog and forecasted net sales and EBITDA. The reduction in project commitments was influenced by a delay in new projects due to lingering uncertainty created in the commercial railing and staging markets by the COVID-19 virus. The delay in new projects, coupled with the Company's successful fulfillment of its pre-pandemic projects, resulted in lower project backlog and reduced forecasted net sales and EBITDA, which became apparent in the fourth quarter of 2021. In performing the quantitative assessment, the Company employed a combination of the Income Approach (i.e., Discounted Cash Flow Method) and the Market Approach. The Discounted Cash Flow Method is a multiple period discounting model in which the fair values of the reporting units are determined by discounting the projected free cash flows using an appropriate discount rate. The Market Approach uses prices and other relevant information generated by market transactions involving identical or comparable assets, liabilities or a group of assets and liabilities, such as a business. Using these methodologies resulted in the recognition of an impairment loss of $42.5 million and $11.8 million at its commercial railing and staging reporting units, respectively. The impairment loss was the amount by which the carrying amount exceeded the fair value of each reporting unit, not to exceed the amount of goodwill of each reporting unit. The Company also considered the income tax effects from any tax-deductible goodwill on the carrying amount of the reporting unit when measuring the goodwill impairment loss.

Level 3 inputs used to determine the fair value of each reporting unit include management's future cash flow projections, a weighted average cost of capital and a residual growth rate. The cash flows used to determine fair value are dependent on a number of significant management assumptions, such as expectations of future performance and the expected future economic environment, which are partly based on historical experience. Differences between actual and expected results may be material and dependent on future actions and plans. The discount rate and the residual growth rate are based on management's judgment of the rates that would be utilized by a hypothetical market participant. The use of different assumptions, estimates or judgments, including the estimated future cash flows, the discount rate used to discount estimated cash flows to their net present value, and the residual growth rate, could materially increase or decrease the fair value of the reporting unit and, accordingly, could materially increase or decrease related impairment charges.

The Company's intangible assets consist of domain names purchased in May 2018. At December 31, 2021 and 2020, intangible assets were $6.3 million, and accumulated amortization was $1.5 million and $1.1 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, 2021, December 31, 2020, and December 31, 2019, was $0.4 million, $0.4 million, and $0.4 million, respectively.

6. PROPERTY, PLANT AND EQUIPMENT

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

	2021	2020
Machinery and equipment	$ 471,667	$ 312,870
Building and improvements	101,609	61,860
Forklifts and tractors	18,584	16,003
Computer equipment	15,022	11,948
Furniture and fixtures	2,283	1,534
Construction in process	87,700	157,465
Land	22,911	11,351
Total property, plant and equipment	719,776	573,031
Accumulated depreciation	(259,411)	(236,494)
Total property, plant and equipment, net	$ 460,365	$ 336,537

The Company had construction in process as of December 31, 2021 of approximately $87.7 million. The Company expects that substantially all of the above noted construction in process will be completed and put into service in the year ending December 31, 2022.

Depreciation expense for the years ended December 31, 2021, 2020, and 2019, totaled $35.5 million, $17.5 million, and $13.6 million, respectively.

7. ACCRUED EXPENSES AND OTHER LIABILITIES

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

	2021	2020
Sales and marketing	$16,439	$22,938
Compensation and benefits	25,450	21,156
Operating lease liabilities	7,066	6,708
Manufacturing costs	4,110	3,641
Billings in excess of revenues	1,401	1,244
Customer deposits	35	1,174
Other	3,540	5,470
Total accrued expenses and other liabilities	$58,041	$62,331

8. DEBT

The Company's debt consists of a revolving credit facility. At December 31, 2021 and 2020, the Company had no outstanding indebtedness. Available borrowing capacity at December 31, 2021, was $300 million.

Revolving Credit Facility

On November 5, 2019, the Company entered into a Fourth Amended and Restated Credit Agreement (Fourth Amended Credit Agreement) 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, and Truist Bank, arranged by BOA Securities, Inc., as Sole Lead Arranger and Sole Bookrunner, to amend and restate the Third Amended and Restated Credit Agreement (Third Amended Credit Agreement), dated as of January 12, 2016, as amended. The Fourth Amended Credit Agreement provides 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 ends November 5, 2024.

On May 26, 2020, the Company entered into a First Amendment to the Original Credit Agreement (the First Amendment) to provide for an additional $100 million line of credit through May 26, 2022. As a matter of convenience, the parties incorporated the amendments to the Original Credit Agreement made by the First Amendment into a new Fourth Amended and Restated Credit Agreement (New Credit Agreement). In the New Credit Agreement, the revolving commitments under the Original Credit Agreement are referred to as Revolving A Commitments and the new $100 million line of credit is referred to as Revolving B Commitments. In the New Credit Agreement, all of the material terms and conditions related to the original line of credit (Revolving A Commitments) remain unchanged from the Original Credit Agreement.

The Company entered into the First Amendment, 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; Truist Bank (Truist); and Regions Bank (Regions) (each, a Lender and collectively, the Lenders), arranged by BofA Securities, Inc. as Sole Lead Arranger and Sole Bookrunner. The First Amendment further provides that the New Credit Agreement is amended and restated by changing Schedule 2.01 to add applicable Lender percentages related to the Revolving B Commitment for BOA of 47.5%, Wells Fargo of 28.0% and Regions of 24.5%.

