GIBRALTAR INDUSTRIES, INC.
Form 10-K
February 21, 2017

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

FORM 10-K
(Mark One)
x ANNUAL REPORT PURSUANT TO SECTION 13 OR 15 (d) OF THE SECURITIES ACT OF 1934
For the fiscal year ended December 31, 2016
OR
¨ 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 0-22462
GIBRALTAR INDUSTRIES, INC.
(Exact name of Registrant as specified in its charter)

Delaware	16-1445150
(State or other jurisdiction of incorporation organization)	(I.R.S. Employer Identification No.)
3556 Lake Shore Road, P.O. Box 2028 Buffalo, New York	14219-0228
(address of principal executive offices)	(zip code)

Registrant's telephone number, including area code: (716) 826-6500
Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Name of each exchange on which registered
Common Stock, $0.01 par value	NASDAQ Global Select Market

Securities registered pursuant to Section 12(g) of the Act: NONE
Indicate by checkmark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ¨ No x.
Indicate by checkmark if the registrant is not required to file report pursuant to Section 13 or Section 15(d) of the Act. Yes ¨ No x.
Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes x No ¨.
Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Website, if any, every Interactive Data File required to be submitted and posted 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 and post such files). Yes x No ¨.
Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of the Registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of the Form 10-K or any amendment to this Form 10-K. ¨
Indicate by checkmark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definition of "large accelerated filer", "accelerated filer", and "small reporting company" in Rule 12b-2 of the Exchange Act.
Large accelerated filer x Accelerated filer ¨ Non-accelerated filer ¨ Smaller reporting company ¨
Indicate by checkmark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ¨ No x

The aggregate market value of the Common Stock outstanding and held by non-affiliates (as defined in Rule 405 under the Securities Act of 1933) of the registrant based upon the closing sale price of the Common Stock on the NASDAQ Global Select Market on June 30, 2016, the last business day of the registrant's most recently completed second quarter, was approximately $988.0 million.
As of February 17, 2017, the number of common shares outstanding was: 31,580,694

DOCUMENTS INCORPORATED BY REFERENCE
Portions of the Registrant's Definitive Proxy Statement for the Annual Meeting of Shareholders (2017 Proxy Statement) are incorporated by reference into Part III of this report.
Exhibit Index begins on Page 93

Form 10-K Index

Safe Harbor Statement
Certain information set forth herein includes statements that express our opinions, expectations, beliefs, plans, objectives, assumptions or projections regarding future events or future results and, therefore, are, or may be deemed to be, “forward-looking statements.” These forward-looking statements can generally be identified by the use of forward-looking terminology, including the terms “believes,” “estimates,” “anticipates,” “expects,” “seeks,” “projects,” “intend “plans,” “may,” “will” or “should” or, in each case, their negative or other variations or comparable terminology. These forward-looking statements include all matters that are not historical facts. They include statements regarding our intentions, beliefs or current expectations concerning, among other things, our results of operations, financial condition, liquidity, prospects, growth, competition, strategies and the industry in which we operate. By their nature, forward-looking statements involve risks and uncertainties because they relate to events and depend on circumstances that may or may not occur in the future. We believe that these risks and uncertainties include, but are not limited to, those described in Item 1A “Risk Factors.” Those factors should not be construed as exhaustive and should be read with the other cautionary statements in Item 1A “Risk Factors.” Although we base these forward-looking statements on assumptions that we believe are reasonable when made, we caution you that forward-looking statements are not guarantees of future performance and that our actual results of operations, financial condition and liquidity and the development of the industries in which we operate may differ materially from those made in or suggested by the forward-looking statements contained herein. In addition, even if our results of operations, financial condition and liquidity and the development of the industries in which we operate are consistent with the forward-looking statements contained in this document, those results or developments may not be indicative of results or developments in subsequent periods. Given these risks and uncertainties, you are cautioned not to place undue reliance on these forward-looking statements. Any forward-looking statements that we make herein speak only as of the date of those statements, and we undertake no obligation to update those statements or to publicly announce the results of any revisions to any of those statements to reflect future events or developments. Comparisons of results for current and any prior periods are not intended to express any future trends or indications of future performance, unless expressed as such, and should only be viewed as historical data.
PART I

Item 1. Business
The Company
Gibraltar Industries, Inc. (the "Company") is a leading manufacturer and distributor of building products for industrial, transportation infrastructure, residential housing, renewable energy and resource conservation markets. Our business strategy focuses on significantly elevating and accelerating the growth and financial returns of the Company. We strive to deliver best-in-class, sustainable value creation for our shareholders for the long-term. We believe this can be achieved from a transformational change in the Company’s portfolio and its financial results. Our business strategy has four key elements, or "pillars," which are: operational excellence, product innovation, portfolio management, and acquisitions as a strategic accelerator.

Operational excellence is our first pillar in this strategy. 80/20 simplification ("80/20") is a core part of the operational excellence pillar and is based on the analysis that 25% of the customers typically generate 89% of the revenue in a business, and 150% of the profitability. Through the application of data analysis generated by 80/20 practice, we are focusing on our largest and best opportunities (the “80”) and eliminating complexity associated with less profitable opportunities (the “20”) in order to generate more earnings year over year, at a higher rate of return with a more efficient use of capital.

We have recently completed the second year of our multi-year simplification initiative. Since initiation of 80/20 in 2015, we have achieved nearly 250 basis points of operating margin improvement from 80/20 simplification initiatives and exceeded our initial five-year target ending 2019 of $25 million of pre-tax savings. We currently sit at the start of the "middle innings" of this 80/20 initiative, which means that there is both more work and more opportunity ahead. We are targeting greater structural changes affecting the balance sheet. We are just starting the follow-on management tools of in-lining our manufacturing processes linked with market-rate-of-demand replenishment tools. These follow-on tools are focused on process manufacturing the highest-volume products for our largest customers, and on a much higher level of capacity utilization. We expect these methods will yield additional benefits including lower manufacturing costs, lower inventories and fixed assets, and an even higher level of service to customers. Additionally, we will being focusing on driving top line growth with new and innovative products. Our initiatives will be tailored toward reallocating sales and marketing talent to target specific end user groups in order to better understand their needs and the various market opportunities that may be available. This effort is expected to produce ideas and opportunities that generate profitable growth.

Product innovation is our second strategic pillar. Innovation is centered on the allocation of new and existing resources to opportunities that drive sustainable returns. We are focused on those products and technologies that have relevance to the end-user and can be differentiated from our competition. Our focus on innovation is centered on four markets: postal and parcel products, residential air management, infrastructure and renewable energy. These respective markets are expected to grow based on demand for: centralized mail and parcel delivery systems; zero carbon footprint homes; the need for repairs to elevated bridges that are deficient or functionally obsolete; and energy sources not dependent on fossil fuels.

The third pillar of our strategy is portfolio management, which is a natural adjunct to the 80/20 initiative. Using the 80/20 process, we conduct strategic reviews of our customers and end markets, and allocate leadership time, capital and resources to the highest-potential platforms and businesses. Following the sale of our European industrial manufacturing business to a third party in April 2016, we next decided in December 2016 to exit our small European residential solar racking business and U.S. bar grating product line, which are proceeding as planned. These portfolio changes have helped contribute to the Company's realization of a higher rate of return on invested capital in 2016. We have now acted on all near-term portfolio assessments and expect no additional changes in 2017 while we continue to position our resources on more attractive projects and markets.

The fourth pillar of our strategy is acquisitions. We are focused on making strategic acquisitions in five key markets, four of which are served by existing platforms within the Company. The existing platforms include the same areas in which we are targeting the development of innovative products: postal and parcel solutions, infrastructure, residential air management and renewable energy. The remaining new platform is water management and conservation. These platforms are all large markets in which the underlying trends for customer convenience and safety, energy-savings and resource conservation are of increasing importance and are expected to drive long-term demand. We believe these markets also offer the opportunity for higher returns on our investments than those we have generated in the past. The acquisitions of Rough Brothers Manufacturing, Inc., RBI Solar, Inc., and affiliates, collectively known as "RBI" in June 2015 and more recently, Nexus Corporation ("Nexus") in October 2016, were the direct result of this fourth pillar strategy.

The Company serves customers primarily throughout North America and, to a lesser extent, Asia. Our customers include major home improvement retailers, wholesalers, industrial distributors, contractors, solar developers and institutional and commercial growers of plants. As of December 31, 2016, we operated 44 facilities in 17 states, Canada, China, and Japan giving us a base of operations to provide customer support, delivery, service and quality to a number of regional and national customers and providing us with manufacturing and distribution efficiencies in North America, as well as a presence in the Asian markets.

The Company operates and reports its results in the following three reporting segments, entitled:

- Residential Products;
- Industrial and Infrastructure Products; and
- Renewable Energy and Conservation.

Our Residential Products segment services new residential housing construction and residential repair and remodeling activity with products including roof and foundation ventilation products, mail and package storage products, rain dispersion products and roof ventilation accessories. This segment's products are sold through major retail home centers, building material wholesalers, buying groups, roofing distributors, and residential contractors.

Our Industrial and Infrastructure Products segment focuses on a variety of markets including industrial and commercial construction, highway and bridge construction, automotive, airports and energy and power generation markets with products including perimeter security, expanded and perforated metal, plank grating, as well as, expansion joints and structural bearings for roadways and bridges. This segment sells its products through steel fabricators and distributors, commercial and transportation contractors, and original equipment manufacturers.

Our Renewable Energy and Conservation segment focuses on the design, engineering, manufacturing and installation of solar racking systems and commercial, institutional, and retail greenhouse structures. This segment's services and products are provided directly to developers, select distribution channels, and end users/owners.

The following table sets forth the primary products, applications, and end markets for each segment:

Residential Products Segment

Product	Applications	End Market
Roof and foundation ventilation products	Ventilation and whole-house air flow	
Postal and parcel storage (single and cluster)	Secure storage for mail and package deliveries	Residential: new construction and repair and remodeling
Rain dispersion, trims and flashings, other accessories	Water protection; sun protection	

Industrial and Infrastructure Products Segment

Product	Applications	End Market
Fabricated expanded metal and perforated metal products	Perimeter security barriers; walkways / catwalks; filtration; architectural facades	Industrial and commercial construction, automotive, energy and power generation
Structural bearings, expansion joints and pavement sealant for bridges and roadways	Preserve functionality under varying weight, wind, heat and seismic conditions	Bridge and elevated highway construction, airport pavements

Renewable Energy and Conservation Segment

Product	Applications	End Users
Solar racking systems: design, manufacture and installation	Ground mounts; roof mounts; canopies for carports	Solar developers; power companies; solar energy EPC contractors
Greenhouses: design, manufacture and installation	Retail, commercial, institutional and conservatories	Retail garden centers; conservatories and botanical gardens; commercial growers; public and private agricultural research; car washes

We believe our operating segments have established reputations as industry leaders with respect to quality, service and innovation and have achieved strong competitive positions in our markets. We attribute their competitive standing in the markets primarily to the following strengths:

Leading market share. We have a leading market position in many of the products and services we offer, and we estimate that a majority of our net sales for the year ended December 31, 2016 were derived from the sale of products in which we had one of the leading U.S. market shares. We believe we have leading market shares in five distinct product families: roof-related ventilation; postal and parcel storage; structural bearings and expansion joints for bridges and other structures; institutional and retail greenhouses; and fixed-tilt ground mount racking for photovoltaic solar systems.

Provider of value-added products and services. We increasingly focus on providing innovative value-added products and services, such as mail and package storage solutions, expansion joints and structural bearings for roadways and bridges, ventilation products, solar racking systems, and greenhouses which can solve end customer needs while also helping to improve our margins and profitability. Our products use complex and demanding production and treatment processes that require advanced production equipment, sophisticated technology and exacting quality control measures, along with specialized

design and engineering skills. We also focus our acquisition strategy on manufacturers offering engineered products and services in key growth markets.
Commitment to quality. We place great importance on providing our customers with high quality products for use in critical construction applications. We carefully select our raw material vendors and use inspection and analyses to maintain our quality standards so our products meet critical customer specifications. To meet customer specifications, we use documented procedures utilizing statistical process control systems linked directly to processing equipment to monitor many stages of production. A number of our facilities' quality systems are registered under ISO 9001, an internationally recognized set of quality-assurance standards, and other industry standards.
Strong liquidity profile. We strive to manage our cash resources to ensure we have sufficient liquidity to support the seasonality of our businesses, potential downturns in economic activity, and to fund growth initiatives. During the year ended December 31, 2016, we purchased Nexus for approximately $25 million funded by our cash on hand. Our liquidity as of December 31, 2016 was $457 million, including $170 million of cash and $287 million of availability under our revolving credit facility. We believe that our current low leverage and ample liquidity allow us to successfully manage our business, meet the demands of our customers, weather the cyclicality of certain end markets and take advantage of growth opportunities.

History of growth through acquisitions. Over the last decade, we also have grown through acquisitions, such as Nexus (greenhouses), RBI, (solar racking systems and greenhouses), D.S. Brown (expansion joints and bearing for roads and bridges), and Florence Manufacturing (mail storage), to help augment and diversify our products and customers while growing our net sales and earnings, and improving our operating characteristics. One of the key pillars of our Company's value-generating strategy is to use acquisitions as a strategic accelerator to drive a transformational change in our portfolio and its financial results.
Recent developments
On February 6, 2017, the Company completed the sale of substantially all of its U.S. bar grating product line assets to a third party. The Company had previously announced, on December 2, 2016, its intentions to exit its U.S. bar grating product line as part of its portfolio management initiative. These assets were a part of our Industrial and Infrastructure Products segment.

On December 2, 2016, the Company announced its decision to exit its European residential solar racking business and U.S. bar grating product line as part of its portfolio management and 80/20 strategic initiatives. These businesses contributed a combined $75 million in revenue and pre-tax operating losses of $6 million in 2016. This action will include the sale and closing of 5 facilities in early 2017.

On October 11, 2016, the Company acquired all of the outstanding stock of Nexus for approximately $25 million subject to a working capital adjustment and certain other adjustments provided for in the stock purchase agreement. The acquisition was financed through cash on hand. Nexus is a leading provider of commercial-scale greenhouses to customers in the United States and is expected to generate revenues of $30 million in its fiscal year ending December 31, 2016. The results of operations of Nexus have been included within the Renewable Energy and Conservation segment of the Company's consolidated financial statements from the date of acquisition.

On April 15, 2016, the Company sold its European industrial manufacturing business to a third party for net of cash proceeds of $8.3 million. This business, which supplied expanded metal products for filtration and other applications, contributed $36 million in revenue to the Company's Industrial & Infrastructure Products segment in 2015 and had nearly break-even operating results. The divestiture of this business is in alignment with the Company's portfolio management assessments.

