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

FORM 10-K

(Mark One)

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

For the Fiscal Year Ended October 31, 2016

or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

Commission file number 1-33913

QUANEX BUILDING PRODUCTS CORPORATION

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

1800 West Loop South, Suite 1500, Houston, Texas

(Address of principal executive offices)

26-1561397

(I.R.S. Employer Identification No.)

77027

(Zip code)

Registrant's telephone number, including area code: (713) 961-4600

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

Title of each class
Common Stock, \$0.01 par value

Name of each exchange on which registered
New York Stock Exchange, Inc.

Securities registered pursuant to Section 12(g) of the Act: NONE

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

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

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definition of "large accelerated filer," "accelerated filer," and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>

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

The aggregate market value of the voting and non-voting common equity held by non-affiliates as of April 30, 2016, computed by reference to the closing price for the Common Stock on the New York Stock Exchange, Inc. on that date, was \$637,494,544. Such calculation assumes only the registrant's officers and directors at such date were affiliates of the registrant.

At December 12, 2016 there were outstanding 34,202,837 shares of the registrant's Common Stock, \$0.01 par value.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Registrant's definitive Proxy Statement for its 2017 Annual Meeting of Stockholders to be filed with the Commission within 120 days of October 31, 2016 are incorporated herein by reference in Part III of this Annual Report on Form 10-K.

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Unless the context indicates otherwise, references to "Quanex", the "Company", "we", "us" and "our" refer to the consolidated business operations of Quanex Building Products Corporation and its subsidiaries.

Cautionary Note Regarding Forward-Looking Statements

Certain of the statements contained in this document and in documents incorporated by reference herein, including those made under the caption "Management's Discussion and Analysis of Financial Condition and Results of Operations" are "forward-looking" statements as defined under the Private Securities Litigation Reform Act of 1995. Generally, the words "expect," "believe," "intend," "estimate," "anticipate," "project," "will" and similar expressions identify forward-looking statements, which generally are not historical in nature. Forward looking statements are (1) all statements which address future operating performance, (2) events or developments that we expect or anticipate will occur in the future, including statements relating to volume, sales, operating income and earnings per share, and (3) statements expressing general outlook about future operating results. Forward-looking statements are subject to certain risks and uncertainties that could cause actual results to differ materially from our historical experience and our current projections or expectations. As and when made, we believe that these forward-looking statements are reasonable. However, caution should be taken not to place undue reliance on any such forward-looking statements since such statements speak only as of the date when made and there can be no assurance that such forward-looking statements will occur. We are not obligated to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

Factors that could cause actual results to differ materially from those expressed or implied by the forward-looking statements include, but are not limited to the following:

- changes in market conditions, particularly in the new home construction, and residential remodeling and replacement (R&R) activity markets in the United States, United Kingdom and Germany;
- changes in non-pass-through raw material costs;
- changes in domestic and international economic conditions;
- changes in purchases by our principal customers;
- fluctuations in foreign currency exchange rates;
- our ability to maintain an effective system of internal controls;
- our ability to successfully implement our internal operating plans and acquisition strategies;
- our ability to successfully implement our plans with respect to information technology (IT) systems and processes;
- our ability to control costs and increase profitability;
- changes in environmental laws and regulations;
- changes in warranty obligations;
- changes in energy costs;
- changes in tax laws, and interpretations thereof;
- changes in interest rates;
- our ability to service our debt facilities and remain in good standing with our lenders;
- our ability to maintain good relationships with our suppliers, subcontractors, and key customers; and
- the resolution of litigation and other legal proceedings.

Additional factors that could cause actual results to differ materially are discussed under "Item 1A. Risk Factors" included elsewhere in this Annual Report on Form 10-K.

About Third-Party Information

In this report, we rely on and refer to information regarding industry data obtained from market research, publicly available information, industry publications, United States government sources and other third parties. Although we believe this information is reliable, we cannot guarantee the accuracy or completeness of the information and have not independently verified it.

PART I

Item 1. Business (Continuing Operations).

Our Company

Quanex was incorporated in Delaware on December 12, 2007 as Quanex Building Products Corporation. We manufacture components for original equipment manufacturers (OEM) in the building products industry. These components can be categorized as window and door (fenestration) components and kitchen and bath cabinet components. Examples of fenestration components include (1) energy-efficient flexible insulating glass spacers, (2) extruded vinyl profiles, (3) window and door screens, and (4) precision-formed metal and wood products. In addition, we provide certain other non-fenestration components and products, which include solar panel sealants, wood flooring, trim moldings, vinyl decking, fencing, water retention barriers, and conservatory roof components. We use low-cost production processes and engineering expertise to provide our customers with specialized products for their specific window, door, and cabinet applications. We believe these capabilities provide us with unique competitive advantages. We serve a primary customer base in North America and the United Kingdom, and also serve customers in international markets through our operating plants in the United Kingdom and Germany, as well as through sales and marketing efforts in other countries.

Our History

Our predecessor company, Quanex Corporation, was organized in Michigan in 1927 as Michigan Seamless Tube Company, and was later reincorporated in Delaware in 1968. In 1977, Michigan Seamless Tube Company changed its name to Quanex Corporation. On December 12, 2007, Quanex Building Products Corporation was incorporated as a wholly-owned subsidiary in the state of Delaware, in order to facilitate the separation of Quanex Corporation's vehicular products and building products businesses. This separation became effective on April 23, 2008, through a spin-off of the building products business to Quanex Corporation's then-existing shareholders. Immediately following the spin-off, our former parent company, consisting principally of the vehicular products business and all non-building products related corporate accounts, merged with a wholly-owned subsidiary of Gerda S.A.

Since the spin-off in 2008, we have evolved our business by making investments in organic growth initiatives and taking a disciplined approach to new business and strategic acquisition opportunities, while disposing of non-core businesses.

Notable developments and transactions which occurred since the spin-off include the following:

- in March 2011, we acquired Edgetech, I.G. Inc. and its German subsidiary, which provided us with three manufacturing facilities, one each in the United States, United Kingdom and Germany, that produce and market a full line of flexible insulating glass spacer systems for window and door customers in North America and abroad. This acquisition complemented our then existing insulating glass products business in the United States and, as a result, we committed to a plan to consolidate these facilities in November 2011. This consolidation plan, in part, resulted in the closure of a plant in Barbourville, Kentucky, and the relocation of equipment that was used to manufacture the single seal, warm-edge spacer system to our facility in Cambridge, Ohio. This consolidation was substantially completed by August 2012, with minor residual cash payments and program costs incurred during fiscal 2013. We sold the facility in Barbourville in May 2014;
- in December 2012, we acquired substantially all of the assets of Alumco Inc. and its subsidiaries (Alumco), an aluminum screen manufacturer, which allowed us to expand the scope of our fenestration business to include screens for vinyl window and door manufacturers and to expand our geographic reach throughout the United States;
- in April 2014, we sold our interest in a limited liability company which held the net assets of our Nichols Aluminum business (Nichols), to Aleris International, Inc. (Aleris), a privately held company which provides aluminum rolled products and extrusions, aluminum recycling and specification aluminum alloy production;
- in June 2015, we acquired the outstanding ownership shares of Flamstead Holdings Limited, an extruder of vinyl lineal products and manufacturer of other plastic products incorporated and registered in England and Wales. Following a pre-sale reorganization and purchase, Flamstead Holdings Limited owned 100% of the ownership shares of the following subsidiaries: HL Plastics Limited, Vintage Windows Limited, Wegoma Machinery Sales Limited (renamed in 2016 as Avantek Machinery Company), and Liniar Limited (collectively referred to as "HLP"), each registered in England and Wales. This acquisition expanded our vinyl extrusion product offerings and expanded our international presence in the global fenestration business;
- in November 2015, we completed the merger of QWMS, Inc., a Delaware corporation which was a newly-formed and wholly-owned Quanex subsidiary, and WII Holding, Inc. (WII), a Delaware corporation. Upon satisfaction or waiver of

conditions set forth in the merger agreement, QWMS, Inc. merged with and into WII, and WII became our wholly-owned subsidiary, and, as a result, we acquired all the subsidiaries of WII (referred to collectively as Woodcraft). Woodcraft is a manufacturer of cabinet doors and other components for OEMs in the kitchen and bathroom cabinet industry, operating various plants in the United States and Mexico; and

- In October 2016, we committed to a restructuring plan that includes the closure of two vinyl-extrusion plants in the United States and our kitchen and bathroom cabinet door plant in Guadalajara, Mexico.

As of October 31, 2016, we operated 41 manufacturing facilities located in 18 states in the United States, five facilities in the United Kingdom, one in Germany, and another in Mexico. These facilities feature efficient plant design and flexible manufacturing processes, enabling us to produce a wide variety of custom engineered products and components primarily focused on the window and door segment of the residential building products markets. We are able to maintain minimal levels of finished goods inventories at most locations because we typically manufacture products upon order to customer specifications. We believe the primary drivers of our operating results are new home construction and residential remodeling and replacement activity in the markets we serve.

Our Industry

Our business is largely North American based and dependent upon the spending and growth activity levels of our customers which include national and regional residential window, door and cabinet manufacturers. With the HLP acquisition in June 2015, we expanded our international presence to include a platform from which to sell vinyl extruded lineals for house systems to smaller customers primarily in the United Kingdom.

We use data related to housing starts and window shipments in the United States and United Kingdom, as published by or derived from third-party sources, to evaluate the fenestration market in these countries. We also use data related to cabinet demand in the United States to evaluate the residential cabinet market.

The following table presents calendar-year annual and quarterly housing starts information, as published by the United States Census Bureau based on data collected from the National Association of Home Builders (NAHB), (units in thousands):

Period	Single-family Units		Multi-family Units		Manufactured Units		Total Units
	Units	% Change	Units	% Change	Units	% Change	
Annual Data							
2010	471	N/A	116	N/A	50	N/A	637
2011	434	(8)%	178	53%	51	2%	663
2012	537	24%	247	39%	55	8%	839
2013	620	15%	308	25%	60	9%	988
2014	647	4%	355	15%	64	7%	1,066
2015	713	10%	395	11%	71	11%	1,179
Annual Data - Forecast							
2016	773	8%	369	(7)%	75	6%	1,217
2017	873	13%	385	4%	73	(3)%	1,331
2018	992	14%	373	(3)%	83	14%	1,448

The following table presents calendar-year annual and quarterly window shipments information, derived from reports published by Ducker Worldwide LLC, a consulting and research firm, (units in thousands):

Period	New Construction						Remodeling & Replacement					
	Wood	Aluminum	Vinyl	Fiberglass	Other	Total	Wood	Aluminum	Vinyl	Fiberglass	Other	Total
Annual Data												
2010	2,778	1,746	6,729	526	167	11,946	6,139	1,012	21,079	840	573	29,643
2011	2,601	1,820	6,623	514	182	11,740	5,071	717	19,086	730	516	26,120
2012	2,736	2,516	8,625	592	237	14,706	4,566	696	18,902	657	594	25,415
2013	2,989	3,077	10,585	668	264	17,583	4,739	658	19,588	685	658	26,328
2014	3,108	3,471	11,651	728	291	19,249	4,697	718	19,972	698	677	26,762
2015	2,909	3,467	12,915	793	358	20,442	4,324	562	20,742	766	740	27,134

The following table presents calendar-year annual housing starts information in the United Kingdom, derived from reports published by D&G Consulting, a consulting and research firm, (units in thousands):

Housing Construction					
Period	Private Housing		Public Housing		
	Annual	% Change	Actual	% Change	
<i>Actual Data</i>					
2010	100	N/A	30	N/A	
2011	100	—%	34	13%	
2012	104	4%	32	(6)%	
2013	102	(2)%	32	—%	
2014	110	8%	29	(9)%	
2015	139	26%	36	24%	
<i>Forecast Data</i>					
2016	143	3%	33	(8)%	
2017	153	7%	27	(18)%	
2018	156	2%	28	4%	

According to Freedonia Group, a consulting and research firm, total United States residential cabinet demand is expected to increase 6.9% annually from 2014 to 2019.

We have noted the following trends which we believe affect our industry:

- the number of housing starts and window shipments in the United States has increased in recent years following a dramatic decline from 2007 through 2011. The NAHB expects this trend to continue for the next several years, which should result in higher demand for our fenestration and kitchen and bathroom cabinet door products;
- the recent growth in the housing market has been predominately in new construction which has outpaced the growth in the residential remodeling and replacement sector; growth in the residential remodeling and replacement sector has been stagnated by uncertainty in the economy and the job market;
- the recovery of the housing market has been slowed due to predominant growth of multi-family homes compared to mid- and higher priced single family homes; the current growth in single-family homes has seen the share of the large tract builders increase and the smaller custom builders decrease; and multi-family and tract homes typically employ fewer, lower cost, and less energy efficient windows and lower cost kitchen and bathroom cabinets;
- programs in the United States such as Energy Star have improved customer awareness of the technological advances in window and door energy-efficiency, but the government has been reluctant to enforce stricter energy standards;
- foreign currency rates in the United Kingdom and other European nations have changed significantly relative to the United States Dollar due in part to the referendum relating to a potential exit of the United Kingdom from the European Union during June 2016;
- commodity prices have fluctuated in recent years, and to the extent we cannot pass this cost to our customers, this impacts cost of critical materials used in our manufacturing processes such as resin, which affects margins related to our vinyl extrusion products; oil products such as butyl, which affects our insulating glass products; and aluminum and wood products used by our other businesses; and
- higher energy efficiency standards in Europe should favorably impact sales of our insulating glass spacer products in the short- to mid-term.

Strategy

Our vision is to be the preferred supplier to our customers in each market we serve. Our strategy to achieve this vision includes the following:

- focus on organic growth with our current customer base and expand our market share with national and regional customers by providing: (1) a quality product; (2) a high level of customer service; (3) product choices at different price points; and (4) new products or enhancements to existing product offerings. These enhancements may include higher thermal efficiency, enhanced functionality, improved weatherability, better appearance and best-in-class quality for our fenestration and cabinet door products;

- realize improved profitability in our manufacturing processes through: (1) ongoing preventive maintenance programs; (2) better utilization of our capacity by focusing on operational efficiencies and reducing scrap; (3) marketing our value added products; and (4) focusing on employee safety;
- offer logistic solutions that provide our customers with just-in-time service which can reduce their processing costs;
- pursue targeted business acquisitions that allow us to expand our existing footprint, enhance our existing product offerings, acquire complementary technology, enhance our leadership position within the markets we serve, and expand into adjacent markets or service lines; and
- exit unprofitable service lines.

Business Segments

We currently have three reportable business segments: (1) North American Engineered Components segment (“NA Engineered Components”), comprised of four operating segments primarily focused on the fenestration market in North America manufacturing vinyl profiles, insulating glass (“IG”) spacers, screens & other fenestration components; (2) European Engineered Components segment (“EU Engineered Components”), comprised of our United Kingdom-based vinyl extrusion business, manufacturing vinyl profiles and conservatories, and the European insulating glass business manufacturing IG spacers; and (3) North American Cabinet Components segment (“NA Cabinet Components”), comprised solely of the North American cabinet door and components business acquired in November 2015. We continue to maintain the grouping previously called Corporate & Other, now called Unallocated Corporate & Other, but a portion of the general and administrative costs associated with the corporate office have been allocated to the reportable operating segments, based upon a relative measure of profitability in order to more accurately reflect each reportable operating segment's administrative costs. Certain costs were not allocated to the business segments, but remain in Unallocated Corporate & Other, including transaction expenses, stock-based compensation, long-term incentive awards based on the performance of our common stock and other factors, certain severance and legal costs not deemed to be allocable to all segments, depreciation of corporate assets, interest expense, other, net, income taxes and inter-segment eliminations. This treatment was applied to avoid an asymmetrical allocation amongst the reportable operating segments for the comparative period due to the timing of acquisitions. Prior to November 2, 2015, we had two reportable business segments: (1) Engineered Products, comprised of our four operating segments focused primarily on North American fenestration, and (2) International Extrusion, comprised solely of HLP acquired on June 15, 2015. In addition, we recorded LIFO inventory adjustments, corporate office charges and inter-segment eliminations as Corporate & Other. Prior to April 1, 2014, we presented two reportable segments: (1) Engineered Products, and (2) Aluminum Sheet Products as well as corporate and other. On April 1, 2014, we sold Nichols, the sole operating segment included in our Aluminum Sheet Products reportable segment, leaving one reportable segment. To account for Nichols as a discontinued operation, we reclassified certain costs from Corporate & Other to Nichols, including a portion of the LIFO reserve, as well as insurance accruals related to workers compensation claims, to properly reflect these direct expenses as a component of the disposal group. The accounting policies of our operating segments are the same as those used to prepare our accompanying consolidated financial statements. Financial information specific to each segment is located in Note 18, "Segment Information" of the accompanying financial statements in this Annual Report on Form 10-K.

Our Strengths

We believe our strengths include design expertise, new technology development capability, customer service, just-in-time delivery systems, high quality manufacturing, the ability to generate unique patented products and participation in industry and governmental advocacy.

Raw Materials and Supplies

We purchase a diverse range of raw materials, which include PVC, epoxy resin, butyl, titanium dioxide (TiO₂) desiccant powder, silicone and EPDM rubber compounds, coated and uncoated aluminum sheet and wood (both hardwood and softwood). These raw materials are generally available from several suppliers at market prices. We may enter into sole sourcing arrangements with our suppliers from time to time if we believe we can realize beneficial savings, but only after we have determined that the vendor can reliably supply our raw material requirements. These sole sourcing arrangements generally have termination clauses to protect us if a sole sourced vendor could not provide raw materials timely and on economically feasible terms. We believe there are other qualified suppliers from which we could purchase raw materials and supplies.

Competition

Our products are sold under highly competitive conditions. We compete with a number of companies, some of which have greater financial resources than us. We believe the primary competitive factors in the markets we serve include price, product quality, delivery and the ability to manufacture to customer specifications. The volume of engineered building products that we manufacture represents a small percentage of annual domestic consumption. Similarly, our subsidiaries in the United Kingdom compete against some larger vinyl producers and smaller window manufacturers. For our kitchen and bathroom cabinet door business, we believe we are the largest supplier to OEMs in the United States, but we compete with other national and regional businesses, including OEMs who are vertically integrated.

We compete against a range of small and mid-size metal, vinyl and wood products suppliers, wood molding companies, and the in-house operations of customers who have vertically integrated fenestration operations. We also compete against IG spacer manufacturing firms. IG systems are used in numerous end markets including residential housing, commercial construction, appliances and transportation vehicles, but we primarily serve the residential housing market. Competition is largely based on regional presence, custom engineering, product development, quality, service and price. Primary competitors include, but are not limited to, Veka, Deceuninck, Energi, Vision Extrusions, GED Integrated Solutions, Technoform, Swiss Spacer, Thermix, Rite Screen, Allmetal, and Endura. Competitors in the vinyl extrusion business in the United Kingdom include Epwin, Veka, Synseal, Eurocell and others. Primary competitors in the cabinet door business in the United States include Conestoga, Decore-active Specialties, Northern Contours and others.

Sales, Marketing, and Distribution

We sell our products to customers in various countries. Therefore, we have sales representatives whose territories essentially cover the United States, Canada, Europe, and to a lesser extent, the Middle East, Latin and South America, Australia and Asia. Our sales force is tasked with selling and marketing our complete range of components, products and systems to national and regional OEMs through a direct sales force in North America and Europe, supplemented with the limited use of distributors and independent sales agents.

Customers

Certain of our businesses or product lines are largely dependent on a relatively few large customers. See Note 1, "*Nature of Operations, Basis of Presentation and Significant Accounting Policies - Concentration of Credit Risk and Allowance for Doubtful Accounts,*" of the accompanying financial statements in this Annual Report on Form 10-K for related disclosure.

Sales Backlog

Given the short lead times involved in our business, we have a relatively low backlog, approximately \$25 million as of October 31, 2016. The criteria for revenue recognition has not been met with regard to sales backlog, and therefore, we have not recorded revenue or deferred revenue pursuant to these sales orders. If these sales orders result in a sale, we will record revenue during fiscal 2017 in accordance with our revenue recognition accounting policy.

Seasonal Nature of Business

Our business is impacted by seasonality. We have historically experienced lower sales for our products during the first half of our fiscal year as winter weather reduces homebuilding and home improvement activity. Our operating income tends to decline during this period of lower sales because a higher percentage of our operating expenses are fixed overhead. We typically experience more favorable results in the third and fourth quarters of the fiscal year. Our exposure to seasonality was somewhat tempered with the entry into the kitchen and bathroom cabinet door industry, which is focused "inside the house" and less susceptible to inclement weather. Expenses for labor and other costs are generally semi-variable throughout the year.

Working Capital

We fund operations through a combination of available cash and cash equivalents, cash flow generated from our operations, and borrowings from our revolving credit facility. We extend credit to our domestic customers in the ordinary course of business generally for a term of 30 days, while the terms for our international customers vary from cash advances to 90 days. Inventories of raw materials are carried in quantities deemed necessary to ensure a smooth production process, some of which are governed by consignment agreements with suppliers. We strive to maintain minimal finished goods inventories, while ensuring an adequate supply on hand to service customer needs.

Service Marks, Trademarks, Trade Names, and Patents

Our federally registered trademarks or service marks include QUANEX, QUANEX and design, "Q" design, TRUSEAL TECHNOLOGIES, DURASEAL, DURALITE, SOLARGAIN EDGE TAPE, ENVIROSEALED WINDOWS, EDGETHERM, COLONIAL CRAFT, EDGETECH, ECOBLEND, SUPER SPACER, TSS, TRUE WARM, E & Design, QUIET EDGE, HEALTH SMART WINDOWS, ENERGY WISE WINDOWS, DESIROPE, 360 and design, INTELLICLIP, SUSTAINAVIEW, MIKRON, MIKRONWOOD, MIKRONBLEND, MIKRON BLEND and design, ENERGYCORE, FUSION INSULATED SYSTEM, AIRCELL, SUPERCOAT, SUPERCAP, STYLELOCK, STYLELOCK and design, K2 MIKRON and design, HOMESHIELD, HOMESHIELD and design, STORM SEAL, and TENON. We consider the following marks, design marks and associated trade names to be valuable in the conduct of our business: HOMESHIELD, COLONIAL CRAFT, TRUSEAL TECHNOLOGIES, EDGETECH, MIKRON, WOODCRAFT and QUANEX. With the acquisition of HLP in June 2015, we acquired a number of registered designs, patents and trademarks registered in the United Kingdom, which include: MODLOK, LINIAR, SUPERCUT, and various other trademarks and patents which are pending approval. Generally, our business does not depend on patent protection, but patents obtained with regard to our vinyl extrusion products and processes, fabricated metal components and IG spacer products business remain a valuable competitive advantage over other building products manufacturers. We obtain patent protection for various dies and other tooling created in connection with the production of customer-specific vinyl profile designs and vinyl extrusions. Our fabricated metal components business obtains patent protection for its thresholds. Our window sealant business unit relies on patents to protect the design of several of its window spacer products. Although we hold numerous patents, the proprietary process technology that has been developed is also considered a source of competitive advantage.

Research and Development

In general, we expense research and development costs as incurred. We devote time, effort and expense to: (1) custom-engineer products for specific customer applications; (2) develop superior, proprietary process technology; and (3) partner with customers to develop new products. In addition, we may acquire businesses with patented technology in order to expand our product offerings. We partner with several universities to help fund new product applications which may benefit our business.

Environmental and Employee Safety Matters

We are subject to extensive laws and regulations concerning worker safety, the discharge of materials into the environment and the remediation of chemical contamination. To satisfy such requirements, we must make capital and other expenditures on an on-going basis. The cost of worker safety and environmental matters has not had a material adverse effect on our operations or financial condition in the past, and we are not currently aware of any existing conditions that we believe are likely to have a material adverse effect on our operations, financial condition, or cash flows.

Safety and Environmental Policies

For many years, we have maintained compliance policies that are designed to help protect our workforce, to identify and reduce the potential for job-related accidents, and to minimize liabilities and other financial impacts related to worker safety and environmental issues. These policies include extensive employee training and education, as well as internal policies embodied in our Code of Business Conduct and Ethics. We have a Director of Environmental, Health and Safety and maintain a company-wide Safety Council, comprised of leaders from across the organization, which meets regularly to discuss safety issues and drive safety improvements. We plan to continue to focus on safety in particular as a core strategy to improve our operational efficiency and financial performance.

Remediation

Under applicable state and federal laws, we may be responsible for, among other things, all or part of the costs required to remove or remediate wastes or hazardous substances at locations we, or our predecessors, have owned or operated. From time to time, we also have been alleged to be liable for all or part of the costs incurred to clean up third-party sites where there might have been an alleged improper disposal of hazardous substances. At present, we are not involved in any such matters.

Environmental Compliance Costs

From time to time, we incur routine expenses and capital expenditures associated with compliance with existing environmental regulations, including control of air emissions and water discharges, and plant decommissioning costs. We have not incurred any material expenses or capital expenditures related to environmental matters during the past three fiscal years, and do not expect to incur a material amount of such costs in fiscal 2017. While we will continue to have future expenditures related to environmental matters, any such amounts are impossible to reasonably estimate at this time. Based upon our experience to date, we do not believe

that our compliance with environmental requirements will have a material adverse effect on our operations, financial condition or cash flows.

Employees

As of October 31, 2016, we had 4,138 employees. Of these employees, 3,540 were domiciled in the United States, 519 in the United Kingdom, 65 in Germany, and 14 in Mexico.

Geographic Information

Our manufacturing facilities and all long-lived assets are located in the United States, United Kingdom, Germany and Mexico. Financial information specific to each geographic area is located in Note 18, "Segment Information," located elsewhere in this Annual Report on Form 10-K.

For Investors

We periodically file or furnish documents to the Securities and Exchange Commission (SEC), including our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and other reports as required. These reports are also available free of charge from the Investor Relations Section of our website at <http://www.quanex.com>, as soon as reasonably practicable after we file such material, or furnish it to the SEC. As permitted by the SEC rules, we post relevant information on our website. However, the information contained on our website is not incorporated by reference into this Annual Report on Form 10-K and should not be considered part of this report.

Item 1A. Risk Factors.

The following risk factors, along with other information contained elsewhere in this Annual Report on Form 10-K and our other public filings with the SEC, should be carefully considered before deciding to invest in our securities. Additional risks and uncertainties that are not currently known to us or that we may view as immaterial could impair our business if such risks were to develop into actual events. Therefore, any of these risks could have a material adverse effect on our financial condition, results of operations and cash flows. This listing of risk factors is not all-inclusive and is not necessarily presented in order of importance.

Industry Risks

Any sustained decline in residential remodeling, replacement activities, or housing starts could have a material adverse effect on our business, financial condition and results of operations.

The primary drivers of our business are residential remodeling, replacement activities and housing starts. The home building and residential construction industry is cyclical and seasonal, and product demand is based on numerous factors such as interest rates, general economic conditions, consumer confidence and other factors beyond our control. Declines in the number of housing starts and remodeling expenditures resulting from such factors could have a material adverse effect on our business, results of operations and financial condition.

If the availability of critical raw materials were to become scarce or if the price of these items were to increase significantly, we might not be able to timely produce products for our customers or maintain our profit levels.

We purchase from outside sources significant amounts of raw materials, such as butyl, titanium dioxide, vinyl resin, aluminum, steel and wood products for use in our manufacturing facilities. Because we do not have long-term contracts for the supply of many of our raw materials, their availability and price are subject to market fluctuation and may be subject to curtailment or change. Any of these factors could affect our ability to timely and cost-effectively manufacture products for our customers.

Compliance with, or liabilities under, existing or future environmental laws and regulations could significantly increase our costs of doing business.

We are subject to extensive federal, state and local laws and regulations concerning the discharge of materials into the environment and the remediation of chemical contamination. To satisfy such requirements, we must make capital and other expenditures on an on-going basis. Future expenditures relating to environmental matters will necessarily depend upon whether such regulations and future governmental decisions or interpretations of these regulations apply to us and our facilities. It is likely that we will be subject to increasingly stringent environmental standards, and we will incur additional expenditures to comply with such standards. Furthermore, if we fail to comply with applicable environmental regulations, we could be subject to substantial fines or penalties and to civil and criminal liability.

Our goodwill and indefinite-lived intangible assets may become impaired and could result in a charge to income.

We evaluate our goodwill and indefinite-lived intangible assets at least annually to determine whether we must test for impairment. In making this assessment, we must use judgment to make estimates of future operating results and appropriate residual values. Actual future operating results and residual values associated with our operations could differ significantly from these estimates, which may result in an impairment charge in a future period, resulting in a decrease in net income from operations in the year of the impairment, as well as a decline in our recorded net worth. We recorded a goodwill impairment charge in 2016 and could record future impairment charges.

We may not be able to protect our intellectual property.

We rely on a combination of copyright, patent, trade secrets, confidentiality procedures and contractual commitments to protect our proprietary information. However, these measures can only provide limited protection and unauthorized third parties may try to copy or reverse engineer portions of our products or may otherwise obtain and use our intellectual property. If we cannot protect our proprietary information against unauthorized use, we may not be able to retain a perceived competitive advantage and we may lose sales to the infringing sellers, which may have a material adverse effect on our financial condition, results of operations and cash flows.

We are subject to various existing and contemplated laws, regulations and government initiatives that may materially impact the demand for our products, our profitability or our costs of doing business.

Our business may be materially impacted by various governmental laws, regulations and initiatives that may artificially create, deflate, accelerate, or decelerate consumer demand for our products. For example, when the government issues tax credits designed to encourage increased homebuilding or energy-efficient window purchases, the credits may create a spike in demand that would not otherwise have occurred and our production capabilities may not be able to keep pace, which could materially impact our profitability. Likewise, when such laws, regulations or initiatives expire, our business may experience a material loss in sales volume or an increase in production costs as a result of the decline in consumer demand.

Our operations outside the United States require us to comply with a number of United States and international anti-corruption regulations, violations of which could have a material adverse effect on our consolidated results of operations and consolidated financial condition.

Our international operations require us to comply with a number of United States and international regulations, including the Foreign Corrupt Practices Act (FCPA) and the United Kingdom Bribery Act 2010. While we have implemented appropriate training and compliance programs to prevent violations of these anti-bribery regulations, we cannot ensure that our policies, procedures and programs will always protect us from reckless or criminal acts committed by our employees or agents. Allegations of violations of applicable anti-corruption laws, may result in internal, independent, or government investigations, and violations of anti-corruption laws may result in severe criminal or civil sanctions or other liabilities which could have a material adverse effect on our business, consolidated results of operations and financial condition.

Because we have operations located within the United Kingdom (UK), our business and financial results may suffer as the UK works to implement its exit from the European Union (EU), resulting primarily from (a) continued depression in the value of the British Pound Sterling as compared to the United States Dollar; and (b) potential price increases for supplies purchased by our UK businesses from companies located in the EU or elsewhere.