The Notes and interest rates for the Revolving A Commitments remained unchanged and are the same as previously disclosed. The Notes for Revolving A Commitments and Revolving B Commitments provide the Company, in the aggregate, the ability to borrow an amount up to the respective Revolving A Loan Limit and

Revolving B Loan Limit during the respective Revolving A Term and Revolving B Term. The Company is not obligated to borrow any amount under either the Revolving A Loan or the Revolving B Loan. Within either the Revolving A Loan or the Revolving B Loan, the Company may borrow, repay and reborrow at any time or from time to time while the respective Revolving A Loan or Revolving B Loan remains 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%.

The Applicable Rate for Revolving B Commitments means the following percentages per annum, based upon the Consolidated Debt to Consolidated EBITDA Ratio as set forth in the most recent Compliance Certificate received by BOA as the Administrative Agent and as set forth in the New Credit Agreement:

Pricing Tier	Consolidated Debt to Consolidated EBITDA Ratio	Eurodollar Rate Loans / LIBOR Index Rate	Base Rate Loans	Revolving B Commitment Fee
1	> 2.50:1.00	2.75%	1.75%	0.60%
2	< 2.50:1.00 but			
	> 2.00:1.00	2.50%	1.50%	0.55%
3	< 2.00:1.00 but			
	> 1.50:1.00	2.25%	1.25%	0.50%
4	< 1.50:1.00	1.80%	0.80%	0.45%

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, 2021. 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.

9. LEASES

For the years ended December 31, 2021 and December 31, 2020, total operating lease cost was $8.1 million and $8.5 million, respectively. The weighted average remaining lease term at December 31, 2021 and December 31, 2020 was 5.8 years and 5.6 years, respectively. The weighted average discount rate at December 31, 2021 and December 31, 2020 was 2.47% and 3.47%, respectively.

The following table includes supplemental cash flow information for the years ended December 31, 2021 and December 31, 2020 and December 31, 2019 and supplemental balance sheet information at December 31, 2021 and December 31, 2020 related to operating leases (in thousands):

Supplemental Cash Flow Information	**For the Year Ended December 31,**		
	2021	**2020**	**2019**
Cash paid for amounts included in the measurement of operating lease liabilities	$8,280	$8,736	$8,479
Operating ROU assets obtained in exchange for lease liabilities	$7,295	$1,427	$1,319

Supplemental Balance Sheet Information	December 31, 2021	December 31, 2020
Operating lease ROU assets	$34,571	$34,382
Operating lease liabilities:		
Accrued expenses and other current liabilities	$ 7,066	$ 6,708
Operating lease liabilities	28,263	28,579
Total operating lease liabilities	$35,329	$35,287

The following table summarizes maturities of operating lease liabilities at December 31, 2021 (in thousands):

Maturities of operating lease liabilities	
2022	$ 7,859
2023	6,884
2024	6,526
2025	4,574
2026	3,920
Thereafter	8,158
Total lease payments	37,921
Less imputed interest	(2,592)
Total operating liabilities	$35,329

10. 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, 2021 and 2020.

11. STOCKHOLDERS' EQUITY

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,		
	2021	2020	2019
Numerator:			
Net income	$ 208,737	$ 175,631	$ 144,738
Denominator:			
Basic weighted average shares outstanding	115,461,016	115,888,859	116,861,194
Effect of dilutive securities:			
Stock appreciation rights	180,875	192,579	248,850
Restricted stock	120,952	171,428	205,454
Diluted weighted average shares outstanding	115,762,843	116,252,866	117,315,498
Basic earnings per share	$ 1.81	$ 1.52	$ 1.24
Diluted earnings per share	$ 1.80	$ 1.51	$ 1.24

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,		
	2021	2020	2019
Restricted stock	6,296	—	—
Stock appreciation rights	12,602	14,697	41,540

Stock Repurchase Program

On February 16, 2018, the Board of Directors adopted a stock repurchase program of up to 11.6 million shares of the Company's outstanding common stock (Stock Repurchase Program). As of December 31, 2021, the Company has repurchased 3.6 million shares of the Company's outstanding common stock under the Stock Repurchase Program.

Stock Split

On July 29, 2020, the Company's Board of Directors 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 September 14, 2020, to stockholders of record at the close of business on August 19, 2020. The stock split entitled each stockholder to receive one additional share of common stock 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.

12. 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 and is included in "Accrued expenses and other liabilities, Sales and marketing" in Note 7 to the Consolidated Financial Statements.

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 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 payment discounts. It estimates the payment discount that it believes will be taken by the customer based on prior history using the most-likely-amount method of estimation.

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 18, “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, 2021, 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 $26.1 million as of December 31, 2021. The Company will recognize this revenue as performance obligations are satisfied, which is expected to occur within the next 24 months.

The Company recognizes an account receivable 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, 2021.

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, 2021, 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, 2021	**Reportable Segment**		
	Trex Residential	***Trex Commercial***	***Total***
Timing of Revenue Recognition and Type of Contract			
Products transferred at a point in time and variable consideration contracts	$1,139,266	$ —	$1,139,266
Products transferred over time and fixed price contracts	—	57,686	57,686
	$1,139,266	$57,686	$1,196,952

Year Ended December 31, 2020	**Reportable Segment**		
	Trex Residential	***Trex Commercial***	***Total***
Timing of Revenue Recognition and Type of Contract			
Products transferred at a point in time and variable consideration contracts	$827,792	$ —	$827,792
Products transferred over time and fixed price contracts	—	53,039	53,039
	$827,792	$53,039	$880,831

Year Ended December 31, 2019	**Reportable Segment**		
	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

13. 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 25,680,000 and as of December 31, 2021, the total number of shares available for future issuance was 11,116,654.