On June 9, 2015, the Company acquired RBI for $148 million. RBI has established itself during the past seven years among North America's fastest-growing providers of solar racking solutions and is also one of the largest manufacturers of commercial greenhouses in the United States. RBI is a full service provider that engineers, manufactures and installs solar racking systems for solar developers and power companies. In addition, RBI designs, manufactures and erects greenhouses for commercial, institutional and retail customers. The acquisition of RBI has enabled the Company to leverage its expertise in structural metals manufacturing, materials sourcing and logistics to help meet the fast-growing global demand for solar racking solutions. The results of RBI have been included in the Company’s consolidated financial results since the date of the acquisition. The acquisition was financed through cash on hand and short-term borrowings under our revolving credit facility.

Structured succession plan. In November 2016, the Company announced the planned retirement of Chief Financial Officer ("CFO"), Kenneth Smith, in early 2017. As part of a succession plan, the Company has used an outside search firm to identify potential internal and external candidates to fill the CFO role. The plan calls for the completion of the search process to conclude in early 2017. Mr. Smith will remain with the Company in order to facilitate a smooth transition prior to his retirement. Mr. Smith joined the Company in March 2008.

Experienced Management Team. Our executive management team is composed of talented and experienced managers possessing broad experience in operational excellence, new product development, and driving profitable growth gained over multiple business cycles. We made other senior leadership changes in 2016. Cherri Syvrud was hired and appointed successor to Paul Murray as Senior Vice President of Human Resources and Organizational Development in April 2016 in concert with the announcement of Mr. Murray’s planned retirement in early 2017. Other developments include the hiring of John Neil in the newly created position as Vice President of Strategic Operations and the hiring of John Mehltretter as successor to David McCartney as Vice President of Information Services upon announcement of Mr. McCartney’s retirement in early 2017, along with the promotion of William Vietas as successor to Richard Reilly as Group President of Renewable Energy and Conservation upon announcement of Mr. Reilly's retirement in early 2017.

Economic Trends

End markets served by our business are subject to economic conditions which include but are not limited to interest rates, exchange rates, commodity costs, demand for residential construction, demand for repair and remodeling, government funding, tax policies and incentives, the level of industrial construction and transportation infrastructure projects, and demand for renewable energy sources.

During 2016 and 2015, residential construction markets continued to steadily and slowly improve with U.S. new housing starts reaching 1.2 million in 2016. Residential repair and remodel activity also continued to improve over the past two years, along with a slight increase in re-roofing activity, which correlates to demand for our roof-related products.

In our Industrial and Infrastructure Products segment, sales declined for 2016 by 22%. The divestiture of our European industrial manufacturing business contributed to 7% of the decrease. The remaining decrease was primarily due to volume declines in our industrial products sold to the energy-related sector resulting from lower oil and gas prices as compared to 2015. Demand for our infrastructure products also declined as compared to 2015. While a new infrastructure bill was passed in December 2015 authorizing U.S. federal funding for five years, the FAST Act, the matching state funding required to obtain the federal funds was not available in key states we serve. We expect that enacted changes in legislation in many of these key states will provide funds that will support projects beginning in the latter part of 2017 which should positively impact future demand for products sold by this segment.

Demand for solar racking systems increased over the past year as end users continue to look for renewable energy sources that are not dependent on fossil fuels. In late 2015, U.S. legislation extending the Solar Investment Tax Credit was signed into law extending the credit beyond 2016 for both residential and commercial projects which is expected to stimulate continuing demand for solar racking systems. Demand for greenhouses was relatively stable in 2016; however, we expect demand to increase in 2017 for locally grown produce as well as public and private horticultural research.

Commodity prices for materials such as steel and aluminum began to rise towards the end of the year. These fluctuations impact the cost of raw materials we purchase and the pricing we offer to our customers.

Products

Residential Products

The Residential Products segment is primarily a manufacturer of metal and resin-based products used in residential new construction and for home repair and remodeling. This segment operates 12 manufacturing facilities throughout the United States giving it a base of operations to provide manufacturing capability of high quality products, customer service, delivery and technical support to a broad network of regional and national customers across North America. We manufacture an extensive variety of products that are sold through a number of sales channels including major retail home centers, building material wholesalers, buying groups, roofing distributors, and residential contractors. Our product offerings include a full line of: roof and foundation ventilation products and accessories, including solar powered units; postal and parcel storage products, including single mailboxes, cluster boxes for multi-unit housing and package locker systems; roof edging and flashing; soffits and trim; drywall corner bead; metal roofing and accessories; rain dispersion products, including gutters and accessories; and exterior retractable awnings. Each of these product offerings can be sold separately or as part of a system solution.

Within our Residential Products businesses, we are constantly striving to improve our product/solution offerings by introducing new products, enhancing existing products, adapting to building code and regulatory changes, and providing new and innovative solutions to homeowners and contractors. New products introduced in recent years include adhesive roofing applications, electronic parcel lockers, roof top safety kits, chimney caps, heat trace coils and exterior, remote-controlled deck awnings for sun protection, and solar-powered ventilation products. Our electronic parcel lockers provide residents in multifamily communities a secure receptacle to handle both package deliveries and receipt of other delivered goods. Our ventilation and roof flashing products provide protection and extend the life of structures while providing for a safer, healthier environment for residents. Our cluster box mail delivery products provide delivery cost savings to the postal service while offering secure storage for delivered mail and packages. Our building products are manufactured primarily from galvanized and painted steel, anodized and painted aluminum, and various resins.

Within our manufacturing facilities, we leverage significant production capabilities which allow us to process a wide range of metals and plastics for our residential products. Most of our production is completed using automatic roll forming machines, stamping presses, welding, paint lines, and injection molding equipment. We maintain our equipment with a thorough preventive maintenance program allowing us to meet the demanding quality and delivery requirements of our customers. In some cases, the Company sources some products from third-party vendors to optimize cost and quality in order to provide the very best and affordable solution for our customers.

Industrial and Infrastructure Products

The Industrial and Infrastructure Products segment is primarily, but not exclusively, a manufacturer and distributor of fabricated metal products used in a variety of end markets such as industrial and commercial construction, highway and bridge construction, automotive and power generation. We operate 13 manufacturing facilities and 4 distribution centers throughout the United States and Canada giving us a base of operations to provide customer support, delivery, service, and quality to a number of regional and national customers, and providing us with manufacturing and distribution efficiencies in North America.

We manufacture an extensive variety of products that are sold through a number of sales channels including steel fabricators and distributors, as well as, commercial and transportation contractors.

Our product offerings include a full line of: expanded and perforated metal and plank grating used in walkways, catwalks, architectural facades, perimeter security barriers, shelving, and other applications where both visibility and security are necessary; fiberglass grating used in areas where high strength, light weight, low maintenance, corrosion resistance and non conductivity are required; and expansion joint systems, bearing assemblies, and pavement sealing systems used in bridges, elevated highways, airport runways, and rail crossings.

We strive to improve our offerings of industrial and infrastructure products by introducing new products, enhancing existing products, adjusting product specifications to respond to commercial building code and regulatory changes, and providing additional solutions to original equipment manufacturers and contractors. New products introduced in recent years include customized perforated and expanded metal to penetrate a range of new markets such as architectural facades for buildings (museums, sports stadiums and retail outlets) and perimeter security barriers for protecting critical infrastructure. In addition, we have extended our transportation infrastructure products into new markets. For example, long-lasting pavement sealants for roadways are now being installed on airport runways, structural bearings for elevated highways and bridges have been installed on an offshore oil production platform, and corrosion-protection products for cable-suspension bridges are now marketed and sold internationally.

Our production capabilities allow us to process a wide range of metals necessary for manufacturing industrial products. Most of our production is completed using computer numerical control ("CNC") machines, shears, slitters, press brakes, milling, welding, and numerous automated assembly machines. We maintain our equipment with a thorough preventive maintenance program, including in-house tool and die shops, allowing us to meet the demanding service requirements of many of our customers.

Renewable Energy and Conservation

The Renewable Energy and Conservation segment is primarily a designer and manufacturer of fully-engineered solutions for solar mounting systems and greenhouse structures. Our solar racking and greenhouse businesses employ a fully integrated approach with in-house engineering and design, fabrication, and installation capabilities. We have 7 manufacturing facilities and 2 distribution centers and operate in the United States, China and Japan.

An integral part of each customer project is the fabrication of specifically designed metal structures for highly-engineered applications including: racking for ground-mounted solar arrays; racking for solar installations on rooftops of carports; as well as commercial-scale greenhouses and canopies. Both the solar racking and greenhouse projects involve holding glass and plastic to metal and use the same raw materials including steel and aluminum. Most of our production is completed using CNC machines, roll forming machines, laser cutters and other fabrication tools. The structural metal components are designed, fabricated and installed in accordance with applicable structural steel and aluminum guidelines.

We strive to improve our offerings of products by introducing new products, enhancing existing products, adjusting product specifications to respond to commercial building codes and regulatory changes, and providing solutions to contractors and end users. New products introduced in recent years include metal framed canopy structures for car washes and pool enclosures, and solar racking systems for carports and canopies. Our car washes and canopy structures serve a market preference for light- transparent structures. Solar racking systems for carports serve as protection for cars from the effects of the sun and intense heat while providing a renewable energy resource. Similarly, solar racking systems installed on idle land, such as solid waste landfills, converts such land into a useful property by providing power generating capabilities.

Engineering and Technical Services

Our businesses employ engineers and other technical personnel to perform a variety of key tasks. These personnel staff fully-equipped, modern laboratories to support our operations. These laboratories enable us to verify, analyze, and document the physical, chemical, metallurgical, and mechanical properties of our raw materials and products. In addition, our engineering staff employs a range of drafting software to design highly specialized and technically precise products. In our Renewable Energy and Conservation segment, drawings are designed, signed and sealed by licensed engineers. Technical service personnel also work in conjunction with our sales force to determine the types of products and services that suit the particular needs of our customers.

Suppliers and Raw Materials

Our business is required to maintain sufficient quantities of raw material inventory in order to accommodate our customers' short lead times. Accordingly, we plan our purchases to maintain raw materials at sufficient levels to satisfy the anticipated needs of our customers. We have implemented enterprise resource planning systems to better manage our inventory, forecast customer orders, enable efficient supply chain management, and allow for more timely counter-measures to changing customer demand and market conditions.

The primary raw materials we purchase are flat-rolled and plate steel, aluminum, and resins. We purchase flat-rolled and plate steel and aluminum at regular intervals on an as-needed basis, primarily from the major North American mills, as well as, a limited amount from domestic service centers and foreign steel importers. Substantially all of our resins are purchased from domestic vendors, primarily through distributors, with a small amount direct from manufacturers. Supply has historically been adequate from these sources to fulfill our needs. Because of our strategy to develop longstanding relationships in our supply chain, we have been able to adjust our deliveries of raw materials to match our required inventory positions to support our on-time deliveries to customers while allowing us to manage our investment in inventory and working capital.

The cost of our raw material purchases of steel, aluminum, and resins is significantly linked to commodity markets. The markets for commodities are highly cyclical and the costs of purchasing these raw materials can be volatile due to a number of factors including general economic conditions, domestic and worldwide demand, labor costs, competition, import duties, tariffs, and currency exchange rates. Changes in commodity costs not only impact the cost of our raw materials but also influence the prices we offer our customers. We have largely managed fluctuations in the market by maintaining lean inventory levels and increasing the efficiency of our manufacturing processes. However, in limited situations, where we have fixed price contracts to supply goods covering multiple quarters, we have used hedge contracts to mitigate the risk of changes in commodity costs.

We purchase natural gas and electricity from suppliers in proximity to our operations.

Even though we have long-term relationships with our suppliers, we have no long-term contractual commitments. Management continually examines and improves our purchasing practices across our geographically dispersed facilities in order to streamline purchasing across similar commodities.

9

Intellectual Property

We actively protect our proprietary rights by the use of trademark, copyright, and patent registrations. While we do not believe that any individual item of our intellectual property is material, we believe our trademarks, copyrights, and patents provide us with a competitive advantage when marketing our products to customers. We also believe our brands are well recognized in the markets we serve and we believe they stand for high-quality manufactured goods at a competitive price. These trademarks, copyrights, and patent registrations allow us to help maintain product leadership positions for the goods we offer.

Sales and Marketing

Our products and services are sold primarily by channel partners who are called on by our sales personnel and outside sales representatives located throughout the United States, Canada and Asia. We have organized sales teams to focus on specific customers and national accounts through which we provide enhanced supply solutions and improve our ability to increase the number of products that we sell. Our sales staff works with certain retail customers to optimize shelf space for our products which is expected to increase sales at these locations. Our sales regularly involve competitive bidding processes, and our reputation for meeting delivery time lines and strict specifications make us a preferred provider for many customers.

We focus on providing our customers with industry leading customer service. Our business units generate numerous publications, catalogs, and other printed materials to facilitate the ordering process. In addition, we provide our retail customers with point-of-sale marketing aids to encourage consumer spending on our products in their stores. Continual communication with our customers allows us to understand their concerns and provides us with the opportunity to identify solutions that will meet their needs. We are able to meet our customers' demand requirements due to our efficient manufacturing processes and extensive distribution network.

Customers and Distribution

Our customers are located primarily throughout North America and, to a lesser extent, Asia.

Our Residential Products segment operates principally in the North American residential new construction and repair and remodeling markets. A majority of our products are sold through sales channels to include home improvement retailers, building product distributors, residential contractors, and postal services distributors and providers.

Our Industrial and Infrastructure Products segment serves a variety of commercial construction markets; bridge and highway construction markets; and a variety of industrial markets. Discrete and process manufacturers, transportation contractors, and power generating utilities are major customers in our Industrial and Infrastructure Products segment.

Our Renewable Energy and Conservation segment primarily contracts with solar owners and developers, retail garden centers, conservatories and botanical gardens, commercial growers, and schools and universities.

One customer, a home improvement retailer which purchases from both the Residential Products segment and Renewable Energy and Conservation segment, represented 11% of our consolidated net sales for both 2016 and 2015, and 12% for 2014. No other customer in any segment accounted for more than 10% of our consolidated net sales.

Our products are distributed to our customers using common carriers and our own fleet of trucks. We maintain distribution centers that complement our manufacturing plants from which we ship products and ensure on-time delivery while maintaining efficiency within our distribution process.