Following the UK's vote to leave the EU, the value of the British Pound Sterling immediately declined and has since remained at historically low levels. If the value of the British Pound Sterling remains at current levels, the resulting unfavorable exchange rate may negatively affect the value of our operations and businesses located in the UK, as translated to our reporting currency, the United States Dollar, in accordance with US GAAP, which may reduce the revenue and earnings we report. For more information with respect to Exchange Rate risk applicable to us, please see Part 2 Item 7A. "Market Risk Disclosures" elsewhere in this Annual Report on Form 10-K. Continued weakness in the British Pound Sterling may also result in the imposition of a price increase by EU-based suppliers to our UK businesses, as those suppliers seek to compensate for the diminished value of the British Pound Sterling as compared to the European Euro.

Failure to achieve and maintain effective internal controls could have a material adverse effect on our business and on our stock price.

Effective internal controls are necessary for us to effectively monitor our business, prevent fraud or theft, remain in compliance with our credit facility covenants, and provide reliable financial reports, both to the public and to our lenders. If we fail to maintain the adequacy of our internal controls, both in accordance with current standards and as standards are modified over time, we could trigger an event of default under our credit facilities or lose the confidence of the investing community, both of which could result in a material adverse effect on our stock price, limit our ability to borrow funds, or result in the application of unfavorable commercial terms to borrowings then outstanding.

Company Risks

Our business will suffer if we are unable to adequately address potential supplier or customer pricing pressures, particularly with respect to OEMs that have significant pricing leverage over suppliers.

Our primary customers are OEMs, who have substantial leverage in setting purchasing and payment terms. We attempt to manage this pricing pressure and to preserve our business relationships with the OEMs by negotiating reasonable price concessions when needed, and by reducing our production costs through various measures, which may include managing our purchase process to control the cost of our raw materials and components, and implementing cost-effective process improvements. However, our efforts may not be successful and our operating margins could be negatively impacted.

Our revenues could decline or we may lose business if our customers vertically integrate their operations, diversify their supplier base, or transfer manufacturing capacity to other regions.

Certain of our businesses or product lines are largely dependent on a relatively few large customers. Although we believe we have an extensive customer base, if we were to lose one of these large customers or if such customer were to materially reduce its purchases as a result of vertical integration, supplier diversification, or a shift in regional focus, our revenue, general financial condition and results of operations could be adversely affected.

Our credit facility contains certain operational restrictions, reporting requirements, and financial covenants that limit the aggregate availability of funds.

Our credit facility is comprised of a revolving credit facility and a term loan, each of which contains certain financial covenants and other operating and reporting requirements that could present risk to our operating results or limit our ability to access capital for use in the business. For a full discussion of the various covenants and operating requirements imposed by our credit facility and information related to the potential limitations on our ability to access capital, see Item 7, *Management's Discussion and Analysis of Financial Conditions and Results of Operations-Liquidity and Capital Resources*, in this Annual Report on Form 10-K.

We may not be able to successfully manage or integrate acquisitions, and if we are unable to do so, then our profitability could be adversely affected.

We cannot provide assurance that we will successfully manage or integrate acquisition targets once we have purchased them. If we acquire a business for which we do not fully understand or appreciate the specific business risks, if we overvalue or fail to conduct effective due diligence on an acquisition, or if we fail to effectively and efficiently integrate a business that we acquire, then there could be a material adverse effect on our ability to achieve the projected growth and cash flow goals associated with the new business, which could result in an overall material adverse effect on our long-term profitability or revenue generation.

If our information technology systems fail, or if we experience an interruption in our operations due to an aging information system infrastructure, then our results of operations and financial condition could be materially adversely affected.

The failure of our information technology systems, our inability to successfully maintain, enhance and/or replace our information technology systems when necessary, or a significant compromise of the integrity or security of the data that is generated from our information technology systems, could adversely affect our results of operations and could disrupt business and prevent or severely limit our ability to respond to data requests from our customers, suppliers, auditors, shareholders, employees or government authorities.

We may not have the right personnel in place to achieve our operating goals and the rural location of some of our operations may make it difficult to locate or hire highly skilled employees.

We operate in some rural areas and small towns where the competition for labor can be fierce, and where the pool of qualified employees may be very small. If we are unable to obtain skilled workers and adequately trained professionals to conduct our business, we may not be able to manage our business to the necessary high standards. In addition, we may be forced to pay higher wages or offer other benefits that might impact our cost of labor and thereby negatively impact our profitability.

Equipment failures or catastrophic loss at any of our manufacturing facilities could prevent us from manufacturing our products.

An interruption in production capabilities at any of our facilities due to equipment failure, catastrophic loss, or other reasons could result in our inability to manufacture products, which could severely affect delivery times, return or cancellation rates, and future sales, any of which could result in lower sales and earnings or the loss of customers. Although we have a disaster recovery plan in place, we currently have one plant which is the sole source for our insulating spacer business in the United States. If that plant were to experience a catastrophic loss and our disaster recovery plan were to fail, it could have a material adverse effect on our results of operations or financial condition.

Product liability claims and product replacements could harm our reputation, revenue generation and financial condition, or could result in costs related to litigation, warranty claims, or customer accommodations.

We have, on occasion, found flaws and deficiencies in the manufacturing, design, testing or installation of our products, which may result from a product defect, a defect in a component part provided by our suppliers, or as a result of the product being installed incorrectly by our customer or an end user. The failure of products before or after installation could result in litigation or claims by our customers or other users of the products, which may result in the need for us to expend legal fees or other related warranty coverage, settlement, or customer accommodation costs related to the replacement of products or the retrofitting of affected structures.

Risks Associated with Investment in Quanex Securities

Our corporate governance documents or the provisions of Delaware law may delay or preclude a business acquisition or divestiture that stockholders may consider to be favorable, which might result in a decrease in the value of our common shares.

Our certificate of incorporation and bylaws and Delaware law contain provisions that could make it more difficult for a third party to acquire us without the consent of our Board of Directors. These provisions include restrictions on the ability of our stockholders to remove directors and supermajority voting requirements for stockholders to amend our organizational documents, a classified Board of Directors, and limitations on action by our stockholders by written consent. Our Board has recently approved amendments to our Certificate of Incorporation that are designed to declassify director elections and lower our supermajority voting thresholds. These amendments were ratified by our shareholders at our 2016 annual meeting. In addition, our Board of Directors has the right to issue preferred stock without stockholder approval, which could be used to dilute the stock ownership of a potential hostile acquirer. Although we believe these provisions protect our stockholders from coercive or otherwise unfair takeover tactics, and thereby provide for an opportunity for us to receive a higher bid by requiring potential acquirers to negotiate with our Board of Directors, these provisions apply even if the offer may be considered beneficial by some stockholders.

We have the ability to issue additional equity securities, which would lead to dilution of our issued and outstanding common stock.

We are authorized to issue, without stockholder approval, 1,000,000 shares of preferred stock, no par value, in one or more series, which may give other stockholders dividend, conversion, voting, and liquidation rights, among other rights, which may be superior to the rights of holders of our common stock. The issuance of additional equity securities or securities convertible into equity securities would result in dilution of existing stockholders' equity interests. Our Board of Directors has no present intention to issue any such preferred shares, but has the right to do so in the future. In addition, we were authorized, by prior stockholder approval, to issue up to 125,000,000 shares of our common stock, \$0.01 par value per share. These authorized shares can be issued, without stockholder approval, as securities convertible into either common stock or preferred stock.

Item 1B. Unresolved Staff Comments.

None.

Item 2. Properties.

The following table lists our principal properties by location, general character and use as of October 31, 2016. These properties are owned by us, unless indicated otherwise.

Location	Character & Use of Property
Executive Offices	
Houston, Texas (Lease expires 2023)	Executive corporate office
NA Engineered Components Segment	
Rice Lake, Wisconsin	Fenestration products
Chatsworth, Illinois	Fenestration products
Richmond, Indiana	Fenestration products
Akron, Ohio (Lease expires 2026)	Adhesive research and administrative offices
Solon, Ohio (Lease expires 2017)	Adhesive research and administrative offices
Luck, Wisconsin	Wood products
Richmond, Kentucky	Vinyl and composite extrusions
Winnebago, Illinois	Vinyl extrusions
Mounds View, Minnesota (Lease expires 2021)	Fenestration products
Kent, Washington (Lease expires 2020)	Vinyl and composite extrusions
Yakima, Washington (Lease expires 2021) ⁽¹⁾	Vinyl extrusions
Dubuque, Iowa (Lease expires 2017)	Fenestration products
Shawano, Wisconsin (Lease expires 2020)	Wood flooring
Cambridge, Ohio (Lease expires 2021)	Flexible spacer and solar adhesives
Sacramento, California (Lease expires 2021)	Screens for windows and doors
Des Moines, Iowa (Lease expires 2019)	Screens for windows and doors
Phoenix, Arizona (Lease expires 2018)	Screens for windows and doors
Denver, Colorado (Lease expires 2020)	Screens for windows and doors
Paris, Illinois (Lease expires 2017)	Screens for windows and doors
Parkersburg, West Virginia (Lease expires 2017)	Screens for windows and doors
Fontana, California (Lease expires 2019)	Screens for windows and doors
Perrysburg, Ohio (Lease expires 2019)	Screens for windows and doors
Olympia, Washington (Lease expires 2024)	Division executive offices
Chehalis, Washington (Leases expire 2017 and 2019)	Screens for windows and doors and division executive offices
Greenville, Texas (Lease expires 2020) ⁽¹⁾	Vinyl extrusions
Durham, North Carolina (Lease expires 2021)	Division executive offices
EU Engineered Components Segment	
Denby, United Kingdom (Leases expire 2027 & 2037)	Vinyl and composite extrusions
Riddings, United Kingdom (Lease expires 2017)	Machinery Sales and fabrication of windows and doors
Alfreton, United Kingdom (Lease expires 2017)	Vinyl and composite extrusions
Coventry, United Kingdom	Flexible and rigid spacer
Heinsberg, Germany (Lease expires 2025)	Flexible spacer
Burnley, United Kingdom (Lease expires 2020)	Flexible and rigid spacer
NA Cabinet Components Segment	
Bowling Green, Kentucky	Hardwood components for kitchen and bath
Conover, North Carolina (Lease expires 2018)	Hardwood doors for kitchen and bath
Foreston, Minnesota	Hardwood components for kitchen and bath
Greenville, Pennsylvania	Hardwood components for kitchen and bath

Middlefield, Ohio (Leases expire 2017 & 2019)	Hardwood components for kitchen and bath
Orwell, Ohio	Hardwood doors for kitchen and bath
St. Cloud, Minnesota	Hardwood doors & components for kitchen and bath
Lansing, Kansas (Lease expires 2020)	Engineered wood products for kitchen and bath
Bashor, Kansas (Lease expires 2018)	Engineered wood products for kitchen and bath
Moorefield, West Virginia (Lease expires 2026)	Engineered wood products for kitchen and bath
Wahpeton, North Dakota	Engineered wood products for kitchen and bath
Molalla, Oregon	Hardwood & engineered products for kitchen & bath
Guadalajara, Mexico (Lease expires 2017) ⁽¹⁾	Hardwood doors for kitchen and bath

⁽¹⁾ We have announced closure of these facilities. See Note 1, "Nature of Operations, Basis of Presentation and Significant Accounting Policies - Restructuring" to the accompanying consolidated financial statements included elsewhere in this Annual Report on Form 10-K.

We believe our operating properties are in good condition and well maintained, and are generally suitable and adequate to carry on our business. In fiscal 2016, our facilities operated at approximately 64% of capacity.

Item 3. Legal Proceedings.

From time to time, we, along with our subsidiaries, are party to various legal proceedings arising in the ordinary course of business. We are currently involved in litigation related to alleged defects in a sealant product manufactured and sold by one of our subsidiaries during the 2000s. While we strongly believe that our product was not defective and that we will prevail in these claims, the ultimate resolution and impact of the claims is not presently determinable. Nevertheless, we believe that the eventual outcome of such litigation will not have a material adverse effect on our overall financial condition, results of operations or cash flows.

We reserve for litigation loss contingencies that are both probable and reasonably estimable. We do not expect that losses resulting from any current legal proceedings will have a material adverse effect on our consolidated financial statements if or when such losses are incurred.

For discussion of environmental issues, see Item 1, "*Business - Environmental and Employee Safety Matters*" discussed elsewhere in this Annual Report on Form 10-K.

Item 4. Mine Safety Disclosures.

Not Applicable.

PART II

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

Our common stock, \$0.01 par value, has been listed on the New York Stock Exchange under the ticker symbol NX since April 24, 2008. The following table sets forth, for the periods indicated, the high and low sales price per share of our common stock as reported, and the quarterly cash dividend declared per share on our common stock.

Period	NX Stock Price		Cash Dividends Declared
	High	Low	
Quarter ended October 31, 2016	\$ 20.99	\$ 15.63	\$ 0.04
Quarter ended July 31, 2016	20.99	17.44	0.04
Quarter ended April 30, 2016	19.43	15.33	0.04
Quarter ended January 31, 2016	21.66	17.09	0.04
Quarter ended October 31, 2015	20.91	17.03	0.04
Quarter ended July 31, 2015	21.93	17.34	0.04
Quarter ended April 30, 2015	21.79	18.64	0.04
Quarter ended January 31, 2015	\$ 20.72	\$ 17.65	\$ 0.04

The terms of our credit facilities as of October 31, 2016 include a limitation on annual dividend payments of \$10.0 million.

There were approximately 2,296 holders of our common stock (excluding individual participants in securities positions listings) on record as of December 12, 2016.

Equity Compensation Plan Information

The following table summarizes certain information regarding equity compensation to our employees, officers and directors under equity compensation plans as of October 31, 2016:

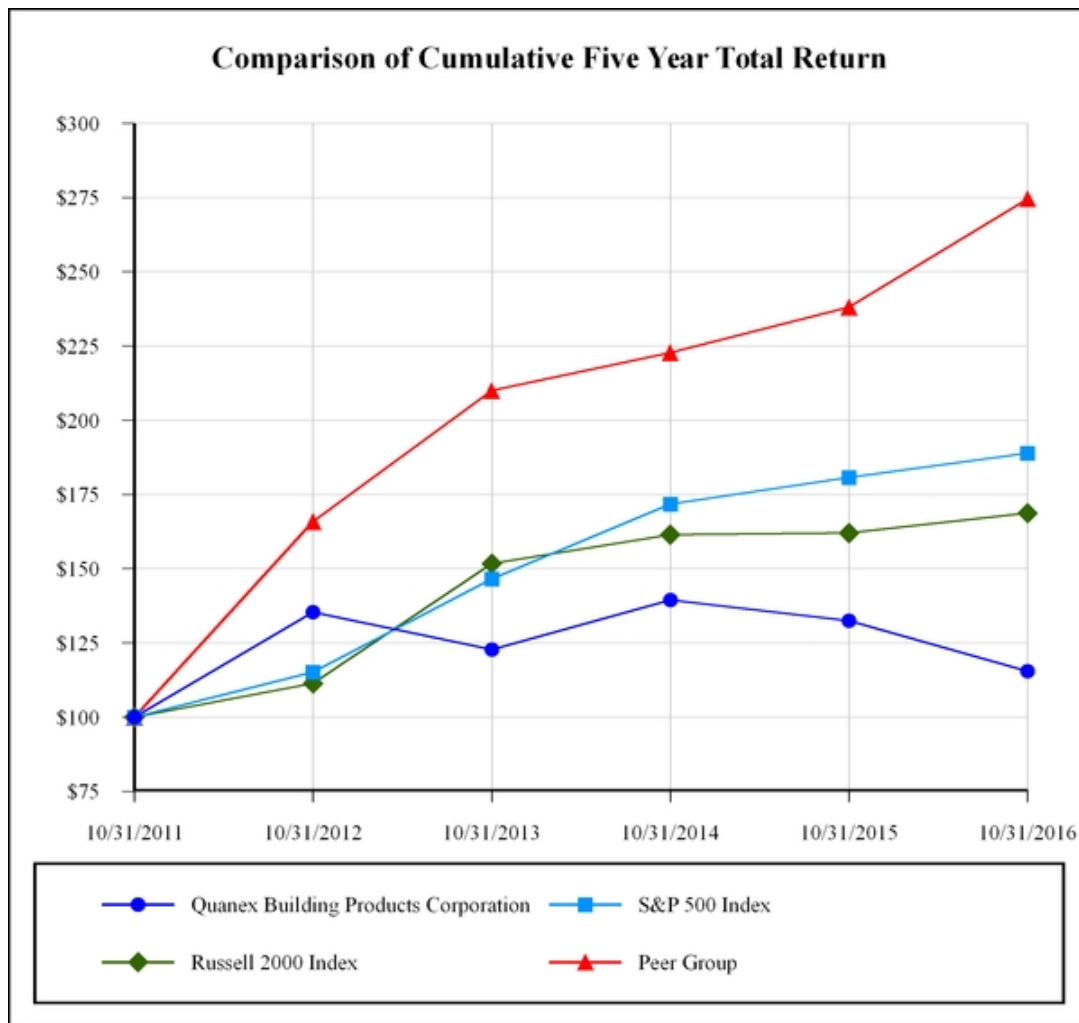
Plan Category	(a) Number of securities to be issued upon exercise of outstanding options, warrants and rights ⁽¹⁾	(b) Weighted-average exercise price of outstanding options, warrants and rights ⁽²⁾	(c) Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
Equity compensation plans approved by security holders	3,095,236	\$ 16.84	2,200,544

⁽¹⁾ Column (a) includes securities that may be issued upon future vesting of performance share awards that have been previously granted to key employees and officers. The number of securities reflected in this column includes the maximum number of shares that would be issued pursuant to these performance share awards assuming the performance measures are achieved. The performance measures may not be achieved.

⁽²⁾ The weighted-average exercise price in column (b) does not include the impacts of the performance share awards or any securities that may be issued thereunder. For additional details, see Note 15, "Stock-Based Compensation" included elsewhere within this Annual Report on Form 10-K.

Stock Performance Graph

The following chart represents a comparison of the five year total return of our common stock to the Standard & Poor’s 500 Index (S&P 500), the Russell 2000 Index, and a peer group index selected by us, which includes companies offering similar products and services as ours. The companies included in the peer group are American Woodmark Corp, Apogee Enterprises Inc, Builders FirstSource Inc., Continental Building Products Inc., Drew Industries Inc., Eagle Materials Inc., Gibraltar Industries Inc., Griffon Corp., Louisiana-Pacific Corp., Masonite International Corp, NCI Building Systems Inc., Nortek Inc., Ply Gem Holding Inc., Simpson Manufacturing Company Inc., Trex Company Inc., and Universal Forest Products Inc.



INDEXED RETURNS

Company Name / Index	For the Years Ended					
	10/31/2011	10/31/2012	10/31/2013	10/31/2014	10/31/2015	10/31/2016
Quanex Building Products Corporation	\$100	\$ 135.28	\$ 122.76	\$ 139.39	\$ 132.46	\$ 115.42
S&P 500 Index	\$100	\$ 115.21	\$ 146.52	\$ 171.82	\$ 180.75	\$ 188.90
Russell 2000 Index	\$100	\$ 111.31	\$ 151.70	\$ 161.45	\$ 162.00	\$ 168.66
Peer Group	\$100	\$ 165.85	\$ 209.97	\$ 222.74	\$ 238.07	\$ 274.54

Item 6. Selected Financial Data.

The following table presents selected historical consolidated financial and operating data for the periods shown. The selected consolidated financial data as of October 31, 2016, 2015, 2014, 2013 and 2012 and for each of the fiscal years then ended was derived from our audited consolidated financial statements for those dates and periods, adjusted for discontinued operations, as indicated. The following information should be read in conjunction with “*Management’s Discussion and Analysis of Financial Condition and Results of Operations*” and our financial statements and related notes included elsewhere in this Annual Report on Form 10-K.

	Fiscal Years Ended October 31,				
	2016 ⁽¹⁾⁽²⁾⁽³⁾⁽⁴⁾	2015 ⁽⁵⁾	2014 ⁽⁶⁾⁽⁷⁾	2013 ⁽⁸⁾	2012 ⁽⁹⁾⁽¹⁰⁾
(Dollars in thousands, except per share data)					
Consolidated Statements of Income					
Net sales	\$ 928,184	\$ 645,528	\$ 595,384	\$ 554,867	\$ 478,578
<i>Cost and expenses:</i>					
Cost of sales (excluding depreciation and amortization)	710,644	499,097	464,584	419,733	355,669
Selling, general and administrative	114,910	86,536	82,150	98,969	100,884
Restructuring charges	529	—	—	—	—
Depreciation and amortization	53,146	35,220	33,869	53,521	29,975
Asset impairment charges	12,602	—	505	1,465	912
Operating income (loss)	36,353	24,675	14,276	(18,821)	(8,862)
<i>Non-operating income (expense):</i>					
Interest expense	(36,498)	(991)	(562)	(621)	(431)
Other, net	(5,479)	(531)	92	170	225
(Loss) income from continuing operations before income taxes	(5,624)	23,153	13,806	(19,272)	(9,068)
Income tax benefit (expense)	3,765	(7,539)	(5,468)	6,888	2,507
(Loss) income from continuing operations	(1,859)	15,614	8,338	(12,384)	(6,561)
Income (loss) from discontinued operations, net of taxes	—	479	20,896	681	(9,973)
Net (loss) income	\$ (1,859)	\$ 16,093	\$ 29,234	\$ (11,703)	\$ (16,534)
<i>Basic (loss) earnings per common share:</i>					
Basic (loss) earnings from continuing operations	\$ (0.05)	\$ 0.46	\$ 0.22	\$ (0.34)	\$ (0.18)
Basic earnings (loss) from discontinued operations	—	0.01	0.57	0.02	(0.27)
Basic (loss) earnings per share	\$ (0.05)	\$ 0.47	\$ 0.79	\$ (0.32)	\$ (0.45)
<i>Diluted (loss) earnings per common share:</i>					
Diluted (loss) earnings from continuing operations	\$ (0.05)	\$ 0.46	\$ 0.22	\$ (0.34)	\$ (0.18)
Diluted earnings (loss) from discontinued operations	—	0.01	0.56	0.02	(0.27)
Diluted (loss) earnings per share	\$ (0.05)	\$ 0.47	\$ 0.78	\$ (0.32)	\$ (0.45)
Cash dividends declared per share	\$ 0.16	\$ 0.16	\$ 0.16	\$ 0.16	\$ 0.16
Other Financial & Operating Data					
Cash provided by operating activities	\$ 86,418	\$ 67,087	\$ 20,778	\$ 43,519	\$ 26,478
Cash (used for) provided by investing activities	(282,103)	(160,144)	74,124	(59,687)	(41,704)
Cash provided by (used for) financing activities	196,371	(4,581)	(24,459)	(4,869)	(3,928)
Acquisitions, net of cash acquired	245,904	131,689	5,161	22,096	—
Capital expenditures	\$ 37,243	\$ 29,982	\$ 33,779	\$ 37,931	\$ 42,871
Selected Consolidated Balance Sheet Data at Year End					
Cash and cash equivalents	\$ 25,526	\$ 23,125	\$ 120,384	\$ 49,734	\$ 71,252
Total assets ⁽¹¹⁾	780,353	565,516	517,113	571,815	589,538
Long-term debt, excluding current portion ⁽¹²⁾	259,011	53,767	586	701	789
Total liabilities ⁽¹²⁾	\$ 412,522	\$ 170,221	\$ 96,193	\$ 155,621	\$ 167,711

- (1) In November 2015, we acquired all the subsidiaries of WII (referred to collectively as Woodcraft). Woodcraft is a manufacturer of cabinet doors and other components to OEMs in the kitchen and bathroom cabinet industry. The results of operations of this acquired business have been included in our consolidated operating results since the date of acquisition, November 2, 2015, contributing a net loss of \$5.5 million.
- (2) In July 2016, we refinanced our credit facility resulting in a \$3.1 million prepayment call premium fee, a charge of \$8.1 million of unamortized deferred financing fees and a charge of \$5.5 million of unamortized original issuer's discount. See Note 8, "Debt and Capital Lease Obligations" included elsewhere in this Annual Report on Form 10-K.
- (3) In October 2016, we recorded a goodwill impairment charge of \$12.6 million associated with our United States vinyl extrusion business.
- (4) In October 2016, we incurred \$0.5 million of restructuring costs associated with the closure of several plant facilities. See Note 1, "Nature of Operations, Basis of Presentation and Significant Accounting Policies - Restructuring," included elsewhere in this Annual Report on Form 10-K.
- (5) In June 2015, we acquired all of the outstanding share capital of Flamstead Holdings Limited, a vinyl profile extruder with operations located in the United Kingdom, following a pre-acquisition reorganization. The results of operations of this acquired business contributed net income of \$1.5 million for the period June 15, 2015 through October 31, 2015.
- (6) In April 2014, we sold Nichols to Aleris. Accordingly, the assets and liabilities of Nichols were reported as discontinued operations in the consolidated balance sheets for the applicable periods presented, and the related operating results, including the gain on the sale, are reported as discontinued operations, net of tax, in the consolidated statements of income (loss) presented, as applicable.
- (7) In fiscal 2014, we decreased our warranty reserve and reduced expense by \$2.8 million (\$1.8 million net of tax) related to claims associated with a discontinued legacy product.
- (8) In December 2012, we acquired substantially all the assets of Alumco, Inc. and its subsidiaries, a manufacturer of window screens, with multiple facilities within the United States. Alumco provided revenues of \$49.1 million and a net loss of approximately \$0.1 million for the period December 2012 through October 31, 2013.
- (9) In November 2011, we announced a consolidation program for two of our insulating glass manufacturing facilities, whereby we closed a facility in Barbourville, Kentucky. This facility consolidation was completed ahead of schedule in August 2012. In fiscal 2012, we recorded expenses totaling \$9.0 million (\$5.9 million net of tax) related to this consolidation.
- (10) In fiscal 2012, we experienced a strike at two of our Nichols facilities in Davenport, Iowa, which had a negative impact on income (loss) from discontinued operations, reducing operating income by approximately \$11.1 million (\$7.3 million net of tax), including a reduction in sales volume and incremental direct costs.
- (11) Total assets reflect the adoption of Accounting Standards Update (ASU) 2015-17, which requires deferred tax liabilities and assets be presented net by tax jurisdiction and classified as noncurrent in a classified balance sheet.
- (12) Long term debt, excluding current portion reflects the adoption of ASU 2015-03 which requires debt issuance costs to be presented as a direct deduction to debt outstanding. For the years ended October 2014, 2013, and 2012, we had no borrowings outstanding under revolving credit facilities. Therefore, pursuant to ASU 2015-15, we presented these debt issuance costs as a long-term asset.

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

The following discussion and analysis contains forward-looking statements based on our current assumptions, expectations, estimates and projections about our business and the homebuilding industry, and therefore, it should be read in conjunction with our consolidated financial statements and related notes thereto, as well as "Cautionary Note Regarding Forward-Looking Statements" discussed elsewhere within this Annual Report on Form 10-K. For a listing of potential risks and uncertainties which impact our business and industry, see "Item 1A. Risk Factors." Actual results could differ from our expectations due to several factors which include, but are not limited to: market price and demand for our products, economic and competitive conditions, capital expenditures, new technology, regulatory changes and other uncertainties. Unless otherwise required by law, we undertake no obligation to publicly update any forward-looking statements, even if new information becomes available or other events occur in the future.

Our Business

We manufacture components for original equipment manufacturers in the building products industry. These components can be categorized as window and door (fenestration) components and kitchen and bath cabinet components. Examples of fenestration components include (1) energy-efficient flexible insulating glass spacers, (2) extruded vinyl profiles, (3) window and door screens, and (4) precision-formed metal and wood products. In addition, we provide certain other non-fenestration components and products, which include solar panel sealants, wood flooring, trim moldings, vinyl decking, fencing, water retention barriers, and conservatory roof components. We use low-cost production processes and engineering expertise to provide our customers with specialized products for their specific window, door, and cabinet applications. We believe these capabilities provide us with unique competitive advantages. We serve a primary customer base in North America and the United Kingdom, and also serve customers in international markets through our operating plants in the United Kingdom and Germany, as well as through sales and marketing efforts in other countries.

We continue to invest in organic growth initiatives and have completed several targeted business acquisitions. We intend to continue to pursue business acquisitions that allow us to expand our existing fenestration and cabinet component footprint, enhance our product offerings, provide new complementary technology, enhance our leadership position within the markets we serve, and expand into new markets or service lines. We have disposed of non-core businesses in the past, and continue to evaluate our business portfolio to ensure that we are investing in markets where we believe there is potential future growth.

Prior to November 2, 2015, we had two reportable business segments: (1) Engineered Products segment, comprised of four operating segments focused on the fenestration market, primarily within North America, and (2) International Extrusion segment, comprised solely of a United Kingdom-based vinyl extrusion business acquired on June 15, 2015. In addition, we recorded corporate office charges, last-in, first-out inventory adjustments and inter-segment eliminations as Corporate & Other. With the acquisition of the cabinet component business on November 2, 2015, we evaluated the composition of our reportable operating segments and have changed this presentation to reflect management's current view and to align with management's basis to allocate resources.

We currently have three reportable business segments: (1) North American Engineered Components segment ("NA Engineered Components"), comprised of four operating segments primarily focused on the fenestration market in North America manufacturing vinyl profiles, IG spacers, screens & other fenestration components; (2) European Engineered Components segment ("EU Engineered Components"), comprised of our United Kingdom-based vinyl extrusion business, manufacturing vinyl profiles and conservatories, and the European insulating glass business manufacturing IG spacers; and (3) North American Cabinet Components segment ("NA Cabinet Components"), comprised solely of the North American cabinet door and components business acquired in November 2015. We continue to maintain the grouping previously called Corporate & Other, now called Unallocated Corporate & Other, but a portion of the general and administrative costs associated with the corporate office have been allocated to the reportable operating segments, based upon a relative measure of profitability in order to more accurately reflect each reportable operating segment's administrative costs. Certain costs were not allocated to the business segments, but remain in Unallocated Corporate & Other, including transaction expenses, stock-based compensation, long-term incentive awards based on the performance of our common stock and other factors, certain severance and legal costs not deemed to be allocable to all segments, depreciation of corporate assets, interest expense, other, net, income taxes and inter-segment eliminations. This treatment was applied to avoid an asymmetrical allocation amongst the operating segments for the comparative period due to the timing of acquisitions. The accounting policies of our operating segments are the same as those used to prepare our accompanying consolidated financial statements. The following table summarizes corporate general and administrative expense allocated during the years ended October 31, 2016, 2015 and 2014:

	Years ended October 31,		
	2016	2015	2014
	(In thousands)		
NA Engineered Components	\$ 10,487	\$ 9,638	\$ 10,170
EU Engineered Components	3,814	2,109	740
NA Cabinet Components	4,767	—	—
Unallocated Corporate & Other	—	5,776	7,581
Allocable general and administrative expense	<u>\$ 19,068</u>	<u>\$ 17,523</u>	<u>\$ 18,491</u>

Recent Transactions

On November 2, 2015, we acquired Woodcraft, a manufacturer of cabinet doors and other components to OEMs in the kitchen and bathroom cabinet industry. We paid \$245.9 million in cash, resulting in goodwill totaling \$113.7 million. For additional details of this acquisition, see Note 2, "Acquisitions," to the accompanying consolidated financial statements contained elsewhere herein.