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,		
	2021	2020	2019
Time-based restricted stock and restricted stock units	$2,892	$3,219	$3,676
Performance-based restricted stock and restricted stock units	4,681	2,881	2,399
Stock appreciation rights	485	648	662
Employee stock purchase plan	381	383	193
Total stock-based compensation	$8,439	$7,131	$6,930

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, 2021, 2020 and 2019 was $8.2 million, $6.1 million, and $6.0 million, respectively. At December 31, 2021, there was $3.1 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 1.5 years.

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

	Time-based Restricted Stock and Restricted Stock Unit	Weighted-Average Grant Price Per Share
Nonvested at December 31, 2018	311,096	$ 21.34
Granted	71,300	$ 38.12
Vested	(162,650)	$ 18.67
Forfeited	(1,280)	$ 31.17
Nonvested at December 31, 2019	218,466	$ 28.75
Granted	54,406	$ 53.97
Vested	(111,036)	$ 30.94
Forfeited	(1,114)	$ 40.34
Nonvested at December 31, 2020	160,722	$ 35.68
Granted	33,703	$100.50
Vested	(78,081)	$ 37.81
Forfeited	(4,798)	$ 66.00
Nonvested at December 31, 2021	111,546	$ 52.91

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, 2021, 2020 and 2019 there was $2.8 million, $1.7 million, and $0.8 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 1.9 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, 2018	182,412	$18.43
Granted	164,270	$23.82
Vested	(222,004)	$15.55
Forfeited	(1,022)	$29.23
Nonvested at December 31, 2019	123,656	$30.67
Granted	78,404	$39.60
Vested	(128,762)	$28.87
Forfeited	(728)	$41.12
Nonvested at December 31, 2020	72,570	$43.42
Granted	36,522	$86.26
Vested	(45,051)	$39.41
Forfeited	(6,273)	$65.30
Nonvested at December 31, 2021	57,768	$71.21

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, 2021, there was $0.7 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, 2021, December 31, 2020 and December 31, 2019, respectively, the assumptions shown in the following table were used:

	Year Ended December 31,		
	2021	2020	2019
Dividend yield	0%	0%	0%
Average risk-free interest rate	0.6%	1.3%	2.5%
Expected term (years)	5	5	5
Expected volatility	58.7%	38.3%	39.1%

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, 2021, December 31, 2020 and December 31, 2019 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, 2021, December 31, 2020 and December 31, 2019 was $51.84, $17.81, and $14.78, 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, 2021
Outstanding at December 31, 2018	476,952	$ 9.63		
Granted	49,072	$ 38.85		
Exercised	(217,528)	$ 6.95		
Canceled	(4,458)	$ 38.85		
Outstanding at December 31, 2019	304,038	$ 15.79		
Granted	43,830	$ 50.39		
Exercised	(54,592)	$ 9.41		
Canceled	—	$ —		
Outstanding at December 31, 2020	293,276	$ 22.15		
Granted	15,029	$104.56		
Exercised	(102,562)	$ 9.45		
Canceled	(4,745)	$ 61.66		
Outstanding at December 31, 2021	200,998	$ 33.86	5.3	$20,335,938
Vested at December 31, 2021	161,244	$ 25.58	5.3	$17,647,952
Exercisable at December 31, 2021	161,244	$ 25.58	5.3	$17,647,952

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 2,400,000. Through December 31, 2021, employees had purchased approximately 1,831,831 shares under the plan.

14. 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 $6.6 million, $5.7 million, and $4.6 million for the years ended December 31, 2021, 2020 and 2019, respectively.

15. INCOME TAXES

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

	Year Ended December 31,		
	2021	2020	2019
Current income tax provision:			
Federal	$30,450	$35,423	$30,306
State	15,192	10,455	6,952
	45,642	45,878	37,258
Deferred income tax provision:			
Federal	21,607	12,603	6,928
State	(595)	522	778
	21,012	13,125	7,706
Total income tax provision	$66,654	$59,003	$44,964

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,		
	2021	2020	2019
U.S. Federal statutory taxes	$57,832	$49,273	$39,838
State and local taxes, net of U.S. Federal benefit	12,174	10,641	8,412
Permanent items	1,208	1,198	1,266
Excess tax benefits from vesting or settlement of stock compensation awards	(2,868)	(1,635)	(3,540)
Federal credits	(686)	(565)	(654)
Other	(1,006)	91	(358)
Total income tax provision	$66,654	$59,003	$44,964

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

	As of December 31,	
	2021	2020
Deferred tax assets:		
Net operating losses	$ 64	$ 43
Residential product warranty reserve	7,260	7,532
Stock-based compensation	1,305	1,071
Accruals not currently deductible and other	1,371	2,041
Inventories	2,210	5,548
Operating lease liability	8,965	9,081
Deferred revenue	2,935	—
Goodwill amortization	6,858	—
State tax credit carryforwards	3,394	3,345

	As of December 31,	
	2021	2020
Gross deferred tax assets, before valuation allowance	34,362	28,661
Valuation allowance	(2,232)	(2,775)
Gross deferred tax assets, after valuation allowance	32,130	25,886
Deferred tax liabilities:		
Depreciation	(63,483)	(29,792)
Operating lease right-of-use asset	(8,635)	(8,755)
Goodwill amortization	—	(5,775)
Other	(3,979)	(4,520)
Gross deferred tax liabilities	(76,097)	(48,842)
Net deferred tax liability	$(43,967)	$(22,956)

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 tax laws and statutory tax rates. 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, primarily certain state income tax credits. As of December 31, 2021, the Company had a valuation allowance of $2.2 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 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, 2021, 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, 2021, for certain tax jurisdictions, tax years 2018 through 2021 remain subject to examination. 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.

16. SEGMENT INFORMATION

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 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.