Backlog

While the majority of our products have short lead time order cycles, we have aggregated approximately $116 million of backlog at December 31, 2016. The backlog primarily relates to certain business units in our Industrial and Infrastructure Products and our Renewable Energy and Conservation segments. We believe that the majority of our backlog will be shipped, completed and installed during 2017.

Competition

The Company operates in highly competitive markets. We compete against several competitors in all three of our segments with different competitors in each major product category. A few of our competitors may be larger, have greater financial resources, or have less financial leverage than we do. As a result, these competitors may be better positioned to respond to any downward pricing pressure or other adverse economic or industry conditions or to identify and acquire companies or product lines compatible with their business.

We compete with competitors based on the range of products offered, quality, price, and delivery, as well as, serving as a full service provider for project management in certain segments. Although some of our competitors are large companies, the majority are small to medium-sized and do not offer the large range of building products that we offer.
The prices paid for raw materials used in our operations, primarily steel, aluminum, and resins, are volatile due to a number of factors beyond our control, including but not limited to demand, supply shortages, general industry and economic conditions, labor costs, import duties, tariffs, and currency exchange rates. Although we have strategies to help mitigate the volatility in raw material costs, such as reducing inventory levels, our competitors who choose not to maintain inventories as large as ours may be better able to mitigate the effects of this volatility and, thereby, compete effectively against us on product price.
We believe our broad range of products, high quality, and sustained ability to meet exacting customer delivery requirements gives us a competitive advantage over many of our competitors.

Employees

At December 31, 2016 and 2015, we employed 2,311 and 2,628 employees, respectively. We also employ a number of temporary employees to address peaks in staffing requirements. Approximately 11% of our workforce was represented by unions through various collective bargaining agreements ("CBAs") as of December 31, 2016. Three of the Company's six CBAs expired and were successfully renegotiated in 2016. None of our CBAs expire until April 30, 2018. We historically have had good relationships with our unions and we expect future negotiations with our unions to result in contracts that provide benefits that are consistent with those provided in our current agreements.

Seasonality

Our net sales and income are generally lower in the first and fourth quarters compared to the second and third quarters primarily due to the seasonality of construction activity. Our sales volume is driven by residential new build and renovation and other industrial construction activities which typically peak during warmer weather and decline due to inclement weather in the winter months. Operating margins are impacted by this seasonality because our operating costs have fixed cost components.

Governmental Regulation

Our manufacturing facilities and distribution centers are subject to many federal, state, and local requirements relating to the protection of the environment. Our production processes use some environmentally sensitive materials. For example, we lubricate our machines with oil and use oil baths to treat some of our products. While we cannot guarantee that we will not incur material expenses to comply with environmental requirements, we believe that we operate our business in material compliance with all environmental laws and regulations, do not anticipate any material expenditures to continue to meet environmental requirements, and do not believe that future compliance with such laws and regulations will have a material adverse effect on our financial condition or results of operations. However, we could incur operating costs or capital expenditures in complying with new or more stringent environmental requirements in the future or with current requirements if they are applied to our facilities in a way we do not anticipate. In addition, new or more stringent regulation of our energy suppliers could cause them to increase the price of energy.
Our operations are also governed by many other laws and regulations covering our labor relationships, the import and export of goods, the zoning of our facilities, taxes, our general business practices, and other matters. We believe that we are in material compliance with these laws and regulations and do not believe that future compliance with such laws and regulations will have a material adverse effect on our financial condition or results of operations.

Internet Information

Copies of the Company’s Proxy Statements or Schedule 14A filed pursuant to Section 14 of the Securities Exchange Act of 1934 and Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 are available free of charge through the Company’s website (www.gibraltar1.com) as soon as reasonably practicable after the Company electronically files the material with, or furnishes it to, the Securities and Exchange Commission.

Item 1A. Risk Factors

Future results and the market price for the Company's common shares are subject to numerous risks, many which are driven by factors that cannot be controlled or predicted. The following discussion, as well as, other sections of this Annual Report on Form 10-K, including “Part II, Item 7, Management’s Discussion and Analysis of Financial Condition and Results of

Operations," describe certain business and other risks affecting the Company. Consideration should be given to the risk factors described below as well as those in the Safe Harbor Statement at the beginning of this Annual Report on Form 10-K, in conjunction with reviewing the forward-looking statements and other information contained in this Annual Report on Form 10-K. These risks are not the only risks we face. Our business operations and market for our securities could also be affected by additional factors that are not presently known to us or that we currently consider to be immaterial in our operations.

Macroeconomic factors outside of our control may adversely affect our business, our industry, and the businesses and industries of many of our customer and suppliers.

Macroeconomic factors have a significant impact on our business, including our ability to generate profitable margins, customer demand and the availability of credit and other capital. Our operations are subject to the effects of domestic and international economic conditions including government monetary and trade policies, as well as, the relative debt levels of the U.S. and the other countries which form the market for our products. The changing costs of energy, in particular the depressed price of oil plus other commodities, has, and may continue to, negatively impact demand for our expanded metal products. In addition, the recent fluctuation of the U.S. dollar impacts the prices we charge and costs we incur to export and import products. We are unable to predict the impact on our business of changes in domestic and international economic conditions. The construction market appears to have stabilized. However, as discussed in this and prior reports, the markets in which we operate have been challenging over the past few years and the possibility remains that the domestic or global economies, or certain industry sectors of those economies that are key to our sales, may continue to be slow or could deteriorate, which could result in a corresponding decrease in demand for our products and negatively impact our results of operations and financial condition.

Our amount of leverage and debt service obligations could adversely affect our ability to raise additional capital to fund our operations, limit our ability to react to changes in the economy or our industry, and prevent us from meeting our obligations.

We had total indebtedness of $209.6 million as of December 31, 2016, of which $209.2 million is long-term debt. Our current level of indebtedness and the debt we may need to incur in the future to fund strategic acquisitions, investments or for other purposes could have significant consequences to our business, including the following:

- Our interest expense could increase if interest rates increase because the loans under our Senior Credit Agreement bear interest at a floating rate. Depending on interest rates and debt maturities, a substantial portion of our cash flow from operations could be dedicated to paying principal, premium, if any, and interest on our indebtedness, thereby reducing funds available for our acquisition strategy and capital expenditures or to dispose of material assets or operations, seek additional debt or equity capital or restructure or refinance our indebtedness;
- Our significant amount of debt could make us more vulnerable to changes in economic conditions and increases in prevailing interest rates;
- Our ability to obtain additional debt or equity financing for working capital, capital expenditures, product development, debt service requirements, acquisitions, and general corporate or other purposes may be limited;
- Our indebtedness may limit our ability to adjust to changing market conditions and place us at a competitive disadvantage compared to our competitors which have less debt; and
- Any increase in the amount of debt we have outstanding increases the risk of non-compliance with some of the covenants in our debt agreements which require us to maintain specific financial ratios.

Our debt instruments impose operational and financial restrictive covenants on us which restrict our ability to respond to changes or take certain actions and may adversely affect our operations.

The Senior Credit Agreement and the indenture governing our 6.25% Notes contain several financial and other restrictive covenants, including restrictions on our ability to:

- incur additional indebtedness and guarantee indebtedness;
- pay dividends or make other distributions or repurchase or redeem our capital stock;
- prepay, redeem or repurchase certain debt;
- issue certain preferred stock or similar equity securities;
- make loans and investments;
- sell assets;
- incur liens;
- enter into transactions with affiliates; and
- enter into agreements restricting our subsidiaries' ability to pay dividends.

A significant decline in our operating income could cause us to violate these covenants. A covenant violation would require a waiver from our lenders, which could result in incurring additional financing fees that would be costly and adversely affect our profitability and cash flows. If a waiver was not provided, the lenders could elect to declare all amounts outstanding under such facilities to be immediately due and payable and terminate all commitments to extend further credit.

We make estimates in accounting for contracts and changes in these estimates may have significant impacts on our earnings.

Revenue representing approximately 26% and 17% of 2016 and 2015 sales, respectively, were accounted for using the percentage of completion, cost-to-cost method of accounting. Under this method, we recognize revenue as work progresses toward completion as determined by the ratio of cumulative costs incurred to date to estimated total contract costs at completion, multiplied by the total estimated contract revenue, less cumulative revenue recognized in prior periods. Changes in these required estimates could have a material adverse effect on sales and profits. Any adjustments are recognized in the period in which the change becomes known using the cumulative catch-up method of accounting. For contracts with anticipated losses at completion, we establish a provision for the entire amount of the estimated remaining loss and charge it against income in the period in which the loss becomes known. Amounts representing performance incentives, penalties, contract claims and the impacts of scope change negotiations are considered in estimating revenues, costs and profits when they can be reliably estimated and realization is considered probable. Due to the substantial judgmental estimates involved with this process, our actual results could differ materially or could be settled unfavorably from our estimates.

We rely on a few customers for a significant portion of our net sales. The loss of those customers would adversely affect our business.

Our ten largest customers accounted for approximately 30%, 34%, and 31%, of our net sales during 2016, 2015, and 2014, respectively, with our largest customer, a retail home improvement center, accounting for approximately 11% of our consolidated net sales during both 2016 and 2015 and 12% of our consolidated net sales for 2014.

A loss of sales due to decreased demand from the construction market, the home repair and remodel market, any significant customer in these markets, or a decrease in the prices that we can realize from sales of our products to customers in these markets could adversely affect our profitability and cash flows. The end markets we serve have been and are expected to continue to be cyclical, with product demand based on numerous factors such as seasonal weather, availability of credit and capital, interest rates, general economic conditions, consumer confidence, unemployment levels, and other factors beyond our control. Although our customers periodically provide indications of their product needs and purchases, they generally purchase our products on an order-by-order basis, and the relationship, as well as particular orders, can be terminated at any time. The loss, bankruptcy, or significant decrease in business from any of our major customers would have a material adverse effect on our business, results of operations, and cash flows.

Our business is highly competitive and increased competition could reduce our gross profit, net income, and cash flow.

The principal markets that we serve are highly competitive. Competition is based primarily on product functionality, quality, price, raw material and inventory availability, and the ability to meet delivery schedules dictated by customers. We compete in our principal markets with companies of various sizes, some of which have greater financial and other resources than we do and some of which have better established brand names in the markets we serve. Increased competition could force us to lower our prices or to offer additional services or enhanced products at a higher cost to us, which could reduce our gross profit, net income, and cash flow and cause us to lose market share.

Our future operating results may be affected by fluctuations in raw material costs. We may not be able to pass on increased raw material costs to our customers.
Our principal raw materials are commodity products consisting of steel, aluminum, and resins, which we purchase from multiple primary suppliers. The commodity market as a whole is cyclical, and, at times, availability and pricing can be volatile due to a number of factors beyond our control, including general economic conditions, domestic and worldwide demand, labor costs, competition, import duties, tariffs, and currency exchange rates. This volatility can significantly affect our raw material costs.
In an environment of increasing raw material prices, competitive conditions will impact the amount of any commodity price increases we can pass on to our customers. In the event of rapidly decreasing raw material prices, we may be left to absorb the cost of higher cost inventory as customers receive reduced pricing related to decreases in raw material costs. To the extent we are unable to match our costs to purchase raw materials to prices given to our customers, the profitability of our business and resulting cash flows could be adversely affected.

We are subject to information system security risks and cyber intrusions and other information system threats could materially adversely affect our business and results of operations.
We are dependent upon information systems technology and networks in connection with a variety of business activities, in which we distribute information internally and also to our customers and suppliers. We use this distributed information for a number of important functions, including among other things inventory procurement and control, management of production, scheduling of deliveries, human resource and legal compliance matters, and recording and reporting financial and other disclosures required by the SEC. In addition, we collect and store significant amounts of confidential data and information regarding our employees, customers and suppliers, some of which is personally identifiable. This information technology and data is subject to theft, damage, or interruption from a variety of sources, including but not limited to natural disasters, accidents, power disruptions, telecommunications failures, acts of terrorism or war, malicious computer code, such as worms, viruses and Trojan horses, security breaches, and defects in design. Our ability to effectively manage our business depends upon the security, reliability and functionality of our information systems and networks.

We have taken various measures to manage our risks related to information system and network disruptions, to secure our systems and networks from damage from malicious computer code, and to prevent unauthorized access to our information systems and networks. Nevertheless, such measures cannot provide absolute security due to software defects, employee error, malfeasance, faulty password management, or other irregularities. Advanced cyber-security threats, sometimes developed and exploited by criminal enterprises and foreign government intelligence agencies, are constantly evolving to attack newly discovered flaws in the security design of software. The vendors of the software we use support their products by developing updates that address security flaws, but they may not become aware of the flaw until after a number of companies experience an intrusion through means of the flaw. Therefore we cannot assure you that we can detect or prevent all attempts to access our systems and networks and misappropriate or damage our data. A security breach, system failure, or corruption of our systems and networks could prevent us from conducting our business or otherwise negatively impact our operations and financial results. In addition, cyber attacks could threaten, or even impair, the integrity and value of our trade secrets and other sensitive intellectual property, as well as reveal personally identifiable information of our employees and customers.
We rely on subcontractors and suppliers to perform their contractual obligations.
Some of our contracts with customers involve subcontracts with other companies, on which we rely for performing a portion of the services we provide to our customers. There is a risk that we may have disputes with our subcontractors, including disputes regarding the quality and timeliness of work performed by our subcontractors or customer concerns with the subcontractor. Failure by our subcontractors to satisfactorily provide on a timely basis the agreed-upon services or supplies may materially and adversely impact our ability to perform our obligations as the prime contractor. Similarly, failure by our suppliers to deliver raw materials, components or equipment parts may affect our ability to meet our customers' needs and may have an adverse effect upon our profitability. Failure of our raw materials or components to conform to our specification could also result in delays in our ability to timely deliver and

may have an adverse impact on our relationships with our customers, and our ability to fully realize the revenue expected from sales to those customers.

14

Our strategy depends on identification, management and successful integration of future acquisitions.
Historically, we have grown through a combination of internal growth plus external expansion through acquisitions. Although we intend to continue to seek additional acquisition opportunities in accordance with our business strategy, we cannot provide any assurance that we will be able to identify appropriate acquisition candidates, or, if we do, that we will be able to negotiate successfully the terms of an acquisition, finance the acquisition or integrate the acquisition into our existing operations. Failure to integrate any acquisition successfully may cause significant operating inefficiencies, incur unforeseen obligations, loss of customers, and could adversely affect our profitability. Consummating an acquisition could require us to raise additional funds through additional equity or debt financing, which could increase our interest expense and reduce our cash flows and available funds.