On June 15, 2015, we acquired HLP, an extruder of vinyl lineal products and manufacturer of other plastic products incorporated and registered in England and Wales, for \$131.7 million in cash, net of cash acquired, \$7.7 million of debt assumed and contingent consideration of \$10.3 million, resulting in goodwill of approximately \$61.3 million. The agreement contains an earn-out provision which is calculated as a percentage of earnings before interest, tax and depreciation and amortization for a specified period, as defined in the purchase agreement. Pursuant to this earn-out provision, the former owner selected the twelve-month period ended July 31, 2016 as the measurement period for the earn-out calculation. On November 7, 2016, we paid \$8.5 million pursuant to this earn-out agreement, as further described in Note 2, "Acquisitions."

On April 1, 2014, we sold our interest in a limited liability company which held the assets of an aluminum sheet products business, Nichols Aluminum (Nichols), to Aleris International, Inc. (Aleris), a privately held Delaware corporation which provides aluminum rolled products and extrusions, aluminum recycling and specification aluminum alloy production. We did not have results of operations associated with this discontinued operation during fiscal 2016.

We have recorded the sale of Nichols as a discontinued operation for all applicable periods presented, and reclassified the results of operations of Nichols into a single caption on the accompanying statements of income (loss) as "Income (Loss) from Discontinued Operations, net of Taxes."

In November 2013, Nichols experienced a fire at its Decatur, Alabama facility, which damaged a cold mill used to press aluminum sheeting to a desired thickness. The loss was insured, subject to a \$0.5 million deductible. We capitalized \$6.5 million to rebuild the asset, which was returned to service as of March 31, 2014. We incurred costs of \$2.3 million associated with this loss, including an impairment of \$0.5 million related to retirement of the asset, moving costs, outside service costs, clean-up and the deductible. We received insurance proceeds totaling \$6.1 million, resulting in a recognized gain on involuntary conversion of \$3.7 million.

In December 2013, we acquired certain vinyl extrusion assets of Atrium Windows and Doors, Inc. (Atrium) at a facility in Greenville, Texas, for \$5.2 million in cash (Greenville). We accounted for this transaction as a business combination resulting in an insignificant gain on the purchase. We entered into a supply agreement with Atrium related to the products manufactured at Greenville. In October 2016, we committed to a plan to close this manufacturing plant during the first quarter of fiscal 2017. We will continue to service our customers from other existing plants.

Market Overview and Outlook

We believe the primary drivers of our operating results continue to be North American new home construction and residential remodeling and replacement (R&R) activity. We believe that housing starts and window shipments are indicators of activity levels in the homebuilding and window industries, and we use this data, as published by or derived from third-party sources, to evaluate the market. We have historically evaluated the market using data from the National Association of Homebuilders (NAHB) with regard to housing starts, and published reports by Ducker Worldwide, LLC (Ducker), a consulting and research firm, with regard to window shipments. These sources generally provide information about activity levels in the United States.

Housing starts and window shipments in the United States have increased in recent years, although the rate of increase in 2016 was less robust than previously forecasted. The NAHB has forecasted calendar-year housing starts (excluding manufactured units) to increase from 1.1 million units in 2015 and 2016 to 1.3 million units in 2017, and 1.4 million units in 2018, reflecting increasing consumer confidence and a healthier economy. Ducker indicated that window shipments in the R&R market are expected

to increase from 27.1 million units in 2015 to 27.4 million units in 2016, 28.2 million units in 2017 and 29.1 million units in 2018, and new construction window shipments are forecasted to increase at a higher pace. Derived from reports published by Ducker, the overall growth in window shipments for the trailing twelve-month period ended September 30, 2016 was 3.6%. During this period, growth in new construction increased 7.1%, while growth in R&R activity increased 0.9%. Growth in new construction continues to outpace the growth in R&R, with a greater portion of the new construction growth associated with multi-family housing. While our analysis and market intelligence projects a continued steady recovery in the housing market, due to numerous macroeconomic and demographic factors, we have a more conservative outlook on the growth and recovery of the market than NAHB and Ducker.

With the acquisition of HLP in June 2015, we have expanded our international presence. The HLP business is largely focused on the sale of vinyl house systems under the trade name “Liniair” to smaller window manufacturers in the United Kingdom. HLP is one of the larger providers of vinyl extruded product in the United Kingdom in terms of volume shipped. Similar to our domestic business, management evaluates the fenestration market in the United Kingdom published reports by D&G Consulting, a consulting and research firm, with regard to forecasts of housing starts in the public and private sectors and window shipments. Currently, the United Kingdom is experiencing a shortage in affordable housing, with rising demand due in part to a growing immigrant population. HLP’s primary customers are smaller window fabricators, as opposed to the larger OEMs that comprise a large portion of the North American market. These manufacturers seek the quality and technology of the specific products identified by the Liniair trade name. In addition, HLP services non-fenestration markets including the manufacture of roofing for conservatories, vinyl decking and vinyl water retention barriers used for landscaping. We believe there are growth opportunities within these markets in the United Kingdom and potential synergies which may enable us to sell complementary products.

Woodcraft manufactures kitchen and bathroom cabinet doors and components, amongst other products, using a variety of woods from traditional hardwoods to engineered wood products. Currently, Woodcraft sells all of its products in the United States, so domestic housing starts and R&R activity constitute the primary drivers of this business as well. We also utilize industry publications to evaluate the wood markets and commodity trends. Although NAHB forecasts indicate expected continued growth in the United States housing market, much of this anticipated growth is in new construction for multi-family dwellings, or rental properties, which is not the primary market for Woodcraft’s products. However in 2016, this growth has begun to shift to single family homes. The cabinet door market is stratified as follows: stock (low-cost, low-variations), semi-custom (more customized, just-in-time manufacturing, higher price point) and custom (precise customer specifications, just-in-time manufacturing, high-end price point). Woodcraft’s primary market is semi-custom.

Our business is seasonal, particularly our fenestration business, as inclement weather during the winter months tends to slow down construction, particularly as related to “outside of the house” construction. To some extent, we believe our acquisition of Woodcraft will lessen the impact of seasonality on our operating results, as the cabinet business is “inside of the house” and less susceptible to weather.

We are impacted by regulation of energy standards. The United States government has been less aggressively pursuing higher energy efficiency standards in recent years. Higher energy efficiency standards are being implemented in Europe, which should bode well for our fenestration-related business in the European markets that we serve. In addition to the HLP vinyl extrusion business, we operate warm-edge spacer plants in the United Kingdom and in Germany. Our warm-edge spacer products are more energy efficient than older technology cold-edge spacers that are predominantly used in the European markets we serve.

We utilize several commodities in our business for which pricing can fluctuate, including polyvinyl resin (PVC), petroleum products, aluminum and wood. For the majority of our customers and critical suppliers, we have price adjusters in place which effectively share the base pass-through price changes for these commodities with our customers commensurate with the market at large. Our long-term exposure to these price fluctuations is somewhat mitigated due to the contractual component of the adjuster program. However, these adjusters are not in place with all customers, and there is a level of exposure to such volatility due to the lag associated with the timing of price updates in accordance with our customer agreements.

In July 2016, the United Kingdom voted to exit the European Union (commonly referred to as “Brexit”), which has impacted the valuation of the British Pound Sterling relative to other currencies used in our business, including our reporting currency, the United States Dollar. The British Pound Sterling has continued to weaken through October 31, 2016. Although we do not know the long-term effects of this change, there has been some impact on our results of operations to date (primarily foreign currency translation). We continue to monitor our exposure to changes in exchange rates.

Outside the United States, we continue to experience demand for our products in certain markets, such as Europe, Australia and Scandinavia, but somewhat lower demand in other traditional markets. Additionally, the global economy remains uncertain due to currency devaluations, political unrest, terror threats, and even the political landscape in the United States. These and other macro-economic factors have impacted the global financial markets, which may have contributed to significant changes in foreign

currencies which have impacted our operating results during 2016 (and the translation of foreign currencies which impacted our balance sheets).

We are optimistic about our growth prospects in the near-term. We believe the recent acquisitions of HLP and Woodcraft diversify our product offerings and provide new avenues to grow our business and improve margins. Given our focus on protecting margins and further improving cash flows, we expect to stop manufacturing \$50.0 million to \$70.0 million of business in fiscal 2017, primarily at our United States vinyl business with a portion at Woodcraft. To prepare for these reductions, we have taken appropriate actions to rationalize capacity by closing two United States vinyl plants and one cabinet door plant, relocating assets to improve overall operational efficiency.

Related to these actions, we have recorded a \$12.6 million goodwill impairment at October 31, 2016 related to the United States vinyl business in addition to restructuring charges of \$0.4 million and \$0.1 million at the United States vinyl and cabinet door businesses, respectively.

Comparison of the fiscal years ended October 31, 2016 and 2015

This table sets forth our consolidated results of operations for the twelve-month periods ended October 31, 2016 and 2015.

	For the Years Ended October 31,					
	2016		2015		2016 vs. 2015	
	Amounts	% of Sales	Amounts	% of Sales	\$ Change	% Change
	(Dollars in millions)					
Net sales	\$ 928.2	100%	\$ 645.5	100%	\$ 282.7	44%
Cost of sales (excluding depreciation and amortization)	710.6	77%	499.1	77%	211.5	(42)%
Selling, general and administrative	114.9	12%	86.5	13%	28.4	(33)%
Restructuring charges	0.5	—%	—	—%	0.5	(100)%
Depreciation and amortization	53.2	6%	35.2	5%	18.0	(51)%
Asset impairment charges	12.6	1%	—	—%	12.6	(100)%
Operating income	36.4	4%	24.7	4%	11.7	47%
Interest expense	(36.5)	(4)%	(1.0)	—%	(35.5)	(3,550)%
Other, net	(5.5)	(1)%	(0.5)	—%	(5.0)	(1,000)%
Income tax benefit (expense)	3.8	—%	(7.6)	(1)%	11.4	150%
(Loss) income from continuing operations	\$ (1.8)	—%	\$ 15.6	2%	\$ (17.4)	(112)%
Income from discontinued operations	\$ —	—%	\$ 0.5	—%	\$ (0.5)	(100)%
Net (loss) income	\$ (1.8)	—%	\$ 16.1	2%	\$ (17.9)	(111)%

Our operating results for the twelve months ended October 31, 2016 and 2015 include the contributions of HLP since the date acquired, June 15, 2015. Our operating results for the year ended October 31, 2016 include the contributions of Woodcraft acquired on November 2, 2015. Our year-over-year results by reportable segment follow.

Changes Related to Operating Income by Reportable Segment:
NA Engineered Components

	For the Years Ended October 31,			
	2016	2015	\$ Change	% Change
	(Dollars in millions)			
Net sales	\$ 560.0	\$ 556.6	\$ 3.4	1%
Cost of sales (excluding depreciation and amortization)	415.9	429.1	(13.2)	3%
Selling, general and administrative	62.9	59.3	3.6	(6)%
Restructuring charges	0.4	—	0.4	(100)%
Depreciation and amortization	30.3	28.9	1.4	(5)%
Asset impairment charges	12.6	—	12.6	(100)%
Operating income	<u>\$ 37.9</u>	<u>\$ 39.3</u>	<u>\$ (1.4)</u>	<u>(4)%</u>
Operating income margin	7%	7%		

Net Sales. Net sales increased \$3.4 million, or 1%, for the twelve months ended October 31, 2016 compared to the same period in 2015. On a year-over-year basis, we experienced an \$11.0 million increase in sales attributable to higher volume, partially offset by a decrease of \$2.2 million in revenues associated with pricing and a decline of \$5.4 million associated with reduced surcharges for commodities used in our business, primarily oil and resin. To a large extent, the increased volume at lower pricing was related to our vinyl extrusion business, as we had lost volume during the first quarter of 2015 with certain profiles for a large customer, and although this volume was replaced during 2016, the mix of earnings was at a lower average price. Our results continue to be impacted by reduced oil surcharges on our butyl-based products due to a dramatic decline in oil prices throughout 2015, remaining relatively low in 2016, as well as reduced surcharges for other materials used in our business including aluminum and wood. The decrease of revenue associated with these surcharges is significantly offset by the decrease in the cost of the raw material used in our manufacturing process, resulting in minimal impact on operating margins.

Cost of Sales. The cost of sales decreased \$13.2 million, or 3%, for the twelve months ended October 31, 2016 compared to the same period in 2015. Despite an increase in net sales for these periods, largely due to increased volume as discussed above, cost of sales decreased due to the following: lower year-over-year repair and maintenance costs for our vinyl extrusion business; reduced material costs attributable to lower commodity prices and renegotiated supplier agreements; more favorable inventory turns; and reduced freight cost. Labor costs were relatively flat on higher volume, reflecting some labor efficiencies, and lower worker's compensation insurance costs, partially offset by higher medical insurance costs.

Selling, General and Administrative. Our selling, general and administrative expenses increased by \$3.6 million, or 6%, for the twelve months ended October 31, 2016 compared to the same period in 2015. This increase was largely due to higher incentive accruals based on earnings, normal salary inflation and higher advertising costs, partially offset by a net gain on the sale of fixed assets of \$0.7 million and lower professional fees incurred.

Restructuring Charges. Restructuring charges of \$0.4 million represent severance amounts incurred in conjunction with the announced closure of two vinyl extrusion plants in the United States, and other related severance costs. We expect to complete the plant closures during the first quarter of fiscal 2017.

Depreciation and Amortization. Depreciation and amortization expense increased \$1.4 million for the twelve months ended October 31, 2016 compared to the same period in 2015 primarily due to a change in estimate regarding the remaining service lives for assets associated with the restructuring efforts noted above, resulting in incremental depreciation of \$1.0 million, and a change in estimate related to certain intangible assets which provided incremental amortization of \$0.3 million. In addition, the incremental depreciation and amortization expense associated with property, plant and equipment and intangible assets placed into service during the trailing twelve months ended October 31, 2016, was offset by the run-off of depreciation expense associated with existing assets and disposals.

Asset Impairment Charges. We recorded an asset impairment charge of \$12.6 million which represents the write-off of the remaining goodwill asset associated with our United States vinyl extrusion business.

EU Engineered Components

	For the Years Ended October 31,			
	2016	2015	\$ Change	% Change
	(Dollars in millions)			
Net sales	\$ 150.2	\$ 93.6	\$ 56.6	60%
Cost of sales (excluding depreciation and amortization)	104.5	72.3	32.2	(45)%
Selling, general and administrative	23.2	13.1	10.1	(77)%
Depreciation and amortization	9.3	5.0	4.3	(86)%
Operating income	\$ 13.2	\$ 3.2	\$ 10.0	313%
Operating income margin	9%	3%		

Net Sales. Net sales increased \$56.6 million, or 60%, primarily due to an incremental \$57.8 million contribution from HLP in 2016 when compared with the contribution during the period from June 15, 2015 to October 31, 2015. Sales for the British and German IG spacer plants declined \$1.3 million for the respective periods, as an increase in sales of \$2.4 million associated with higher volume was more than offset by a decrease in sales of \$1.0 million related to price and a decrease in sales of \$2.7 million related to foreign exchange impact.

Cost of Sales. The cost of sales increased \$32.2 million, or 45%, primarily due to an incremental \$34.0 million contribution from HLP in 2016 when compared with the contribution during the period from June 15, 2015 to October 31, 2015. Partially offsetting this increase in cost of sales was a decrease of \$1.8 million for the British and German plants for the respective periods related to lower material costs in Germany, as a new mixing plant was installed in 2015 which eliminated the cost associated with processing by outside vendors. Otherwise, consistent with the revenue discussion, cost of sales was impacted by the increase in volume in the United Kingdom and Germany, but was offset by lower pricing and the effect of exchange rate changes.

Selling, General and Administrative. Our selling, general and administrative expense increased \$10.1 million, reflecting an additional \$7.6 million contribution from HLP in 2016 when compared with the contribution during the period from June 15, 2015 to October 31, 2015, with an increase of \$0.8 million at the insulating glass plants associated with labor inflation and other expenses, and an incremental corporate allocation of \$1.7 million, reflecting a full year allocation for 2016 associated with HLP compared to a 2015 allocation for the period from June 15, 2015 to October 31, 2015.

Depreciation and Amortization. Depreciation and amortization expense increased \$4.3 million, reflecting the \$4.2 million incremental contribution from HLP in 2016 when compared with the contribution during the period from June 15, 2015 to October 31, 2015. For the European IG Spacer business, incremental depreciation and amortization expense associated with property, plant and equipment placed into service during the trailing twelve months ended October 31, 2016, was offset by the run-off of depreciation expense associated with existing assets and disposals during this period.

NA Cabinet Components

The NA Cabinet Components reportable segment is comprised solely of Woodcraft, which was acquired on November 2, 2015, and allocated corporate costs. The results of operations of Woodcraft for the period November 2, 2015 through October 31, 2016 are summarized in the following table (including corporate allocation of \$4.8 million, and the effect of the step-up of inventory of \$2.3 million, for which no margin was earned during the twelve months ended October 31, 2016):

	For the Year ended October 31, 2016	
	(Dollars in millions)	
Net sales	\$	223.4
Cost of sales (excluding depreciation and amortization)		193.6
Selling, general and administrative		14.9
Restructuring charges		0.1
Depreciation and amortization		12.9
Operating income	\$	1.9
Operating income margin		1%

Unallocated Corporate & Other

	For the Years Ended October 31,			
	2016	2015	\$ Change	% Change
	(Dollars in millions)			
Net sales	\$ (5.4)	\$ (4.7)	\$ (0.7)	(15)%
Cost of sales (excluding depreciation and amortization)	(3.4)	(2.3)	(1.1)	48%
Selling, general and administrative	13.9	14.1	(0.2)	1%
Depreciation and amortization	0.7	1.3	(0.6)	46%
Operating loss	\$ (16.6)	\$ (17.8)	\$ 1.2	7%

Net Sales. Net sales for Unallocated Corporate & Other represents the elimination of inter-segment sales for the twelve months ended October 31, 2016 and 2015. The change between periods reflects the amount of inter-segment sales (between NA Engineered Components and EU Engineered Components).

Cost of Sales. Cost of sales for Corporate & Other consists of the elimination of inter-segment profit in inventory and changes in the LIFO reserve adjustments and other costs. The change for the twelve months ended October 31, 2016 and 2015 of \$1.1 million was primarily related to the elimination of inter-segment sales and a decrease in the LIFO reserve of \$0.3 million.

Selling, General and Administrative. Our selling, general and administrative expenses decreased \$0.2 million, for the twelve months ended October 31, 2016 compared to the same period in 2015. The incremental amount of corporate expense allocated to the divisions for the respective periods was \$7.3 million (based on the timing of the HLP and Woodcraft acquisitions, as expense related to HLP was only allocated for the period from June 15, 2015 to October 31, 2015, and no expense was allocated related to Woodcraft for the twelve months ended October 31, 2015). Adjusting for the incremental allocation, selling, general and administrative expense increased \$7.1 million when comparing the twelve months ended October 31, 2016 and 2015. Of this change, \$2.8 million related to professional fees, \$3.0 million related to stock-based compensation and long-term incentive accruals (primarily related to compensation expense recognized pursuant to performance share awards), with the remainder largely attributable to severance costs.

Depreciation and Amortization. Depreciation and amortization expense decreased \$0.6 million, or 46%, for the twelve months ended October 31, 2016 compared to the same period in 2015, reflecting the run-off of depreciation during 2015 primarily related to computer software, hardware and licensing. Relatively few new assets were placed in service at corporate during the trailing twelve months ended October 31, 2016.

Changes related to Non-Operating Items:

Interest Expense. Interest expense increased \$35.5 million for the twelve months ended October 31, 2016 compared to the same period in 2015 due to an increase in borrowings outstanding and fees associated with the refinancing of our debt. In conjunction with the acquisition of Woodcraft on November 2, 2015, we entered into a credit facility which contained a Term Loan B facility and an asset-based lending facility, each at variable interest rates. We borrowed \$320.5 million to acquire Woodcraft and to retire then-outstanding borrowings under a predecessor credit facility of \$50.0 million. The new credit facilities had higher interest rates, required loan commitment fees and were issued at a discount (resulting in additional interest expense as the discount was accreted over the term of the facilities). On July 29, 2016, we refinanced and retired this debt with a new Term Loan A and revolving credit facility with more favorable interest rates. We incurred a one-time charge of \$16.7 million associated with this refinancing which included the write-off of unamortized deferred financing fees of \$8.1 million, unamortized debt discount of \$5.5 million and a prepayment call premium of \$3.1 million. Also contributing to the increase in interest expense year-over-year is the expense associated with finance leases assumed with the acquisition of HLP. The interest expense incurred during the twelve months ended October 31, 2015 was significantly less due to the timing of debt incurred to acquire HLP in June 2015. Prior to the HLP acquisition, our debt outstanding was less than \$1.0 million.

Other, net. The increase in other net expense of \$5.0 million for the twelve months ended October 31, 2016 compared to the same period in 2015 was primarily due to net foreign exchange transaction losses associated with an unhedged foreign currency position with regard to the borrowings to fund the HLP transaction, as well as net foreign exchange losses associated with our other foreign operations.

Income Taxes. We recorded income tax benefit of \$3.8 million for the twelve months ended October 31, 2016, an effective rate of 66.9%. We recorded income tax expense of \$7.6 million, an effective rate of 32.6%, for the twelve months ended October 31, 2015, which included a discrete benefit of \$0.8 million associated with the reversal of a liability for the tax benefit associated

with an uncertain tax position. Excluding this discrete item, the effective tax rate would have been 36.0% for the twelve months ended October 31, 2015. The difference in the effective rates between these periods is primarily due to the foreign and U.S. tax rate differential, as the foreign tax rate is generally lower than the United States tax rate and a greater percentage of our taxable income was generated by the foreign operations. The overall change in the effective rate was also impacted by transaction costs and a change in the deferred rate. For additional details, see Note 11, "Income Taxes" included elsewhere within this Annual Report on Form 10-K.

Income from Discontinued Operations, Net of Tax. During the twelve months ended October 31, 2015, we recorded a gain on involuntary conversion of \$0.5 million, net of tax, associated with the receipt of insurance proceeds from a fire experienced at a Nichols facility in 2013.

Comparison of the fiscal years ended October 31, 2015 and 2014

This table sets forth our consolidated results of operations for the twelve-month periods ended October 31, 2015 and 2014.

	For the Years Ended October 31,					
	2015		2014		2015 vs. 2014	
	Amounts	% of Sales	Amounts	% of Sales	\$ Change	% Change
	(Dollars in millions)					
Net sales	\$ 645.5	100%	\$ 595.4	100%	\$ 50.1	8%
Cost of sales (excluding depreciation and amortization)	499.1	77%	464.6	78%	34.5	(7)%
Selling, general and administrative	86.5	13%	82.1	14%	4.4	(5)%
Depreciation and amortization	35.2	5%	33.9	6%	1.3	(4)%
Asset impairment charges	—	—%	0.5	—%	(0.5)	100%
Operating income	24.7	4%	14.3	2%	10.4	73%
Interest expense	(1.0)	—%	(0.6)	—%	(0.4)	67%
Other, net	(0.5)	—%	0.1	—%	(0.6)	(600)%
Income tax expense	(7.6)	(1)%	(5.5)	(1)%	(2.1)	(38)%
Income from continuing operations	\$ 15.6	2%	\$ 8.3	1%	\$ 7.3	88%
Income from discontinued operations	\$ 0.5	—%	\$ 20.9	4%	\$ (20.4)	(98)%
Net income	\$ 16.1	2%	\$ 29.2	5%	\$ (13.1)	(45)%

Our operating results for the year ended October 31, 2015 includes the contributions of HLP acquired on June 15, 2015. Our year-over-year results by reportable segment follow.

Changes Related to Operating Income (Loss) by Reportable Segment:

NA Engineered Components

	For the Years Ended October 31,					
	2015		2014		\$ Change	% Change
	(Dollars in millions)					
Net sales	\$ 556.6	\$ 544.1	\$ 12.5	2%		
Cost of sales (excluding depreciation and amortization)	429.1	426.1	3.0	(1)%		
Selling, general and administrative	59.3	61.0	(1.7)	3%		
Depreciation and amortization	28.9	28.9	—	—%		
Asset impairment charges	—	0.5	(0.5)	100%		
Operating income	\$ 39.3	\$ 27.6	\$ 11.7	42%		
Operating income margin	7%	5%				

Net Sales. Net sales increased \$12.5 million, or 2%, for the twelve months ended October 31, 2015 compared to the same period in 2014. On a year-over-year basis, we experienced a \$7.4 million increase in sales attributable to favorable pricing and an additional \$8.3 million increase in sales associated with an increase in volume. Although we experienced a decrease in volume

associated with a large customer for our vinyl extrusion business, the decline was more than offset by the contribution of other customers and a general increase in activity levels in 2015 relative to 2014. However, these gains were partially offset by a decline in revenues of \$3.2 million associated with an oil surcharge on our butyl-based products (a corresponding decrease in the cost of this commodity, minimized the impact to our operating margin).

Cost of Sales. The increase in cost of sales of \$3.0 million, or 1%, for the twelve months ended October 31, 2015 compared to the same period in 2014 correlates to a 2% increase in net sales. Consistent with the net sales discussion above, cost of sales was impacted by changes in sales volume and the resulting impact on product mix. In addition, during 2014, we decreased a warranty reserve totaling \$2.8 million related to a certain spacer product for which claim activity had ceased. Excluding this item, cost of sales would have increased less than 1%. The favorable margin impact was primarily attributable to lower year-over-year repair and maintenance costs for our vinyl extrusion business, reduced material costs attributable to lower commodity prices and renegotiated supplier agreements, as well as some favorable labor efficiencies, partially offset by higher health insurance and workers' compensation insurance costs and increases in inventory reserves.

Selling, General and Administrative. Selling, general and administrative expenses decreased \$1.7 million, or 3%, for the twelve months ended October 31, 2015 compared to the same period in 2014. The decrease in expense reflects selected headcount reductions and workforce realignments which occurred during 2014, resulting in severance accruals that did not recur in 2015.

Depreciation and Amortization. Depreciation and amortization expense was consistent for the twelve months ended October 31, 2015 compared to the same period in 2014 as the incremental depreciation and amortization expense associated with property, plant and equipment and intangible assets placed into service during the trailing twelve months ended October 31, 2015, was offset by the run-off of depreciation expense associated with existing assets and disposals.

Asset Impairment Charges. We recorded an impairment loss of \$0.5 million in April 2014 to reduce the value of a facility in Barbourville, Kentucky to market value as of April 30, 2014. This facility was subsequently sold in May 2014, resulting in an insignificant realized loss on the sale. No such impairment was incurred during the twelve months ended October 31, 2015.

EU Engineered Components

	For the Years Ended October 31,			
	2015	2014	\$ Change	% Change
	(Dollars in millions)			
Net sales	\$ 93.6	\$ 55.9	\$ 37.7	67%
Cost of sales (excluding depreciation and amortization)	72.3	40.6	31.7	(78)%
Selling, general and administrative	13.1	9.6	3.5	(36)%
Depreciation and amortization	5.0	1.9	3.1	(163)%
Operating income	\$ 3.2	\$ 3.8	\$ (0.6)	(16)%
Operating income margin	3%	7%		

Net Sales. Net sales increased \$37.7 million, or 67% for the twelve months ended October 31, 2015 compared to the same period in 2014, primarily due to a \$42.2 million contribution from HLP in 2015, as well as an increase in sales of \$1.4 million associated with higher volume associated with our British and German plants and a net decrease in customer accommodation charges in 2015 of \$1.3 million related to a spacer migration issue and a \$0.6 million increase in revenue related to pricing. These increases were partially offset by a decrease in revenue of \$7.8 million for the effect of changes in foreign exchange rates, particularly in Germany.

Cost of Sales. The cost of sales increased \$31.7 million, or 78%, for the twelve months ended October 31, 2015 compared to the same period in 2014, primarily due to a \$34.4 million contribution from HLP. The remaining decline in cost of goods sold of \$2.7 million, or 7%, for the twelve months ended October 31, 2015 compared to the same period in 2014, was related to our European IG Spacer business. Consistent with the revenue discussion, cost of goods sold increased as a result of the increase in volume in the United Kingdom and Germany, but was more than offset by the effect of exchange rate changes.

Selling, General and Administrative. Our selling, general and administrative expense increased \$3.5 million, or 36%, for the twelve months ended October 31, 2015 compared to the same period in 2014, primarily attributable to \$3.1 million of expense incurred at HLP in 2015. In addition, \$1.4 million of incremental expense was allocated to the EU Engineered Components Segment from Corporate in 2015 attributable to the timing of the HLP acquisition, partially offset by a decline in commissions, salary expense, trade show costs, and bad debt expense.

Depreciation and Amortization. Depreciation and amortization expense increased \$3.1 million for the twelve months ended October 31, 2015 compared to the same period in 2014, reflecting the \$3.3 million contribution from HLP in 2015. The incremental depreciation and amortization expense associated with property, plant and equipment placed into service during the trailing twelve months ended October 31, 2016, was offset by the run-off of depreciation expense associated with existing assets and disposals during this period.

NA Cabinet Components

The NA Cabinet Components reportable segment is comprised solely of Woodcraft, which was acquired on November 2, 2015, and allocated corporate costs. There were no results of operations for the periods ended October 31, 2015 or 2014.

Unallocated Corporate & Other

	For the Years Ended October 31,			
	2015	2014	\$ Change	% Change
	(Dollars in millions)			
Net sales	\$ (4.7)	\$ (4.6)	\$ (0.1)	(2)%
Cost of sales (excluding depreciation and amortization)	(2.3)	(2.1)	(0.2)	10%
Selling, general and administrative	14.1	11.5	2.6	(23)%
Depreciation and amortization	1.3	3.1	(1.8)	58%
Operating loss	\$ (17.8)	\$ (17.1)	\$ (0.7)	(4)%

Net Sales. Net sales for Unallocated Corporate & Other represents the elimination of inter-segment sales for the years ended October 31, 2015 and 2014. The change between periods reflects the amount of inter-segment sales (between NA Engineered Components and EU Engineered Components).

Cost of Sales. Cost of sales for Unallocated Corporate & Other consists of the elimination of inter-segment profit in inventory, changes in the LIFO reserve and other costs.

Selling, General and Administrative. Our selling, general and administrative expenses increased \$2.6 million, or 23%, for the twelve months ended October 31, 2015 compared to the same period in 2014, due primarily to an increase in transaction fees of \$5.1 million associated with the acquisitions of HLP and Woodcraft. Partially offsetting this increase in expense was a decrease in long-term incentive compensation which fluctuates due to changes in the price of our common stock, reduced headcount and lower deferred compensation costs, partially offset by an increase in health insurance costs and incentive accruals based on earnings. In addition, we allocated an incremental \$0.8 million of Corporate & Other expense to the reportable segments in 2015 compared to 2014, which was attributable to the HLP acquisition for the period June 15, 2015 to October 31, 2015.