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 segments by eliminating interest, taxes, and depreciation and amortization charges to income.

Segment Data (in thousands):

	Net Sales	Net Income (Loss) (1)	EBITDA	Depreciation and Amortization	Income Tax Expense / (Benefit)	Capital Expenditures	Total Assets
December 31, 2021							
Trex Residential	$1,139,266	$247,059	$361,485	$34,941	$ 79,500	$157,568	$881,225
Trex Commercial	57,686	(38,322)	(50,163)	1,005	(12,846)	1,826	39,096
Total	$1,196,952	$208,737	$311,322	$35,946	$ 66,654	$159,394	$920,321
December 31, 2020							
Trex Residential	$ 827,792	$171,197	$244,817	$17,131	$ 57,488	$171,784	$676,948
Trex Commercial	53,039	4,434	6,758	809	1,515	1,039	93,544
Total	$ 880,831	$175,631	$251,575	$17,940	$ 59,003	$172,823	$770,492
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

(1) For the year ended December 31, 2021, total net income and net loss at Trex Commercial includes a goodwill impairment charge of $54.2 million.

Reconciliation of Net Income (Loss) to EBITDA (in thousands):

	Net Income / (Loss)	Interest (Income), Net	Income Tax Expense / (Benefit)	Depreciation and Amortization	EBITDA
December 31, 2021					
Trex Residential	$247,059	$ (15)	$ 79,500	$34,941	$361,485
Trex Commercial	(38,322)	—	(12,846)	1,005	(50,163)
Total	$208,737	$ (15)	$ 66,654	$35,946	$311,322
December 31, 2020					
Trex Residential	$171,197	$ (999)	$ 57,488	$17,131	$244,817
Trex Commercial	4,434	—	1,515	809	6,758
Total	$175,631	$ (999)	$ 59,003	$17,940	$251,575
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

17. 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.

18. 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, 2021, the Company purchased reclaimed wood fiber requirements under purchase orders and long-term supply commitments not exceeding four years. 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 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, 2021, the Company has purchase commitments under material supply contracts of $47 million for the year ending December 31, 2022, and a total of $94 million for the years ending December 31, 2023 through 2026.

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 (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 to determine its best estimate of future claims for which to record a related liability. 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, 2021 was lower than the number of claims received in the year ended December 31, 2020 and lower than the Company’s expectations for 2021. Average cost per claim experienced in the year ended December 31, 2021 was higher than that experienced in the year ended December 31, 2020 but was slightly lower than the Company’s expectations for 2021. The Company believes its reserve at December 31, 2021 is sufficient to cover future surface flaking obligations.

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, 2021		
	Surface Flaking	Other Residential	Total
Beginning balance, January 1	$21,325	$ 8,148	$29,473
Provisions and changes in estimates	—	3,846	3,846
Settlements made during the period	(2,783)	(1,941)	(4,724)
Ending balance, December 31	$18,542	$10,053	$28,595

	Year Ended December 31, 2020		
	Surface Flaking	Other Residential	Total
Beginning balance, January 1	$19,024	$ 6,470	$25,494
Provisions and changes in estimates	6,479	3,382	9,861
Settlements made during the period	(4,178)	(1,704)	(5,882)
Ending balance, December 31	$21,325	$ 8,148	$29,473

Trex Residential Arkansas Manufacturing Facility

On October 26, 2021, the Company announced its plan to add a third U.S. based Trex Residential manufacturing facility in Little Rock, Arkansas. The new campus will sit on nearly 300 acres of land and will address increased demand for Trex Residential outdoor living products. Construction is slated to begin in early 2022 with the first production output anticipated in 2024. Funded primarily through ongoing cash generation, the Company expects to invest approximately $400 million over the next five years in the development of the new Arkansas site.

19. INTERIM FINANCIAL DATA (Unaudited)

	Three Months Ended							
	December 31, 2021	September 30, 2021	June 30, 2021	March 31, 2021	December 31, 2020	September 30, 2020	June 30, 2020	March 31, 2020
	(In thousands, except share and per share data)							
Net sales	$ 303,960	$ 335,872	$ 311,596	$ 245,524	$ 228,286	$ 231,502	$ 220,648	$ 200,395
Gross profit	$ 118,180	$ 128,250	$ 118,273	$ 95,801	$ 92,392	$ 84,964	$ 92,405	$ 89,696
Net income	$ 25,031	$ 73,795	$ 61,366	$ 48,545	$ 43,301	$ 42,710	$ 47,218	$ 42,402
Basic earnings per common share	$ 0.22	$ 0.64	$ 0.53	$ 0.42	$ 0.37	$ 0.37	$ 0.41	$ 0.37
Basic weighted average common shares outstanding	115,360,256	115,344,015	115,362,757	115,663,366	115,791,757	115,773,030	115,733,934	116,259,058
Diluted earnings per common share	$ 0.21	$ 0.64	$ 0.53	$ 0.42	$ 0.37	$ 0.37	$ 0.41	$ 0.37
Diluted weighted average common shares outstanding	115,631,911	115,625,760	115,662,626	116,017,400	116,169,754	116,134,623	116,061,988	116,647,442

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 July 29, 2020, the Company's Board of Directors 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 September 14, 2020, to stockholders of record at the close of business on August 19, 2020. The stock split entitled each stockholder to receive one additional share of common stock 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 unaudited condensed consolidated financial statements and notes thereto 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, 2021:				
Trex Residential product warranty reserve	$29,473	$3,846	$(4,724)	$28,595
Income tax valuation allowance	$ 2,775	$ —	$ (543)	$ 2,232
Year ended December 31, 2020:				
Trex Residential product warranty reserve	$25,494	$9,861	$(5,882)	$29,473
Income tax valuation allowance	$ 2,988	$ 1	$ (214)	$ 2,775
Year ended December 31, 2019:				
Trex Residential product warranty reserve	$30,754	$ 979	$(6,239)	$25,494
Income tax valuation allowance	$ 3,015	$ —	$ (27)	$ 2,988

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 28, 2022

By: /S/ BRYAN H. FAIRBANKS

Bryan H. Fairbanks
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 28, 2022 by the following persons on behalf of the registrant and in the capacities indicated.