Systems integration and implementation issues could disrupt our internal operations.
In connection with the acquisitions we make, we customarily must integrate legacy information technology systems of the acquired business with our information technology infrastructure, and in some cases, implement new information technology systems for the business. In addition, as the functionality of available information systems increases, we may need to implement significant upgrades or even replace some of our primary information technology systems across significant parts of our businesses and operations. The implementation of new information technology solutions could lead to interruptions of information flow internally and to our customers and suppliers while the implementation project is being completed. Any failure to integrate legacy systems of acquisitions or to implement new systems properly could negatively impact our operations and financial results.
We depend on our senior management team, and the unexpected loss of any member could adversely affect our operations.
Our success is dependent on the management and leadership skills of our senior executive and divisional management teams. The unexpected loss of any of these individuals, or our inability to attract and retain additional personnel could prevent us from successfully executing our business strategy. We cannot assure you that we will be able to retain our existing senior management personnel or to attract additional qualified personnel when needed. We have not entered into employment agreements with any of our senior management personnel other than Frank G. Heard, our President and Chief Executive Officer.

We could incur substantial costs in order to comply with, or to address any violations of, environmental, health and safety laws.
Our operations and facilities are subject to a variety of federal, state, local, and foreign laws and regulations relating to the protection of the environment and human health and safety. Compliance with these laws and regulations sometimes involves substantial operating costs and capital expenditures, and any failure to maintain or achieve compliance with these laws and regulations or with the permits required for our operations could result in fines and civil or criminal sanctions, third-party claims for property damage or personal injury, cleanup costs or temporary or permanent discontinuance of operations, including claims arising from the businesses and facilities that we have sold. We sometimes use hazardous and regulated substances such as petroleum products, hydraulic fluids, and solvents in our operations and are responsible for the proper handling, storage and disposal of hazardous materials and wastes. For certain businesses we have divested, we have provided limited indemnifications for environmental contamination to the successor owners. We have also acquired and continue to acquire businesses and facilities to add to our operations. While we sometimes receive indemnification for pre-existing environmental contamination, the party providing the indemnification may not have sufficient resources to cover the cost of any required measures. Certain facilities of ours have been in operation for many years and we may be liable for remediation of any contamination at our current or former facilities; or at off-site locations where wastes have been sent for disposal, regardless of fault or whether we, our predecessors or others are responsible for such contamination. We have been responsible for remediation of contamination at some of our locations and, while such costs have not been material to date, the cost of remediation of any these and newly-discovered contamination cannot be quantified, and we cannot assure you that it will not materially affect our profits or cash flows. Changes in environmental laws, regulations or enforcement policies, including without limitation new or more stringent regulations affecting disposal of hazardous substances and

waste, greenhouse gas emissions or use of fossil fuels, could have a material adverse effect on our business, financial condition, or results of operations.

Labor disruptions at any of our major customers or at our own manufacturing facilities could adversely affect our results of operations and cash flow.
Many of our customers have unionized workforces and could experience labor disruptions such as work stoppages, slow-downs, and strikes. A labor disruption at one or more of our customers could interrupt production or sales by that customer and cause the customer to halt or limit orders for our products and services. Any such reduction in the demand for our products and services would adversely affect our net sales, results of operations, and cash flow.
In addition, approximately 11% of our own employees are represented by unions through various CBAs. Three of the Company's six CBAs expired and were successfully renegotiated in 2016. None of our CBAs expire until April 30, 2018. It is likely that our unionized employees will seek an increase in wages and benefits at the expiration of these agreements, and we may be unable to negotiate new agreements without labor disruption or on terms favorable to us. In addition, labor organizing activities could occur at any of our facilities. If any labor disruption were to occur at our facilities, we could lose sales due to interruptions in production and could incur additional costs, which would adversely affect our net sales, results of operations, and cash flow.
Our operations are subject to seasonal fluctuations that may impact our cash flow.
Our net sales are generally lower in the first and fourth quarters primarily as a result of reduced activity in the building industry due to inclement weather. In addition, quarterly results may be affected by the timing of shipments of large customer orders. Therefore, our cash flow from operations may vary from quarter to quarter. If, as a result of any such fluctuation, our quarterly cash flows were significantly reduced, we may not be able to service our indebtedness or maintain covenant compliance.
Economic, political, and other risks associated with foreign operations could adversely affect our financial results.
Although the large majority of our business activity takes place in the United States, we derive a portion of our revenues and earnings from operations in other countries, and are subject to risks associated with doing business internationally. Our sales originating outside the United States represented approximately 8% of our consolidated net sales during the year ended December 31, 2016. We have facilities in Canada, China and Japan. We believe that our business activities outside of the United States involve a higher degree of risk than our domestic activities. The risks of doing business in foreign countries include deterioration of foreign economic conditions, uncertainty over the stability of the Eurozone and China, the potential for adverse changes in the local political climates, in diplomatic relations between foreign countries and the United States or in governmental policies, laws or regulations, terrorist activity that may cause social disruption, logistical and communications challenges, costs of complying with a variety of differing laws and regulations, difficulty in staffing and managing geographically diverse operations, deterioration of foreign economic conditions, currency rate fluctuations, foreign exchange restrictions, differing local business practices and cultural considerations, restrictions on imports and exports or sources of supply, and changes in duties or taxes. Adverse changes in any of these risks could adversely affect our net sales, results of operations, and cash flows.

Future terror attacks, war, natural disasters or other catastrophic events beyond our control could negatively impact our operations and financial results.
Terror attacks, war, or other civil disturbances, natural disasters and other catastrophic events could lead to economic instability, decreased capacity to produce our products and decreased demand for our products. From time to time, terrorist attacks worldwide have caused instability in global financial markets. Also, our facilities could be subject to damage from fires, floods, earthquakes or other natural or man-made disasters. Such interruptions could have an adverse effect on our operations, cash flows and financial results.
The nature of our business exposes us to product liability, product warranty and other claims, and other legal proceedings.
We are involved in product liability, product warranty and other claims relating to the products we manufacture and distribute. Although we currently maintain what we believe to be suitable and adequate insurance in excess of our self-insured amounts, there can be no assurance that we will be able to maintain such insurance on acceptable terms or that such insurance will provide adequate protection against potential liabilities. Product liability claims can be expensive to defend and can divert the attention of management and other personnel for significant periods, regardless of the ultimate outcome. Claims of this nature could also have a negative impact on customer confidence in our

products and our Company. We cannot assure you that any current or future claims will not adversely affect our reputation, financial condition, operating results, and cash flows.

If we are required to take additional non-cash impairment charges to earnings, such charges could be significant and have a material impact on our results of operations.

We review the carrying value of long-lived assets for impairment when events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable. We also test goodwill in each of our reporting units and intangible assets with indefinite-lives for impairment annually in the fourth quarter, or sooner at interim dates if events or changes in circumstances indicate that the carrying value of the asset may exceed fair value. In recent years, we have recorded significant non-cash impairment charges for goodwill and other intangible assets as a result of reductions in the estimated fair values of certain businesses. Should the markets for our products deteriorate or should we decide to invest capital differently than as expected, or should other cash flow assumptions change, it is possible that we will be required to record additional non-cash impairment charges to our earnings in the future, which could be significant and have a material impact on our results of operations.

The expiration, elimination or reduction of solar rebates, credits and incentives may adversely impact our business.

A variety of federal, state and local government agencies provide incentives to promote electricity generation from renewable sources such as solar power. These incentives are in the form of rebates, tax credits and other financial incentives which help to motivate end users, distributors, system integrators and others to install solar powered generating systems. Any changes to reduce, shorten or eliminate the scope and availability of these incentive programs could materially impact the demand for our related products, our financial condition and results of operations.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our principal executive office and headquarters is located in Buffalo, New York, in a leased facility. As of December 31, 2016, we operated 35 domestic facilities and 9 foreign facilities, of which 29 were leased and 15 were owned. We believe the facilities we operate and their equipment are effectively utilized, well maintained, in good condition, and will be able to accommodate our capacity needs to meet current levels of demand. Our North American and Asian manufacturing facilities are well maintained and our sites are located to optimize customer service, market requirements, distribution capability and freight costs. We continuously review our anticipated requirements for facilities and, on the basis of that review, may from time to time acquire additional facilities and/or dispose of existing facilities. Most recently, our operational excellence initiatives and portfolio changes have enabled us to reduce, and may further reduce in the future, the number of facilities necessary to meet our current levels of demand.

Item 3. Legal Proceedings

From time to time, the Company is named a defendant in legal actions arising out of the normal course of business. The Company is not a party to any material pending legal proceedings. The Company is also not a party to any other pending legal proceedings other than ordinary, routine litigation incidental to its business. The Company maintains liability insurance against risks arising out of the normal course of business.

Item 4. Mine Safety Disclosures

Not applicable.

PART II

Item 5. Market for Common Equity and Related Stockholder Matters

As of December 31, 2016, there were 83 shareholders of record of the Company's common stock. However, the Company believes that it has a significantly higher number of shareholders because of the number of shares that are held by nominees.

The Company's common stock is traded in the over-the-counter market and quoted on the NASDAQ Global Select Market ("NASDAQ") under the symbol "ROCK." The following table sets forth the high and low sale prices per share for the Company's common stock for each quarter of 2016 and 2015 as reported on the NASDAQ Stock Exchange.

	2016		2015	
	High	Low	High	Low
Fourth Quarter	$47.85	$34.65	$27.31	$18.30
Third Quarter	$39.28	$31.92	$20.90	$16.00
Second Quarter	$32.10	$25.12	$20.96	$16.03
First Quarter	$28.60	$18.78	$16.87	$13.76

The Company did not declare cash dividends during the years ended December 31, 2016 and 2015. Cash dividends are declared at the discretion of the Company's Board of Directors. The Board of Directors determines to pay dividends based upon such factors as the Company's cash flow, financial condition, capital requirements, debt covenant requirements, and other relevant conditions.

Equity Compensation Plan Information

The following table summarizes information as of December 31, 2016 concerning securities authorized for issuance under the Company's stock option plans:

Plan Category	Number of Securities to be Issued Upon Exercise of Outstanding Options	Weighted-Average Exercise Price of Outstanding Options	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (1)
Equity Compensation Plans Approved by Security Holders	277,224	$ 14.95	635,248

1 Consists of the Gibraltar Industries, Inc. 2016 Stock Plan for Non-Employee Directors and the 2015 Equity Incentive Plan (the Plan). Note 12 of the Company's audited consolidated financial statements included in Item 8 of this Annual Report on Form 10-K provides additional information regarding the Plan and securities issuable upon exercise of options. All currently effective equity compensation plans have been approved by the Company's shareholders.

Performance Graph

The performance graph shown below compares the cumulative total shareholder return on the Company's common stock, based on the market price of the common stock, with the total return of the S&P SmallCap 600 Index and the S&P SmallCap 600 Industrials Index for the five-year period ended December 31, 2016. The comparison of total return assumes that a fixed investment of $100 was invested on December 31, 2011 in common stock and in each of the foregoing indices and further assumes the reinvestment of dividends. The stock price performance shown on the graph is not necessarily indicative of future price performance.

Item 6. Selected Financial Data

The selected historical consolidated financial data for each of the following five years ended December 31 (in thousands, except per share data) are derived from the Company's audited financial statements as reclassified for discontinued operations. The selected historical consolidated financial data should be read in conjunction with the Company's audited consolidated financial statements and notes thereto contained in Item 8 and "Management's Discussion and Analysis of Financial Condition and Results of Operations" set forth in Item 7 of this Annual Report on Form 10-K.

	Years Ended December 31,				
	2016	2015	2014	2013	2012
Net sales	$1,007,981	$1,040,873	$862,087	$827,567	$790,058
Intangible asset impairment	$10,175	$4,863	$107,970	$23,160	$4,628
Income (loss) from operations	$72,964	$48,085	$(70,417)	$21,480	$40,261
Interest expense	$14,577	$15,003	$14,421	$22,489	$18,582
Income (loss) before taxes	$49,983	$37,100	$(84,750)	$(832)	$22,167
Provision for (benefit of) income taxes	$16,264	$13,624	$(2,958)	$4,797	$9,517
Income (loss) from continuing operations	$33,719	$23,476	$(81,792)	$(5,629)	$12,650
Income (loss) from continuing operations per share – Basic	$1.07	$0.75	$(2.63)	$(0.18)	$0.41
Weighted average shares outstanding – Basic	31,536	31,233	31,066	30,930	30,752
Income (loss) from continuing operations per share – Diluted	$1.05	$0.74	$(2.63)	$(0.18)	$0.41
Weighted average shares outstanding – Diluted	32,069	31,545	31,066	30,930	30,857
Current assets	$391,197	$351,422	$360,431	$322,400	$267,238
Current liabilities	$152,088	$185,395	$134,085	$119,913	$117,585
Total assets	$918,245	$889,772	$810,471	$889,571	$879,846
Total debt	$209,637	$209,282	$209,911	$209,416	$203,975
Total shareholders' equity	$460,880	$410,086	$387,229	$471,749	$476,822
Capital expenditures	$10,779	$12,373	$23,291	$14,940	$11,351
Depreciation	$14,477	$17,869	$19,712	$20,478	$19,673
Amortization	$9,637	$12,679	$5,720	$6,572	$6,671

Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations
The following Management’s Discussion and Analysis of Financial Condition and Results of Operations should be read in conjunction with the Company’s risk factors and its consolidated financial statements and notes thereto included in Item 1A and Item 8, respectively, of this Annual Report on Form 10-K. Certain information set forth herein Item 7 constitutes “forward-looking statements” as that term is used in the Private Securities Litigation Reform Act of 1995. Such forward-looking statements are based, in whole or in part, on management’s beliefs, estimates, assumptions, and currently available information. For a more detailed discussion of what constitutes a forward-looking statement and of some of the factors that could cause actual results to differ materially from such forward-looking statements, please refer to the “Safe Harbor Statement” on page 3 of this Annual Report on Form 10-K.
Company Overview
Gibraltar Industries, Inc. (the "Company") is a leading manufacturer and distributor of building products for industrial, transportation infrastructure, residential housing, renewable energy and resource conservation markets. Our business strategy focuses on significantly elevating and accelerating the growth and financial returns of the Company. We strive to deliver best-in-class, sustainable value creation for our shareholders for the long-term. This strategy is intended to drive a transformational change in the Company’s portfolio and its financial results. It has four key elements which are: operational excellence, product innovation, portfolio management, and acquisitions as a strategic accelerator.
The Company serves customers primarily throughout North America and, to a lesser extent, Asia. Our customers include major home improvement retailers, wholesalers, industrial distributors, contractors. solar developers and institutional and commercial growers of plants. As of December 31, 2016, we operated 44 facilities in 17 states, Canada, China and Japan which includes 32 manufacturing facilities and seven distribution centers, giving us a base of operations to provide customer support, delivery, service and quality to a number of regional and national customers and providing us with manufacturing and distribution efficiencies in North America, as well as a presence in Asian markets.