Depreciation and Amortization. Depreciation and amortization expense decreased \$1.8 million, or 58%, for the twelve months ended October 31, 2015 compared to the same period in 2014, reflecting the discontinuance of an ERP project in 2013, for which certain assets remained in use for several months during fiscal year 2014, and therefore provided depreciation expense in 2014 that did not recur in 2015, and reflecting the normal run-off of depreciation expense associated with other related computer software, hardware and licensing through October 2015.

Changes Related to Non-Operating Items:

Interest Expense. Interest expense increased \$0.4 million for the twelve-month period ended October 31, 2015 compared to the same period in 2014 due to a higher debt balance under our revolving credit facility. We borrowed \$92.0 million in June 2015 to facilitate the acquisition of HLP, of which \$42.0 million had been repaid as of October 31, 2015.

Other, net. The increase in other net expense of \$0.6 million for the twelve months ended October 31, 2015 compared to the same period in 2014 was due primarily to net foreign exchange transaction losses, including a realized loss of \$0.2 million associated with an unhedged foreign currency position with regard to the borrowings to fund the HLP transaction. The HLP entities were recapitalized in late 2015 in order to reduce our exposure to foreign currency rate changes.

Income Taxes. We recorded income tax expense of \$7.6 million for the twelve months ended October 31, 2015, an effective rate of 32.6%, which included a discrete benefit of \$0.8 million associated with the reversal of a liability for tax benefit associated with an uncertain tax position which stems from the 2008 spin-off of Quanex from a predecessor company. Excluding this discrete item, the effective tax rate would have been 36.0%. For the twelve months ended October 31, 2014, we recorded income tax expense of \$5.5 million, an effective rate of 39.6%, which included a discrete expense item of \$0.7 million associated with the incorporation of a subsidiary in the United Kingdom. Excluding this discrete item, the effective tax rate would have been 34.9%. The remaining difference in the effective rates between these periods relates to the impact of the foreign tax rate differential and permanent items.

Income from Discontinued Operations, Net of Tax. During the twelve months ended October 31, 2015, we recorded a gain on involuntary conversion of \$0.5 million, net of tax, associated with the receipt of insurance proceeds from a fire experienced by a Nichols facility in 2013. During the twelve months ended October 31, 2014, we recorded a gain on the sale of Nichols of \$24.1 million, net of tax of \$15.0 million as of April 1, 2014. Excluding this gain, we would have recorded a loss from discontinued operations during 2014 of \$3.2 million. Of this amount, we recorded a loss of \$5.1 million from operations for the period November 1, 2013 through April 1, 2014, reflecting relatively higher aluminum commodity prices resulting in lower throughput and lower volume, partially offset by the gain on involuntary conversion associated with proceeds received in 2014 from the cold mill fire of \$1.9 million, net of tax and impairment charge.

Liquidity and Capital Resources

Overview

Historically, our principal sources of funds have been cash on hand, cash flow from operations, and borrowings under our credit facilities. As of October 31, 2016, we had \$25.5 million of cash and equivalents, \$265.4 million outstanding under our credit facilities, \$5.8 million of outstanding letters of credit and \$4.1 million outstanding under capital leases and other debt vehicles. We had \$174.2 million available for use under the Credit Agreement at October 31, 2016.

On November 2, 2015, we acquired Woodcraft for \$245.9 million in cash, net of cash acquired, subject to a working capital true-up and including certain holdbacks with regard to potential indemnity claims, as more fully described in the accompanying notes to consolidated financial statements (Note 2, "Acquisitions").

In order to fund this acquisition, we entered into senior secured credit facilities of \$410.0 million consisting of an asset-based lending (ABL) revolving credit facility of \$100.0 million (for which the borrowing base was determined monthly) and a Term Loan B facility of \$310.0 million. On November 2, 2015, we borrowed \$310.0 million under the term loan facility and \$10.5 million under the ABL facility to fund the Woodcraft acquisition, to refinance and retire outstanding debt of \$50.0 million under a predecessor credit facility and to pay fees associated with these borrowings. The proceeds were reduced by a debt discount of \$6.2 million, which was being recognized on the effective interest method over the term of the facility. We recorded expense of \$0.5 million in November 2015 to write off the unamortized deferred financing fees associated with the predecessor facility.

On July 29, 2016, we refinanced and retired our Term Loan B and ABL credit facilities and entered into a \$450.0 million credit agreement comprised of a \$150.0 million Term Loan A and a \$300.0 million revolving credit facility (collectively, the "Credit Agreement"), under which we borrowed \$150.0 million and \$150.0 million, respectively. The proceeds from the Credit Agreement, along with additional funding of \$16.4 million of cash on hand, were used to repay outstanding borrowings under the Term Loan

B and ABL credit facilities of \$309.2 million, to pay a 1% prepayment call premium under the Term Loan B facility, to settle outstanding interest accrued under the prior facility, and to pay loan fees which totaled \$2.8 million. The Credit Agreement matures in 2021 (5-year term) and requires interest payments calculated, at our election and depending upon our Consolidated Leverage Ratio, at either a Base Rate plus an applicable margin (0.50% to 1.25%) or the LIBOR Rate plus an applicable margin (1.50% to 2.25%). At the time of the initial borrowing, the applicable rate was LIBOR + 2.00%. In addition to the Consolidated Leverage Ratio covenant, we are required to meet a Consolidated Fixed Charge Coverage Ratio covenant, and there are limitations on certain transactions including our ability to incur indebtedness, incur liens, dispose of material assets, acquire businesses, make restricted payments and pay dividends (limited to \$10.0 million per year). We will amortize deferred financing fees of \$2.8 million straight-line over the term of the facility.

In addition to the 1% prepayment call premium fee, we expensed \$8.1 million to write-off unamortized deferred financing fees and \$5.5 million of unamortized original issuer's discount associated with the Term Loan B and ABL credit facilities. The weighted average interest rate of borrowings outstanding for the twelve-month periods ended October 31, 2016 and 2015 was 5.26% and 1.28%, respectively. We were in compliance with our debt covenants as of October 31, 2016. We expect to realize annual cash interest savings of approximately \$11.0 million as a result of the July 29, 2016 refinancing under the Credit Agreement. For additional details of the Credit Agreement, see "Item 1A. Risk Factors" included elsewhere within this Annual Report on Form 10-K.

Analysis of Cash Flow

The following table summarizes our cash flow results for the years ended October 31, 2016, 2015 and 2014:

	Year Ended October 31,		
	2016	2015	2014
	(In millions)		
Cash flows provided by operating activities	\$ 86.4	\$ 67.1	\$ 20.8
Cash flows (used for) provided by investing activities	\$ (282.1)	\$ (160.1)	\$ 74.1
Cash flows provided by (used for) financing activities	\$ 196.4	\$ (4.6)	\$ (24.5)

Operating Activities

Cash provided by operating activities increased \$19.3 million for the year ended October 31, 2016 compared to the year ended October 31, 2015. A portion of this increase is attributable to the activities of HLP and Woodcraft, acquired in June 2015 and November 2015, respectively. Excluding these acquisitions, our cash receipts increased due to an increase in sales, year-over-year, and more timely collection of receivables. In addition, we invested more in an inventory build in 2015 than in 2016 and we are managing our inventory levels more efficiently in 2016. Partially offsetting the favorable operating cash flow derived from these items is a cash outflow related to interest on our debt.

Cash provided by operating activities increased \$46.3 million for the year ended October 31, 2015 compared to the year ended October 31, 2014. To a large extent, this year-over-year change is due to the sale of the Nichols business on April 1, 2014, for which we incurred an operating loss for five months in 2014, resulting in a net loss before the gain on the sale of the business in April 2014, with no comparable activity for fiscal year 2015. As permitted by U.S. GAAP, we combined the Nichols discontinued operations with our continuing operations for cash flow presentation, which resulted in significant changes in working capital items such as inventory, receivables and payables. In addition, the overall increase in operating cash flow in 2015 reflects higher net income, partially attributable to the contribution of HLP for the period from the date of acquisition, June 15, 2015 through October 31, 2015, and increased cash receipts associated with incremental sales. Other items impacting the operating cash flow during 2015 is our investment in inventory, funding of pension commitments and the timing associated with receivable collections and payables.

Working capital was \$89.8 million, \$70.0 million and \$186.2 million as of October 31, 2016, 2015 and 2014, respectively. Working capital was impacted by recent acquisitions, notably the Woodcraft acquisition in 2016, as funds were borrowed to complete the transaction and to pay interest associated with the debt, offsetting favorable cash flow from operations. A decrease in cash on hand in 2015 reflected the use of cash to purchase HLP and to acquire our own treasury stock through our share repurchase program. The overall increase in cash for 2014 reflected the receipt of cash from the sale of Nichols.

Investing Activities

Cash used for investing activities increased \$122.0 million for the year ended October 31, 2016 compared to the year ended October 31, 2015. Of this amount, cash used for acquisitions increased \$114.2 million reflecting the use of \$245.9 million to acquire Woodcraft in 2016 and \$131.7 million to acquire HLP in 2015. An incremental increase in cash used to invest in capital expenditures year-over-year was \$7.3 million, partially offset by a net decrease of \$1.3 million associated with the receipt of insurance proceeds, and a net inflow of \$0.8 million of proceeds from the sale of capital assets.

Cash used for investing activities totaled \$160.1 million for 2015 and cash provided by investing activities totaled \$74.1 million for 2014, a net decrease of \$234.2 million. Of this amount, \$131.7 million was used to acquire HLP in 2015 and \$107.4 million was provided from the sale of Nichols in 2014, less a net decrease in investment in capital expenditures year-over-year of \$3.8 million, and a net decrease in insurance proceeds of \$3.5 million related to the cold mill fire at Nichols.

At October 31, 2016, we had firm purchase commitments of approximately \$2.2 million for the purchase or construction of capital assets. We plan to fund these capital expenditures through cash from operations or borrowings under our revolving credit facility.

Financing Activities

Cash provided by financing activities totaled \$196.4 million for 2016 and cash used for financing activities totaled \$4.6 million for 2015, a net increase of \$201.0 million. For 2016, funds provided resulted from an inflow of cash from net debt borrowings of \$209.7 million, partially offset by cash paid for debt issuance costs of \$11.4 million, with an additional change of \$1.9 million used for other financing activities. For 2015, the net use of cash of \$4.6 million resulted from an inflow of cash from net debt borrowings of \$49.0 million less \$52.7 million used to purchase treasury shares, with a remaining change of \$0.9 million attributable to other financing activities. For 2014, we used cash on hand to purchase treasury shares totaling \$22.3 million with no significant borrowings under our credit facilities. For the years ended October 31, 2016, 2015 and 2014, we paid dividends to our shareholders of \$5.5 million, \$5.5 million and \$6.0 million, respectively, and received cash from the exercise of employee stock options totaling \$3.4 million, \$5.1 million and \$3.2 million, respectively.

Liquidity Requirements

Our strategy for deploying cash is to invest in organic growth opportunities, develop our infrastructure, make strategic acquisitions and pay cash dividends to our shareholders. We have historically invested cash and cash equivalents in commercial paper with terms of three months or less. To the extent we have excess cash which has not been applied to reduce our outstanding borrowings under our credit facilities, we intend to remain in commercial paper, highly rated money market funds, financial institutions and treasuries following a prudent investment philosophy. From time to time, to prepare for potential disruption in the money markets, we may temporarily move funds into operating bank accounts of highly-rated financial institutions to meet on-going operational liquidity requirements. We did not experience any material losses on our cash and marketable securities investments during the year ended October 31, 2015, and did not have any corresponding investments during the year ended October 31, 2016. We maintain cash balances in foreign countries which totaled \$16.3 million and \$11.8 million as of October 31, 2016 and 2015. We do not intend to repatriate earnings of our foreign subsidiaries. However, we have capitalized HLP with funds on hand and borrowings under our prior credit facility. We anticipate that we will utilize cash flow from HLP to fund the operation in the United Kingdom and to repay a note arrangement implemented as part of the initial capitalization of the acquisition.

We believe that we have sufficient funds and adequate financial resources available to meet our anticipated liquidity needs. Our cash position has changed due to the acquisitions of HLP and Woodcraft. We expect to use our cash flow from operations to fund operations for the next twelve months and the foreseeable future. We believe these funds should be adequate to provide for our working capital requirements, capital expenditures, and dividends, while continuing to meet our debt service requirements.

Senior Credit Facility

Prior to November 2, 2015, we maintained a Senior Unsecured Revolving Credit Facility (the 2013 Credit Facility) that had a five-year term and permitted aggregate borrowings at any time of up to \$150 million, with a letter of credit sub-facility, a swing line sub-facility and a multi-currency sub-facility. Borrowings denominated in United States dollars bore interest at a spread above LIBOR or a base rate derived from the prime rate. Foreign denominated borrowings bore interest at a spread above the LIBOR applicable to such currencies. Subject to customary conditions, we could have requested that the aggregate commitments under the 2013 Credit Facility be increased by up to \$100 million, with total commitments not to exceed \$250 million.

The 2013 Credit Facility required us to comply with certain financial covenants and limited the amount available for us to borrow based upon consolidated EBITDA, as defined, less the amount of outstanding debt and letters of credit, further subject to our Minimum Interest Coverage Ratio and Maximum Consolidated Leverage Ratio requirements, as defined in the credit agreement. Specifically, we could not permit, on a quarterly basis, our ratio of consolidated EBITDA to consolidated interest expense as

defined (Minimum Interest Coverage Ratio), to fall below 3.00:1 or our ratio of consolidated funded debt to consolidated EBITDA, as defined (Maximum Consolidated Leverage Ratio), to exceed 3.25:1. The Maximum Consolidated Leverage Ratio was the ratio of consolidated EBITDA to consolidated interest expense, in each case for the previous four consecutive fiscal quarters. EBITDA was defined by the indenture to include pro forma EBITDA of acquisitions and to exclude certain items such as goodwill and intangible asset impairments and certain other non-cash charges and non-recurring items. Subject to our compliance with the covenant requirements, the amount available under the 2013 Credit Facility was a function of: (1) our trailing twelve month EBITDA; (2) the Minimum Interest Coverage Ratio and Maximum Consolidated Leverage Ratio allowed under the 2013 Credit Facility; and (3) the aggregate amount of our outstanding debt and letters of credit. As of October 31, 2015, we were in compliance with the financial covenants set forth in the 2013 Credit Facility, as indicated in the table below:

	Required		Actual
Minimum Interest Coverage Ratio	No less than	3.00:1	69.71:1
Maximum Consolidated Leverage Ratio	No greater than	3.25:1	0.92:1

As of October 31, 2015, the amount available to us for use under the 2013 Credit Facility was limited to \$86.6 million and we had outstanding letters of credit of \$5.9 million. The weighted average interest rate on outstanding borrowings during the year ended October 31, 2015 was 1.28%. Our borrowing rates under the Credit Facility were 3.50% and 1.45% for the swing line sub facility and the revolver, respectively, at October 31, 2015.

On November 2, 2015, we refinanced and retired the 2013 Credit Facility by entering into a \$310.0 Million Term Loan Credit Agreement and a \$100.0 million ABL Credit Agreement (collectively the "2015 Credit Facilities") with Wells Fargo, National Association, as Agent, and Bank of America, N.A. serving as Syndication Agent. The term loan portion of the 2015 Credit Facilities was to mature on November 2, 2022, and required quarterly principal payments equal to 0.25% of the aggregate borrowings. Interest was computed, at our election, based on a Base Rate plus applicable margin of 4.25%, or LIBOR plus applicable margin of 5.25% (with the stipulation that LIBOR could not be less than 1%). In the event of default, outstanding borrowings would accrue interest at the Default Rate, as defined, whereby the obligations will bear interest at a per annum rate equal to 2% above the total per annum rate otherwise applicable. The term loan provided for incremental term loan commitments for a minimum principal amount of \$25.0 million, up to an aggregate amount of \$50.0 million, to the extent that such borrowings did not cause the Consolidated Senior Secured Leverage Ratio to exceed 3.00 to 1.00. The term loan agreement permitted prepayment of the term loan of at least an aggregate amount of \$5.0 million or any whole multiple of \$1.0 million in excess thereof without penalty, except if such prepayment was made on or before November 2, 2016, we would pay a fee equal to 1% of such prepayment. The ABL portion of the 2015 Credit Facilities was to mature on November 2, 2020 with no stated principal repayment terms prior to maturity. Borrowing capacity and availability was determined based upon the dollar equivalent of certain working capital items including receivables and inventory, subject to eligibility as determined by Wells Fargo Bank, National Association, as Administrative Agent, up to the facility maximum of \$100.0 million. Interest was computed, at our election, on a grid as the Base Rate plus an Applicable Margin, as defined in the agreement, or LIBOR plus an Applicable Margin.

In addition, the ABL portion of the 2015 Credit Facilities required payment of a commitment fee (unused line fee) ranging from 0.25 to 0.375 percentage points based on a percentage of the maximum revolver usage.

The 2015 Credit Facilities contained restrictive debt covenants which included financial covenants, restrictions on our ability to enter into certain business activities or to make payments, and required periodic reporting, including monthly borrowing base calculations pursuant to the ABL portion of the facility.

On July 29, 2016, we refinanced and retired the 2015 Credit Facilities and entered into a \$450.0 million credit agreement comprised of a \$150.0 million Term Loan A and a \$300.0 million revolving credit facility (collectively, the "Credit Agreement"), with Wells Fargo Bank, National Association, as Agent, Swingline Lender and Issuing Lender, and Bank of America, N.A. serving as Syndication Agent. The Credit Agreement has a five-year term, maturing on July 29, 2021, and requires interest payments calculated, at our election and depending upon our Consolidated Leverage Ratio, at either a Base Rate plus an applicable margin or the LIBOR Rate plus an applicable margin. At the time of the initial borrowing, the applicable rate was LIBOR + 2.00%. In addition, we are subject to commitment fees for the unused portion of the Credit Agreement. The applicable margin and commitment fees range from 0.70% to 2.55%, depending upon the type of loan and consolidated leverage ratio.

The term loan portion of the Credit Agreement requires quarterly principal payments on the last business day of each fiscal quarter in accordance with a stated repayment schedule. Required aggregate principal repayments totaled \$9.4 million for the succeeding twelve-month period, and have been included in the accompanying consolidated balance sheet under the caption "Current Maturities of Long-term Debt." No stated principal payments are required under the revolving credit portion of the Credit Agreement, except upon maturity. If our Consolidated Leverage Ratio is less than 2.25 to 1.00, then we are required to make mandatory prepayments of "excess cash flow" as defined in the agreement.

The Credit Agreement provides for incremental term loan or revolving credit commitments for a minimum principal amount of \$10.0 million, up to an aggregate amount of \$150.0 million, subject to the lender's discretion to elect or decline the incremental increase. We can also borrow up to the lesser of \$15.0 million or the revolving credit commitment, as defined, under a Swingline feature of the Credit Agreement. We are permitted to prepay the term loan under the Credit Agreement, without premium or penalty, in aggregate principal amounts of \$1.0 million or whole multiples of \$0.5 million in excess thereof.

The Credit Agreement contains a: (1) Consolidated Fixed Charge Coverage Ratio requirement whereby we must not permit the Consolidated Fixed Charge Coverage Ratio, as defined, to be less than 1.10 to 1.00, and (2) Consolidated Leverage Ratio requirement, as summarized by period in the following table:

Period	Maximum Ratio
Closing Date through January 30, 2017	3.50 to 1.00
January 31, 2017 through January 30, 2018	3.25 to 1.00
January 31, 2018 and thereafter	3.00 to 1.00

In addition to maintaining these financial covenants, the Credit Agreement also limits our ability to enter into certain business transactions, such as to incur indebtedness or liens, to acquire businesses or dispose of material assets, make restricted payments, pay dividends (limited to \$10.0 million per year) and other transactions as further defined in the Credit Agreement. Substantially all of our domestic assets, with the exception of real property, are pledged as collateral for the Credit Agreement.

We utilized the funding from the Credit Agreement, along with additional funding of \$16.4 million of cash on hand, to repay outstanding borrowings under the 2015 Credit Facilities of \$309.2 million, to pay a 1% prepayment call premium under the Term Loan B portion thereof, to settle outstanding interest accrued under the prior facility, and to pay loan fees associated with the Credit Agreement which totaled \$2.8 million. In addition to the 1% prepayment call premium fee, we expensed \$8.1 million to write-off unamortized deferred financing fees and \$5.5 million of unamortized original issuer's discount associated with the 2015 Credit Facilities.

Contractual Obligations and Commercial Commitments

The following table summarizes our known contractual obligations and commitments as of October 31, 2016:

	Payments Due by Period				
	Total	2017	2018-2019	2020-2021	Thereafter
Contractual Obligations:	(In thousands)				
Long-term debt, including interest ⁽¹⁾⁽²⁾	\$ 294,398	\$ 15,649	\$ 41,427	\$ 237,322	\$ —
Capital Leases	3,683	1,609	1,849	225	—
Operating leases ⁽³⁾	66,940	9,794	16,324	10,270	30,552
Unconditional purchase obligations ⁽⁴⁾	11,252	11,252	—	—	—
Total contractual cash obligations⁽⁵⁾	\$ 376,273	\$ 38,304	\$ 59,600	\$ 247,817	\$ 30,552

⁽¹⁾ Interest on our long-term debt was computed using rates in effect at October 31, 2016.

⁽²⁾ Outstanding borrowings under the term loan A portion of the Credit Agreement requires quarterly principal payments with a balloon payment due in July 2021. Outstanding borrowings under the revolving credit facility portion of the Credit Agreement matures in July 2021 with no minimum principal payments due until maturity.

⁽³⁾ Operating leases include facilities, light vehicles, forklifts, office equipment and other operating equipment.

⁽⁴⁾ The unconditional purchase obligations consist of commitments to buy miscellaneous parts, inventory, and expenditures related to capital projects in progress.

⁽⁵⁾ This table excludes tax reserves recorded in accordance with ASC Topic 740 "Income Taxes," as we are unable to reasonably estimate the timing of future cash flows related to these reserves.

During fiscal 2017, we expect to contribute approximately \$3.9 million to our pension plan to maintain our 100% funding threshold and maintain minimum contribution requirements. Pension contributions beyond 2017 cannot be determined since the amount of any contribution is heavily dependent on the future economic environment and investment returns on pension plan assets. Obligations are based on current and projected obligations of the plans, performance of the plan assets, if applicable, and any participant contributions. At October 31, 2016, we have recorded a long-term liability for deferred pension and postretirement benefits totaling \$8.2 million. We believe the effect of the plans on liquidity is not significant to our overall financial condition.

Our supplemental benefit plan and deferred compensation plan liabilities fluctuate based on changes in the market value of certain equity securities, including our common stock. As of October 31, 2016, our liability under the supplemental benefit plan and the deferred compensation plan was approximately \$2.7 million and \$3.5 million, respectively.

The following table reflects other commercial commitments or potential cash outflows that may result from a contingent event.

	Amount of Commitment Expiration per Period				
	Total	2017	2018-2019	2020-2021	Thereafter
Other Commercial Commitments:	(In thousands)				
Standby letters of credit	\$ 5,775	\$ 5,369	\$ —	\$ 406	\$ —

Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements, as such term is defined in the rules promulgated by the SEC, that we believe would be material to investors and for which it is reasonably likely to have a current or future effect on our financial condition, results of operations, liquidity, capital expenditures or capital resources.

Effects of Inflation

Although inflation does impact the cost of raw materials, labor and overhead, we are generally able to recover this cost through pricing. The effect of price inflation in the United States in 2016 as compared to prior years has remained relatively low. Furthermore, inflation on labor rates has been relatively consistent when comparing 2016 to 2015. Therefore, we believe inflation has not had a significant effect on our earnings or financial position.

Critical Accounting Policies and Estimates

The preparation of our financial statements in accordance with accounting principles generally accepted in the United States of America (U.S. GAAP) requires us to make estimates and assumptions that affect the reported amount of assets, liabilities, revenues and expenses and related disclosures of contingent assets and liabilities. Estimates and assumptions about future events and their effects cannot be perceived with certainty. Estimates may change as new events occur, as more experience is acquired, as additional information becomes available and as our operating environment changes. We base our estimates on historical experience and on various other assumptions that we believe are reasonable under the circumstances, and that we believe provide a basis for making judgments about the carrying value of assets and liabilities that are not readily available through open market quotes. We must use our judgment with regard to uncertainties in order to make these estimates. Actual results could differ from these estimates.

We believe the following are the most critical accounting policies used in the preparation of our consolidated financial statements as well as the significant judgments and uncertainties affecting the application of these policies. We consider an estimate to be critical if it is subjective and if changes in the estimate using different assumptions would result in a material impact to our financial position or results of operations.

Revenue Recognition

We recognize revenue when products are shipped and title has passed to the customer. Revenue is deemed to be realized or earned when the following criteria is met: (a) persuasive evidence that a contractual sales arrangement exists; (b) delivery has occurred; (c) the price to the buyer is fixed or determinable; and (d) collection is reasonably assured. Sales allowances and customer incentives are treated as reductions to revenue and are provided for based on historical experience and current estimates.

Allowance for Doubtful Accounts

We record trade accounts receivable at billed amounts, less an allowance for doubtful accounts. This allowance is established to estimate the risk of loss associated with our trade receivables which may arise due to the inability of our customers to pay or due to changes in circumstances. The allowance is maintained at a level that we consider appropriate based on factors that affect collectability, including: (a) historical trends of write-offs, recoveries and credit losses; (b) the credit quality of our customers; and (c) projected economic and market conditions. Different assumptions or changes in economic circumstances could result in changes to the allowance. Our historical bad debt expense for the fiscal year has approximated 0.1% of sales for the years ended October 31, 2016, 2015 and 2014. If bad debt expense increased by 1% of net sales, the impact on operating results for these years would have been an increase in net loss of \$3.1 million, a decrease in net income of \$4.4 million, and a decrease in net income of \$3.6 million, respectively.

Business Combinations - Contingencies

We apply the acquisition method of accounting for business combinations in accordance with U.S. GAAP, which requires us to make use of estimates and judgments to allocate the purchase price paid for acquisitions to the fair value of the net assets and liabilities acquired. We use established valuation techniques and engage reputable valuation specialists to assist us with these valuations. However, there is a risk that we may not identify all pre-acquisition contingencies or that our estimates may not reflect the actual results when realized. We utilize a reasonable measurement period to record any adjustment related to the opening balance sheet (generally, less than one year). After the measurement period, changes to the opening balance sheet can result in the recognition of income or expense as period costs. To the extent these items stem from contingencies that existed at the balance sheet date, but are contingent upon the realization of future events, the cost is charged to expense at the time the future event becomes known. For example, we determined the value of an earn-out provision related to the HLP acquisition which is payable to the former owner based on a specified EBITDA percentage, for the twelve-month period ended July 31, 2016. We used a probability-weighted estimate to value this liability, discounted using our incremental borrowing rate. We recognized the change in this liability as income/expense over time to reflect the time value of money and changes in the probability weighting as to when the former owner would elect a measurement period pay-out. If our purchase accounting estimates are not correct, or if we do not recognize contingent liabilities within the measurement period, we may incur losses.

Impairment or Disposal of Long-Lived Assets

Property, Plant and Equipment and Intangible Assets with Defined Lives

We make judgments and estimates in conjunction with the carrying value of our long-term assets, including property, plant and equipment, and identifiable intangibles. These judgments may include the basis for capitalization, depreciation and amortization methods and the useful lives of the underlying assets. In accordance with U.S. GAAP, we review the carrying values of these assets for impairment whenever events or changes in circumstances indicate that the carrying value may not be recoverable. We determine that the carrying amount is not recoverable if it exceeds the sum of the undiscounted cash flows expected to result from the use and eventual disposition of the asset. If the carrying value exceeds the sum of the undiscounted cash flows and after considering alternate uses for the asset, an impairment charge would be recorded in the period in which such review is performed. We measure the impairment loss as the amount by which the carrying amount of the long-lived asset exceeds its fair value. Fair value is determined by reference to quoted market prices in active markets, if available, or by calculating the discounted cash flows associated with the use and eventual disposition of the asset. Therefore, if there are indicators of impairment, we are required to make long-term forecasts of our future revenues and costs related to the assets subject to review. Forecasts require assumptions about demand for our products and future market conditions. Although there may be no indicators of impairment in the current period, unanticipated changes to assumptions or circumstances in future periods could result in an impairment charge in the period of the change. For the year ended October 31, 2014, we recorded asset impairment charges related to an asset held for sale as part of continuing operations totaling \$0.5 million. No impairment charges were incurred with regard to our property, plant and equipment for the years ended October 31, 2016 and 2015.

We monitor relevant circumstances, including industry trends, general economic conditions, and the potential impact that such circumstances might have on the valuation of our identifiable intangibles. Events and changes in circumstances that may cause a triggering event and necessitate such a review include, but are not limited to: a decrease in sales for certain customers, improvements or changes in technology, and/or a decision to phase-out a trademark or trade name. Such events could negatively impact the carrying value of our identifiable intangibles. It is possible that changes in such circumstances or in the numerous variables associated with the judgments, assumptions, and estimates made by us in assessing the appropriate valuation of our identifiable intangibles could require us to further write down a portion of our identifiable intangibles and record related non-cash impairment charges in the future. We apply a variety of techniques to establish the carrying value of our intangible assets, including the relief from royalty and excess current year earnings methods.

During October 2016, we determined that a triggering event occurred which necessitated a review of our long-term assets as prescribed above (expected reduction in volume for our United States vinyl business). Based on an undiscounted cash flow analysis, we determined that our property, plant and equipment and defined-lived intangible assets were not impaired. However, we recorded a change in accounting estimate associated with shortening the remaining useful lives of certain property, plant and equipment to be retired as part of the announced closure of several plants. We expect to recognize incremental depreciation expense of \$1.6 million in 2017 as a result of this change in estimate. In addition, we shortened the life of several defined-lived intangible assets, which will result in the recognition of incremental amortization expense of \$1.0 million for the year ended October 31, 2017.