Signature	Title
/S/ BRYAN H. FAIRBANKS **Bryan H. Fairbanks**	President and Chief Executive Officer (Principal Executive Officer); Director
/S/ DENNIS C. SCHEMM **Dennis C. Schemm**	Senior Vice President and Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)
/S/ JAMES E. CLINE **James E. Cline**	Chairman
/S/ RONALD W. KAPLAN **Ronald W. Kaplan**	Vice Chairman
/S/ MICHAEL F. GOLDEN **Michael F. Golden**	Director
/S/ JAY M. GRATZ **Jay M. Gratz**	Director
/S/ KRISTINE L. JUSTER **Kristine L. Juster**	Director
/S/ GENA C. LOVETT **Gena C. Lovett**	Director
/S/ RICHARD E. POSEY **Richard E. Posey**	Director
/S/ PATRICIA B. ROBINSON **Patricia B. Robinson**	Director
/S/ GERALD VOLAS **Gerald Volas**	Director

EXHIBIT INDEX

Exhibit Number	Description	Incorporated by reference Form	Exhibit	Filing Date	File No.
3.1	Restated Certificate of Incorporation of Trex Company, Inc. dated July 28, 2021.	10-Q	3.6	August 2, 2021	001-14649
3.2	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	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
4.3	First Amendment to the Credit Agreement by and among Trex Company, Inc. 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; Truist Bank; and Regions Bank, arranged by BofA Securities, Inc. as Sole Lead Arranger and Sole Bookrunner dated May 26, 2020.	8-K	4.1	May 28, 2020	001-14649
4.4	Fourth Amended and Restated Credit Agreement 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, Truist Bank; and Regions Bank, arranged by BofA Securities, Inc. as Sole Lead Arranger and Sole Bookrunner, dated May 26, 2020.	8-K	4.2	May 28, 2020	001-14649
4.5	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
4.6	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

Exhibit Number	Description	Incorporated by reference Form	Exhibit	Filing Date	File No.
4.7	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
4.8	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
4.9	Note dated May 26, 2020 payable by the Company to Regions Bank.	8-K	4.6	May 28, 2020	001-14649
4.10	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
4.11	Description of Securities registered pursuant to Section 12 of the Securities Exchange Act of 1934.	10-K	4.19	February 22, 2021	001-14649
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	10.4	November 2, 2020	001-14649
10.3* / **	Trex Company, Inc. Amended and Restated 1999 Incentive Plan for Outside Directors as amended on February 23, 2022.				
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
10.8**	Change in Control Severance Agreement dated February 21, 2020 by and between Trex Company, Inc. and Bryan H. Fairbanks.	8-K	10.2	February 25, 2020	001-14649
10.9**	Amended and Restated Severance Agreement dated February 21, 2020 by and between Trex Company, Inc. and Bryan H. Fairbanks.	8-K	10.3	February 25, 2020	001-14649

Exhibit Number	Description	Incorporated by reference Form	Exhibit	Filing Date	File No.
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**	Form of Retention Agreement for Company Officers dated May 2, 1018.	10-Q	10.2	May 7, 2018	001-14649
10.13	Form of Indemnity Agreement for Directors.	10-K	10.19	March 12, 2009	001-14649
10.14	Form of Indemnity Agreement for Officers.	10-K	10.20	March 12, 2009	001-14649
10.15	Form of Indemnity Agreement for Director/ Officers.	10-K	10.21	March 12, 2009	001.14649
10.16	Form of Distributor Agreement of Trex Company, Inc.	10-K	10.23	March 12, 2009	001-14649
10.17	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.				
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.				

Exhibit Number	Description	Incorporated by reference Form	Exhibit	Filing Date	File No.
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.

Exhibit 10.3

TREX COMPANY, INC.

AMENDED AND RESTATED
1999 INCENTIVE PLAN FOR OUTSIDE DIRECTORS

TABLE OF CONTENTS

1. DEFINITIONS

To the extent any capitalized words used in this Plan are not defined, they shall have the definitions stated for them in the Trex Company, Inc. 2014 Stock Incentive Plan.

1.1 "Annual Director Fee" means an annual fee earned by an Eligible Director for service on the Board of Directors.

1.2 "Annual Committee Fee" means an annual fee earned by an Eligible Director for service on various committees of the Board of Directors.

1.3 "Board of Directors" or "Board" means the Board of Directors of the Company.

1.4 "Cash Portion of the Annual Director Fee" means the portion of the Annual Director Fee to be received in cash, or if elected by the Eligible Director, in Equity, as provided in Sections 4.3 and 6 hereof.

1.5 "Committee" means the Nominating/Corporate Governance Committee which administers the Plan.

1.6 "Common Stock" means the common stock, par value $0.01 per share, of the Company.

1.7 "Company" means Trex Company, Inc., a Delaware corporation, or any successor thereto.

1.8 "Election Form" means the form used by an Eligible Director to elect to receive all or a portion of the Cash Portion of the Annual Director Fee and the Annual Committee Fee for a Plan Year in the form of Equity.

1.9 "Eligible Director" for each Plan Year means a member of the Board of Directors who is not an employee of the Company or any Subsidiary.