The Company operates and reports its results in the following three reporting segments, entitled:
- Residential Products;
- Industrial and Infrastructure Products; and
- Renewable Energy and Conservation

The end markets our businesses serve include residential housing, industrial manufacturing, transportation infrastructure, and renewable energy and conservation. These end markets are subject to economic conditions that are influenced by various factors. These factors include but are not limited to changes in general economic conditions, interest rates, exchange rates, commodity costs, demand for residential construction, governmental policies and funding, tax policies and the level of non-residential construction and infrastructure projects. We believe the key elements of our strategy will allow us to respond timely to changes in these factors. We have and expect to continue to restructure our operations, including consolidation of facilities, reducing overhead costs, curtailing investments in inventory, and managing our business to generate incremental cash. Additionally, we believe our current strategy has enabled us to better react to fluctuations in commodity costs and customer demand, and has helped in improving margins. We have used the improved cash flows generated by these initiatives to maintain low levels of debt, improve our liquidity position, and invest in growth initiatives. Overall, we are striving to achieve stronger financial results, make more efficient use of capital, and deliver higher shareholder returns.
Results of Operations
Year Ended December 31, 2016 Compared to Year Ended December 31, 2015
The following table sets forth selected results of operations data (in thousands) and its percentages of net sales for the years ended December 31:

	2016		2015	
Net sales	$1,007,981	100.0 %	$1,040,873	100.0 %
Cost of sales	763,219	75.7 %	853,897	82.0 %
Gross profit	244,762	24.3 %	186,976	18.0 %
Selling, general, and administrative expense	161,623	16.1 %	134,028	12.9 %
Intangible asset impairment	10,175	1.0 %	4,863	0.5 %
Income from operations	72,964	7.2 %	48,085	4.6 %
Interest expense	14,577	1.4 %	15,003	1.4 %
Other expense (income)	8,404	0.8 %	(4,018)	(0.4)%
Income before taxes	49,983	5.0 %	37,100	3.6 %
Provision for income taxes	16,264	1.7 %	13,624	1.3 %
Income from continuing operations	33,719	3.3 %	23,476	2.3 %
Loss from discontinued operations	(44)	— %	(28)	— %
Net income	$33,675	3.3 %	$23,448	2.3 %

The following table sets forth the Company's net sales by reportable segment for the years ended December 31 (in thousands):

	2016	2015	Total Change	Change due to Foreign Currency	Acquisition/(Divestiture)	Operations
Net sales:						
Residential Products	$430,938	$475,653	$(44,715)	$8,087	$ —	$(52,802)
Industrial and Infrastructure Products	296,513	378,224	(81,711)	(1,790)	(26,339)	(53,582)
Less Inter-Segment Sales	(1,495)	(1,536)	41	—	—	41
	295,018	376,688	(81,670)	(1,790)	(26,339)	(53,541)
Renewable Energy and Conservation	282,025	188,532	93,493	—	107,438	(13,945)
Consolidated	$1,007,981	$1,040,873	$(32,892)	$6,297	$ 81,099	$(120,288)

Consolidated net sales decreased by $32.9 million, or 3.2%, to $1.01 billion for 2016 compared to $1.04 billion for 2015. The decrease was the result of a combined 13.0% decrease in volume, a 0.7% decrease in pricing to customers, and a reduction in sales of $26.3 million due to the divestiture of our European industrial manufacturing business in April 2016. These decreases were partially offset by incremental sales generated from acquisitions in our Renewable Energy and Conservation segment, which contains the results of RBI acquired in June 2015 and Nexus acquired in October 2016. Favorable currency fluctuations also contributed to the offset.

Net sales in our Residential Products segment decreased 9.4%, or $44.7 million, to $430.9 million in 2016 compared to $475.7 million in 2015. The decrease from prior year was primarily the result of a $53.2 million, or 11.2%, decline in volume for our cluster mailboxes related to the completion of a discrete two-year contract at the end of 2015. Favorable currency fluctuations of $8.1 million partially offset this decrease. A decline in volume of 0.9% for our other residential product offerings, including reduced sales to small volume customers under our 80/20 simplification initiatives, also contributed to the net decrease in revenues for the year. These decreases were slightly offset by a 1.0% increase in pricing to customers.

Net sales in our Industrial and Infrastructure Products segment decreased 21.7%, or $81.7 million, to $295.0 million in 2016 compared to $376.7 million in 2015. The decrease in net sales was the combined result of the April 2016 divestiture of our European industrial manufacturing business which previously contributed 7.0% of sales, as well as, lower shipment volume of 11.3%, and a 3.2% decrease in pricing offered to customers, as compared to the prior year. This segment was primarily impacted by a decline in demand for our industrial products generated from domestic energy-related end markets that have been depressed by reduced prices for oil and other commodities. Demand for our infrastructure products, including components for bridges and elevated highways, related to these projects was also lower as compared to the prior year. While a new infrastructure bill was passed in December 2015 authorizing U.S. federal funding for five years, the FAST Act, the matching state funding required to obtain the federal funds was not available in key states we serve. We expect that enacted changes in legislation in many of these key states will provide funds that will support projects beginning in the latter part of 2017 which should positively impact future demand for products sold by this segment.

Net sales in our Renewable Energy and Conservation segment increased 49.6%, or $93.5 million, to $282.0 million in 2016 compared to $188.5 million in 2015. The increase in 2016 was primarily due to the benefit of incremental revenues earned by RBI in the current year as compared to the prior year in which RBI was acquired in June of 2015. Sales from the acquisition of Nexus in October 2016 also contributed to the increase.

Our consolidated gross margin increased to 24.3% for 2016 compared to 18.0% for 2015. Our consolidated gross profit also increased for the comparable period.

In our Residential Products segment, both gross profit and gross margin, as a percentage of sales, increased as compared to 2015. This segment largely benefited from operational efficiencies, an improved alignment of material costs to customer selling prices and contributions from our 80/20 initiatives to simplify our business processes and product lines. Also contributing to the margin increase were favorable currency fluctuations, as compared to the same period in the prior year.

Both gross profit and gross margin, as a percentage of sales, decreased as compared to the prior year within our Industrial and Infrastructure Products segment. The profit decrease was due to a significant decrease in sales volume in industrial products, the disposition of our European industrial manufacturing business in April 2016, decrease in pricing offered to customers, along with currency fluctuations. The margin decrease was partially offset by manufacturing efficiencies, savings from our company-wide 80/20 initiatives and better alignment of material costs to customer selling prices.

Within our Renewable Energy and Conservation segment, both gross profit and gross margin, as a percentage of sales, increased as compared to the prior year. The increase in gross profit largely resulted from the benefit of incremental revenue earned in 2016 as compared to the prior year in which RBI was acquired in June 2015. The execution of operational efficiencies in the segment, including rising synergies from raw material sourcing, freight management, and strategic make-versus-buy decisions also contributed to the increase in gross margin. To a lesser extent, the acquisition of Nexus in October 2016 contributed to the increase in gross profit as well.

Selling, general, and administrative ("SG&A") expenses increased by $27.6 million, or 20.6%, to $161.6 million for 2016 from $134.0 million for 2015. The $27.6 million increase was the result of $15.8 million of incremental SG&A expense recorded year over year at RBI, acquired in June 2015, along with $1.9 million of SG&A expenses recorded at Nexus, acquired in October 2016, and $10.5 million of higher performance-based compensation costs. The net benefit of a $6.8 million gain on the sale leaseback of one of our facilities recorded during 2015 largely offset by acquisition-related costs of $6.1 million recorded during 2015, also contributed to the increase year over year. The higher performance-based compensation costs are the result of improvements in two key performance metrics. One metric is improved operating results which is measured by the Company's increased earnings per share and return on invested capital year over year. The other metric is the higher price of the Company's shares which increased 64% during 2016. SG&A expenses as a percentage of net sales increased to 16.1% for 2016 compared to 12.9% for 2015.

During 2016, we recognized intangible asset impairment charges of $10.2 million. These charges primarily resulted from the decision in the fourth quarter of 2016 to discontinue the Company's U.S. bar grating product line and its European residential solar racking business which resulted in lower cash flows and estimated fair values of certain reporting units. The largest portion of the impairment was $8.0 million related to indefinite-lived intangibles in our Industrial and Infrastructure Products segment, with the balance of the charges occurring in the Renewable Energy and Conservation segment. In 2015, we recognized intangible asset impairment charges of $4.9 million, due to a reduction in estimated fair values of indefinite-lived trademarks at certain reporting units. The largest portion of the 2015 impairment was $4.4 million related to intangibles in our Industrial and Infrastructure Products segment.

The following table sets forth the Company’s income from operations and income from operations as a percentage of net sales by reportable segment for the years ended December 31 (in thousands):

	2016		2015		Total Change	Change Due To Intangible Impairment	Foreign Currency	Operations
Income (loss) from operations:								
Residential Products	$65,241	15.1 %	$46,804	9.8 %	$18,437	$440	$ 8,087	$ 9,910
Industrial and Infrastructure Products	1,306	0.4 %	15,581	4.1 %	(14,275)	(3,557)	(400)	(10,318)
Renewable Energy and Conservation	43,214	15.3 %	12,659	6.7 %	30,555	(2,195)	—	32,750
Unallocated Corporate Expenses	(36,797)	(3.7)%	(26,959)	(2.6)%	(9,838)	—	—	(9,838)
Consolidated income	$72,964	7.2 %	$48,085	4.6 %	$24,879	$(5,312)	$ 7,687	$ 22,504

Our Residential Products segment generated an operating margin of 15.1% in 2016 compared to an operating margin of 9.8% in 2015. Apart from the impact of the gain of $6.8 million on the sale leaseback of a facility during the first quarter of 2015, the increase to its income from operations of $11.6 million was primarily due to the benefits of operational efficiencies and contributions from the 80/20 simplification initiative, along with favorable effects of currency fluctuations as compared to 2015. Partially offsetting these benefits were lower sales volumes primarily for postal products.

Our Industrial and Infrastructure Products segment operating margin decreased to 0.4% in 2016 compared to 4.1% in 2015. Excluding the impact of a net change in intangible asset impairment charges and foreign currency fluctuations, this segment's decrease in income from operations was $10.3 million. Decreased sales volume resulted in the margin decline, partially offset by an improved alignment of material costs to customer selling prices and benefits from cost reductions compared to the prior year.

The Renewable Energy and Conservation segment generated an operating margin of 15.3% in 2016 compared to 6.7% in 2015. The increase in its income from operations was aided by contribution from incremental revenue for 2016 compared to the prior year in which RBI was acquired in June of 2015, along with $5.1 million of amortization expense incurred for RBI's backlog acquired in 2015. Additionally, the execution of operational efficiencies in the segment, including rising synergies from raw material sourcing, freight management, and strategic make-versus-buy decisions also contributed to the increase in income and margin for the current year.

Unallocated corporate expenses increased $9.8 million, or 36.5%, for 2016 from $27.0 million for 2015 to $36.8 million for 2016. The increase from the prior year was primarily the result of an increase of $10.7 million in performance based compensation expense, the result of improvements in two key performance metrics. One metric is improved operating results which is measured by the Company's increased earnings per share and return on invested capital year over year. The other metric is the higher price of the Company's shares which increased 64% during 2016.

Other expense of $8.4 million in 2016 is primarily comprised of the $8.8 million pre-tax loss on the sale of our European industrial manufacturing business, slightly offset by foreign currency translation gains. Other income of $4.0 million in 2015 is primarily comprised of net gains on derivative contracts for hedges on foreign currencies and select raw materials related to a customer contract in our Residential Products segment, offset by foreign currency translation losses.

Interest expense decreased $0.4 million to $14.6 million for 2016 from $15.0 million for 2015. During 2016, no amounts were outstanding under our revolving credit facility. In 2015, we borrowed funds under our revolving credit facility to help finance the acquisition of RBI in June 2015. These borrowings were paid in full prior to the end of 2015.

We recognized a provision for income taxes of $16.3 million, an effective tax rate of 32.5%, for 2016 compared with a provision for income taxes of $13.6 million, an effective tax rate of 36.7%, for 2015. The difference between the Company’s recorded charge for 2016 and the expense that would result from applying the U.S. statutory rate of 35% is due to deductible permanent differences and favorable discrete items partially offset by state taxes. The aforementioned favorable discrete items were primarily comprised of the $6.7 million benefit recorded by the Company related to the worthless stock deduction and the associated inter-company debt discharge resulting from the sale of its European industrial manufacturing business to a third party. The effective tax rate for 2015 exceeded the U.S. federal statutory rate of 35% due to the tax impact of state taxes, partially offset by favorable permanent differences and favorable discrete items.

Results of Operations

Year Ended December 31, 2015 Compared to Year Ended December 31, 2014

The following table sets forth selected results of operations data (in thousands) and its percentages of net sales for the years ended December 31:

	2015		2014	
Net sales	$1,040,873	100.0 %	$862,087	100.0 %
Cost of sales	853,897	82.0 %	722,042	83.8 %
Gross profit	186,976	18.0 %	140,045	16.2 %
Selling, general, and administrative expense	134,028	12.9 %	102,492	11.9 %
Intangible asset impairment	4,863	0.5 %	107,970	12.5 %
Income (loss) from operations	48,085	4.6 %	(70,417)	(8.2)%
Interest expense	15,003	1.4 %	14,421	1.6 %
Other income	(4,018)	(0.4)%	(88)	— %
Income (loss) before taxes	37,100	3.6 %	(84,750)	(9.8)%
Provision for (benefit of) income taxes	13,624	1.3 %	(2,958)	(0.3)%
Income (loss) from continuing operations	23,476	2.3 %	(81,792)	(9.5)%
Loss from discontinued operations	(28)	— %	(32)	— %
Net income (loss)	$23,448	2.3 %	$(81,824)	(9.5)%

The following table sets forth the Company’s net sales by reportable segment for the years ended December 31 (in thousands):

	2015	2014	Total Change	Change due to Foreign Currency	Change due to Operations
Net sales:					
Residential Products	$475,653	$431,915	$43,738	$(8,030)	$51,768
Industrial and Infrastructure Products	378,224	431,432	(53,208)	(12,033)	(41,175)
Less Inter-Segment Sales	(1,536)	(1,260)	(276)	—	(276)
	376,688	430,172	(53,484)	(12,033)	(41,451)
Renewable Energy and Conservation	188,532	—	188,532	—	188,532
Consolidated	$1,040,873	$862,087	$178,786	$(20,063)	$198,849

Consolidated net sales increased by $178.8 million, or 20.7%, to $1.0 billion for 2015 compared to 2014. The increase was the net result of sales generated by RBI of $188.5 million or 21.9%, acquired in June 2015, along with a 1.2% increase in volume, partially offset by foreign currency fluctuations which totaled $20.1 million.