Goodwill

In accordance with U.S. GAAP, we review various qualitative factors to determine whether we believe there are indicators of impairment associated with goodwill or other indefinite lived intangible assets. If no impairment is indicated, no additional testing is required. Otherwise, we perform a goodwill impairment test annually as of August 31, or more often if there are indicators of impairment due to changes in circumstances or the occurrence of certain events. The test for impairment of goodwill requires a two-step approach as prescribed in ASC Topic 350 "Intangibles - Goodwill and Other" (ASC 350). The first step of the impairment test is to compare the carrying value of each reportable unit, including goodwill, to the fair value as determined using various valuation methods or a weighting of several such methods. If the fair value exceeds the carrying value, no further testing is required and there is no impairment charge. If the carrying value exceeds the fair value, a second step of the goodwill impairment test is required, whereby we compare the implied fair value of goodwill to its carrying value. The implied fair value of goodwill is determined by allocating the fair value of a reporting unit to the assets and liabilities of that unit as if the reporting unit had been acquired in a business combination under which the consideration paid equals the calculated fair value of the reporting unit. The excess of the fair value of a reporting unit over the amounts assigned to its assets and liabilities is the implied fair value of goodwill. An impairment loss is recorded to the extent that the carrying amount of the goodwill exceeds the implied fair value of that goodwill for the particular reporting unit. We use the present value of future cash flows, discounted at our weighted average cost of capital, to determine fair value in combination with the market approach. Future cash flows are projected based upon our long-term forecasts by reportable unit and an estimated residual value. Our judgment is required in the estimation of future operating results and in determining the appropriate residual values of our reportable units. The residual values are determined by reference to an exchange transaction in an existing market for similar assets. Future operating results and residual values could reasonably differ from our estimates and a provision for impairment may be required in a future period depending upon such a change in circumstances or the occurrence of future events.

As of our annual testing date, August 31, 2016, we had six reporting units with goodwill balances: three reporting units included in our NA Engineered Components operating segment, two reporting units included in our EU Engineered Components operating segment, and one reporting unit included in our NA Cabinet Components operating segment. Of the reporting units in our NA Engineered Components operating segment, we determined that the fair value of two of the reporting units well exceeded their respective book values (152% and 336%). However, one reporting unit, our United States vinyl extrusion business, recorded an impairment charge of \$12.6 million, representing 100% of the remaining goodwill for this reporting unit. The impairment was the result of the anticipated loss of volume from a large customer over the forecast period of five years. Of the two reporting units included in our EU Engineered Components operating segment, we determined that the fair value of these units well exceeded their respective book values (35% and 42%). For the reporting unit included in our NA Cabinet Components operating segment, we determined the fair value of the unit exceeded the carrying value by 7%.

Restructuring

We account for restructuring costs in accordance with U.S. GAAP, whereby we accrue for one-time severance benefits pursuant to an approved plan of restructuring at the communication date, when affected employees have been notified of the potential severance and sufficient information has been provided for the employee to calculate severance benefits, in the event the employee is involuntarily terminated. In addition, we accrue costs associated with the termination of contractual commitments including operating leases at the time the lease is terminated pursuant to the lease provisions or in accordance with another agreement with the landlord. Otherwise, we continue to recognize operating lease expense through the cease-use date. After the cease-use date, we determine if our operating lease payments are at market. We assume sublet of the facility at the market rate. To the extent our lease obligations exceed the fair value rentals, we discount to arrive at the present value and record a liability. If the facility is not sublet, we expense the amount of the sublet in the current period until sublet. For other costs directly related to the restructuring effort, such as equipment moving costs, we expense in the period incurred.

In October 2016, we announced the closure of three operating plants, two related to our United States vinyl operations, and one related to our kitchen and bathroom cabinet door business in Mexico. We expensed \$0.5 million pursuant to these restructuring efforts as of October 31, 2016, including an accrual for one-time severance cost of \$0.4 million included in accrued liabilities in the accompanying consolidated balance sheet. Our facility lease obligations were deemed to be at fair market value and we have not yet negotiated exit from these lease obligations. We expect to incur costs related to equipment moves, potential fixed asset retirements and inventory adjustments related to these restructuring efforts during fiscal 2017.

Income Taxes

We operate in various jurisdictions and therefore our income tax expense relates to income taxes in the United States, United Kingdom, Canada, Mexico and Germany, as well as local and state income taxes. We recognize the effect of a change in tax rates in the period of the change. We record the estimated future tax effects of temporary differences between the tax basis of assets and liabilities and the amounts reported in our consolidated balance sheets, as well as net operating losses and tax credit carry forward. We evaluate the carrying value of our net deferred tax assets and determine if our business will generate sufficient future taxable income to realize the net deferred tax assets. We perform this review for recoverability on a jurisdictional basis, whereby we consider both positive and negative evidence related to the likelihood of realization of the deferred tax assets. The weight given to the positive and negative evidence is commensurate with the extent to which the evidence can be objectively verified. We evaluate recoverability based on an estimate of future taxable income using the long-term forecasts we use to evaluate long-lived assets, goodwill and intangible assets for impairment, taking into consideration the future reversal of existing taxable temporary differences and reviewing our current financial operations. In the event that our estimates and assumptions indicate we will not generate sufficient future taxable income to realize our deferred tax assets, we will record a valuation allowance, to the extent indicated, to reduce our deferred tax assets to their realizable value.

Annually, we evaluate our tax positions to determine if there have been any changes in uncertain tax positions or if there has been a lapse in the statute of limitations with regards to such positions. During 2015, we reassessed and recognized our uncertain tax position with regard to our spin-off from our former parent in 2008, as a result of a no change letter received from the Internal Revenue Service in conjunction with an audit of our tax filings for the years ended October 31, 2012 and 2011. This recognition reduced the liability for uncertain tax positions by \$4.0 million. Our liability for uncertain tax positions at October 31, 2016 and 2015 totaled \$0.6 million and related to certain state tax items regarding the interpretation of tax laws and regulations.

We believe we will have sufficient taxable income in the future to fully utilize our unreserved deferred tax assets recorded as of October 31, 2016. There is a risk that our estimates related to the future use of loss carry forwards and our ability to realize our deferred tax assets may not come to fruition, and that the results could materially impact our financial position and results of operations. In addition, we have recorded the benefit associated with the “patent box” deduction in the United Kingdom with regard to our operations at HLP. We believe that it is more likely than not that our deduction with regard to this position would be sustained upon examination. Our deferred tax assets at October 31, 2016 and 2015 totaled \$35.3 million and \$34.9 million, respectively, against which we had recorded a valuation allowance of \$1.3 million and \$1.1 million, respectively.

Insurance

We manage our costs of workers’ compensation, group medical, property, casualty and other liability exposures through a combination of self-insurance retentions and insurance coverage with third-party carriers. Liabilities associated with our portion of this exposure are not discounted. We estimate our exposure by considering various factors which may include: (1) historical claims experience, (2) severity factors, (3) estimated claims incurred but not reported and (4) loss development factors, which are used to estimate how claims will develop over time until settled or closed. While we consider a number of factors in preparing our estimate of risk exposure, we must use our judgment to determine the amounts to accrue in our financial statements. Actual claims can differ significantly from estimated liabilities if future claims experience differs from historical experience, and if we determine that our assumptions used for analysis or our development factors are flawed. We do not recognize insurance recoveries until any contingencies relating to the claim have been resolved.

Inventory

We record inventory at the lower of cost or market value. Inventories are valued using the first-in first-out (FIFO) and last-in first-out (LIFO) methods. We use the dollar-value link chain LIFO method, and the LIFO reserve is calculated on a consolidated basis in a single consolidated pool. We recorded a benefit associated with the change in the LIFO reserve of approximately \$0.3 million for the year ended October 31, 2016 and less than \$0.1 million for each of the years ended October 31, 2015 and 2014. When we integrate acquisitions into our business we may value inventory utilizing either the LIFO or FIFO basis. Fixed costs related to excess manufacturing capacity have been expensed in the period, and therefore, are not capitalized into inventory. Inventory quantities are regularly reviewed and provisions for excess or obsolete inventory are recorded primarily based on our forecast of future demand and market conditions. Significant unanticipated changes to our forecasts or changes in the net realizable value of our inventory would require a change in the provision for excess or obsolete inventory. For the years ended October 31, 2016, 2015 and 2014, our inventory reserves excluding the LIFO reserve, are approximately 6%, 10%, and 7% of gross inventory, respectively. Assuming an increase in obsolescence equal to 1% of inventory, net loss from continuing operations would have been increased by \$0.3 million in 2016, and net income would have been reduced by \$0.5 million and \$0.4 million for the years ended October 31, 2015 and 2014, respectively.

Retirement Plans

We sponsor a defined benefit pension plan and an unfunded postretirement plan that provides health care and life insurance benefits for a limited pool of eligible retirees and dependents. The measurement of liabilities related to these plans is based on our assumptions related to future events, including expected return on plan assets, rate of compensation increases, and healthcare cost trend rates. The discount rate reflects the rate at which benefits could be effectively settled on the measurement date. We determine our discount rate using a RATE: Link Model whereby target yields are developed from bonds across a range of maturity points, and a curve is fitted to those targets. Spot rates (zero coupon bond yields) are developed from the curve and used to discount benefit payments associated with each future year. This model assumes spot rates will remain level beyond the 30-year point. We determine the present value of plan benefits by applying the discount rates to projected benefit cash flows. Actual pension plan asset investment performance, as well as other economic experience such as discount rate and demographic experience, will either reduce or increase unamortized pension losses at the end of any fiscal year, which ultimately affects future pension costs.

The effects of the decrease in selected assumptions, assuming no changes in benefit levels and no amortization of gains or losses for the pension plans in fiscal 2016, is shown below:

	Increase in Projected Benefit Obligation	Increase in Net Periodic Benefit Cost
Changes in Assumptions:	(Dollar amounts in thousands)	
1% decrease in discount rate	\$ 3,280	\$ 355
1% decrease in expected long-term rate of return on plan assets	N/A	\$ 281

As of October 31, 2016, our projected benefit obligation (PBO) and accumulated benefit obligation (ABO) exceeded the fair value of the plan assets by \$7.7 million and \$6.5 million, respectively. As a comparison, our PBO and ABO exceeded the fair value of plan assets by \$4.9 million and \$4.2 million, respectively, as of October 31, 2015. During fiscal 2016, we contributed \$3.7 million to the pension plan to continue to target a 100% funding threshold and to meet minimum contribution requirements. We expect to continue to fund at this level for fiscal 2017. Expected contributions are dependent on many variables, including the variability of the market value of the assets as compared to the obligation and other market or regulatory conditions. In addition, we take into consideration our business investment opportunities and our cash requirements. Accordingly, actual funding may differ greatly from current estimates.

Under U.S. GAAP, we are not required to immediately recognize the effects of a deviation between actual and assumed experience under our pension plan, or to revise our estimate as a result. This approach allows the favorable and unfavorable effects that fall within an acceptable range to be netted and disclosed as an unrecognized gain or loss. As of October 31, 2016 and 2015, a net actuarial loss of \$8.7 million and \$5.5 million, respectively, was included in our accumulated other comprehensive income (loss). There were no net prior service costs or transition obligations for the years ended October 31, 2016 and 2015. The effect on fiscal years after 2016 will depend on the actual experience of the plans.

Mortality assumptions used to determine the obligations for our pension plans are based on the RP-2006 base mortality table with MP-2016 mortality improvement scale.

Stock-Based Compensation

We have issued stock-based compensation in the form of stock options to directors, employees and officers, and non-vested restricted stock awards to certain key employees and officers. We apply the provisions of ASC Topic 718 “*Compensation - Stock Compensation*” (ASC 718), to determine the fair value of stock option awards on the date of grant using the Black-Scholes valuation model. We recognize the fair value as compensation expense on a straight-line basis over the requisite service period of the award based on awards ultimately expected to vest. Stock options granted to directors vest immediately while the stock options granted to our employees and officers typically vest ratably over a three-year period with service and continued employment as the vesting conditions. For new option grants to retirement-eligible employees, we recognize expense and vest immediately upon grant, consistent with the retirement vesting acceleration provisions of these grants. For employees near retirement age, we amortize such grants over the period from the grant date to the retirement-eligibility date if such period is shorter than the standard vesting schedule. For grants of non-vested restricted stock, we calculate the compensation expense at the grant date as the number of shares granted multiplied by the closing stock price of our common stock on the date of grant. This expense is recognized ratably over the vesting period. Our non-vested restricted stock grants to officers and employees cliff vest over a three-year period with service and continued employment as the only vesting criteria. Our fair value determination of stock-based payment awards on the date of grant using an option-pricing model is affected by our stock price as well as assumptions regarding a number of highly complex and subjective variables. These variables include, but are not limited to, our expected stock price volatility over the term of the awards, actual and projected employee stock option exercise behavior over the expected term, our dividend rate, risk-free rate and expectation with regards to forfeitures. Option-pricing models were developed for use in estimating the value of traded options that have no vesting or hedging restrictions and are fully transferable. Because our employee stock options have certain characteristics that are significantly different from traded options, and because changes in the subjective assumptions can materially affect the estimated value, the valuation models may not provide an accurate measure of the fair value of our employee stock options. Accordingly, that value may not be indicative of the fair value observed in a willing buyer/willing seller market transaction.

We have granted other awards which are linked to the performance of our common stock, but will settle in cash rather than the issuance of shares of our common stock. The value of these awards fluctuates with changes in our stock price, with the resulting gains or losses reflected in the period of the change. We have recorded current and non-current liabilities related to these awards reflected in our consolidated balance sheets at October 31, 2016 and 2015, included elsewhere within this Annual Report on Form 10-K.

In addition, we have granted performance share awards which settle in cash and shares. These awards have vesting criteria based on a market condition (relative total shareholder return) and an internal performance condition (earnings per share growth). We utilize a Monte Carlo simulation model to value the market condition and our stock price on the date of grant to value the internal performance condition. We bifurcate the liability and equity portion of the awards (amounts expected to settle in cash and shares, respectively) and recognize expense ratably over the vesting period of three years. We estimate that the performance measures will be met and shares will vest at target until the year of settlement (third year of cliff vesting). For the year ended October 31, 2016, we expect 135,100 shares to vest, of which 67,550 will be settled in shares and 67,550 will be settled in cash.

Recent Accounting Pronouncements

In August 2016, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2016-15, *Statement of Cash Flows (Topic 230), Classification of Certain Cash Receipts and Cash Payments*. This amendment is intended to reduce diversity in practice as to how certain cash receipts and cash payments are presented and classified in the statement of cash flows by providing guidance for several specific cash flow issues. This guidance becomes effective for fiscal years beginning after December 15, 2017 and, therefore, we will adopt this pronouncement in fiscal 2019. We are currently evaluating the impact of this pronouncement on our consolidated financial statements.

In June 2016, the FASB issued ASU No. 2016-13, *Financial Instruments - Credit Losses (Topic 326)*. This amendment replaces the incurred loss impairment methodology in current U.S. GAAP and requires that financial assets be measured on an amortized cost basis and presented at the net amount expected to be collected. This new methodology reflects expected credit losses (rather than probable credit losses) and requires consideration of a broader range of supportable information when determining these estimated credit losses, including relevant experience, current conditions and supportable forecasts to determine collectability. In addition, the amendment provides guidance with regard to the use of an allowance for credit losses for purchased financial assets and available-for-sale debt securities. This amendment becomes effective for fiscal years beginning after December 15, 2019, including interim periods within that fiscal year. We expect to adopt this amendment during fiscal 2021, with no material impact on our consolidated financial statements.

In March 2016, the FASB issued ASU No. 2016-09, *Compensation - Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting*. This amendment simplifies the accounting for share-based payment transactions, including income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of

cash flows. This guidance becomes effective for fiscal years beginning after December 15, 2016, and, therefore, we will adopt this pronouncement in fiscal 2018. We are currently evaluating the impact of this pronouncement on our consolidated financial statements.

In February 2016, the FASB issued ASU No. 2016-02, *Leases (Topic 842): Amendments to the Accounting Standards Codification*. These amendments replace current guidance and require the recognition of lease assets and lease liabilities by lessees for those leases classified as operating leases under previous U.S. GAAP. The amendments apply to any entity that enters into leasing arrangements. This guidance becomes effective for fiscal years beginning after December 15, 2018, and, therefore, we will adopt this pronouncement in fiscal 2020. We are currently evaluating the impact of this pronouncement on our consolidated financial statements.

In September 2015, the FASB issued ASU No. 2015-16, *Business Combinations (Topic 805): Simplifying the Accounting for Measurement-Period Adjustments*. The amendments require recognition of adjustments to estimated amounts that are identified during the measurement period in the reporting period in which adjustment amounts are determined. The amendments require that the acquirer record, in the same period's financial statements, the effect on earnings of changes in depreciation, amortization, or other income effects, if any, as a result of the change to the estimated amounts, calculated as if the accounting had been completed at the acquisition date. The amendments also require an entity to present separately on the face of the income statement or disclose in the notes the portion of the amount recorded in current-period earnings by line item that would have been recorded in previous reporting periods if the adjustment to the estimated amounts had been recognized as of the acquisition date. This guidance becomes effective for fiscal years beginning after December 15, 2015. We expect to adopt this pronouncement in fiscal 2017 with no significant impact on our consolidated financial statements.

In July 2015, the FASB issued ASU No. 2015-11, *Inventory (Topic 330): Simplifying the Measurement of Inventory*. This amendment simplifies the subsequent measurement of inventories by replacing the lower of cost or market revaluation method with the lower of cost and net realizable value test. This guidance is applicable to all inventories measured using methods other than last-in first-out method and the retail inventory method. This guidance becomes effective for fiscal years beginning after December 15, 2016. We expect to adopt this pronouncement in fiscal 2018, and are currently evaluating the impact on our consolidated financial statements.

In August 2014, the FASB issued ASU No. 2014-15, *Presentation of Financial Statements-Going Concern (Subtopic 205-40): Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern*, which requires management to evaluate whether conditions exist which raise substantial doubt about the entity's ability to continue as a going concern within one year after the date of the financial statements (or within one year of when the financial statements are available to be issued). If such conditions exist, disclosure is required of: (1) the principal conditions; (2) management's evaluation of the significance of the conditions on the entity's ability to meet obligations; and (3) management's plans to alleviate this substantial doubt related to the ability to continue as a going concern. If management's plans do not alleviate this substantial doubt, management must specifically disclose that there is substantial doubt about the entity's ability to continue as a going concern within one year after the date of the financial statements (or the date the financial statements are available to be issued), in addition to the disclosure noted above. This guidance becomes effective for the annual period ending after December 15, 2016, and for annual periods and interim periods thereafter. We expect to adopt this guidance during fiscal 2017. We do not expect this guidance to have a material impact on our consolidated financial statements.

In June 2014, the FASB issued ASU No. 2014-12, *Compensation - Stock Compensation (Topic 718): Accounting for Share-Based Payments When the Terms of an Award Provide That a Performance Target Could be Achieved after the Requisite Service Period*. This amendment requires that a performance target that affects vesting and that could be achieved after the requisite service period be treated as a performance condition that affects vesting or as a nonvesting condition that affects the grant-date fair value of an award, and provides explicit guidance for those awards. This guidance becomes effective for fiscal years beginning on or after December 15, 2015. We expect to adopt this guidance during fiscal 2017 with no significant impact on our consolidated financial statements.

Revenue Recognition

In May 2014, the FASB issued ASU No. 2014-09, *Revenue from Contracts with Customers*. This guidance prescribes a methodology to determine when revenue is recognizable and constitutes a principles-based approach to revenue recognition based on the consideration to which the entity expects to be entitled in exchange for goods or services. In addition, this guidance requires additional disclosure in the notes to the financial statements with regard to the methodology applied. This pronouncement will essentially supersede and replace existing revenue recognition rules in U.S. GAAP, including industry-specific guidance. In July 2015, the FASB issued ASU 2015-14 to defer implementation of this guidance to annual reporting periods beginning after December

15, 2017. ASU 2014-09 has been further amended by the following items, which we intend to implement concurrently during fiscal 2019:

- ASU No. 2016-08, *Revenue from Contracts with Customers (Topic 606): Principal versus Agent Considerations*. This amendment is intended to improve the operability and understandability of the implementation guidance on principal versus agent considerations.
- ASU No. 2016-10, *Revenue from Contracts with Customers (Topic 606), Identifying Performance Obligations and Licensing*. This amendment is intended to clarify the identification of performance obligations and the licensing implementation guidance.
- ASU No. 2016-12, *Revenue from Contracts with Customers (Topic 606), Narrow-Scope Improvements and Practical Expedients*. This update provides clarifying guidance in certain narrow areas and adds some practical expedients.

We expect to adopt this guidance in fiscal 2019. We are currently evaluating the impact on our consolidated financial statements.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

The following discussion of our exposure to various market risks contains “forward looking statements” regarding our estimates, assumptions and beliefs concerning our exposure. Although we believe these estimates and assumptions are reasonable in light of information currently available to us, we cannot provide assurance that these estimates will not materially differ from actual results due to the inherent unpredictability of interest rates, foreign currency rates and commodity prices as well as other factors. We do not use derivative financial instruments for speculative or trading purposes.

Interest Rate Risk

Our outstanding debt bears interest at variable rates and accordingly is sensitive to changes in interest rates. Based upon the balances of the variable rate debt at October 31, 2016, a hypothetical 1.0% increase or decrease in interest rates could result in approximately \$2.7 million of additional pre-tax charges or credit to our operating results. This sensitivity pertains primarily to our outstanding Term Loan A and revolving credit facility borrowings outstanding under the Credit Agreement as of October 31, 2016.

Foreign Currency Rate Risk

Our international operations have exposure to foreign currency rate risks, primarily due to fluctuations in the Euro, the British Pound Sterling and the Canadian Dollar. From time to time, we enter into foreign exchange contracts associated with our operations to manage a portion of the foreign currency rate risk.

The notional and fair market values of these positions at October 31, 2016 and 2015, were as follows:

		Notional as indicated		Fair Value in \$	
		October 31, 2016	October 31, 2015	October 31, 2016	October 31, 2015
		(In thousands)			
Foreign currency exchange derivatives:					
Sell EUR, Buy USD	EUR	5,251	8,076	\$ (79)	\$ 37
Sell CAD, Buy USD	CAD	186	280	1	1
Sell GBP, Buy USD	GBP	187	226	(1)	3
Buy EUR, Sell GBP	EUR	130	2	1	—
Buy USD, Sell EUR	USD	1	—	—	—
Buy EUR, Sell USD	EUR	—	807	—	3

At October 31, 2016 and 2015, we held foreign currency derivative contracts hedging cross-border intercompany and commercial activity for our insulating glass spacer business. Although these derivatives hedge our exposure to fluctuations in foreign currency rates, we do not apply hedge accounting and therefore, the change in the fair value of these foreign currency derivatives is recorded directly to other income and expense in the accompanying consolidated statements of income (loss). To the extent the gain or loss on the derivative instrument offsets the gain or loss from the remeasurement of the underlying foreign currency balance, changes in exchange rates should have no effect. See Note 13, "Derivative Instruments", contained elsewhere herein this Annual Report on Form 10-K.

We currently have an unhedged foreign currency position associated with the debt borrowed to facilitate the HLP acquisition. For the year ended October 31, 2016, we recorded an unrealized loss of \$5.2 million, partially offset by a realized gain of \$0.2 million, and for the period from June 16, 2015 through October 31, 2015, we recorded a realized loss of \$0.2 million, partially offset by an unrealized gain of \$0.1 million at HLP related to this foreign currency exposure.

In July 2016, the United Kingdom voted to exit the European Union (commonly referred to as "Brexit"), which has impacted the valuation of the British Pound Sterling relative to other currencies used in our business, including our reporting currency, the United States Dollar. Although we do not know the long-term effects of this change, our operations have been impacted somewhat primarily with regard to the cost of materials purchased by our British subsidiaries from suppliers outside the United Kingdom. We continue to monitor our exposure to changes in exchange rates.

Commodity Price Risk

We purchase polyvinyl resin (PVC) as the significant raw material consumed in the manufacture of vinyl extrusions. We have a monthly resin adjuster in place with a majority of our customers and our resin supplier that is adjusted based upon published industry indices for resin prices for the prior month. This adjuster effectively shares the base pass-through price changes of PVC with our customers commensurate with the market at large. Our long-term exposure to changes in PVC prices is somewhat mitigated due to the contractual component of the resin adjuster program. In addition, there is a level of exposure to short-term volatility due to the one month lag.

We also charge our customers a surcharge related to petroleum-based raw materials. The surcharge is intended to offset the rising cost of products which are highly correlated to the price of oil including butyl and other oil-based raw materials. The surcharge is in place with the majority of our customers who purchase these products and is adjusted monthly based upon the 90-day average published price for Brent crude. The oil-based raw materials that we purchase are subject to similar pricing schemes. As such, our long-term exposure to changes in oil-based raw material prices is significantly reduced under this surcharge program.

Similarly, Woodcraft includes a surcharge provision in the majority of its customer arrangements to insulate against significant fluctuations in the price for various hardwood products used as the primary raw material for kitchen and bathroom cabinet doors. Like our vinyl extrusion business, we are exposed to short-term volatility in wood prices due to a lag in the timing of price updates which generally could extend for up to three months.

From time to time, in the normal course of business, we may enter into firm price sales commitments with customers in which aluminum is an integral fabrication input. In an effort to protect cost of sales from the effects of changing prices of aluminum, we enter into firm price raw material purchase commitments, which are designated as "normal purchases" under Accounting Standards Codification Topic 815, "*Derivatives and Hedging*." As a result, firm price sales commitments are matched with firm price raw material purchase commitments so that changes in aluminum prices should have no effect. While we consider the derivative contracts to provide an economic hedge against changes in aluminum prices, the derivatives have not been designated as hedges in accordance with ASC 815 for accounting purposes. As such, any mark-to-market net gain or loss is recorded as a period cost with the offsetting amount reflected as an asset or liability on the balance sheet. During the year ended October 31, 2016, we incurred a gain of less than \$0.1 million on a forward purchase contract with a notional amount of approximately 1.4 million pounds of aluminum. There are no contracts outstanding as of October 31, 2016, and there were no such contracts utilized during the year ended October 31, 2015. For additional details, see Note 13, "Derivative Instruments," contained elsewhere herein this Annual Report on Form 10-K.

Item 8. Financial Statements and Supplementary Data.

INDEX TO FINANCIAL STATEMENTS

Quanex Building Products Corporation

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of
Quanex Building Products Corporation

We have audited the accompanying consolidated balance sheets of Quanex Building Products Corporation (a Delaware corporation) and subsidiaries (the “Company”) as of October 31, 2016 and 2015, and the related consolidated statements of income (loss), comprehensive income (loss), stockholders’ equity, and cash flows for each of the three years in the period ended October 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 consolidated financial statements referred to above present fairly, in all material respects, the financial position of Quanex Building Products Corporation and subsidiaries as of October 31, 2016 and 2015, and the results of their operations and their cash flows for each of the three years in the period ended October 31, 2016, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company’s internal control over financial reporting as of October 31, 2016, based on the criteria established in the 2013 *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) and our report dated December 16, 2016 expressed an unqualified opinion on the Company’s internal control over financial reporting.

As discussed in Note 21 to the consolidated financial statements, the Company adopted new accounting guidance on November 1, 2015 on a retrospective basis related to the presentation of deferred income taxes. Our opinion is not modified with respect to this matter.

/s/ GRANT THORNTON LLP

Houston, Texas
December 16, 2016

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of
Quanex Building Products Corporation

We have audited the internal control over financial reporting of Quanex Building Products Corporation (a Delaware corporation) and subsidiaries (collectively, the “Company”) as of October 31, 2016, based on criteria established in the 2013 *Internal Control-Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company’s management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management’s Annual Report on Internal Control over Financial Reporting (“Management’s Report”). Our responsibility is to express an opinion on the Company’s internal control over financial reporting based on our audit.

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

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

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

In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of October 31, 2016, based on criteria established in the 2013 *Internal Control-Integrated Framework* issued by COSO.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated financial statements of the Company as of and for the year ended October 31, 2016, and our report dated December 16, 2016 expressed an unqualified opinion on those financial statements.

/s/ GRANT THORNTON LLP

Houston, Texas
December 16, 2016

MANAGEMENT'S ANNUAL REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Management of the Company, including the Chief Executive Officer and Chief Financial Officer, is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rule 13a-15(f) under the Securities Exchange Act of 1934, as amended. The Company's internal control system was designed to provide reasonable assurance to management and the Company's Board of Directors regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles.

All internal control systems, no matter how well designed, have inherent limitations. A system of internal control may become inadequate over time because of changes in conditions, or deterioration in the degree of compliance with the policies or procedures. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation.

Management assessed the effectiveness of the Company's internal control over financial reporting as of October 31, 2016 using the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in *Internal Control — Integrated Framework (2013)*. Based on this assessment, management has concluded that, as of October 31, 2016, the Company's internal control over financial reporting was effective to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles based on such criteria.

Grant Thornton LLP, the Company's independent registered public accounting firm, has issued an attestation report on the effectiveness of the Company's internal control over financial reporting. This report appears on page 47.

QUANEX BUILDING PRODUCTS CORPORATION
CONSOLIDATED BALANCE SHEETS
As of October 31, 2016 and 2015

	October 31,	
	2016	2015
(In thousands, except share amounts)		
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 25,526	\$ 23,125
Accounts receivable, net of allowance for doubtful accounts of \$251 and \$673 (Note 3)	83,625	64,080
Inventories, net (Note 4)	84,335	63,029
Prepaid and other current assets	10,488	7,992
Total current assets	203,974	158,226
Property, plant and equipment, net of accumulated depreciation of \$245,128 and \$217,512 (Note 5)	198,497	140,672
Deferred income taxes (Note 11)	—	8,783
Goodwill (Note 6)	217,035	129,770
Intangible assets, net (Note 6)	154,180	120,810
Other assets	6,667	7,255
Total assets	\$ 780,353	\$ 565,516
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 47,781	\$ 47,778
Accrued liabilities (Note 7)	55,101	37,364
Income taxes payable (Note 11)	732	747
Current maturities of long-term debt (Note 8)	10,520	2,359
Total current liabilities	114,134	88,248
Long-term debt (Note 8)	259,011	53,767
Deferred pension and postretirement benefits (Note 9)	8,167	5,701
Deferred income taxes (Note 11)	18,322	—
Liability for uncertain tax positions (Note 11)	579	564
Other liabilities	12,309	21,941
Total liabilities	412,522	170,221
Commitments and contingencies (Note 12)		
Stockholders' equity:		
Preferred stock, no par value, shares authorized 1,000,000; issued and outstanding - none	—	—
Common stock, \$0.01 par value, shares authorized 125,000,000; issued 37,560,249 and 37,609,563 respectively; outstanding 34,220,496 and 33,962,460, respectively	376	376
Additional paid-in-capital	254,540	250,937
Retained earnings	214,047	222,138
Accumulated other comprehensive loss	(38,765)	(10,049)
Less: Treasury stock at cost, 3,339,753 and 3,647,103 shares, respectively	(62,367)	(68,107)
Total stockholders' equity	367,831	395,295
Total liabilities and stockholders' equity	\$ 780,353	\$ 565,516

See notes to consolidated financial statements.