1.10 "Equity" means Options, Restricted Stock, Restricted Stock Units or SARs, or any combination thereof, as designated by the Committee from time to time, as provided in Section 4.6.

1.11 "Equity Portion of the Annual Director Fee" means the portion of the Annual Director Fee to be received in Equity, as provided in Section 4.1.2 hereof.

1.12 "Fair Market Value" means the closing price of a share of Common Stock reported on the New York Stock Exchange (the "NYSE") on the date Fair Market Value is being determined, provided that if there is no closing price reported on such date, the Fair Market Value of a share of Common Stock on such date shall be deemed equal to the closing price as reported by the NYSE for the last preceding date on which sales of shares of Common Stock were reported. Notwithstanding the foregoing, in the event that the shares of Common Stock are listed upon more than one established stock exchange, "Fair Market Value" means the closing price of the shares of Common Stock reported on the exchange that trades the largest volume of shares of Common Stock on the date Fair Market Value is being determined. If the Common Stock is not at the time listed or admitted to trading on a stock exchange, Fair Market Value means the mean between the lowest reported bid price and highest reported asked price of the Common Stock on the date in question in the over-the-counter market, as such prices are reported in a publication of general circulation selected by the Board and regularly reporting the market price of Common Stock in such market. If the Common Stock is not listed or admitted to trading on any stock exchange or traded in the over-the-counter market, Fair Market Value shall be as determined in good faith by the Board.

1.13 "Grant Date" has the meaning set forth in Section 5 hereof.

1.14 "Option" means a non-qualified Option granted pursuant to the Trex Company, Inc. 2014 Stock Incentive Plan as may be amended from time to time.

1.15 "Option Agreement" means the written agreement between the Company and the Participant that evidences and sets out the terms and conditions of the Option.

1.16 "Option Price" means the purchase price for each share of Common Stock subject to an Option.

1.17 "Participant" for any Plan Year means an Eligible Director who participates in the Plan for that Plan Year in accordance with Section 6.1 hereof.

1.18 ”Plan” means the Trex Company, Inc. Amended and Restated 1999 Incentive Plan for Outside Directors as set forth herein and as amended from time to time.

1.19 ”Plan Year” means the twelve-month period beginning on July 1 and ending on June 30.

1.20 ’’Restricted Stock’’ means shares of Common Stock, issued pursuant to the Trex Company, Inc. 2014 Stock Incentive Plan as may be amended from time to time.

1.21 “Restricted Stock Agreement” means the written agreement between the Company and the Participant that evidences and sets out the terms and conditions of the Restricted Stock.

1.22 “Restricted Stock Unit” means restricted stock units issued pursuant to the Trex Company, Inc. 2014 Stock Incentive Plan as may be amended from time to time.

1.23 “Restricted Stock Unit Agreement” means the written agreement between the Company and the Participant that evidences and sets out the terms and conditions of the Restricted Stock Unit.

1.24 ”SAR Agreement” means the written agreement between the Company and the Participant that evidences and sets out the terms and conditions of the SARs.

1.25 “Stock Appreciation Right” or “SAR” means a right granted pursuant to, and in accordance with the terms of, the Trex Company, Inc. 2014 Stock Incentive Plan to receive, upon exercise thereof, the excess of (x) the Fair Market Value of one share of Common Stock on the date of exercise over (y) the grant price of the SAR, determined pursuant to Section 4.6.2 hereof.

1.26 “SAR Price” means the grant price of the SAR.

1.27 “Subsidiary” means any “subsidiary corporation” of the Company within the meaning of Section 424(f) of the Internal Revenue Code of 1986, as amended.

2. PURPOSE

The purpose of the Plan is to compensate Eligible Directors for service on the Board of Directors and various committees of the Board, and to provide an incentive for Eligible Directors to increase their equity holdings in the Company so that the financial interests of the Eligible Directors shall be more closely aligned with the financial interests of the Company’s stockholders.

3. SHARES SUBJECT TO THE PLAN

The shares of Common Stock issuable under the Plan shall be issued pursuant to the Trex Company, Inc. 2014 Stock Incentive Plan.

4. ANNUAL DIRECTOR AND COMMITTEE FEES

4.1 Annual Director Fee

Each Eligible Director shall be entitled to an Annual Director Fee, which may be adjusted by the Board from time to time, as follows:

4.1.1 Cash Portion of the Annual Director Fee. Each Eligible Director shall receive the amount of eighty two thousand five hundred dollars ($82,500) (the “Cash Portion of the Annual Director Fee”). The Cash Portion of the Annual Director Fee (after reduction pursuant to Section 4.3 hereof, if any) shall be paid to an Eligible Director in four equal quarterly installments in arrears on the first business day following the end of each quarter of the Plan Year in which the Eligible Director provided services to the Company. Notwithstanding the foregoing, (a) any Eligible Director who serves as Chairman of the Board shall receive the amount of eighty five thousand dollars ($85,000) in addition to the $82,500 payment referred to above, (b) any Eligible Director who serves as Vice Chairman of the Board shall receive the amount of fifty five thousand dollars ($55,000) in addition to the $82,500 payment referred to above, and (c) any Eligible Director that serves as Lead Independent Director shall receive the amount of twenty five thousand dollars ($25,000) in addition to the $82,500 payment referred to above, with all other provisions of this subsection being applicable to such Eligible Director(s).

4.1.2 Equity Portion of the Annual Director Fee. Each Eligible Director shall receive Equity valued at one hundred and twenty thousand dollars ($120,000) (the "Equity Portion of the Annual Director Fee"). The Equity Portion of the Annual Director Fee shall be paid in arrears as provided in Section 5 below.