Net sales in our Residential Products segment increased 10.1%, or $43.7 million, to $475.7 million in 2015 compared to $431.9 million in 2014. The increase from prior year was primarily the result of an 11.0% increase in volume along with a 0.9% increase in pricing to customers, partially offset by foreign currency fluctuations which decreased net sales by $8.0 million for the year. The volume increase was largely the result of stronger demand for our postal and parcel storage products driven by postal authorities' initial efforts to convert existing door-to-door deliveries to centralized delivery. Additionally, higher sales of our roofing-related ventilation and rain dispersion products also contributed to the net sales growth in this segment as well.

Net sales in our Industrial and Infrastructure Products segment decreased 12.4%, or $53.5 million, to $376.7 million in 2015 compared to $430.2 million in 2014. Apart from the $12.0 million impact of exchange rate fluctuations, the remaining decrease in net sales of $41.5 million was due to lower volume along with a 1.0% decrease in pricing to customers. This segment was primarily impacted by a decline in volume for our industrial products generated from energy-related sectors, largely the result of lower commodity prices, along with a decline in oil and gas prices. Demand for our infrastructure products, including components for bridges and elevated highways, related to these projects remained essentially unchanged from prior year as

uncertainty in government funding for U.S. transportation projects prevailed throughout 2015. In December 2015, a new infrastructure bill was passed authorizing U.S. federal funding for five years that should positively impact future demand for products sold by this segment.
Our consolidated gross margin increased to 18.0% for 2015 compared to 16.2% for 2014.
Within our Residential Products segment, both gross profit and gross margin, as a percentage of sales, increased as compared to 2014. This segment largely benefited from volume increases along with cost reductions resulting from our company-wide initiatives to simplify our business processes and product lines. Partially offsetting these increases were currency fluctuations resulting from the strengthening U.S. dollar and restructuring charges incurred to conduct the company-wide simplification initiatives. We believe completing these initiatives will lead to further improved margins in future periods.
In our Industrial and Infrastructure Products segment, its modestly higher gross profit and gross margin, as a percentage of sales, primarily resulted from an improved alignment of material costs to customer selling prices. Lower volumes in our industrial products, currency fluctuations resulting from the strengthening U.S. dollar and restructuring charges incurred to conduct the company-wide simplification initiatives partially offset the increase to gross profit, yet had minimal impact on the segment's gross margin as compared to the prior year.
The results of the Renewable Energy and Conservation operating segment contributed to both the increase in the consolidated gross profit and gross margin for 2015 as compared to 2014 when we did not own RBI or participate in this operating segment.
Selling, general, and administrative expenses increased by $31.5 million, or 30.8%, to $134.0 million for 2015 from $102.5 million for 2014. The $31.5 million increase was primarily the net result of $24.0 million of incremental SG&A expense of RBI, plus $11.7 million of higher performance-based compensation, and a $2.9 million charge for senior leadership transition costs, partially offset by a $6.8 million gain on the sale leaseback of one of our facilities during 2015. SG&A expenses as a percentage of net sales increased to 12.9% for 2015 compared to 11.9% for 2014.

During 2015, we recognized intangible asset impairment charges of $4.9 million due to a reduction in estimated fair values of indefinite-lived trademarks at certain reporting units. The largest portion of the impairment was $4.4 million related to intangibles in our Industrial and Infrastructure Products segment. In 2014, we recognized intangible asset impairment charges of $108.0 million. The charges stemmed from lower estimated fair values of certain reporting units. The largest portion of the impairment was $92.5 million related to intangibles in our Industrial and Infrastructure Products segment.

The following table sets forth the Company’s income from operations and income from operations as a percentage of net sales by reportable segment for the years ended December 31 (in thousands):

	2015		2014		Total Change	Change Due To Intangible Impairment	Change Due To Foreign Currency	Operations
Income (loss) from operations:								
Residential Products	$46,804	9.8 %	$16,416	3.8 %	$30,388	$14,995	$(8,030)	$23,423
Industrial and Infrastructure Products	15,581	4.1 %	(74,634)	(17.3)%	90,215	88,112	(3,000)	5,103
Renewable Energy and Conservation	12,659	6.7 %	—	— %	12,659	—	—	12,659
Unallocated Corporate Expenses	(26,959)	(2.6)%	(12,199)	(1.4)%	(14,760)	—	—	(14,760)
Consolidated income (loss)	$48,085	4.6 %	$(70,417)	(8.2)%	$118,502	$103,107	$(11,030)	$26,425

Our Residential Products segment generated an operating margin of 9.8% in 2015 compared to an operating margin of 3.8% in 2014. Excluding the impact of prior year impairment charges and foreign currency fluctuations resulting from the strengthening U.S. dollar, this segment realized a $23.4 million increase in income from operations. This increase was the result of higher sales volumes for postal products, a more favorable alignment of material costs to customer selling prices and a gain of $6.8 million on the sale leaseback of a facility during the first quarter of 2015. Offsetting this increase were charges of $7.8 million incurred related to the Company-wide initiatives to simplify our business processes and product lines throughout the organization which commenced in the second quarter of 2015.

Our Industrial and Infrastructure Products segment generated an operating margin of 4.1% during 2015 compared to an operating margin of -17.3% during 2014. Excluding the impact of a net change in intangible asset impairment charges and foreign currency fluctuations, this segment's increase in income from operations was $5.1 million. An improved alignment of material costs to customer selling prices along with benefits from cost reductions more than offset the effects of decreased sales volume in our industrial products and additional charges of $2.2 million incurred to conduct the Company-wide simplification initiatives.

Corporate expenses increased $14.8 million, or 121.0%, for 2015 from $12.2 million for 2014 to $27.0 million for 2015. The increase from the prior year was primarily the result of an increase in performance based compensation expense of $7.5 million, $2.5 million for senior leadership transition costs, and $2.3 million of net charges for acquisition related items.

Other income of $4.0 million in 2015 increased from $0.1 million in 2014. This income is primarily comprised of net gains on derivative contracts for hedges on foreign currencies and select raw materials related to transactions in our Residential Products segment, offset by foreign currency translation losses.

Interest expense increased $0.6 million to $15.0 million for 2015 from $14.4 million for 2014. In 2015, we borrowed funds under our 2011 revolving credit facility to help finance the acquisition of RBI in June 2015, which contributed to the increase in expense as compared to the prior year. These borrowings were paid in full prior to the end of 2015. During 2014, no amounts were outstanding under our revolving credit facility.

We recognized a provision for income taxes of $13.6 million, an effective tax rate of 36.7%, for 2015 compared with a benefit from income taxes of $3.0 million, an effective tax rate of 3.5%, for 2014. The difference between the Company’s recorded charge for 2015 and the expense that would result from applying the U.S. statutory rate of 35% is primarily attributable to the tax impact of state taxes and non-deductible permanent differences recognized during the year. The effective tax rate for 2014 was primarily attributable to the tax impact of the non-deductible goodwill and intangible asset impairments recognized in 2014.

Outlook

For 2017, we expect our Residential Products segment to benefit from continuing but modest increases in demand from residential repair and remodel activities and growth in new construction. In addition, we expect increased demand for products sold by our Renewable Energy and Conservation segment. At the same time, our Industrial and Infrastructure Products segment will be challenged on the top-line and bottom-line by several factors, including a difficult comparable as a result of the exit of the U.S. bar grating product line, increased spending on innovation, and raw material price inflation.

We are poised to deliver a third consecutive year of sequential and meaningful financial improvement, in terms of absolute profit dollars, returns and cash flow. All three of our segments are working on expansion into adjacent product categories and applications with new products, and we expect such efforts to contribute incrementally to 2017 sales and beyond.

The Company is providing its guidance for revenues and earnings for the full year 2017. The Company expects 2017 total revenues to approximate $1.0 billion, equivalent to 2016, despite unfavorable comparisons including discontinued product lines. Our earnings per share under accounting principles generally accepted in the U.S. (“GAAP EPS”) for the full year of 2017 is expected to range between $1.55 and $1.65 per diluted share, compared to $1.05 for 2016.

Liquidity and Capital Resources

General

Our principal capital requirements are to fund our operations' working capital and capital improvements and to fund acquisitions. We will continue to invest in growth opportunities as appropriate while focusing on working capital efficiency and profit improvement opportunities to minimize the cash invested to operate our business. We have successfully generated positive cash flows from operating activities which have funded our capital requirements and recent acquisitions as noted below in “Cash Flows.”

On December 9, 2015, we entered into the Company's Fifth Amended and Restated Credit Agreement (the "Senior Credit Agreement") which includes a 5-year, $300 million revolving credit facility and provides the Company with access to capital and improved financial flexibility. As of December 31, 2016, our liquidity of $457.4 million consisted of $170.2 million of cash and $287.2 million of availability under our revolving credit facility as compared to liquidity of $348.4 million as of December 31, 2015. We believe this liquidity, together with the cash expected to be generated from operations, should be sufficient to fund working capital needs and simplification initiatives that likely will need cash to fund transitions and future growth. We continue to search for strategic acquisitions and larger acquisitions may require additional borrowings and/or the issuance of our common stock.

Our Senior Credit Agreement provides the Company with liquidity and capital resources for use by our U.S. operations. Historically, our foreign operations have generated cash flow from operations sufficient to invest in working capital and fund their capital improvements. As of December 31, 2016, our foreign subsidiaries held $26.4 million of cash. We believe cash held by our foreign subsidiaries provides our foreign operations with the necessary liquidity to meet future obligations and allows the foreign business units to reinvest in their operations. These cash resources could eventually be used to grow our business internationally. Repatriation of this cash for domestic purposes could result in significant tax consequences.

Over the long-term, we expect that future obligations, including strategic business opportunities such as acquisitions, may be financed through a number of sources, including internally available cash, availability under our revolving credit facility, new debt financing, the issuance of equity securities, or any combination of the above. Any potential acquisitions are evaluated based on our acquisition strategy, which includes the enhancement of our existing products, operations, or capabilities, expanding our access to new products, markets, and customers, and the improvement of shareholder value. Our 2016 acquisition of Nexus was funded by cash on hand. In 2015, our acquisition of RBI was funded through a combination of cash on hand and borrowings under the Company's revolving credit facility. These borrowings were repaid prior to the end of 2015.

These expectations are forward-looking statements based upon currently available information and may change if conditions in the credit and equity markets deteriorate or other circumstances change. To the extent that operating cash flows are lower than current levels, or sources of financing are not available or not available at acceptable terms, our future liquidity may be adversely affected.

Cash Flows

The following table sets forth selected cash flow data for the years ended December 31 (in thousands):

	2016	2015
Cash provided by (used in):		
Operating activities of continuing operations	$122,738	$86,684
Investing activities of continuing operations	(23,870)	(125,340)
Financing activities of continuing operations	2,597	(184)
Discontinued operations	—	—
Effect of exchange rate changes	(146)	(2,912)
Net increase (decrease) in cash and cash equivalents	$101,319	$(41,752)

During the year ended December 31, 2016, we generated net cash from operating activities totaling $122.7 million, comprised of net income from continuing operations of $33.7 million plus non-cash net charges totaling $52.7 million that included depreciation, amortization, deferred income taxes, stock compensation, non-cash exit activity costs, intangible asset impairment charges and the loss on sale of a business, along with a decrease in working capital and other net assets of $36.3 million. Net cash provided by continuing operations for 2015 was $86.7 million and was primarily driven by non-cash net charges totaling $43.5 million that included depreciation, amortization, deferred income taxes, stock compensation, non-cash exit activity costs and intangible asset impairment charges, along with income from continuing operations of $23.5 million and a decrease in working capital and other net assets of $19.7 million.

During 2016, the cash provided by working capital and other net assets of $36.3 million included $37.8 million, $11.8 million and $2.5 million decreases in accounts receivable, inventory, and, other current assets and other assets, respectively, along with a $1.3 million increase in accrued expenses and other non-current liabilities, offset by a $17.1 million decrease in accounts payable. The decrease in accounts receivable, which includes costs in excess of billings on contracts, is a direct result of the seasonality of customer contracts and related payments received that impact our business. The decrease in inventory is due to the Company's continued 80/20 simplification process efforts, which has resulted in the discontinuation of less profitable product lines and the corresponding disposal of inventory associated with those product lines. The $2.5 million decrease in other current assets and other assets is primarily due to a receivable collected pertaining to the completion of a discrete two-year contract for cluster mailboxes at the end of 2015. The increase in accrued expenses and other non-current liabilities was largely due to the increase in liabilities for equity based incentive plans resulting from stronger performance of the Company's financial results and stock price in 2016 offset by billings in excess of costs related to the timing of customer contracts. The current year provision for income taxes, which is partially offset by net tax benefits of $6.7 million resulting from the sale of our European industrial manufacturing business, also contributed to the increase in accrued expenses and other non-current liabilities. Accounts payable decreased due to the timing of vendor payments made near year end.

Net cash used in investing activities for 2016 of $23.9 million primarily consisted of $21.1 million of net cash paid for the acquisition of Nexus, along with capital expenditures of $10.8 million and $2.3 million paid for the final RBI acquisition purchase adjustment partially offset by net proceeds of $8.3 million received from the sale of our European industrial manufacturing business. Net cash used in investing activities for 2015 of $125.3 million primarily consisted of $140.6 million of net cash paid for the acquisition of RBI and capital expenditures of $12.4 million partially offset by $26.5 million received from the sale-leaseback of a property.

Net cash provided by financing activities for 2016 of $2.6 million consisted of proceeds received from the issuance of common stock of $3.3 million and a tax benefit from equity compensation of $1.2 million offset by the purchase of treasury stock of $1.5 million and payments of long-term debt borrowings of $0.4 million. Net cash used in financing activities for 2015 of $0.2 million primarily consisted of debt issuance cost payments of $1.2 million, the purchase of treasury stock of $1.0 million, payments of long-term debt borrowings, net of proceeds, of $0.4 million, offset by the proceeds received from the issuance of common stock of $1.8 million and a tax benefit from equity compensation of $0.6 million.