QUANEX BUILDING PRODUCTS CORPORATION
CONSOLIDATED STATEMENTS OF INCOME (LOSS)
For the Years Ended October 31, 2016, 2015 and 2014

	Year Ended October 31,		
	2016	2015	2014
	(In thousands, except per share amounts)		
Net sales	\$ 928,184	\$ 645,528	\$ 595,384
Cost and expenses:			
Cost of sales (excluding depreciation and amortization)	710,644	499,097	464,584
Selling, general and administrative	114,910	86,536	82,150
Restructuring charges	529	—	—
Depreciation and amortization	53,146	35,220	33,869
Asset impairment charges	12,602	—	505
Operating income	36,353	24,675	14,276
Non-operating (expense) income:			
Interest expense	(36,498)	(991)	(562)
Other, net	(5,479)	(531)	92
(Loss) income from continuing operations before income taxes	(5,624)	23,153	13,806
Income tax benefit (expense)	3,765	(7,539)	(5,468)
(Loss) income from continuing operations	(1,859)	15,614	\$ 8,338
Income from discontinued operations, net of tax of \$0, \$300, and \$13,115, respectively	—	479	20,896
Net (loss) income	\$ (1,859)	\$ 16,093	\$ 29,234
Basic (loss) earnings per common share:			
(Loss) earnings from continuing operations	\$ (0.05)	\$ 0.46	\$ 0.22
Earnings from discontinued operations	—	0.01	0.57
Basic (loss) earnings per share	\$ (0.05)	\$ 0.47	\$ 0.79
Diluted (loss) earnings per common share:			
(Loss) earnings from continuing operations	\$ (0.05)	\$ 0.46	\$ 0.22
Earnings from discontinued operations	—	0.01	0.56
Diluted (loss) earnings per share	\$ (0.05)	\$ 0.47	\$ 0.78
Weighted-average common shares outstanding:			
Basic	33,876	33,993	37,128
Diluted	33,876	34,502	37,679
Cash dividends per share	\$ 0.16	\$ 0.16	\$ 0.16

See notes to consolidated financial statements.

QUANEX BUILDING PRODUCTS CORPORATION
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
For the Years Ended October 31, 2016, 2015 and 2014

	Year Ended October 31,		
	2016	2015	2014
	(In thousands)		
Net (loss) income	\$ (1,859)	\$ 16,093	\$ 29,234
Other comprehensive loss:			
Foreign currency translation adjustments loss (pretax)	(26,838)	(3,595)	(1,840)
Foreign currency translation adjustments tax benefit	—	—	14
Change in pension from net unamortized loss (pretax)	(2,864)	(1,280)	(2,474)
Change in pension from net unamortized loss tax benefit	986	534	992
Total other comprehensive loss, net of tax	(28,716)	(4,341)	(3,308)
Comprehensive (loss) income	\$ (30,575)	\$ 11,752	\$ 25,926

See notes to consolidated financial statements.

QUANEX BUILDING PRODUCTS CORPORATION
CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY
For the Years Ended October 31, 2016, 2015 and 2014

	Common Stock		Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Loss	Treasury Stock		Total Stockholders' Equity
	Shares	Amount				Shares	Amount	
(In thousands, except share amounts)								
Balance at October 31, 2013	37,653,639	\$ 377	\$ 247,642	\$ 177,456	\$ (2,400)	(488,385)	\$ (6,881)	\$ 416,194
Net income	—	—	—	29,234	—	—	—	29,234
Foreign currency translation adjustment (net of taxes of \$14)	—	—	—	—	(1,826)	—	—	(1,826)
Change in pension from net unamortized gain (net of taxes of \$992)	—	—	—	—	(1,482)	—	—	(1,482)
Common dividends (\$0.16 per share)	—	—	—	(5,992)	—	—	—	(5,992)
Treasury shares purchased, at cost	—	—	—	—	—	(1,316,326)	(24,239)	(24,239)
Expense related to stock-based compensation	—	—	3,925	—	—	—	—	3,925
Stock options exercised	—	—	(1,071)	—	—	306,611	4,320	3,249
Tax benefit from share-based compensation	—	—	400	—	—	—	—	400
Restricted stock awards granted	3,000	—	(1,133)	—	—	80,400	1,133	—
Recognition of unrecognized tax benefit	—	—	—	1,629	—	—	—	1,629
Other	(24,607)	(1)	(163)	(8)	—	—	—	(172)
Balance at October 31, 2014	37,632,032	\$ 376	\$ 249,600	\$ 202,319	\$ (5,708)	(1,417,700)	\$ (25,667)	\$ 420,920
Net income	—	—	—	16,093	—	—	—	16,093
Foreign currency translation adjustment	—	—	—	—	(3,595)	—	—	(3,595)
Change in pension from net unamortized gain (net of tax benefit of \$534)	—	—	—	—	(746)	—	—	(746)
Common dividends (\$0.16 per share)	—	—	—	(5,515)	—	—	—	(5,515)
Treasury shares purchased, at cost	—	—	—	—	—	(2,675,903)	(50,761)	(50,761)
Expense related to stock-based compensation	—	—	4,266	—	—	—	—	4,266
Stock options exercised	—	—	(282)	(719)	—	327,700	6,110	5,109
Tax benefit from share-based compensation	—	—	(283)	—	—	—	—	(283)
Restricted stock awards granted	—	—	(2,211)	—	—	118,800	2,211	—
Recognition of unrecognized tax benefit	—	—	—	10,003	—	—	—	10,003
Other	(22,469)	—	(153)	(43)	—	—	—	(196)
Balance at October 31, 2015	37,609,563	\$ 376	\$ 250,937	\$ 222,138	\$ (10,049)	(3,647,103)	\$ (68,107)	\$ 395,295
Net loss	—	—	—	(1,859)	—	—	—	(1,859)
Foreign currency translation adjustment	—	—	—	—	(26,838)	—	—	(26,838)
Change in pension from net unamortized loss (net of tax benefit of \$986)	—	—	—	—	(1,878)	—	—	(1,878)
Common dividends (\$0.16 per share)	—	—	—	(5,470)	—	—	—	(5,470)
Expense related to stock-based compensation	—	—	6,089	—	—	—	—	6,089
Stock options exercised	—	—	(106)	(637)	—	221,850	4,143	3,400
Tax benefit from share-based compensation	—	—	(146)	—	—	—	—	(146)
Restricted stock awards granted	—	—	(1,591)	(6)	—	85,500	1,597	—
Other	(49,314)	—	(643)	(119)	—	—	—	(762)
Balance at October 31, 2016	37,560,249	\$ 376	\$ 254,540	\$ 214,047	\$ (38,765)	(3,339,753)	\$ (62,367)	\$ 367,831

See notes to consolidated financial statements.

QUANEX BUILDING PRODUCTS CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOW
For the Years Ended October 31, 2016, 2015 and 2014

	Year Ended October 31,		
	2016	2015	2014
	(In thousands)		
Operating activities:			
Net (loss) income	\$ (1,859)	\$ 16,093	\$ 29,234
Adjustments to reconcile net (loss) income to cash provided by operating activities:			
Depreciation and amortization	53,146	35,220	36,910
(Gain) loss on disposition of capital assets	(20)	495	586
Stock-based compensation	6,089	4,266	3,925
Deferred income tax	(8,469)	5,204	14,246
Excess tax benefit from share-based compensation	(136)	(60)	(654)
Charge for deferred loan costs and debt discount	16,022	—	—
Asset impairment charges	12,602	—	1,007
Gain on sale of discontinued operations	—	—	(39,122)
Gain on involuntary conversion	—	(1,263)	(2,408)
Other, net	339	(19)	2,105
Changes in assets and liabilities, net of effects from acquisitions:			
Decrease in accounts receivable	796	2,668	484
Decrease (increase) in inventory	5,346	9,805	(25,650)
Decrease (increase) in other current assets	2,503	(1,304)	(1,098)
(Decrease) increase in accounts payable	(2,273)	(2,862)	12,842
Increase (decrease) in accrued liabilities	1,246	(576)	(6,871)
(Decrease) increase in income taxes	(365)	369	866
Increase (decrease) in deferred pension and postretirement benefits	588	(372)	(347)
Increase (decrease) in other long-term liabilities	956	(283)	(2,172)
Other, net	(93)	(294)	(3,105)
Cash provided by operating activities	86,418	67,087	20,778
Investing activities:			
Net proceeds from sale of discontinued operations	—	—	107,431
Acquisitions, net of cash acquired	(245,904)	(131,689)	(5,161)
Capital expenditures	(37,243)	(29,982)	(33,779)
Proceeds from disposition of capital assets	1,044	264	832
Proceeds from property insurance claim	—	1,263	4,801
Cash (used for) provided by investing activities	(282,103)	(160,144)	74,124
Financing activities:			
Borrowings under credit facility	634,800	117,000	—
Repayments of credit facility borrowings	(422,875)	(67,000)	—
Debt issuance costs	(11,435)	(496)	—
Repayments of other long-term debt	(2,185)	(1,020)	(175)
Common stock dividends paid	(5,470)	(5,515)	(5,992)
Issuance of common stock	3,400	5,109	3,249
Excess tax benefit from share-based compensation	136	60	654
Purchase of treasury stock	—	(52,719)	(22,281)
Other, net	—	—	86
Cash provided by (used for) financing activities	196,371	(4,581)	(24,459)
Effect of exchange rate changes on cash and cash equivalents	1,715	379	207
Increase (decrease) in cash and cash equivalents	2,401	(97,259)	70,650
Cash and cash equivalents at beginning of period	23,125	120,384	49,734
Cash and cash equivalents at end of period	\$ 25,526	\$ 23,125	\$ 120,384

See notes to consolidated financial statements.

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Nature of Operations, Basis of Presentation and Significant Accounting Policies

Nature of Operations

Quanex Building Products Corporation is a component supplier to original equipment manufacturers (OEMs) in the building products industry. These components can be categorized as window and door (fenestration) components and kitchen and bath cabinet components. Examples of fenestration components include: (1) energy-efficient flexible insulating glass spacers, (2) extruded vinyl profiles, (3) window and door screens, and (4) precision-formed metal and wood products. We also manufacture cabinet doors and other components for OEMs in the kitchen and bathroom cabinet industry. In addition, we provide certain other non-fenestration components and products, which include solar panel sealants, wood flooring, trim moldings, vinyl decking, fencing, water retention barriers, and conservatory roof components. We have organized our business into three reportable operating segments. For additional discussion of our reportable operating segments, see Note 18, "Segment Information." We use low-cost production processes and engineering expertise to provide our customers with specialized products for their specific window, door, and cabinet applications. We believe these capabilities provide us with unique competitive advantages. We serve a primary customer base in North America and the United Kingdom, and also serve customers in international markets through our operating plants in the United Kingdom and Germany, as well as through sales and marketing efforts in other countries.

Unless the context indicates otherwise, references to "Quanex", the "Company", "we", "us" and "our" refer to the consolidated business operations of Quanex Building Products Corporation and its subsidiaries.

Basis of Presentation and Principles of Consolidation

Our consolidated financial statements have been prepared by us in accordance with accounting principles generally accepted in the United States of America (U.S. GAAP). We consolidate our wholly-owned subsidiaries and eliminate intercompany sales and transactions. We have no cost or equity investments in companies that are not wholly-owned. In our opinion, these audited financial statements contain all adjustments necessary to fairly present our financial position, results of operations and cash flows for the periods presented.

Use of Estimates

In preparing financial statements, we make informed judgments and estimates that affect the reported amounts of assets and liabilities as of the date of the financial statements and affect the reported amounts of revenues and expenses during the reporting period. We review our estimates on an ongoing basis, including those related to impairment of long lived assets and goodwill, contingencies and income taxes. Changes in facts and circumstances may result in revised estimates and actual results may differ from these estimates. During the year ended October 31, 2016, we recorded a change in estimate related to certain assets involved in restructuring activities, as more fully described under the caption "Restructuring."

A summary of our significant accounting policies consistently applied in the preparation of the accompanying consolidated financial statements follows:

Revenue Recognition

We recognize revenue when products are shipped and when title has passed to the customer. Revenue is deemed to be realized or earned when the following criteria are met: (a) persuasive evidence that a contractual sales arrangement exists; (b) delivery has occurred; (c) the price to the buyer is fixed or determinable; and (d) collection is reasonably assured. Sales allowances and customer incentives are treated as reductions to revenue and are provided for based on historical experience and current estimates.

Cash and Cash Equivalents

Cash equivalents include all highly liquid investments with an original maturity of three months or less. Such securities with an original maturity which exceeds three months are deemed to be short-term investments. We maintain cash and cash equivalents at several financial institutions, which at times may not be federally insured or may exceed federally insured limits. We have not experienced any losses in such accounts and believe we are not exposed to any significant credit risks on such accounts.

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

Concentration of Credit Risk and Allowance for Doubtful Accounts

Certain of our businesses or product lines are largely dependent on a relatively few large customers. Although we believe we have an extensive customer base, the loss of one of these large customers or if such customers were to incur a prolonged period of decline in business, our financial condition and results of operations could be adversely affected. For the year ended October 31, 2016, one customer provided 10% of our consolidated net sales. Amounts included in accounts receivable at October 31, 2016 related to this customer totaled \$5.9 million. Each of two customers provided more than 10% of our consolidated net sales for the year ended October 31, 2015 (11% and 14%) and each of two customers provided more than 10% of our consolidated net sales for the year ended October 31, 2014 (11% and 15%). Amounts included in accounts receivable at October 31, 2015 related to these customers totaled \$8.3 million and \$5.0 million, respectively.

We have established an allowance for doubtful accounts to estimate the risk of loss associated with our accounts receivable balances. Our policy for determining the allowance is based on factors that affect collectability, including: (a) historical trends of write-offs, recoveries and credit losses; (b) the credit quality of our customers; and (c) projected economic and market conditions. We believe our allowance is adequate to absorb any known or probable losses as of October 31, 2016.

Business Combinations

We apply the acquisition method of accounting for business combinations in accordance with U.S. GAAP, which requires us to make use of estimates and judgments to allocate the purchase price paid for acquisitions to the fair value of the net assets and liabilities acquired. We use established valuation techniques and engage reputable valuation specialists to assist us with these valuations.

Inventory

We record inventory at the lower of cost or market value. Inventories are valued using the first-in first-out (FIFO) and last-in first-out (LIFO) methods, although LIFO is only used at two of our plant locations currently. We use the dollar-value link chain LIFO method, and the LIFO reserve is calculated on a consolidated basis in a single consolidated pool. The businesses that we acquire and integrate into our operations may value inventories using either the LIFO or FIFO method. Fixed costs related to excess manufacturing capacity have been expensed in the period, and therefore, are not capitalized into inventory. Inventory quantities are regularly reviewed and provisions for excess or obsolete inventory are recorded primarily based on our forecast of future demand and our estimates regarding current and future market conditions. Significant unanticipated variances to our forecasts could require a change in the provision for excess or obsolete inventory, resulting in a charge to net income during the period of the change.

Long-Lived Assets

Property, Plant and Equipment and Intangible Assets with Defined Lives

We make judgments and estimates related to the carrying value of property, plant and equipment, intangible assets with defined lives, and long-lived assets, which include determining when to capitalize costs, the depreciation and amortization methods to use and the useful lives of these assets. We evaluate these assets for impairment when there are indicators that the carrying values of these assets might not be recoverable. Such indicators of impairment may include changes in technology, significant market fluctuations, historical losses or loss of a significant customer, or other changes in circumstances that could affect the assets' ability to generate future cash flows. When we evaluate these assets for impairment, we compare the sum of the undiscounted cash flows expected to result from the use and eventual disposition of the asset to its carrying value. If the carrying value exceeds the sum of the undiscounted cash flows, and there is no alternative use for the asset, we determine that the asset is impaired. To measure the impairment charge, we compare the carrying amount of the long-lived asset to its fair value, as determined by quoted market prices in active markets, if available, or by discounting the projected future cash flows using our incremental borrowing rate. This calculation of fair value requires us to develop and employ long-term forecasts of future operating results related to these assets. These forecasts are based on assumptions about demand for our products and future market conditions. Future events and unanticipated changes to these assumptions could require a provision for impairment, resulting in a charge to net income during the period of the change.

We monitor relevant circumstances, including industry trends, general economic conditions, and the potential impact that such circumstances might have on the valuation of our identifiable intangible assets with finite lives. Events and changes in circumstances that may cause a triggering event and necessitate such a review include, but are not limited to: a decrease in sales for certain customers, improvements or changes in technology, and/or a decision to discontinue the use of a trademark or trade name, or allow a patent to lapse. Such events could negatively impact the fair value of our identifiable intangible assets. In such

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

circumstances, we may evaluate the underlying assumptions and estimates made by us in order to assess the appropriate valuation of these identifiable intangible assets and compare to the carrying value of the assets. We may be required to write down these identifiable intangible assets and record a non-cash impairment charge. When we originally value our intangible assets, we use a variety of techniques to establish the carrying value of the assets, including the relief from royalty method, excess current year earnings method and income method.

Changes in market conditions during the fourth quarter of 2016 impacted our long-term forecasts of future operating results with regard to the potential reduction of significant sales volume to a large customer of our United States vinyl operations, and lower-than-expected operating performance of our North American Cabinet Components business. We determined that these conditions were indicators of triggering events which necessitated an evaluation of certain long-term assets utilized in these businesses for potential impairment. We compared the projected undiscounted cash flows we expected to realize associated with these assets over the remaining useful lives of the primary operating assets to the net book value of the long-term assets, including goodwill, and determined that these assets were not impaired. Therefore, we did not record an impairment charge related to property, plant and equipment or intangible assets with defined lives during 2016. There were no indicators of triggering events noted for the years ended October 31, 2015 and 2014.

Software development costs, including costs incurred to purchase third-party software, are capitalized when we have determined that the technology is capable of meeting our performance requirements, and we have authorized funding for the project. We cease capitalization of software costs when the software is substantially complete and is ready for its intended use. The software is then amortized over its estimated useful life. When events or circumstances indicate the carrying value of internal use software might not be recoverable, we assess the recoverability of these assets by comparing the carrying value of the asset to the undiscounted future cash flows expected to be generated from the asset's use, consistent with the methodology to test other property, plant and equipment for impairment.

Property, plant and equipment is stated at cost and is depreciated using the straight-line method over the estimated useful lives of the assets. We capitalize betterments which extend the useful lives or significantly improve the operational efficiency of assets. We expense repair and maintenance costs as incurred.

The estimated useful lives of our primary asset categories at October 31, 2016 were as follows:

	Useful Life (in Years)
Land improvements	7 to 25
Buildings	25 to 40
Building improvements	5 to 20
Machinery and equipment	2 to 15

Leasehold improvements are depreciated over the shorter of their estimated useful lives or the term of the lease.

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

Goodwill

We use the acquisition method to account for business combinations and to the extent that the purchase price exceeds the fair value of the net assets acquired, we record goodwill. In accordance with U.S. GAAP, we are required to evaluate our goodwill on a qualitative basis to determine if there are indicators of impairment. If there are no indicators, no further analysis is deemed necessary. However, if there are indicators of impairment or if events or circumstances indicate there may be a potential impairment, we perform an annual goodwill impairment test as of August 31, or more frequently if indicators of impairment exist. This impairment test requires a two-step approach as prescribed in ASC Topic 350 "Intangibles - Goodwill and Other" (ASC 350). The first step of the impairment test requires us to compare the fair value of each reporting unit to its carrying value including goodwill. To determine fair value of our reporting units, we use multiple valuation techniques including a discounted cash flow analysis, using the applicable weighted average cost of capital, in combination with a market approach. This test requires us to make assumptions about the future growth of our business and the market in general, as well as other variables such as the level of investment in capital expenditure, growth in working capital requirements and the terminal or residual value of our reporting units beyond the periods of estimated annual cash flows. We use a third-party valuation firm to assist us with this analysis. If the fair value of each reporting unit exceeds its carrying value, no further testing is required. Otherwise, we perform the second step of the impairment test whereby we compare the implied fair value of goodwill to its carrying value. The implied fair value of goodwill is determined by applying the acquisition method of accounting for a business combination to the reporting unit as if it were acquired. Under this method, the fair value of the reporting unit is deemed to be the purchase price. The assets and liabilities are recorded at their fair value and the remaining excess of fair value is the implied value of goodwill. An impairment loss is recorded to the extent that the carrying amount of the reporting unit goodwill exceeds the implied fair value of that goodwill. Our estimates of future cash flows and the residual values could differ from actual cash flows which may require a provision for impairment in a future period.

At our annual testing date, August 31, 2016, we had six reporting units with goodwill balances: three reporting units included in our NA Engineered Components operating segment, two reporting units included in our EU Engineered Components operating segment, and one reporting unit included in our NA Cabinet Components operating segment. Of the reporting units in our NA Engineered Components operating segment, we determined that the fair value of two of the reporting units well exceeded their respective book values (152% and 336%). However, one reporting unit, our United States vinyl extrusion business, recorded an impairment charge of \$12.6 million, or 100% of the remaining goodwill for this unit. The impairment was the result of the anticipated loss of volume from a large customer over the forecast period. Of the two reporting units included in our EU Engineered Components operating segment, we determined that the fair value of these units well exceeded their respective book values (35% and 42%). For the reporting unit included in our NA Cabinet Components operating segment, we determined the fair value of the unit exceeded the carrying value by 7%.

Restructuring

We accrue one-time severance costs pursuant to an approved plan of restructuring at the communication date, when affected employees have been notified of the potential severance and sufficient information has been provided for the employee to calculate severance benefits, in the event the employee is involuntarily terminated. In addition, we accrue costs associated with the termination of contractual commitments including operating leases at the time the lease is terminated pursuant to the lease provisions or in accordance with another agreement with the landlord. Otherwise, we continue to recognize operating lease expense through the cease-use date. After the cease-use date, we determine if our operating lease payments are at market. We assume sublet of the facility at the market rate. To the extent our lease obligations exceed the fair value rentals, we discount to arrive at the present value and record a liability. If the facility is not sublet, we expense the amount of the sublet in the current period. For other costs directly related to the restructuring effort, such as equipment moving costs, we expense in the period incurred.

In October 2016, we announced the closure of three operating plants, two related to our United States vinyl operations, and one related to our kitchen and bathroom cabinet door business in Mexico. We expensed \$0.5 million pursuant to these restructuring efforts at October 31, 2016, including an accrual for one-time severance cost of \$0.4 million included in accrued liabilities in the accompanying consolidated balance sheet. Our facility lease obligations were deemed to be at fair market value and we have not yet negotiated exit from these lease obligations. We expect to incur costs related to equipment moves, potential fixed asset retirements and inventory adjustments related to these restructuring efforts during fiscal 2017.

In addition, we evaluated the remaining depreciable lives of property, plant and equipment that will be abandoned or otherwise disposed as of the cease-use date of these plants. We recorded a change in estimate associated with the remaining useful lives of these assets which resulted in an increase in depreciation expense of \$1.0 million for the year ended October 31, 2016, and we expect to incur incremental depreciation expense totaling \$1.6 million associated with these assets during fiscal 2017. Furthermore, we evaluated the remaining service lives of intangible assets with defined lives associated with our United States

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

vinyl extrusion business and recorded a change in estimate associated with the remaining useful lives of a customer relationship intangible and a utility process intangible asset resulting in an increase in amortization expense of \$0.3 million for the year ended October 31, 2016, and we expect to incur incremental amortization expense totaling \$1.0 million associated with these intangible assets during fiscal 2017.

Insurance

We manage our exposure to losses for workers' compensation, group medical, property, casualty and other insurance claims through a combination of self-insurance retentions and insurance coverage with third-party carriers. We record undiscounted liabilities associated with our portion of these exposures, which we estimate by considering various factors such as our historical claims experience, severity factors and estimated claims incurred but not reported, for which we have developed loss development factors, which are estimates as to how claims will develop over time until closed. While we consider a number of factors in preparing the estimates, sensitive assumptions using significant judgment are made in determining the amounts that are accrued in the financial statements. Actual claims could differ significantly from these estimated liabilities, depending on future claims experience. We do not record insurance recoveries until any contingencies relating to the claim have been resolved.

Retirement Plans

We sponsor a defined benefit pension plan and an unfunded postretirement plan that provides health care and life insurance benefits for a limited pool of eligible retirees and dependents. To measure our liabilities associated with these plans, we make assumptions related to future events, including expected return on plan assets, rate of compensation increases, and healthcare cost trend rates. The discount rate reflects the rate at which benefits could be effectively settled on the measurement date. We determine our discount rate using a RATE: Link Model whereby target yields are developed from bonds across a range of maturity points, and a curve is fitted to those targets. Spot rates (zero coupon bond yields) are developed from the curve and used to discount benefit payments associated with each future year. Actual pension plan asset investment performance, as well as other economic experience such as discount rate and demographic experience, will either reduce or increase unamortized pension losses at the end of any fiscal year, which ultimately affects future pension costs.

Warranty Obligations

We accrue warranty obligations when we recognize revenue for certain products. Our provision for warranty obligations is based on historical costs incurred for such obligations and is adjusted, where appropriate, based on current conditions and factors. Our ability to estimate our warranty obligations is subject to significant uncertainties, including changes in product design and our overall product sales mix.

Income Taxes

We record the estimated future tax effects of temporary differences between the tax basis of assets and liabilities and the amounts reported in our consolidated balance sheets, as well as net operating losses and tax credit carry forwards. We evaluate the carrying value of the net deferred tax assets and determine whether we will be able to generate sufficient future taxable income to realize our deferred tax assets. We perform this review for recoverability on a jurisdictional basis, whereby we consider both positive and negative evidence related to the likelihood of realization of the deferred tax assets. The weight given to the positive and negative evidence is commensurate with the extent to which the evidence can be objectively verified. Cumulative losses in recent years is a significant piece of negative evidence that is difficult to overcome in determining that a valuation allowance is not needed against deferred tax assets. Thus, it is generally difficult for positive evidence regarding projected future taxable income exclusive of reversing taxable temporary differences to outweigh objective negative evidence of recent financial reporting losses. We recorded a net loss for the year ended October 31, 2016. However, we have recorded pre-tax cumulative income from continuing operations of \$31.3 million for the three-year period ended October 31, 2016. We believe we will fully realize our deferred tax assets, net of recorded valuation allowance. We project future taxable income using the same forecasts used to test long-lived assets and intangibles for impairment, scheduling out the future reversal of existing taxable temporary differences and reviewing our most recent financial operations. In the event the estimates and assumptions indicate we will not generate sufficient future taxable income to realize our deferred tax assets, we record a valuation allowance against a portion of our deferred tax assets.

We evaluate our on-going tax positions to determine if it is more-likely-than-not we will be successful in defending such positions if challenged by taxing authorities. To the extent that our tax positions do not meet the more-likely-than-not criteria, we record a liability for uncertain tax positions. Historically, we have recorded a liability for uncertain tax positions which stem from an unrecognized tax benefit from our 2008 spin-off from our predecessor parent company, as well as certain state tax items regarding the interpretation of tax laws and regulations. In January 2015, we reversed the liability for uncertain tax positions related to the 2008 spin-off based on the issuance of a no change letter from the Internal Revenue Service (Note 11, "Income Taxes"). We continue

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

to evaluate our positions regarding various state tax interpretations at each reporting date, until the applicable statute of limitations lapse.

Derivative Instruments

We have historically used financial and commodity-based derivative contracts to manage our exposure to fluctuations in foreign currency exchange rates and aluminum prices. All derivatives are measured at fair value on a recurring basis and the methodology and classifications are discussed further in Note 13, "Derivative Instruments." We have not designated the derivative instruments we use as cash flow hedges under ASC Topic 815 "Derivatives and Hedging" (ASC 815). Therefore, all gains and losses, both realized and unrealized, are recognized in the consolidated statements of income (loss) in the period of the change as the underlying assets and liabilities are marked-to-market. We do not enter into derivative instruments for speculative or trading purposes. As such, these instruments are considered economic hedges, and are reflected in the operating activities section of the consolidated statements of cash flow.

Foreign Currency Translation

Our consolidated financial statements are presented in our reporting currency, the United States Dollar. Our German and United Kingdom operations are measured using the local currency as the functional currency. The assets and liabilities of our foreign operations which are denominated in other currencies are translated to United States Dollars using the prevailing exchange rates as of the balance sheet date. Revenues and expenses are translated at the average exchange rates for the applicable period. The resulting translation adjustments are recorded as a component of accumulated other comprehensive loss on the consolidated balance sheets.

Occasionally, we enter into transactions that are denominated in currencies other than our functional currency. At each balance sheet date, we translate these asset or liability accounts to our functional currency and record unrealized transaction gains or losses. When these assets or liabilities settle, we record realized transaction gains or losses. These realized and unrealized gains or losses are included in the accompanying consolidated statements of income (loss) under the caption, "Other, net."

Stock-Based Compensation

We have issued stock-based compensation in the form of stock options to directors, employees and officers, and non-vested restricted stock awards to certain key employees and officers. We apply the provisions of ASC Topic 718 "Compensation - Stock Compensation" (ASC 718), to determine the fair value of stock option awards on the date of grant using the Black-Scholes valuation model. We recognize the fair value as compensation expense on a straight-line basis over the requisite service period of the award based on awards ultimately expected to vest. Stock options granted to directors vest immediately while the stock options granted to our employees and officers typically vest ratably over a three-year period with service and continued employment as the vesting conditions. For new option grants to retirement-eligible employees, we recognize expense and vest immediately upon grant, consistent with the retirement vesting acceleration provisions of these grants. For employees near retirement age, we amortize such grants over the period from the grant date to the retirement-eligibility date if such period is shorter than the standard vesting schedule. For grants of non-vested restricted stock, we calculate the compensation expense at the grant date as the number of shares granted multiplied by the closing stock price of our common stock on the date of grant. This expense is recognized ratably over the vesting period. Our non-vested restricted stock grants to officers and employees cliff vest over a three-year period with service and continued employment as the only vesting criteria. Our fair value determination of stock-based payment awards on the date of grant using an option-pricing model is affected by our stock price as well as assumptions regarding a number of highly complex and subjective variables. These variables include, but are not limited to, our expected stock price volatility over the term of the awards, actual and projected employee stock option exercise behavior over the expected term, our dividend rate, risk-free rate and expectation with regards to forfeitures. Option-pricing models were developed for use in estimating the value of traded options that have no vesting or hedging restrictions and are fully transferable. Because our employee stock options have certain characteristics that are significantly different from traded options, and because changes in the subjective assumptions can materially affect the estimated value, the valuation models may not provide an accurate measure of the fair value of our employee stock options. Accordingly, that value may not be indicative of the fair value observed in a willing buyer/willing seller market transaction.

We have granted other awards which are linked to the performance of our common stock, but will settle in cash rather than the issuance of shares of our common stock. The value of these awards fluctuates with changes in our stock price, with the resulting gains or losses reflected in the period of the change. We have recorded current and non-current liabilities related to these awards reflected in the accompanying consolidated balance sheets at October 31, 2016 and 2015. See Note 15, "Stock-based Compensation."

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

In addition, we have granted performance share units which settle in cash and shares. These awards have vesting criteria based on a market condition (relative total shareholder return) and an internal performance condition (earnings per share growth). We utilize a Monte Carlo simulation model to value the market condition and our stock price on the date of grant to value the internal performance condition. We bifurcate the liability and equity portion of the awards (amounts expected to settle in cash and shares, respectively) and recognize expense ratably over the vesting period of three years.