4.2 Annual Committee Fee

Each Eligible Director shall be entitled to an Annual Committee Fee, which may be adjusted by the Board from time to time, for each Committee they serve on, in the amount of ten thousand dollars ($10,000) for a Committee member (other than the Chairman) and twenty thousand dollars ($20,000) for a Committee Chairman. The Annual Committee Fee shall be paid to an Eligible Director in four equal quarterly installments in arrears on the first business day following each quarter of the Plan Year in which the Eligible Director served on the applicable committee(s).

4.3 Election

Pursuant to Section 6 hereof, an Eligible Director may elect to receive all or a portion of the Cash Portion of the Annual Director Fee and the Annual Committee Fee in the form of Equity.

4.4 Proration

The Cash Portion of the Annual Director Fee, the Equity Portion of the Annual Director Fee and the Annual Committee Fee shall be prorated for any partial periods served.

4.5 Initial Grant upon Election to Board

Upon initial election to the Board (but not subsequent re-elections), each Eligible Director shall receive Equity valued at fifty five thousand dollars ($55,000).

4.6 Equity

4.6.1 Form of Equity. Whenever Equity is to be granted to Eligible Directors hereunder, the Committee shall, prior to such grant, determine whether such Equity shall be in the form of Options, Restricted Stock, Restricted Stock Units or SARs, or any combination thereof.

4.6.2 Options and SARs. If Options or SARS are granted, the number of Options or SARs granted shall be determined by dividing the dollar amount of the grant by the value of each Option or SAR on the Grant Date as determined pursuant to the methodology then in use by the Company's Finance Department to value Options and SARs granted pursuant to the Trex Company, Inc. 2014 Stock Incentive Plan. The Option Price or SAR Price of Common Stock covered by each SAR or Option, as the case may be, granted under the Plan shall be the Fair Market Value of such Common Stock on the Grant Date. Each Option or SAR, as the case may be, granted hereunder shall be exercisable in respect of 100 percent (100%) of the number of shares covered by the grant on the date of the grant of such Option or SAR. Any limitation on the exercise of an Option or SAR contained in any Option or SAR Agreement may be rescinded, modified or waived by the Committee, in its sole discretion, at any time and from time to time after the date of grant of such Option or SAR. The Option or SAR, as the case may be, shall be exercisable, in whole or in part, at any time and from time to time, prior to the termination of the Option or SAR; provided, that no single exercise of the Option or SAR shall be for less than 100 shares, unless the number of shares purchased is the total number at the time available for purchase under the Option or SAR. Each Option or SAR, as the case may be, granted under the Plan shall terminate, and all rights to purchase shares of Common Stock thereunder shall cease, upon the expiration of ten years (eleven years if the service of the Participant as a director of the Company shall terminate due to death in the tenth year of the Option or SAR term) from the date such Option or SAR is granted. Except as otherwise provided in the Option or SAR Agreement, upon the termination of service (a "Service Termination") of the Participant as a director of the Company for any reason, the Participant shall have the right, at any time within five years after the date of such Participant's Service Termination and prior to termination of the Option or SAR, to exercise any Option or SAR held by such Participant at the date of such Participant's Service Termination. After the termination of the Option or SAR, the Participant shall have no further right to purchase shares of Common Stock pursuant to such Option or SAR.

4.6.3 Restricted Stock and Restricted Stock Units. If Restricted Stock or Restricted Stock Units are granted, the number of shares of Restricted Stock or Restricted Stock Units shall be determined by dividing the dollar amount of the grant by the Fair Market Value of a share of Common Stock on the Grant Date. Except as otherwise provided in the Restricted Stock Agreement or Restricted Stock Unit Agreement, each share of Restricted Stock or each Restricted Stock Unit will vest on the first anniversary of the grant, provided that such Restricted Stock or Restricted Stock Unit has not been forfeited, as provided below. Except as otherwise provided in the Restricted Stock Agreement or Restricted Stock Unit Agreement, (a) in the event of a Service Termination of a Participant due to death, "permanent and total disability" (within the meaning of Section 22(e)(3) of the Code), or retirement, any unvested Restricted Stock or Restricted Stock Units held by such Participant shall immediately vest, and (b) in the event of a Service Termination for any other reason, any unvested Restricted Stock or Restricted Stock Unit held by such Participant shall immediately be deemed forfeited.

5. GRANT DATE

The date of grant for the Equity Portion of the Annual Director Fee shall be the date of the first regularly scheduled Board of Directors' Meeting following the end of each Plan Year in which the Eligible Director provided services to the Company, and the date of grant for Equity issued in lieu of the Cash Portion of the Annual Director Fee and the Annual Committee Fee, as provided in Section 8 hereof, shall be the date such Fees would otherwise be due (each of such dates being referred to as the "Grant Date").

6. ELECTION TO RECEIVE ADDITIONAL EQUITY

6.1 Election Form

A Participant who wishes to receive all or any portion of the Cash Portion of the Annual Director Fee and the Annual Committee Fee in the form of Equity shall file an Election Form with the Company, in the form and manner prescribed by the Committee. Filing of a completed Election Form will authorize the Company to issue Equity to the Participant in lieu of all or any portion of the Cash Portion of the Annual Director Fee and the Annual Committee Fee, in accordance with the Participant's instructions on the Election Form.