Senior Credit Agreement and Senior Subordinated Notes

Our Senior Credit Agreement is committed through December 9, 2020. Borrowings under the 2015 Senior Credit Agreement are secured by the trade receivables, inventory, personal property, equipment, and certain real property of the Company’s significant domestic subsidiaries. The Senior Credit Agreement provides for a revolving credit facility and letters of credit in an aggregate amount of $300 million. The Company can request additional financing from the banks to increase the revolving credit facility to $500 million or enter into a term loan of up to $200 million subject to conditions set forth in the Senior Credit Agreement. The Senior Credit Agreement contains three financial covenants. As of December 31, 2016, the Company is in compliance with all three covenants.

Interest rates on the revolving credit facility are based on the LIBOR plus an additional margin that ranges from 1.25% to 2.25% for LIBOR loans based on the Total Leverage Ratio. In addition, the revolving credit facility is subject to an undrawn commitment fee ranging between 0.20% and 0.30% based on the Total Leverage Ratio and the daily average undrawn balance.

As of December 31, 2016, we had $287.2 million of availability under the Senior Credit Agreement net of outstanding letters of credit of $12.8 million. To finance the acquisition of RBI in the second quarter of 2015, we borrowed amounts under the revolving credit facility which were repaid prior to the end of 2015. No amounts were outstanding under our revolving credit facility as of December 31, 2016, or our predecessor credit facility as of December 31, 2015.

In addition to our Senior Credit Agreement, the Company issued $210.0 million of 6.25% Notes in January 2013 which are due February 1, 2021. Provisions of the 6.25% Notes include, without limitation, restrictions on indebtedness, liens, and distributions from restricted subsidiaries, asset sales, affiliate transactions, dividends, and other restricted payments. Dividend payments are subject to annual limits and interest is paid semiannually on February 1 and August 1 of each year.

Off Balance Sheet Arrangements

The Company does not have any off balance sheet arrangements, other than operating leases, that have or are reasonably likely to have a current or future material effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures, or capital resources.

Contractual Obligations

The following table summarizes by category our Company’s expected future cash outflows associated with contractual obligations in effect at December 31, 2016 (in thousands):

	Payments Due by Period				
Contractual Obligation	Total	Less than One Year	One to Three Years	Three to Five Years	More Than Five Years
Fixed rate debt	$210,000	$—	$ —	$210,000	$—
Interest on fixed rate debt	53,594	13,125	26,250	14,219	—
Operating lease obligations	36,283	11,377	16,020	6,105	2,781
Pension and other post-retirement payments	5,934	1,214	1,204	968	2,548
Management stock purchase plan (1)	8,161	2,346	4,576	1,128	111
Variable rate debt (including interest) (2)	2,877	420	831	819	807
Performance stock unit awards	17,241	—	17,241	—	—
Other	636	304	299	—	33
Total	$334,726	$28,786	$ 66,421	$233,239	$6,280

(1) Includes amounts due to retired participants of the Management Stock Purchase Plan (MSPP). Excludes the future payments due to active participants of the MSPP, which represents a liability of $20.2 million as of December 31, 2016. The timing of future payments to active participants cannot be accurately estimated as we are uncertain of when active participants’ service to the Company will terminate. Active participants includes those with pending retirements. Our policy does not recognize the contractual obligation until the participant has officially retired.

(2) Calculated using the interest rate in effect of 0.77% at December 31, 2016.

Critical Accounting Policies

The preparation of the financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make decisions based upon estimates, assumptions, and factors it considers relevant to the circumstances. Such decisions include the selection of applicable principles and the use of judgment in their application, the results of which could differ from those anticipated.

A summary of the Company’s significant accounting policies are described in Note 1 of the Company’s consolidated financial statements included in Part II, Item 8, Financial Statements and Supplementary Data, of this Annual Report on Form 10-K.

Our most critical accounting policies include:

- revenue recognition on contracts;
- valuation of accounts receivable;
- valuation of inventory;
- the allocation of the purchase price of acquisitions to the fair value of acquired assets and liabilities;
- the assessment of recoverability of depreciable and amortizable long-lived assets;
- the assessment of recoverability of goodwill and other indefinite-lived intangible assets; and
- accounting for income taxes and deferred tax assets and liabilities.

Management reviews these estimates, including the allowance for doubtful accounts and inventory reserves, on a regular basis and makes adjustments based on historical experience, current conditions, and future expectations. Management believes these estimates are reasonable, but actual results could differ from these estimates.

Revenue Recognition on Contracts

The vast majority of our sales agreements are for standard products and services, with revenue recognized on the accrual basis at the time of shipment of goods, transfer of title and customer acceptance, where required. However, revenue representing 26% and 17% of 2016 and 2015 consolidated net sales was accounted for using the percentage of completion, cost-to-cost method of accounting. This method of revenue recognition only pertains to the activities of RBI which was acquired on June 9, 2015.

Revenue on contracts using the percentage of completion method of accounting is recognized as work progresses toward completion as determined by the ratio of cumulative costs incurred to date to estimated total contract costs at completion, multiplied by the total contract revenue. Changes in estimates affecting sales, costs and profits are recognized in the period in which the change becomes known using the cumulative catch-up method of accounting, resulting in the cumulative effect of changes reflected in the period. Estimates are reviewed and updated quarterly for substantially all contracts. A significant change in an estimate on one or more contracts could have a material effect on our results of operations.

Contract costs include all direct costs related to contract performance. Selling and administrative expenses are charged to operations as incurred. Provisions for estimated losses on uncompleted contracts are made in the period in which such losses are determined. Because of inherent uncertainties in estimating costs, it is reasonably possible that changes in performance could result in revisions to cost and revenue, which are recognized in the period when the revisions are determined.

Valuation of Accounts Receivable

Our accounts receivable represent those amounts that have been billed to our customers but not yet collected, as well as, costs in excess of billings which principally represent revenues recognized on contracts that were not billable as of the balance sheet date. As of December 31, 2016 and 2015, allowances for doubtful accounts of $5.3 million and $4.9 million were recorded, or approximately 4% and 3% of gross accounts receivable for both periods, respectively. We record an allowance for doubtful accounts based on the portion of those accounts receivable that we believe are potentially uncollectible based on various factors, including experience, creditworthiness of customers, and current market and economic conditions. If the financial condition of customers were to deteriorate, resulting in impairment of their ability to make payments, additional allowances may be required. Changes in judgments on these factors could impact the timing of costs recognized.

Valuation of Inventories

We record our inventories at the lower of cost or net realizable value. We determine the cost basis of our inventory on a first-in, first-out basis using a standard cost methodology that approximates actual cost. On a regular basis, we calculate an estimated market value of our inventory, considered to be the prevailing selling price for the inventory less the cost to complete and sell the product. We compare the current carrying value of our inventory to the estimated market value to determine whether a reserve to value inventory at the lower of cost or net realizable value is necessary. We recorded insignificant charges during the three year period ended December 31, 2016 to value our inventory at the lower of cost or net realizable value.

We regularly review inventory on hand and record provisions for excess, obsolete, and slow-moving inventory based on historical and current sales trends. We recorded reserves for excess, obsolete, and slow-moving inventory of $3.8 million and $7.4 million at December 31, 2016 and 2015, respectively, or approximately 4% and 6% of gross inventories for 2016 and 2015, respectively. Changes in product demand and our customer base may affect the value of inventory on hand, which may require higher provisions for obsolete inventory.

In addition, as a result of the Company's 80/20 simplification initiative and portfolio management, we have identified low-volume, internally-produced products which have been or will be planned to be outsourced or discontinued. We have recorded charges of $3.6 million and $5.9 million during the years ended December 31, 2016 and 2015, respectively, related to the write-down of inventory associated with either discontinued product lines or the reduction of manufactured goods offered within a product line. These assets were written down to their sale or scrap value, and were subsequently sold or disposed of. Further simplification initiatives in 2017 could be identified which may result in additional write-downs of inventory.

Accounting for Acquired Assets and Liabilities

When we acquire a business, we allocate the purchase price to the assets acquired and liabilities assumed in the transaction at their respective estimated fair values. We record any premium over the fair value of net assets acquired as goodwill. Significant judgment is necessary to determine the fair value of the purchase price. The allocation of the purchase price involves judgments and estimates both in characterizing the assets and in determining their fair value. The way we characterize the assets has important implications, as long-lived assets with definitive lives, for example, are depreciated or amortized, whereas goodwill is tested annually for impairment, as explained below.

With respect to determining the fair value of the purchase price, the most subjective estimates involve valuations of contingent consideration. We engage independent third party valuation specialists to assist in the determination of the fair value of contingent consideration. Key assumptions used to value the contingent consideration include future projections and discount rates.

With respect to determining the fair value of assets, the most subjective estimates involve valuations of long-lived assets, such as property, plant, and equipment as well as identified intangible assets. We use all available information to make these fair value determinations and engage independent valuation specialists to assist in the fair value determination of the acquired long-lived assets. The fair values of long-lived assets are determined using valuation techniques that use discounted cash flow methods, independent market appraisals, and other acceptable valuation techniques.

Due to the subjectivity inherent in determining the fair value of long-lived assets and the significant number of acquisitions we have completed, we believe the allocation of purchase price to acquired assets and liabilities is a critical accounting policy.

Impairment of Depreciable and Amortizable Long-lived Assets

We test long-lived assets for impairment when events or changes in circumstances indicate that the carrying amount of those assets may not be recoverable and exceeds their fair value, or on an annual basis at minimum. During our annual test, we perform a recoverability test by comparing the carrying amount of asset groups to future undiscounted cash flows expected to result from the use of the assets. The impairment loss would be measured as the amount by which the carrying amount of a long-lived asset exceeds its fair value as determined by discounted cash flow method, an independent market appraisal of the asset, or another acceptable valuation technique.

In 2016, after completing the recoverability test, none of the Company's reporting unit's future undiscounted cash flows were less than the carrying amount of its assets. However, as a result of the Company's 80/20 simplification initiative and portfolio management, we have identified low-volume, internally-produced products which have been or will be planned to be outsourced or discontinued. We have recorded charges of $3.9 million and $2.6 million during the years ended December 31, 2016 and 2015, respectively, related to the impairment of property, plant and equipment associated with either discontinued product lines or the reduction of manufactured goods offered within a product line. These assets were written down to their sale or scrap value, and were subsequently sold or disposed of. Further simplification initiatives in 2017 could be identified which may result in additional impairments.

Goodwill and Other Indefinite-lived Intangible Asset Impairment Testing

Testing Methodology

Our goodwill and indefinite-lived intangible asset balances of $304.0 million and $44.7 million, respectively, or 38% of total assets as of December 31, 2016, are subject to impairment testing. We test goodwill and indefinite-lived intangible assets for impairment on an annual basis as of October 31 and at interim dates when indicators of impairment are present. Indicators of impairment could include a significant long-term adverse change in business climate, poor indicators of operating performance, or a sale or disposition of a significant portion of a reporting unit.

We test goodwill for impairment at the reporting unit level. We identify our reporting units by assessing whether the components of our Company constitute businesses for which discrete financial information is available and segment manage-ment regularly reviews the operating results of those components.

When we evaluate the potential for goodwill impairment using a qualitative assessment, we consider factors including, but not limited to, macroeconomic conditions, industry conditions, the competitive environment, changes in the market for our products and services, regulatory and political developments, entity specific factors such as strategy and changes in key personnel and overall financial performance. If, after completing this assessment, it is determined that it is more likely than not that the fair value of a reporting unit is less than its carrying value, we proceed to a quantitative two-step impairment test.

Step one of the quantitative goodwill impairment test consists of comparing the fair value of a reporting unit with its carrying amount including goodwill. If the carrying amount of the reporting unit exceeds the reporting unit's fair value, the implied fair value of goodwill is compared to the carrying amount of goodwill. An impairment loss is recognized for the amount by which the carrying amount of goodwill exceeds the implied fair value of goodwill.

The fair value of each reporting unit is determined using two valuation techniques: an income approach and a market approach. The income approach included a discounted cash flow model relying on significant assumptions consisting of revenue growth rates and profit margins based on internal forecasts, terminal value, and the weighted average cost of capital ("WACC") used to discount future cash flows. The WACC is calculated based upon the capital structure of market participants in the Company's peer group. The market approach consisted of applying the Earnings Before

Interest, Taxes, Depreciation and Amortization ("EBITDA") multiple to the forecasted EBITDA to be generated in the next two years. The market approach also relied on the same significant assumptions used in the discounted cash flow model, consisting of revenue growth rates and profit margins based on internal forecasts and the EBITDA multiple selected from an analysis of peer companies. Similar to the WACC

32

analysis, we assessed the risk of each reporting unit achieving its forecasts with consideration given to how each reporting unit has performed historically compared to forecasts.

Annual Impairment Testing

For the first nine months ended September 30, 2016, we concluded that no indicators of impairment existed at interim dates and did not perform any interim impairment tests related to goodwill and indefinite-lived intangible assets. The Company performed its annual impairment test as of October 31, 2016 during which we tested goodwill and other indefinite-lived intangible assets for impairment.

The 2016 annual quantitative goodwill impairment test examined nine of the ten reporting units and used the two valuation technique methodologies noted above (income and market approaches), and WACC calculation employed in prior years. The following table summarizes the WACC and EBITDA multiple ranges used during the annual goodwill impairment test performed during 2016:

	Residential and I&I Products Segment	Renewable Energy & Conservation Segment	
	All Reporting Units	Greenhouse Reporting Unit	Solar Reporting Unit
Date of Impairment Test	WACC		
October 31, 2016	12.4% to 13.0%	15.1%	16.1%
October 31, 2015	11.3% to 13.1%	*nmf	*nmf
October 31, 2016	EBITDA Multiple	EBITDA Multiple	EBITDA Multiple
2017 EBITDA forecast	8.6 - 9.35	7.6	*nmf
2016 EBITDA forecast	7.0 - 7.75	5.7	*nmf

*nmf - Market Multiples approach was deemed not meaningful for Solar Reporting Unit since we do not utilize peer comparisons, but rather use venture capital rates.

As a result of our quantitative testing, none of the reporting units with goodwill as of our testing date had carrying values in excess of their fair values, nor were at risk of impairment. However, subsequent to our annual impairment testing, the Company discontinued its European residential solar racking business which resulted in an impairment charge against goodwill of $0.9 million. There were no impairment charges against goodwill recorded as of December 31, 2015. The Company recorded impairment charges against goodwill of $104.6 million as of December 31, 2014.