Treasury Stock

We use the cost method to record treasury stock purchases whereby the entire cost of the acquired shares of our common stock is recorded as treasury stock (at cost). When we subsequently reissue these shares, proceeds in excess of cost upon the issuance of treasury shares are credited to additional paid in capital, while any deficiency is charged to retained earnings.

Earnings per Share Data

We calculate basic earnings per share based on the weighted average number of our common shares outstanding for the applicable period. We calculate diluted earnings per share based on the weighted average number of our common shares outstanding for the period plus all potentially dilutive securities using the treasury stock method, whereby we assume that all such shares are converted into common shares at the beginning of the period, if deemed to be dilutive. If we incur a loss from continuing operations, the effect of potentially dilutive common stock equivalents (stock options and unvested restricted stock awards) are excluded from the calculation of diluted earnings per share because the effect would be anti-dilutive. Performance shares are excluded from contingent shares for purposes of calculating diluted weighted average shares until the performance measure criteria is probable and shares are likely to be issued.

Supplemental Cash Flow Information

The following table summarizes our supplemental cash flow information for the years ended October 31, 2016, 2015 and 2014:

	Year Ended October 31,		
	2016	2015	2014
	(In thousands)		
Cash paid for interest	\$ 14,594	\$ 830	\$ 361
Cash paid for income taxes	3,004	2,561	3,046
Cash received for income tax refunds	1,949	403	66
<i>Noncash investing and financing activities:</i>			
Share value cancelled to satisfy tax withholdings	666	153	155
Recognition of unrecognized tax benefit	—	10,883	1,977
Debt assumed in acquisition	—	7,673	—
Debt discount on Term Loan B	6,200	—	—
(Decrease) increase in capitalized expenditures in accounts payable and accrued liabilities	\$ (32)	\$ (204)	\$ 1,398

Discontinued Operations

In accordance with ASC Topic 205-20 “*Presentation of Financial Statements-Discontinued Operations*” (ASC 205), we present the results of operations of businesses which have been sold or meet the criteria to be classified as held for sale on a consolidated basis as a separate caption below net income (loss) from continuing operations, net of tax. We also aggregate the assets and liabilities associated with discontinued operations and present separately as a component of current assets, long-term assets, current liabilities and long-term liabilities, as applicable, in the accompanying balance sheets. If an impairment loss is indicated and the fair value of the net assets exceeds the carrying value at the balance sheet date, we record an impairment loss in the period the net assets are classified as held for sale. We cease depreciation of assets which are classified as held for sale. We use our judgment to ascertain when a business meets the criteria to be accounted for as a discontinued operation, applying the U.S. GAAP standard to determine if there will be a strategic shift in the business as a result of the disposal. Changes in circumstances or our level of future involvement with a business that has been sold may impact how we account for discontinued operations.

Prior to April 1, 2014, we had two reportable business segments: (1) Engineered Products and (2) Aluminum Sheet Products. On April 1, 2014, we sold our interest in a limited liability company which held the assets of the Nichols Aluminum business (Nichols), the sole operating segment included in the Aluminum Sheet Products reportable segment, to Aleris International, Inc. (Aleris), a privately held Delaware corporation which provides aluminum rolled products and extrusions, aluminum recycling and

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

specification aluminum alloy production. We received net proceeds of \$107.4 million, which includes a working capital adjustment of \$2.6 million which we paid in June 2014, resulting in a gain on the transaction of \$24.1 million, net of related taxes of \$15.0 million. We paid \$0.4 million to reimburse Aleris for certain severance costs related to Nichols employee terminations in accordance with the purchase agreement, which reduced the pre-tax gain on the sale. We entered into a transition services agreement whereby we provided certain administrative services to Nichols through May 31, 2014, including information technology support, benefit administration and payroll services.

Nichols represented a significant portion of our assets and operations. We accounted for this sale as a discontinued operation. We revised our financial statements, and removed the results of operations of Nichols from net income (loss) from continuing operations, and presented separately as income (loss) from discontinued operations, net of taxes, for each of the accompanying consolidated statements of income (loss), as applicable. Unless noted otherwise, the notes to the consolidated financial statements pertain to our continuing operations.

For cash flow statement presentation, the sources and uses of cash for Nichols during fiscal 2014 are presented as operating, investing and financing cash flows, as applicable, combined with such cash flows for continuing operations, as permitted by U.S. GAAP.

We have historically purchased rolled aluminum product from Nichols. We expect to continue to purchase aluminum from Nichols in the normal course of business. We considered whether these aluminum purchases and the services anticipated under the transition services agreement constituted significant continuing involvement with Nichols. Since these purchases are in the normal course of business and the services provided were for a relatively short period and are customary for similar transactions, we determined that this involvement was not deemed significant and did not preclude accounting for the transaction as a discontinued operation. Our purchases of aluminum product from Nichols for the years ended October 31, 2016, 2015 and 2014 were \$4.2 million, \$9.5 million and \$14.9 million, respectively.

As of October 31, 2016, we recorded a receivable from Aleris of less than \$0.1 million, which represented reimbursable costs, primarily associated with workers compensation and health insurance claims. We expect to continue to incur costs associated with these claims which will be reimbursable from Aleris.

In November 2013, Nichols experienced a fire at its Decatur, Alabama facility, which damaged a cold mill used to roll aluminum sheet to a desired thickness. The loss was insured, subject to a \$0.5 million deductible. We capitalized \$6.5 million to rebuild the asset, which was returned to service as of March 31, 2014. We incurred cost of \$2.3 million associated with this loss, including an impairment of \$0.5 million related to retirement of the asset, moving costs, outside service costs, clean-up and the deductible. This insurance claim was settled in July 2015. We received insurance proceeds of \$6.1 million, of which \$1.3 million was received in 2015, resulting in a recognized gain on involuntary conversion of \$3.7 million.

The following table summarizes the operating results for Nichols for the year ended October 31, 2014:

	October 31, 2014	
	(in thousands)	
Net sales	\$	142,797
Operating loss		(5,094)
Loss before income taxes, before gain on sale		(5,111)
Income tax benefit, before gain on sale		1,947
Gain on sale, net of tax of \$15,062		24,060
Net income	\$	20,896
Basic earnings per common share	\$	0.57
Diluted earnings per common share	\$	0.56

Subsequent Events

We have evaluated events occurring after the balance sheet date for possible disclosure as a subsequent event through the date the financial statements were issued.

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

2. Acquisitions

Woodcraft

On November 2, 2015, we completed a merger of QWMS, Inc., a Delaware corporation which was a newly-formed and wholly-owned Quanex subsidiary, and WII Holding, Inc. (WII), a Delaware corporation. Upon satisfaction or waiver of conditions set forth in the merger agreement, QWMS, Inc. merged with and into WII, and WII became our wholly-owned subsidiary, and, as a result, we acquired all the subsidiaries of WII (referred to collectively as Woodcraft). Woodcraft is a manufacturer of cabinet doors and other components to OEMs in the kitchen and bathroom cabinet industry. Woodcraft operated 12 plants within the United States and one in Mexico. On October 31, 2016, we announced the closure of the Woodcraft plant in Mexico. We paid \$245.9 million in cash, net of cash acquired and including certain holdbacks with regard to potential indemnity claims, and received less than \$0.1 million from the seller as a working capital true-up, resulting in goodwill totaling \$113.7 million. For the period from the date of acquisition, November 2, 2015 through October 31, 2016, our consolidated operating results include revenues of \$223.4 million and net income of \$4.1 million associated with Woodcraft. Included in these results is a restructuring charge of \$0.1 million, as more fully described in Note 1, "Nature of Operations, Basis of Presentation and Significant Accounting Policies - Restructuring." We believe this acquisition expanded our business into a new segment of the building products industry, which is experiencing growth and which is less susceptible to the impact of seasonality due to inclement weather.

The purchase price has been allocated to the fair value of the assets acquired and liabilities assumed, as indicated in the table below. During the year ended October 31, 2016, we adjusted goodwill as of November 2, 2015, reflecting changes in valuation estimates during the measurement period related to inventory, fixed assets, accounts receivable, accrued liabilities and the related current and deferred tax effects.

	As of Date of Opening Balance Sheet	
	(In thousands)	
Net assets acquired:		
Accounts receivable	\$	23,944
Inventory		29,552
Prepaid and other current assets		4,081
Property, plant and equipment		63,154
Goodwill		113,747
Intangible assets		62,900
Other non-current assets		24
Accounts payable		(4,620)
Accrued expenses		(9,492)
Deferred income tax liabilities, net		(37,386)
Net assets acquired	\$	245,904
Consideration:		
Cash, net of cash and cash equivalents acquired	\$	245,904

We used recognized valuation techniques to determine the fair value of the assets and liabilities, including the income approach for customer relationships, with a discount rate that reflects the risk of the expected future cash flows. Intangible assets related to the Woodcraft acquisition as of November 2, 2015 included \$62.8 million of customer relationships and other intangibles of less than \$0.1 million, with original estimated useful lives of 12 years and 1 year, respectively. These intangible assets will be amortized on a straight-line basis. The goodwill balance is not deductible for tax purposes. Woodcraft is allocated entirely to our North American Cabinet Components reportable operating segment.

HLP

On June 15, 2015, we acquired the outstanding ownership shares of Flamstead Holdings Limited, an extruder of vinyl lineal products and manufacturer of other plastic products incorporated and registered in England and Wales, for \$131.7 million in cash, net of cash acquired, debt assumed of \$7.7 million and contingent consideration of \$10.3 million, resulting in goodwill on the

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

transaction of approximately \$61.3 million. Following a pre-sale reorganization and purchase, Flamstead Holdings Limited owned 100% of the ownership shares of the following subsidiaries: HL Plastics Limited, Vintage Windows Limited, Wegoma Machinery Sales Limited (renamed in 2016 as Avantek Machinery), and Liniar Limited (collectively referred to as "HLP") each of which is registered in England and Wales. The agreement contains an earn-out provision which is calculated as a percentage of earnings before interest, tax and depreciation and amortization for a specified period, as defined in the purchase agreement. Pursuant to this earn-out provision, the former owner could select a base year upon which to calculate the earn-out (one of the next three succeeding twelve-month periods ended July 31). In August 2016, the former owner selected the twelve-month period ended July 31, 2016 as the measurement period for the earn-out calculation. The final earn-out liability totaled \$8.4 million at October 31, 2016 and is recorded under the caption "Accrued Liabilities" in the accompanying consolidated balance sheet. On November 7, 2016, we paid \$8.5 million to settle the earn-out, which included a foreign currency adjustment of \$0.1 million.

We assumed operating leases associated with the HLP acquisition for which our lessors are entities that were either wholly-owned subsidiaries or affiliates of Flamstead Holdings Limited prior to the pre-acquisition reorganization, and in which a former owner, who is now our employee, has an ownership interest. These leases include our primary operating facilities, a finished goods warehouse and a mixing plant. The lease for the manufacturing plant has a 20-year term which began in 2007, the lease for the warehouse has a 15-year term which began in 2012, and the lease for the mixing plant has a 13.5-year term which began in 2013. We have recorded rent expense of approximately \$0.4 million pursuant to these agreements for the period June 15, 2015 to October 31, 2015 and \$1.3 million for the year ended October 31, 2016. Future commitments of \$15.4 million under these lease arrangements are included in our operating lease commitments disclosed in Note 12, "Commitments and Contingencies."

We believe the acquisition of HLP: (1) expanded our international presence in the global fenestration business, particularly in the United Kingdom housing market; (2) expanded our vinyl extrusion product offerings, including house systems, supplemented with the brand recognition related to Liniar; (3) provides synergies and an opportunity to sell complementary products, while adding new product offerings such as water retention barriers and conservatory roofing products; and (4) aligns well with our strategy to be the preferred supplier of quality products to our customers, while maintaining safe, efficient manufacturing facilities.

Our consolidated operating results associated with HLP for the period from the date of acquisition, June 15, 2015 through October 31, 2015 include revenues of \$42.2 million and net income of \$1.5 million, respectively.

The purchase price has been allocated to the fair value of the assets acquired and liabilities assumed, as indicated in the table below. Changes in the contingent consideration due to the passage of time and potential differences between projected and actual operating results for HLP for the earn-out period were recorded as period costs as incurred. We recorded expense of \$0.1 million related to the change in contingent consideration for the period from June 15, 2015 to October 31, 2015 and \$0.1 million for the year ended October 31, 2016. In addition, we recorded certain adjustments related to the fair value of fixed assets, inventory and other assets resulting in a decrease in goodwill of \$0.4 million during the period from June 15, 2015 to October 31, 2015 and \$0.6 million during the measurement period which ended on January 31, 2016.

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

	As of Date of Opening Balance Sheet
	(In thousands)
Net assets acquired:	
Accounts receivable	\$ 12,104
Inventory	16,015
Prepaid and other assets	722
Property, plant and equipment	27,218
Goodwill	61,323
Intangible assets	61,101
Other non-current assets	2,252
Accounts payable	(9,375)
Income taxes payable	(948)
Accrued expenses	(6,239)
Deferred tax liabilities	(14,492)
Net assets acquired	\$ 149,681
Consideration:	
Cash, net of cash and cash equivalents acquired	\$ 131,689
Debt assumed in acquisition (capital leases)	7,673
Contingent consideration (earn-out)	10,319
	\$ 149,681

We use recognized valuation techniques to determine the fair value of the assets and liabilities, including the income approach for customer relationships and trade names, and the cost approach to value patents, with a discount rate that reflects the risk of the expected future cash flows. The goodwill balance is not deductible for tax purposes.

Greenville

On December 31, 2013, we acquired certain vinyl extrusion assets of Atrium Windows and Doors, Inc. (Atrium) at a facility in Greenville, Texas, for \$5.2 million in cash (Greenville). We accounted for this transaction as a business combination resulting in an insignificant gain on the purchase. We entered into a supply agreement with Atrium related to the products manufactured at Greenville. We believe this acquisition expanded our vinyl extrusion capacity and positioned us with a platform from which to better serve our customers in the southern United States.

The purchase price has been allocated to the fair value of the assets acquired and liabilities assumed, as indicated in the table below.

	As of Date of Opening Balance Sheet
	(In thousands)
Net assets acquired:	
Inventories	\$ 161
Prepaid and other current assets	145
Property, plant and equipment	4,695
Intangible assets	290
Deferred income tax liability	(50)
Net assets acquired	\$ 5,241
Consideration:	
Cash, net of cash and cash equivalents acquired	\$ 5,161
Gain recognized on bargain purchase	\$ 80

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

We used recognized valuation techniques to determine the fair value of the assets and liabilities, including the income approach for customer relationships, with a discount rate that reflects the risk of the expected future cash flows. The gain on bargain purchase of approximately \$0.1 million is included in "Other, net" on our consolidated statement of income (loss) for the year ended October 31, 2014.

In October 2016, we announced plans to close the Greenville plant as part of a restructuring plan of our United States vinyl extrusion business, as more fully described in Note 1, "Nature of Operations, Basis of Presentation and Significant Accounting Policies - Restructuring."

Pro Forma Results

We calculated the pro forma impact of the HLP and Woodcraft acquisitions and the associated debt financing on our operating results for the twelve months ended October 31, 2015 and 2014. The following pro forma results give effect to these acquisitions, assuming these transactions occurred on November 1 of the respective periods.

	Pro Forma Results	
	For the Years Ended	
	October 31, 2015	October 31, 2014
	(In thousands, unaudited)	
Net sales	\$ 935,196	\$ 929,751
Income from continuing operations	\$ 26,587	\$ 24,915
Net income	\$ 27,066	\$ 16,931
Basic earnings per share	\$ 0.77	\$ 0.46
Diluted earnings per share	\$ 0.77	\$ 0.45

We derived the pro forma results for the HLP and Woodcraft acquisitions based on historical financial information obtained from the sellers and certain management assumptions. Our pro forma adjustments relate to incremental depreciation and amortization expense associated with property, plant and equipment and intangible assets and interest expense associated with borrowings to effect the transactions, assuming a November 1, 2013 effective date. In addition, we calculated the tax impact of these adjustments at a 20% statutory rate in the United Kingdom, as applicable, and a 35% statutory rate in the United States with regard to interest on pro forma borrowings.

These pro forma results do not purport to be indicative of the results that would have been obtained had the acquisitions of HLP and Woodcraft been completed on November 1 of the respective periods, or that may be obtained in the future.

Pro forma results of operations were omitted for the Greenville acquisition because this acquisition was not deemed to be material to our results of operations for the year ended October 31, 2014.

3. Accounts Receivable and Allowance for Doubtful Accounts

Accounts receivable consisted of the following as of October 31, 2016 and 2015:

	October 31,	
	2016	2015
	(In thousands)	
Trade receivables	\$ 83,384	\$ 64,156
Other	492	597
Total	\$ 83,876	\$ 64,753
Less: Allowance for doubtful accounts	251	673
Accounts receivable, net	<u>\$ 83,625</u>	<u>\$ 64,080</u>

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

The changes in our allowance for doubtful accounts were as follows:

	Year Ended October 31,		
	2016	2015	2014
	(In thousands)		
Beginning balance as of November 1, 2015, 2014 and 2013, respectively	\$ 673	\$ 698	\$ 481
Bad debt (benefit) expense	(67)	25	359
Amounts written off	(371)	(66)	(192)
Recoveries	16	16	50
Balance as of October 31,	<u>\$ 251</u>	<u>\$ 673</u>	<u>\$ 698</u>

4. Inventories

Inventories consisted of the following at October 31, 2016 and 2015:

	October 31,	
	2016	2015
	(In thousands)	
Raw materials	\$ 50,584	\$ 36,865
Finished goods and work in process	36,886	32,206
Supplies and other	1,859	2,064
Total	<u>\$ 89,329</u>	<u>\$ 71,135</u>
Less: Inventory reserves	4,994	8,106
Inventories, net	<u>\$ 84,335</u>	<u>\$ 63,029</u>

The changes in our inventory reserve accounts were as follows for the years ended October 31, 2016, 2015 and 2014:

	Year Ended October 31,		
	2016	2015	2014
	(In thousands)		
Beginning balance as of November 1, 2015, 2014 and 2013, respectively	\$ 8,106	\$ 5,757	\$ 5,040
Charged (credited) to cost of sales	8	2,853	960
Write-offs	(3,048)	(504)	(243)
Other	(72)	—	—
Balance as of October 31,	<u>\$ 4,994</u>	<u>\$ 8,106</u>	<u>\$ 5,757</u>

Fixed costs related to excess manufacturing capacity, if any, have been expensed in the period they were incurred and, therefore, are not capitalized into inventory. Our inventories at October 31, 2016 and 2015 were valued using the following costing methods:

	October 31,	
	2016	2015
	(In thousands)	
LIFO	\$ 4,017	\$ 3,642
FIFO	80,318	59,387
Total	<u>\$ 84,335</u>	<u>\$ 63,029</u>

For inventories valued using the LIFO method, replacement cost exceeded the LIFO value by approximately \$1.1 million and \$1.3 million as of October 31, 2016 and 2015, respectively. There were no liquidations of LIFO costing layers during the fiscal years ended October 31, 2016 and 2015, however we did reduce the LIFO reserve and record a corresponding decrease to cost of sales of approximately \$0.3 million for the year ended October 31, 2016 and less than \$0.1 million for the years ended October 31, 2015 and 2014, respectively.

We record LIFO reserve adjustments as corporate expenses so that our chief operating decision maker can review the

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

operations of our operating segments on a consistent FIFO or weighted-average basis. We calculate our LIFO reserve adjustments on a consolidated basis in a single pool using the dollar-value link chain method.

For our business acquisitions which have inventory balances, we integrate these operations and allow the use of either the LIFO or FIFO costing method. The inventory costing methods selected by these acquired businesses depends upon the facts and circumstances that exist at the time, and may include expected inventory quantities and expected future pricing levels. We perform this evaluation for each business acquired individually.

5. Property, Plant and Equipment

Property, plant and equipment consisted of the following at October 31, 2016 and 2015:

	October 31,	
	2016	2015
	(In thousands)	
Land and land improvements	\$ 10,264	\$ 2,149
Buildings and building improvements	76,710	50,050
Machinery and equipment	340,665	292,188
Construction in progress	15,986	13,797
Property, plant and equipment, gross	443,625	358,184
Less: Accumulated depreciation	245,128	217,512
Property, plant and equipment, net	\$ 198,497	\$ 140,672

Depreciation expense for continuing operations for the years ended October 31, 2016, 2015, and 2014 was \$36.2 million, \$26.2 million and \$24.8 million, respectively.

Assets recorded under capital leases had a historical cost of \$7.1 million and \$9.4 million, respectively, and accumulated depreciation of \$0.9 million and \$0.6 million, respectively as of October 31, 2016 and 2015. Depreciation expense related to these assets totaled \$0.8 million, \$0.5 million and \$0.1 million for the periods ended October 31, 2016, 2015 and 2014, respectively. Refer to Note 8, *Debt and Capital Lease Obligations* for additional information on capital leases.

If there are indicators of potential impairment, we evaluate our property, plant and equipment for recoverability over the remaining useful lives of the assets. We recorded an asset impairment charge related to specific assets that were held for sale for the year ended October 31, 2014 of \$0.5 million. We did not have impairments for the years ended October 31, 2016 or 2015. See further discussion at Note 1, "Nature of Operations, Basis of Presentation and Significant Accounting Policies - Long-Lived Assets - Plant and Equipment and Intangible Assets with Defined Lives."

6. Goodwill and Intangible Assets

Goodwill

The change in the carrying amount of goodwill for the years ended October 31, 2016 and 2015 was as follows:

	Year Ended October 31,	
	2016	2015
	(In thousands)	
Beginning balance as of November 1, 2015 and 2014	\$ 129,770	\$ 70,546
Acquisitions	113,747	61,524
Goodwill impairment charge	(12,602)	—
Other	(575)	—
Foreign currency translation adjustment	(13,305)	(2,300)
Balance as of October 31,	\$ 217,035	\$ 129,770

At our annual testing date, August 31, 2016, we had six reportable units with goodwill balances. Three of these units were included in our NA Engineered Components segment and had goodwill balances of \$12.6 million, \$35.9 million and \$2.8 million,

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

two units were included in our EU Engineered Components segment with goodwill balances of \$48.1 million and \$16.4 million, and our NA Cabinet Components segment had one unit with a goodwill balance of \$113.7 million. During 2016, we recorded an impairment charge of \$12.6 million as more fully described at Note 1, "Nature of Operations, Basis of Presentation and Significant Accounting Policies - Long-Lived Assets - Goodwill." We did not incur an impairment charge related to goodwill for the years ended October 31, 2015 or 2014.

Identifiable Intangible Assets

Amortizable intangible assets consisted of the following as of October 31, 2016 and 2015:

	October 31, 2016	October 31, 2016		October 31, 2015	
	Remaining Weighted Average Useful Life	Gross Carrying Amount	Accumulated Amortization	Gross Carrying Amount	Accumulated Amortization
		(In thousands)			
Customer relationships	7 years	\$ 152,146	\$ 35,693	\$ 98,750	\$ 24,628
Trademarks and trade names	12 years	55,481	26,288	58,916	23,416
Patents and other technology	4 years	24,571	16,037	25,881	15,158
Other	1 year	100	100	1,767	1,302
Total		\$ 232,298	\$ 78,118	\$ 185,314	\$ 64,504

We do not estimate a residual value associated with these intangible assets. During October 2016, we determined that a triggering event occurred which necessitated a review of our long-term assets. Based on an undiscounted cash flow analysis, we determined that our defined-lived intangible assets were not impaired. In addition, we shortened the life of several defined-lived intangible assets, which resulted in the recognition of incremental amortization expense of \$0.3 million for the year ended October 31, 2016. See additional disclosure at Note 1, "Nature of Operations, Basis of Presentation and Significant Accounting Policies - Restructuring."

Included in net intangible assets as of October 31, 2016 were customer relationships of \$57.6 million related to the Woodcraft acquisition. These intangible assets will be amortized on a straight-line basis. See Note 2, "Acquisitions", included herewith. During 2016, we retired fully amortized identifiable intangible assets of \$3.1 million, including prepaid licenses totaling \$1.4 million.

The aggregate amortization expense associated with identifiable intangible assets for the years ended October 31, 2016, 2015 and 2014 was \$16.9 million, \$10.2 million and \$9.1 million, respectively.

Estimated remaining amortization expense, assuming current intangible balances and no new acquisitions, for future fiscal years ending October 31, is as follows (in thousands):

	Estimated Amortization Expense
2017	\$ 18,263
2018	15,892
2019	15,104
2020	14,045
2021	12,327
Thereafter	78,549
Total	\$ 154,180

We did not incur impairment losses related to our identifiable intangible assets during the years ended October 31, 2016, 2015, or 2014.

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

7. Accrued Liabilities

Accrued liabilities consisted of the following at October 31, 2016 and 2015:

	October 31,	
	2016	2015
(In thousands)		
Payroll, payroll taxes and employee benefits	\$ 27,406	\$ 16,928
Accrued insurance and workers compensation	3,946	2,945
Sales allowances	6,197	6,216
Deferred compensation	362	331
Deferred revenue	238	987
Warranties	295	309
Audit, legal, and other professional fees	2,456	1,862
Accrued taxes	2,151	2,572
Accrued rent	120	196
Earn-out liability ⁽¹⁾	8,376	—
Other	3,554	5,018
Accrued liabilities	<u>\$ 55,101</u>	<u>\$ 37,364</u>

⁽¹⁾ Amount relates to acquisition earn-out payment for HLP, paid on November 7, 2016. For additional details, see Note 2, "Acquisitions" located elsewhere herein.

8. Debt and Capital Lease Obligations

Long-term debt consisted of the following at October 31, 2016 and 2015:

	October 31,	
	2016	2015
(In thousands)		
Revolving Credit Facility	\$ 120,000	\$ 50,000
Term Loan A	148,125	—
City of Richmond, Kentucky Industrial Building Revenue Bonds	400	500
Capital lease obligations	3,683	6,900
Unamortized deferred financing fees	\$ (2,677)	\$ (1,274)
Total debt	\$ 269,531	\$ 56,126
Less: Current maturities of long-term debt	10,520	2,359
Long-term debt	<u>\$ 259,011</u>	<u>\$ 53,767</u>

Revolving Credit Facility

On January 28, 2013, we entered into a Senior Unsecured Revolving Credit Facility (the 2013 Credit Facility) that had a five-year term and permitted aggregate borrowings at any time of up to \$150 million, with a letter of credit sub-facility, a swing line sub-facility and a multi-currency sub-facility. Borrowings denominated in United States dollars bore interest at a spread above LIBOR or a base rate derived from the prime rate. Foreign denominated borrowings bore interest at a spread above the LIBOR applicable to such currencies. Subject to customary conditions, we could have requested that the aggregate commitments under the 2013 Credit Facility be increased by up to \$100 million, with total commitments not to exceed \$250 million.

The 2013 Credit Facility required us to comply with certain financial covenants and limited the amount available for us to borrow based upon consolidated EBITDA, as defined, less the amount of outstanding debt and letters of credit, further subject to our Minimum Interest Coverage Ratio and Maximum Consolidated Leverage Ratio requirements, as defined in the credit agreement. Specifically, we could not permit, on a quarterly basis, our ratio of consolidated EBITDA to consolidated interest expense as defined (Minimum Interest Coverage Ratio), to fall below 3.00:1 or our ratio of consolidated funded debt to consolidated EBITDA,

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

as defined (Maximum Consolidated Leverage Ratio), to exceed 3.25:1. The Maximum Consolidated Leverage Ratio was the ratio of consolidated EBITDA to consolidated interest expense, in each case for the previous four consecutive fiscal quarters. EBITDA was defined by the indenture to include pro forma EBITDA of acquisitions and to exclude certain items such as goodwill and intangible asset impairments and certain other non-cash charges and non-recurring items. Subject to our compliance with the covenant requirements, the amount available under the 2013 Credit Facility was a function of: (1) our trailing twelve month EBITDA; (2) the Minimum Interest Coverage Ratio and Maximum Consolidated Leverage Ratio allowed under the 2013 Credit Facility; and (3) the aggregate amount of our outstanding debt and letters of credit. As of October 31, 2015, we were in compliance with the financial covenants set forth in the 2013 Credit Facility, as indicated in the table below:

	Required		Actual
Minimum Interest Coverage Ratio	No less than	3.00:1	69.71:1
Maximum Consolidated Leverage Ratio	No greater than	3.25:1	0.92:1

Effective June 15, 2015, in conjunction with the acquisition of HLP, we borrowed \$92.0 million, at a weighted average borrowing rate of 1.28%, under the 2013 Credit Facility and subsequently repaid \$42.0 million prior to October 31, 2015. As of October 31, 2015, we had outstanding revolver borrowings of \$48.7 million, net of unamortized deferred financing fees of \$1.3 million, outstanding letters of credit of \$5.9 million, and the remaining amount available to us for use under the 2013 Credit Facility was \$86.6 million. Our borrowing rates under the 2013 Credit Facility were 3.50% and 1.45% for the swing-line sub facility and the revolver, respectively, at October 31, 2015.

On November 2, 2015, we refinanced and retired the 2013 Credit Facility by entering into a \$310.0 million Term Loan Credit Agreement and a \$100.0 million ABL Credit Agreement (collectively the "2015 Credit Facilities") with Wells Fargo, National Association, as Agent, and Bank of America, N.A. serving as Syndication Agent. The term loan portion of the 2015 Credit Facilities was to mature on November 2, 2022, and required quarterly principal payments equal to 0.25% of the aggregate borrowings. Interest was computed, at our election, based on a Base Rate plus applicable margin of 4.25%, or LIBOR plus applicable margin of 5.25% (with the stipulation that LIBOR could not be less than 1%). In the event of default, outstanding borrowings would accrue interest at the Default Rate, as defined, whereby the obligations would bear interest at a per annum rate equal to 2% above the total per annum rate otherwise applicable. The term loan provided for incremental term loan commitments for a minimum principal amount of \$25.0 million, up to an aggregate amount of \$50.0 million, to the extent that such borrowings did not cause the Consolidated Senior Secured Leverage Ratio to exceed 3.00 to 1.00. The term loan agreement permitted prepayment of the term loan of at least an aggregate amount of \$5.0 million, or any whole multiple of \$1.0 million, in excess thereof without penalty, except if such prepayment was made on or before November 2, 2016, we would pay a fee equal to 1% of such prepayment. The ABL portion of the 2015 Credit Facilities was to mature on November 2, 2020 with no stated principal repayment terms prior to maturity. Borrowing capacity and availability was determined based upon the dollar equivalent of certain working capital items including receivables and inventory, subject to eligibility as determined by Wells Fargo, National Association, as Administrative Agent, up to the facility maximum of \$100.0 million. Interest was computed, at our election, on a grid as the Base Rate plus an Applicable Margin, as defined in the agreement, or LIBOR plus an Applicable Margin. The Applicable Margin is outlined in the following table:

Level	Average Aggregate Excess Availability	Applicable Margin Relative to Base Rate Loans	Applicable Margin Relative to LIBOR Rate Loans
I	> 66.7% of the Maximum Revolver Amount	0.50 percentage points	1.50 percentage points
	< 66.7% of the Maximum Revolver Amount and		
II	33.3% of the Maximum Revolver Amount	0.75 percentage points	1.75 percentage points
III	< 33.3% of the Maximum Revolver Amount	1.00 percentage points	2.00 percentage points

With regard to the applicable margin calculation, Level I was applied for the duration of the 2015 Credit Facilities.