6.2 Time for Filing Election Form

An Election Form shall be completed and filed by each newly elected Eligible Director within thirty (30) days after the Participant's election to the Board, and elections under the Plan made by a newly elected Eligible Director shall apply to the Participant's Annual Director Fee and Annual Committee Fee for the remainder of the Plan Year and subsequent Plan Years unless and until a new Election Form is submitted by an Eligible Director to the Corporate Secretary. Notwithstanding the foregoing, a new Election Form may be submitted by each Eligible Director no more than once each Plan Year, and any new election shall not be effective until the start of the next calendar year.

7. ADMINISTRATION

7.1 Committee

The general administration of the Plan and the responsibility for carrying out its provisions shall be placed in the Nominating/Corporate Governance Committee.

7.2 Rules for Administration

Subject to the limitations of the Plan, the Committee may from time to time establish such rules and procedures for the administration and interpretation of the Plan and the transaction of its business as the Committee may deem necessary or appropriate. The determination of the Committee as to any disputed question relating to the administration and interpretation of the Plan shall be conclusive.

7.3 Committee Action

Any act which the Plan authorizes or requires the Committee to do may be done by a majority of its members. The action of such majority, expressed from time to time by a vote at a meeting (i) in person, or (ii) by telephone or other means by which all members can hear one another shall have the same effect for all purposes as if assented to by all members of the Committee at the time in office. The Committee may also act without a meeting by unanimous written consent.

7.4 Delegation

The members of the Committee may authorize one or more of their number to execute or deliver any instrument, make any payment or perform any other act which the Plan authorizes or requires the Committee to do.

7.5 Services

The Committee may employ or retain agents to perform such clerical, accounting and other services as it may require in carrying out the provisions of the Plan.

7.6 Indemnification

The Company shall indemnify and save harmless each member of the Committee against all expenses and liabilities arising out of membership on the Committee, other than expenses and liabilities arising from the such member's own gross negligence or willful misconduct, as determined by the Board of Directors.

8. AMENDMENT AND TERMINATION

The Company, by action of the Board of Directors or the Committee, may at any time or from time to time modify or amend any or all of the provisions of the Plan, or may at any time terminate the Plan. No such action shall adversely affect the accrued rights of any Participant hereunder without the Participant's consent thereto.

9. GENERAL PROVISIONS

9.1 Limitation of Rights

No Participant shall have any right to any payment or benefit hereunder except to the extent provided in the Plan.

9.2 No Rights as Stockholders

Nothing contained in this Plan shall be construed as giving any Participant rights as a stockholder of the Company.

9.3 Rights as a Non-Employee Director

Nothing contained in this Plan shall be construed as giving any Participant a right to be retained as a non-employee director of the Company.

9.4 Assignment, Pledge or Encumbrance

No assignment, pledge or other encumbrance of any payments or benefits under the Plan shall be permitted or recognized and, to the extent permitted by law, no such payments or benefits shall be subject to legal process or attachment for the payment of any claim of any person entitled to receive the same, except to the extent such assignment, pledge or other encumbrance is in favor of the Company to secure a loan or other extension of credit from the Company to the Participant.

9.5 Binding Provisions

The provisions of this Plan shall be binding upon each Participant as a consequence of the Participant's election to participate in the Plan, upon the Company, upon the Participant's heirs, executors and administrators and upon the successors and assigns of the Participant and the Company.

9.6 Notices

Any election made or notice given by a Participant pursuant to the Plan shall be in writing to the Committee or to such representative thereof as may be designated by the Committee for such purpose and shall be deemed to have been made or given on the date received by the Committee or its representative.

9.7 Governing Law

The validity and interpretation of the Plan and of any of its provisions shall be construed under the laws of the State of Delaware without giving effect to the choice of law provisions thereof.

9.8 Withholding

The Company shall have the right to deduct from the amounts distributable hereunder any federal, state or local taxes required by law to be withheld with respect to such distributions, and such additional amounts of withholding as are reasonably requested by the Participant.

9.9 Effective Date

This Plan shall be effective as of March 12, 1999. The Plan was amended and restated effective May 14, 2002, October 24, 2003, July 27, 2004, February 10, 2005, July 21, 2005, February 8, 2006, July 20, 2006 and November 12, 2007. The Plan was amended on May 5, 2010, July 20, 2010, July 24, 2012, April 30, 2014, February 18, 2015, July 27, 2015, October 21, 2015, October 24, 2018, February 21, 2020, February 17, 2021 and February 23, 2022.

Exhibit 21

Subsidiaries of Trex Company, Inc.

Name of the Subsidiary	Jurisdiction of Formation
Trex Commercial Products, Inc.	Delaware

Exhibit 23

Consent of Independent Registered Public Accounting Firm

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

- Registration Statements (Form S-8, No. 333-76847, 333-83998, 333-124685, and 333-150690) pertaining to the amended and restated 1999 Stock Option and Incentive Plan (now 2005 Stock Incentive Plan) of Trex Company, Inc., and
- Registration Statement (Form S-3, No. 333-161732) of Trex Company, Inc.;

of our reports dated February 28, 2022, 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, 2021.

/s/ Ernst & Young LLP

Richmond, Virginia

February 28, 2022

Exhibit 31.1

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 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 28, 2022

/s/ BRYAN H. FAIRBANKS

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

Exhibit 31.2

CERTIFICATION

I, Dennis C. Schemm, 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 28, 2022

/s/ DENNIS C. SCHEMM

Dennis C. Schemm
Senior Vice President and Chief Financial Officer
(Principal Financial Officer)

Exhibit 32

**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 Senior Vice President and 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, 2021 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 28, 2022

/s/ BRYAN H. FAIRBANKS

Bryan H. Fairbanks
President and Chief Executive Officer

Date: February 28, 2022

/s/ DENNIS C. SCHEMM

Dennis C. Schemm
Senior Vice President and Chief Financial Officer