The October 31, 2016 goodwill impairment test includes significant assumptions. We analyzed several macroeconomic indicators that impact each reporting unit to provide a reasonable estimate of revenue growth in future periods. We considered these forecasts in developing each reporting unit's revenue growth rates over the next five years depending on the level of correlation between macroeconomic factors and net sales for each reporting unit. We concluded that this approach provided a reasonable estimate of long-term revenue growth and cash flows for each reporting unit.

Operating margins used to estimate future cash flows are based on margins generated during the past few years, adjusted for consolidation of facilities, cost reductions and restructuring activities, including our 80/20 simplification processes.

In addition to revenue growth and operating margin forecasts, the discounted cash flow model used to estimate the fair value of each reporting unit also uses assumptions for the amount of working capital needed to support each reporting unit. We forecasted stable to modest improvement in working capital management for future periods at each reporting unit based on past performance. We continue to maintain low levels of working capital management through our 80/20 simplification process, a strong focus on strategic investments of capital and by portfolio management. Our days of working capital ratio was 50 days for the year ended December 31, 2016. We believe continued improvement in our ability to manage working capital will allow us to increase the cash flow generated from each reporting unit.

The terminal value of each reporting unit was based on a projected terminal year of forecasted cash flows in our discounted cash flow model. We made an assumption that cash flows would grow 3.0% each year thereafter in the North American markets based on our approximation of gross domestic product growth. This assumption was based on a third-party forecast of future economic growth over the long-term.

The discounted cash flow model uses the WACC to discount cash flows in the forecasted period and to discount the terminal value to present value. To determine the WACC, we used a standard valuation method, the capital asset pricing model, based on readily available and current market data of peer companies considered market participants. Acknowledging the risk inherent in each reporting units' ability to achieve long-term forecasted cash flows, in applying the income approach we increased the WACC of each reporting unit based upon each reporting unit's past operating performance and their relative ability to achieve the forecasted cash flows.

As noted above, we used two commonly accepted valuation techniques to estimate a fair value for each reporting unit. The estimated fair value for each reporting unit was calculated using a weighted average between the calculated amounts determined under the income approach and the market approach. We weighted the income approach more heavily (67%) as the technique uses a long-term approach that considers the expected operating profit of each reporting unit during periods where macroeconomic indicators are nearer historical averages. We weighted the remaining (33%) using the market approach which values the reporting units using forecasted 2016 and 2017 EBITDA values based on current economic conditions and takes a more short-term approach. We believe the income approach considers the expected recovery in our end markets better than the market approach. Therefore, we concluded that the income approach more accurately estimated the fair value of the reporting units as it considers earnings potential during a longer term and does not use the short-term perspective used by the market approach. Accordingly, we concluded that the market participants who execute transactions to sell or buy a business in the current economic environment would place greater emphasis on the income approach.

Indefinite-Lived Intangibles

We test our intangible assets for impairment by comparing the fair value of the indefinite-lived intangible asset, determined using a discounted cash flow model, with its carrying amount. The assumptions used to determine the fair value of our indefinite-lived intangible assets are consistent with the assumptions employed in the determination of the fair values of our reporting units. An impairment loss would be recognized for the carrying amount in excess of its fair value. The fair values of the impaired trademarks were determined using an income approach consisting of the relief-from-royalty method. During 2016, the Company recognized indefinite-lived intangible asset impairment charges of $9,000,000, of which $7,800,000 of these impairment charges related to the Company's discontinued European residential solar racking business and U.S. bar grating product line and $1,200,000 were recognized as a result of the Company's annual impairment test. The Company recognized impairment charges related to indefinite-lived intangible assets during the annual test for 2015 and 2014 of $4,863,000 and $2,700,000, respectively.

Accounting for Income Taxes and Deferred Tax Assets and Liabilities

Significant management judgment is required in determining our provision for income taxes, deferred tax assets and liabilities, and any valuation allowances. Our effective tax rates differ from the statutory rate due to the impact of permanent differences between income or loss reported for financial statement purposes and tax purposes, provisions for uncertain tax positions, state taxes, and income generated by international operations. Our effective tax rate was 32.5% for the year ended December 31, 2016. The effective tax rates were 36.7% and 3.5% for the years ended December 2015 and 2014, respectively. Our future effective tax rates could be adversely affected by earnings being lower than anticipated in countries where we have lower statutory rates and vice versa. Changes in the valuation of our deferred tax assets or liabilities or changes in tax laws or interpretations thereof may also adversely affect our future effective tax rate. In addition, we are subject to the continuous examination of our income tax returns by the Internal Revenue Service and other tax authorities. We regularly assess the likelihood of adverse outcomes resulting from these examinations to determine the adequacy of our provision for income taxes.

Deferred tax assets and liabilities are determined based upon the differences between the financial statement and tax bases of assets and liabilities as measured by the enacted tax rates that will be in effect when these differences reverse. Valuation allowances are provided if, based upon the weight of available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized.

Regarding deferred income tax assets, we maintained a valuation allowance of $1.4 million and $0.8 million as of December 31, 2016 and 2015, respectively, due to uncertainties related to our ability to realize these assets, primarily consisting of state net operating losses and other deferred tax assets. The valuation allowances are based on estimates of taxable income in each of the jurisdictions in which we operate and the period over which our deferred tax assets will be recoverable. If market conditions improve and future results of operations exceed our current expectations, our existing tax valuation allowances may be adjusted. Alternatively, if market conditions deteriorate further or future operating results do not meet expectations, future assessments may result in a determination that some or all of the deferred tax assets are not realizable. As a result, we may need

to establish additional tax valuation allowances for all or a portion of the gross deferred tax assets, which may have a material adverse effect on our results of operations and financial condition.
It is our policy to classify estimated interest and penalties due to tax authorities as income tax. Insignificant amounts of interest and penalties were recognized in the provision for income taxes for the years ended December 31, 2016, 2015 and 2014. Additionally, we classify tax credits as a reduction to income tax expense.

The Company recognizes the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by tax authorities, based on the technical merits of each position. The tax benefits recognized in the financial statements from such a position are measured based on the largest benefit that has a greater than fifty percent likelihood of being realized upon ultimate resolution. As of December 31, 2016 and 2015, the liability for uncertainty in income tax positions was $3.5 million and $3.9 million, respectively. Due to the high degree of uncertainty regarding the timing of potential future cash flows associated with these liabilities, we are unable to make a reasonably reliable estimate of the amount and period in which these liabilities might be paid.

Recent Accounting Pronouncements

See Note 1 to the Company's consolidated financial statements in Part II, Item 8, Financial Statements and Supplementary Data, of this Form 10-K for further information on recent accounting pronouncements.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

In the ordinary course of business, the Company is exposed to various market risk factors, including changes in general economic conditions, competition, and raw materials pricing and availability. In addition, the Company is exposed to other financial market risks, primarily related to its long-term debt and foreign operations.

Raw Material Pricing Risk

We are subject to market risk exposure related to volatility in the price of steel, aluminum and resins. A significant amount of our cost of sales relates to material costs. Our business is heavily dependent on the price and supply of our raw materials. Our various products are fabricated from steel, primarily hot-rolled and galvanized steel coils, plate and bars, produced by steel mills. We have other lesser volume products that are fabricated from aluminum coils, extrusions, and plastic resins. The commodity market, which includes the steel, aluminum, and resin industries, is highly cyclical in nature, and commodity costs have been volatile in recent years, and may become more volatile in the future. Commodity costs are influenced by numerous factors beyond our control, including general economic conditions, the availability of raw materials, competition, labor costs, freight and transportation costs, production costs, import duties and other trade restrictions.

The Company principally manages its exposures to the market fluctuations in the steel and resins industries through management of its core business activities. Although we have the ability to purchase steel from a number of suppliers, a production cutback by one or more of our current suppliers could create challenges in meeting delivery schedules to our customers. The prices we offer to our customers are also impacted by changes in commodity costs. We manage the alignment of the cost of our raw materials and prices offered to customers and attempt to pass changes to raw material costs through to our customers. To improve our management of commodity costs, we attempt to maintain lean inventory levels. Our investment in ERP systems was made to increase our effectiveness in this process.

We have not entered into long-term contracts for the purchase of raw materials and have not maintained inventory levels in excess of our production requirements. However, from time to time, we may purchase raw materials in advance of commodity cost increases.

We rely on major suppliers for our supply of raw materials. During 2016, we purchased our raw materials from domestic and foreign suppliers in an effort to purchase the lowest cost material as possible.

We cannot accurately calculate the pre-tax impact a one percent change in the commodity costs would have on our 2016 operating results as the change in commodity costs would both impact the cost to purchase materials and the selling prices we offer our customers. The impact to our operating results would significantly depend on the competitive environment and the costs of other alternative building products, which could impact our ability to pass commodity costs to our customers.

To manage the risk associated with the fluctuations in the price of aluminum, the Company employs a combination of our normal operating activities, as discussed with regards to steel and resins above, and through the use of derivative financial instruments pursuant to the Company's hedging practices and policies. We intend that the financial impact of these commodity hedging instruments primarily offset the corresponding changes in the fluctuations in the cost of aluminum being hedged. The Company's derivative financial instruments are used to manage differences in the amount, timing, and duration of the Company's known or expected cash receipts and its known or expected cash payments principally related to the Company's inventory and sales.

The Company entered into commodity options during 2014. The Company believes these instruments mitigate exposure in aluminum prices. Derivative accounting guidance requires that derivative instruments be recognized as either assets or liabilities at fair value. The Company does not utilize the special election provided for under the accounting guidance for these commodity options and therefore, they are recorded at fair value through earnings as their fair value changes.

Although the Company's commodity options do not qualify or are not accounted for under hedge accounting, we do not hold or issue derivative financial instruments for trading or other speculative purposes. We monitor our derivative positions against our commercial exposure.

Interest Rate Risk

To manage interest rate risk, the Company uses both fixed and variable interest rate debt. Our fixed rate debt consists of the Company's Senior Subordinated 6.25% Notes and was the only significant debt that remains outstanding at year end. We believe we limited our exposure to interest rate risk as a result of repaying substantially all variable rate debt and the long-term nature of our fixed rate debt. However, the Company will continue to monitor changes in its debt levels and access to capital ensuring interest rate risk is appropriately managed.

At December 31, 2016, our fixed rate debt consisted primarily of $210.0 million of our 6.25% Notes. The Company's $210.0 million of 6.25% Notes were issued in January 2013 and are due February 1, 2021.

Our variable rate debt consists primarily of the revolving credit facility under the Senior Credit Agreement, which was amended and restated on December 9, 2015, and other debt. No amounts are outstanding on the revolving credit facility as of December 31, 2016. Borrowings under the revolving credit facility bear interest at a variable interest rate based upon the LIBOR plus an additional margin. A hypothetical 1% increase or decrease in interest rates would have changed the 2016 interest expense by less than $0.1 million.

Foreign Exchange Risk

The Company has foreign exchange risk due to our international operations, primarily in Canada and Asia and through sales and purchases from foreign customers and vendors. Changes in the values of currencies of foreign countries affect our financial position and cash flows when translated into U.S. dollars. The Company principally manages its exposures to many of these foreign exchange rate risks solely through management of its core business activities. We cannot accurately calculate the pre-tax impact that a one percent change in the exchange rates of foreign currencies would have on our 2016 operating results as the changes in exchange rates would impact the cost of materials, the U.S. dollar revenue equivalents, and potentially the prices offered to our overseas customers.

The Company also manages the risks relating to currency fluctuations through the use of derivative financial instruments pursuant to the Company's hedging practices and policies. The Company uses foreign currency derivatives including currency forward agreements and currency options to manage its exposure to fluctuations in the exchange rates. Currency forward agreements involve fixing the exchange rates for delivery of a specified amount of foreign currency on a specified date. The currency forward agreements are typically cash settled in U.S. dollars for their fair value at or close to their settlement date. The Company also uses currency option contracts under which the Company pays a premium for the right to sell a specified amount of a foreign currency prior to the maturity date of the option.

The effective portion of changes in the fair value of derivatives designated and that qualify as cash flow hedges of foreign exchange risk is recorded as a component of equity and is subsequently reclassified into earnings in the period that the hedged forecasted transaction affects earnings. The ineffective portion of the change in fair value of the derivative, as well as, amounts excluded from the assessment of hedge effectiveness, is recognized directly in earnings.

Item 8. Financial Statements and Supplementary Data

Report of Independent Registered Public Accounting Firm

The Board of Directors and Shareholders of Gibraltar Industries, Inc.

We have audited the accompanying consolidated balance sheets of Gibraltar Industries, Inc. as of December 31, 2016 and 2015, and the related consolidated statements of operations, comprehensive income (loss), shareholders' equity, and cash flows for each of the three years in the period ended December 31, 2016. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Gibraltar Industries, Inc. at December 31, 2016 and 2015 and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2016, 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), Gibraltar Industries, Inc.'s internal control over financial reporting as of December 31, 2016, 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 21, 2017 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

Buffalo, New York
February 21, 2017

GIBRALTAR INDUSTRIES, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS
(in thousands, except per share data)

	Years Ended December 31,		
	2016	2015	2014
Net sales	$1,007,981	$1,040,873	$862,087
Cost of sales	763,219	853,897	722,042
Gross profit	244,762	186,976	140,045
Selling, general, and administrative expense	161,623	134,028	102,492
Intangible asset impairment	10,175	4,863	107,970
Income (loss) from operations	72,964	48,085	(70,417)
Interest expense	14,577	15,003	14,421
Other expense (income)	8,404	(4,018)	(88)
Income (loss) before taxes	49,983	37,100	(84,750)
Provision for (benefit of) income taxes	16,264	13,624	(2,958)
Income (loss) from continuing operations	33,719	23,476	(81,792)
Discontinued operations:			
Loss before taxes	(70)	(44)	(51)
Benefit of income taxes	(26)	(16)	(19)
Loss from discontinued operations	(44)	(28)	(32)
Net income (loss)	$33,675	$23,448	$(81,824)
Net earnings per share – Basic:			
Income (loss) from continuing operations	$1.07	$0.75	$(2.63)
Loss from discontinued operations	—	—	—
Net income (loss)	$1.07	$0.75	$(2.63)
Weighted average shares outstanding – Basic	31,536	31,233	31,066
Net earnings per share – Diluted:			
Income (loss) from continuing operations	$1.05	$0.74	$(2.63)
Loss from discontinued operations	—	—	—
Net income (loss)	$1.05	$0.74	$(2.63)
Weighted average shares outstanding – Diluted	32,069	31,545	31,066

See accompanying notes to consolidated financial statements.

GIBRALTAR INDUSTRIES, INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
(in thousands)

	Years Ended December 31,		
	2016	2015	2014
Net income (loss)	$33,675	$23,448	