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

In addition, the ABL portion of the 2015 Credit Facilities required payment of a commitment fee (unused line fee) in accordance with the following table:

Level	Average Revolver Usage	Applicable Unused Line Fee Percentage
I	> 50% of the Maximum Revolver Amount	0.25 percentage points
II	< 50% of the Maximum Revolver Amount	0.375 percentage points

With regard to the unused line fee, Level II was applied for the duration of the 2015 Credit Facilities.

The 2015 Credit Facility contained restrictive debt covenants which included: (1) as of the last day of each fiscal quarter through October 30, 2017, our Consolidated Total Leverage Ratio, as defined in the agreement, must not exceed 4.50 to 1.00. For the last day of each fiscal quarter after October 30, 2017, this ratio cannot exceed 4.00 to 1.00; (2) as of the last day of each fiscal month, we must maintain a trailing twelve-month Consolidated Fixed Charge Coverage Ratio, as defined in the agreement, of at least 1.10 to 1.00; (3) if our ABL Revolver Usage, as defined, exceeds the Borrowing Base, we must repay the excess amount on an accelerated basis to bring down the borrowing level; (4) if we receive consideration for the sale of assets other than “permitted assets” or for any insurance or condemnation event related to the ABL collateral, we are required to repay this amount as an ABL prepayment; if such payment is received with regards to assets that are not related to the ABL collateral, then we are required to repay this amount as a term loan prepayment; and (5) for each year we have “Excess Cash Flow,” as defined, we are required to make a mandatory prepayment of the term loan calculated in accordance with the terms outlined in the credit agreement.

Furthermore, the 2015 Credit Facilities required periodic reporting, as well as monthly borrowing base calculation pursuant to the ABL portion of the facility, and could restrict or limit our ability to engage in certain business activities such as: (1) future business acquisitions or liquidations; (2) incurring new indebtedness, liens or encumbrances; (3) merging or consolidating operations; (4) disposing of significant assets; (5) prepaying subordinated debt; (6) engaging in certain transactions with affiliates; or (7) modifying incentive plans or governance documents, amongst other restrictions (including a limitation on annual dividend payments of \$8.0 million).

On July 29, 2016, we refinanced and retired the 2015 Credit Facilities and entered into a \$450.0 million credit agreement comprised of a \$150.0 million Term Loan A and a \$300.0 million revolving credit facility (collectively, the “Credit Agreement”), with Wells Fargo Bank, National Association, as Agent, Swingline Lender and Issuing Lender, and Bank of America, N.A. serving as Syndication Agent. The Credit Agreement has a five-year term, maturing on July 29, 2021, and requires interest payments calculated, at our election and depending upon our Consolidated Leverage Ratio, at either a Base Rate plus an applicable margin or the LIBOR Rate plus an applicable margin. At the time of the initial borrowing, the applicable rate was LIBOR + 2.00%. In addition, we are subject to commitment fees for the unused portion of the Credit Agreement.

The applicable margin and commitment fees are outlined in the following table:

Pricing Level	Consolidated Leverage Ratio	Commitment Fee	LIBOR Rate Loans	Base Rate Loans
I	Less than or equal to 1.50 to 1.00	0.200%	1.50%	0.50%
II	Greater than 1.50 to 1.00, but less than or equal to 2.25 to 1.00	0.225%	1.75%	0.75%
III	Greater than 2.25 to 1.00, but less than or equal to 3.00 to 1.00	0.250%	2.00%	1.00%
IV	Greater than 3.00 to 1.00	0.300%	2.25%	1.25%

In the event of default, outstanding borrowings would accrue interest at the Default Rate, as defined, whereby the obligations will bear interest at a per annum rate equal to 2% above the total per annum rate otherwise applicable.

The term loan portion of the Credit Agreement requires quarterly principal payments on the last business day of each fiscal quarter in accordance with a stated repayment schedule. Required aggregate principal repayments totaled \$9.4 million for the succeeding twelve-month period, and have been included in the accompanying consolidated balance sheet under the caption “Current Maturities of Long-term Debt.” No stated principal payments are required under the revolving credit portion of the Credit Agreement, except upon maturity. If our Consolidated Leverage Ratio is less than 2.25 to 1.00, then we are required to make mandatory prepayments of “excess cash flow” as defined in the agreement.

The Credit Agreement provides for incremental term loan or revolving credit commitments for a minimum principal amount of \$10.0 million, up to an aggregate amount of \$150.0 million, subject to the lender's discretion to elect or decline the incremental

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

increase. We can also borrow up to the lesser of \$15.0 million or the revolving credit commitment, as defined, under a Swingline feature of the Credit Agreement. We are permitted to prepay the term loan under the Credit Agreement, without premium or penalty, in aggregate principal amounts of \$1.0 million or whole multiples of \$0.5 million in excess thereof.

The Credit Agreement contains a: (1) Consolidated Fixed Charge Coverage Ratio requirement whereby we must not permit the Consolidated Fixed Charge Coverage Ratio, as defined, to be less than 1.10 to 1.00, and (2) Consolidated Leverage Ratio requirement, as summarized by period in the following table:

Period	Maximum Ratio
Closing Date through January 30, 2017	3.50 to 1.00
January 31, 2017 through January 30, 2018	3.25 to 1.00
January 31, 2018 and thereafter	3.00 to 1.00

In addition to maintaining these financial covenants, the Credit Agreement also limits our ability to enter into certain business transactions, such as to incur indebtedness or liens, to acquire businesses or dispose of material assets, make restricted payments, pay dividends (limited to \$10.0 million per year) and other transactions as further defined in the Credit Agreement. Substantially all of our domestic assets, with the exception of real property, are utilized as collateral for the Credit Agreement.

We utilized the funding from the Credit Agreement, along with additional funding of \$16.4 million of cash on hand, to repay outstanding borrowings under the 2015 Credit Facilities of \$309.2 million, to pay a 1% prepayment call premium under the Term Loan B portion thereof, to settle outstanding interest accrued under the prior facility, and to pay loan fees associated with the Credit Agreement which totaled \$2.8 million. In addition to the 1% prepayment call premium fee, we expensed \$8.1 million to write-off unamortized deferred financing fees and \$5.5 million of unamortized original issuer's discount associated with the 2015 Credit Facilities.

As of October 31, 2016, we had \$265.4 million of borrowings outstanding under the Credit Agreement (reduced by unamortized debt issuance costs of \$2.7 million), \$5.8 million of outstanding letters of credit and \$4.1 million outstanding under capital leases and other debt vehicles. We had \$174.2 million available for use under the Credit Agreement at October 31, 2016. The borrowings outstanding as of October 31, 2016 under the Credit Agreement accrue interest at 2.5% per annum, and our weighted average borrowing rate for borrowings outstanding during the years ended October 31, 2016 and 2015 was 5.26% and 1.28%, respectively. We were in compliance with our debt covenants as of October 31, 2016.

Other Debt Instruments

The City of Richmond, Kentucky Industrial Building Revenue Bonds are due in annual installments through October 2020. Interest is payable monthly at a variable rate. Interest rates on these bonds have ranged from 0.2% to 1.1% during the fiscal year ended October 31, 2016. The average interest rate during the fiscal years ended October 31, 2016 and 2015, was 0.5%. We have pledged the land, building and certain equipment used at the facility located in Richmond, Kentucky as collateral. In addition, we have issued a \$0.4 million letter of credit under the Credit Agreement which serves as a conduit for making the scheduled payments.

We maintain certain capital lease obligations related to equipment purchases. In conjunction with the acquisition of HLP, we assumed additional capital lease obligations of approximately \$7.7 million. These capital lease obligations relate to equipment purchases and accrue interest at a weighted average rate of 5.1%, and extend through the year 2020. As of October 31, 2016, our obligations under the HLP capital leases total \$3.7 million, of which \$1.6 million is classified in current maturities of long-term debt and \$2.1 million is classified as long-term debt on the accompanying consolidated balance sheet. Our non-HLP capital lease obligations at October 31, 2016 related to equipment purchases and bear interest at a weighted average interest rate of 4.6% with terms that extend through 2020.

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

The table below presents the scheduled maturity dates of our long-term debt outstanding (net of deferred loan costs) at October 31, 2016 (in thousands):

	Other Long Term Debt	Capital Lease Obligations	Aggregate Maturities
2017	\$ 8,910	\$ 1,610	\$ 10,520
2018	14,535	1,083	15,618
2019	14,535	765	15,300
2020	16,410	225	16,635
2021	211,458	—	211,458
Total	<u>\$ 265,848</u>	<u>\$ 3,683</u>	<u>\$ 269,531</u>

9. Retirement Plans

We have a number of retirement plans covering substantially all employees. We provide both defined benefit and defined contribution plans. In general, an employee's coverage for retirement benefits depends on the location of employment.

Defined Benefit Plan

We have a non-contributory, single employer defined benefit pension plan that covers substantially all our domestic employees, excluding the Woodcraft employees who are not currently participating. Effective January 1, 2007, we amended this defined benefit pension plan to include a cash balance formula for all new salaried employees hired on or after January 1, 2007 and for any non-union employees who were not participating in a defined benefit plan prior to January 1, 2007. All participating salaried employees hired after January 1, 2007, are eligible to receive credits equivalent to 4% of their annual eligible wages. Some of the employees at the time of the amendment were "grandfathered" and are eligible to receive credits ranging up to 6.5% based upon a percentage of benefits received under our defined benefit plan prior to this amendment of the pension plan. Additionally, every year the participants will receive an interest related credit on their respective balance equivalent to the prevailing 30-year Treasury rate. For employees who were participating in this plan prior to January 1, 2007, the benefit formula is a more traditional formula for retirement benefits, whereby the plan pays benefits to employees upon retirement, using a formula which considers years of service and pensionable compensation prior to retirement. Of our pension plan participants, 99% have their benefit determined pursuant to the cash balance formula.

The Medicare Prescription Drug, Improvement and Modernization Act of 2003 (the "Act") was signed into law on December 8, 2003. This Act introduces a Medicare prescription-drug benefit beginning in 2006 as well as a federal subsidy to sponsors of retiree health care plans that provide a benefit at least "actuarially equivalent" to the Medicare benefit. We concluded that our plans are at least "actuarially equivalent" to the Medicare benefit. For those who are otherwise eligible for the subsidy, we have not included this subsidy per the Act in our benefit calculations. The impact to net periodic benefit cost and to benefits paid did not have a material impact on the consolidated financial statements.

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

Funded Status and Net periodic Benefit Cost

The changes in benefit obligations and plan assets, and our funded status (reported in deferred pension and postretirement benefits on the consolidated balance sheets) were as follows:

	October 31,	
	2016	2015
(In thousands)		
Change in Benefit Obligation:		
Beginning balance as of November 1, 2015 and 2014, respectively	\$ 31,035	\$ 29,070
Service cost	3,712	3,288
Interest cost	828	1,026
Actuarial loss	3,008	38
Benefits paid	(1,061)	(1,925)
Administrative expenses	(630)	(462)
Projected benefit obligation at October 31,	<u>\$ 36,892</u>	<u>\$ 31,035</u>
Change in Plan Assets:		
Beginning balance as of November 1, 2015 and 2014, respectively	\$ 26,132	\$ 25,329
Actual return on plan assets	1,069	390
Employer contributions	3,700	2,800
Benefits paid	(1,061)	(1,925)
Administrative expenses	(630)	(462)
Fair value of plan assets at October 31,	<u>\$ 29,210</u>	<u>\$ 26,132</u>
Non current liability - Funded Status	<u>\$ (7,682)</u>	<u>\$ (4,903)</u>

As of October 31, 2016 and 2015, included in our accumulated comprehensive loss was a net actuarial loss of \$8.7 million and \$5.5 million, respectively. There were no net prior service costs or transition obligations for the years ended October 31, 2016 and 2015.

As of October 31, 2016 and 2015, the accumulated benefit obligation was \$35.7 million and \$30.3 million, respectively. The accumulated benefit obligation is the present value of pension benefits (whether vested or unvested) attributed to employee service rendered before the measurement date, and based on employee service and compensation prior to that date. The accumulated benefit obligation differs from the projected benefit obligation in that it includes no assumption about future compensation levels.

The net periodic benefit cost for the years ended October 31, 2016, 2015 and 2014, was as follows:

	Year Ended October 31,		
	2016	2015	2014
(In thousands)			
Service cost	\$ 3,712	\$ 3,288	\$ 3,313
Interest cost	828	1,026	1,063
Expected return on plan assets	(1,617)	(1,791)	(1,722)
Amortization of net loss	384	—	—
Net periodic benefit cost	<u>\$ 3,307</u>	<u>\$ 2,523</u>	<u>\$ 2,654</u>

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

The changes in plan assets and projected benefit obligations which were recognized in our other comprehensive loss for the years ended October 31, 2016, 2015 and 2014 were as follows:

	Year Ended October 31,		
	2016	2015	2014
	(In thousands)		
Net loss (gain) arising during the period	\$ 3,556	\$ 1,439	\$ 2,596
Less: Amortization of net loss	\$ 384	\$ 159	\$ —
Total recognized in other comprehensive loss	<u>\$ 3,172</u>	<u>\$ 1,280</u>	<u>\$ 2,596</u>

As of October 31, 2016, we recorded a \$0.3 million pre-tax benefit associated with our post retirement benefit plan, described below at "Other Plans."

Measurement Date and Assumptions

We generally determine our actuarial assumptions on an annual basis, with a measurement date of October 31.

The following table presents our assumptions for pension benefit calculations for the years ended October 31, 2016, 2015 and 2014:

	For the Year Ended October 31,					
	2016	2015	2014	2016	2015	2014
Weighted Average Assumptions:	Benefit Obligation			Net Periodic Benefit Cost		
Discount rate	3.41%	3.92%	3.64%	3.92%	3.64%	4.18%
Rate of compensation increase	3.00%	3.00%	3.00%	3.00%	3.00%	2.50%
Expected return on plan assets	n/a	n/a	n/a	6.50%	6.75%	7.25%

The discount rate was used to calculate the present value of the projected benefit obligation for pension benefits. The rate reflects the amount at which benefits could be effectively settled on the measurement date. For the years ended October 31, 2016 and 2015, we used a RATE: Link Model whereby target yields are developed from bonds across a range of maturity points, and a curve is fitted to those targets. Spot rates (zero coupon bond yields) are developed from the curve and used to discount benefit payments associated with each future year. This model assumes spot rates will remain level beyond the 30-year point. We determine the present value of plan benefits by applying the discount rates to projected benefit cash flows. For the year ended October 31, 2014, we determined our discount rate based on a pension discount curve. The rate represents the single rate that, if applied to every year of projected benefits payments, would result in the same discounted value as the array of rates that comprise the pension discount curve. The change in discount rate methodology in 2015 is believed to provide a more precise estimate of the rate that should be applied to specific cash flows by period.

The expected return on plan assets was used to determine net periodic pension expense. The rate of return assumptions were based on projected long-term market returns for the various asset classes in which the plans were invested, weighted by the target asset allocations. We review the return assumption at least annually. The rate of compensation increase represents the long-term assumption for expected increases in salaries.

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

Plan Assets

The following tables provide our target allocation for the year ended October 31, 2016, as well as the actual asset allocation by asset category and fair value measurements as of October 31, 2016 and 2015:

	Target Allocation	Actual Allocation	
	October 31, 2016	October 31, 2016	October 31, 2015
Equity securities	60.0%	60.0%	60.0%
Fixed income	40.0%	40.0%	40.0%
		Fair Value Measurements at	
		October 31, 2016	October 31, 2015
		(In thousands)	
Money market fund		\$ 31	\$ 142
Large capitalization		\$ 9,297	\$ 8,367
Small capitalization		3,442	3,114
International equity		3,191	2,831
Other		1,451	1,290
Equity securities		\$ 17,381	\$ 15,602
High-quality core bond		\$ 5,888	\$ 5,186
High-quality government bond		2,954	2,590
High-yield bond		2,956	2,612
Fixed income		\$ 11,798	\$ 10,388
Total securities⁽¹⁾		\$ 29,210	\$ 26,132

⁽¹⁾ Quoted prices in active markets for identical assets (Level 1).

Inputs and valuation techniques used to measure the fair value of plan assets vary according to the type of security being valued. All of the equity and debt securities held directly by the plans were actively traded and fair values were determined based on quoted market prices.

Our investment objective for defined benefit plan assets is to meet the plans' benefit obligations, while minimizing the potential for future required plan contributions. The investment strategies focus on asset class diversification, liquidity to meet benefit payments and an appropriate balance of long-term investment return and risk. Target ranges for asset allocations are determined by matching the actuarial projections of the plans' future liabilities and benefit payments with expected long-term rates of return on the assets, taking into account investment return volatility and correlations across asset classes. Plan assets are diversified across several investment managers and are generally invested in liquid funds that are selected to track broad market equity and bond indices. Investment risk is carefully controlled with plan assets rebalanced to target allocations on a periodic basis and monitoring of performance of investment managers relative to the investment guidelines established with each investment manager.

Expected Benefit Payments and Funding

Our pension funding policy is to make the minimum annual contributions required pursuant to the plan. We accelerated contributions to target a 100% funding threshold. Additionally, we consider funding annual requirements early in the fiscal year to potentially maximize the return on assets. For the fiscal years ended October 31, 2016, 2015 and 2014, we made total pension contributions of \$3.7 million, \$2.8 million and \$4.1 million, respectively.

During fiscal 2017, we expect to contribute approximately \$3.9 million to the pension plan to reach targeted funding levels and meet minimum contribution requirements. This expected contribution level will be dependent on many variables, including the market value of the assets compared to the obligation, as well as other market or regulatory conditions. In addition, we consider the cash requirements of our business investment opportunities. Accordingly, actual funding amounts and the timing of such funding may differ from current estimates.

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

The following table presents the total benefit payments expected to be paid to participants by year, which includes payments funded from our assets, as well as payments paid from the plan for the year ended October 31, (in thousands):

	Pension Benefits	
2017	\$	3,138
2018		2,734
2019		2,986
2020		3,090
2021		3,193
2022 - 2026		17,271
Total	\$	32,412

Defined Contribution Plan

We also sponsor a defined contribution plan into which we and our employees make contributions, and we maintain a predecessor plan sponsored by Woodcraft. We match 50% up to the first 5% of employee annual salary deferrals under our existing plan, and we match 35% up to the first 5% of employee deferrals under the predecessor Woodcraft plan. We do not offer our common stock as a direct investment option under these plans. For the years ended October 31, 2016, 2015 and 2014, we contributed approximately \$2.2 million, \$1.7 million and \$2.4 million for these plans, respectively.

Other Plans

Under our postretirement benefit plan, we provide certain healthcare and life insurance benefits for a small number of eligible retired employees who were employed prior to January 1, 1993. Certain employees may become eligible for those benefits if they reach normal retirement age while working for us. We continue to fund benefit costs on a pay-as-you-go basis. The table below indicates the amount of these liabilities included in the accompanying consolidated balance sheets:

	October 31, 2016		October 31, 2015	
	(In thousands)			
Accrued liabilities	\$	49	\$	49
Deferred pension and postretirement benefits		485		798
Total	\$	534	\$	847

Of the change in postretirement benefit obligation, \$0.3 million (or \$0.2 million net of tax) was applied to reduce the unrecognized loss in Accumulated Other Comprehensive Income associated with this post-retirement benefit plan to zero, with the remainder recorded as a reduction of selling, general and administrative expenses.

We also have supplemental benefit plans covering certain executive officers and a non-qualified deferred compensation plan covering members of the Board of Directors and certain key employees. As of October 31, 2016 and 2015, our liability under the supplemental benefit plan was approximately \$2.7 million and \$1.7 million, respectively, and our liability under the deferred compensation plan was approximately \$3.5 million and \$3.3 million, respectively. As of October 31, 2016 and 2015, the current portion of these liabilities was recorded under the caption "Accrued Liabilities," and the long-term portion was included under the caption "Other Liabilities" in the accompanying balance sheets.

10. Warranty Obligations

We accrue warranty obligations as we recognize revenue associated with certain products. We make provisions for our warranty obligations based upon historical experience of costs incurred for such obligations adjusted, as necessary, for current conditions and factors. There are significant uncertainties and judgments involved in estimating our warranty obligations, including changing product designs, differences in customer installation processes and future claims experience which may vary from historical claims experience. Therefore, the ultimate amount we incur as warranty costs in the near and long-term may not be consistent with our current estimate.

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

A reconciliation of the activity related to our accrued warranty, including both the current and long-term portions (reported in accrued liabilities and other liabilities, respectively, on the accompanying consolidated balance sheets) follows:

	Year Ended October 31,	
	2016	2015
	(In thousands)	
Beginning balance as of November 1, 2015, and 2014, respectively	\$ 535	\$ 671
Provision for warranty expense	90	207
Change in accrual for preexisting warranties	(62)	—
Warranty costs paid	(117)	(343)
Total accrued warranty	\$ 446	\$ 535
Less: Current portion of accrued warranty	295	309
Long-term portion at October 31,	\$ 151	\$ 226

11. Income Taxes

We provide for income taxes on taxable income at the statutory rates applicable. The following table summarizes the components of income tax expense from continuing operations for the years ended October 31, 2016, 2015 and 2014:

	Year Ended October 31,		
	2016	2015	2014
	(In thousands)		
Current			
Federal	\$ 1,309	\$ 49	\$ 1,271
State and local	154	216	532
Non-U.S.	3,241	2,070	2,535
Total current	4,704	2,335	4,338
Deferred			
Federal	(5,932)	5,766	2,261
State and local	(712)	439	(258)
Non-U.S.	(1,825)	(1,001)	(873)
Total deferred	(8,469)	5,204	1,130
Total income tax (benefit) provision	\$ (3,765)	\$ 7,539	\$ 5,468

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

The following table reconciles our effective income tax rate to the federal statutory rate of 35% for the years ended October 31, 2016, 2015 and 2014:

	Year Ended October 31,		
	2016	2015	2014
U.S. tax at statutory rate	35.0 %	35.0 %	35.0 %
State and local income tax	7.4	2.3	2.3
Non-U.S. income tax	32.0	(1.5)	(0.1)
U.S. tax on non U.S. earnings	(0.8)	—	(0.3)
Deferred rate change	15.2	0.5	5.1
General business credits	6.4	(1.0)	(1.8)
Transaction costs	(17.0)	2.5	—
Uncertain tax positions	—	(3.4)	(1.2)
Change in valuation allowance	(0.9)	(0.5)	(1.0)
Other permanent differences	(5.0)	(1.5)	1.3
Return to actual adjustments	(5.4)	0.2	0.3
Effective tax rate	<u>66.9 %</u>	<u>32.6 %</u>	<u>39.6 %</u>

The increase in the 2016 effective tax rate is due primarily to the foreign and United States tax rate differential, as the foreign tax rate is generally lower than the United States tax rate and a greater percentage of our taxable income was generated by the foreign operations. The overall change in the effective rate was also impacted by transaction costs and a change in the deferred rate. The decrease in the 2015 effective tax rate is attributable to a discrete benefit item resulting from the reassessment of our uncertain tax position related to the 2008 spin-off of Quanex from a predecessor company in January 2015. Excluding this item, the effective tax rate was 36.0%. The 2014 effective rate was impacted by a change in the tax status of our facility in the United Kingdom (UK). On November 1, 2013, the assets of our UK branch were contributed to a newly formed wholly-owned UK subsidiary. This change resulted in a taxable charge that was booked as a discrete item in the first quarter of 2014. Excluding this discrete item, the 2014 effective tax rate was 34.9%.

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

Significant components of our net deferred tax liabilities and assets were as follows:

	October 31,	
	2016	2015
(In thousands)		
Deferred tax assets:		
Employee benefit obligations	\$ 16,694	\$ 13,220
Accrued liabilities and reserves	2,929	3,354
Pension and other benefit obligations	4,087	2,956
Inventory	1,759	2,625
Loss and tax credit carry forwards	9,589	12,531
Other	193	187
Total gross deferred tax assets	35,251	34,873
Less: Valuation allowance	1,279	1,064
Total deferred tax assets, net of valuation allowance	33,972	33,809
Deferred tax liabilities:		
Property, plant and equipment	18,946	8,303
Goodwill and intangibles	33,348	16,723
Total deferred tax liabilities	52,294	25,026
Net deferred tax (liabilities) assets	\$ (18,322)	\$ 8,783

At October 31, 2016, operating loss carry forwards for tax purposes totaled \$43.8 million and related to federal and state positions. The majority of such losses begin to expire in 2025. Tax credits available to offset future tax liabilities totaled \$4.0 million and are expected to be utilized within the next twelve months. We evaluate tax benefits of operating losses and tax credit carry forwards on an ongoing basis, including a review of historical and projected future operating results, the eligible carry forward period and other circumstances. We have recorded a valuation allowance for certain state net operating losses as of October 31, 2016 and 2015, totaling \$1.3 million (\$0.8 million net of federal taxes) and \$1.1 million (\$0.7 million net of federal taxes), respectively. In assessing the need for a valuation allowance, we consider both positive and negative evidence related to the likelihood of realization of the deferred tax assets.

The following table reconciles the change in the unrecognized income tax benefit associated with uncertain tax positions for the years ended October 31, 2016, 2015 and 2014 (in thousands):

	Unrecognized Income Tax Benefits
Balance at October 31, 2013	\$ 13,238
Additions for tax positions related to the current year	—
Additions for tax positions related to the prior year	170
Lapse in statute of limitations	(1,977)
Balance at October 31, 2014	\$ 11,431
Additions for tax positions related to the current year	—
Additions for tax positions related to the prior year	16
Lapse in statute of limitations	(10,883)
Balance at October 31, 2015	\$ 564
Additions for tax positions related to the current year	—
Additions for tax positions related to the prior year	15
Balance at October 31, 2016	\$ 579

As of October 31, 2016, our unrecognized tax benefit (UTB) relates to certain state tax items regarding the interpretation of tax laws and regulations. In January 2015, we reassessed our unrecognized tax benefit related to the 2008 spin-off of Quanex

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

from a predecessor company and recognized the full benefit of the tax positions taken. This reduced the liability for uncertain tax positions by \$4.0 million and increased deferred income taxes (non-current assets) by \$6.8 million and resulted in a non-cash increase in retained earnings of \$10.0 million, with an increase in income tax benefit of \$0.8 million. At October 31, 2016, \$0.6 million is recorded as a liability for uncertain tax positions. The disallowance of the UTB would not materially affect the annual effective tax rate.

We, along with our subsidiaries, file income tax returns in the United States and various state jurisdictions as well as in the United Kingdom, Germany, Canada and Mexico. In certain jurisdictions the statute of limitations has not yet expired. We generally remain subject to examination of our United States income tax returns for 2013 and subsequent years. We generally remain subject to examination of our various state and foreign income tax returns for a period of four to five years from the date the return was filed. The state impact of any federal changes remains subject to examination by various states for a period of up to one year after formal notification to the state of the federal change.

Judgment is required in assessing the future tax consequences of events that have been recognized in our financial statements or tax returns. The final outcome of the future tax consequences of legal proceedings, if any, as well as the outcome of competent authority proceedings, changes in regulatory tax laws, or interpretation of those tax laws could impact our financial statements. We are subject to the effect of these matters occurring in various jurisdictions. We do not believe any of the UTB at October 31, 2016 will be recognized within the next twelve months.

Included in prepaid and other current assets on the accompanying consolidated balance sheets were income tax receivables of \$1.6 million and \$0.4 million as of October 31, 2016 and 2015, respectively.

The acquisition of Woodcraft in November 2015 established a net noncurrent deferred tax liability of \$37.4 million primarily reflecting the book to tax basis difference in intangibles, fixed assets and inventory. The acquisition of Flamstead Holdings, Ltd in June 2015 established a noncurrent deferred tax liability of \$13.2 million reflecting the book to tax basis difference in intangibles, fixed assets and inventory at the current UK tax rate of 20%.

Management has determined that the earnings of our foreign subsidiaries are not required as a source of funding for United States operations and we intend to indefinitely reinvest these funds in our foreign jurisdictions. If the investment in our foreign subsidiaries were completely realized, a potential gain of \$25.6 million could exist resulting in an estimated residual United States tax liability of \$6.3 million.

On September 13, 2013, the Internal Revenue Service issued final Tangible Property Regulations (TPR) under Internal Revenue Code (IRC) Section 162 and IRC Section 263(a), which prescribe the capitalization treatment of certain repair costs, asset betterments and other costs which could affect temporary deferred taxes. The regulations became effective for tax years beginning on or after January 1, 2014. Pursuant to U.S. GAAP, as of the date of the issuance, the release of the regulations is treated as a change in tax law. The impact of this change in tax law was not material to our financial position or results of operations.

Our federal income tax returns for the tax years ended October 31, 2011 and 2012 were examined by the Internal Revenue Service and no adjustments were made.

We adopted ASU No. 2015-17 as of November 1, 2015 on a retroactive basis. See additional disclosure at Note 21, "New Accounting Guidance Adopted."

12. Commitments and Contingencies

Operating Leases and Purchase Obligations

We have operating leases for certain real estate and equipment used in our business. Rental expense for the years ended October 31, 2016, 2015 and 2014 was \$10.3 million, \$8.4 million and \$6.9 million, respectively. We sublease certain of our facilities as of October 31, 2016, pursuant to which we expect to receive future minimum non-cancelable rentals of \$0.4 million.

We are a party to non-cancelable purchase obligations primarily for door hardware, primary and secondary steel and primary and secondary aluminum used in our manufacturing processes, as well as expenditures related to capital projects in progress. We paid \$4.6 million and \$8.1 million pursuant to these arrangements for the years ended October 31, 2016 and 2015, respectively. These obligations total \$11.3 million and \$3.7 million at October 31, 2016 and 2015, respectively, and extend through fiscal 2017. Future amounts paid pursuant to these arrangements will depend, to some extent, on our usage.

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

The following table presents future minimum rental payments under operating leases with remaining terms in excess of one year at October 31, 2016 (in thousands):

	Operating Leases
2017	\$ 9,794
2018	8,482
2019	7,842
2020	5,904
2021	4,366
Thereafter	30,552
Total	\$ 66,940

Asset Retirement Obligation

We maintain an asset retirement obligation associated with a leased facility in Kent, Washington. We have estimated our future cash flows associated with this asset retirement obligation and recorded an asset and corresponding liability. We are depreciating the asset and accreting the liability over a seven year term, to culminate in an asset retirement obligation of \$2.2 million as of July 2020.

Remediation and Environmental Compliance Costs

Under applicable state and federal laws, we may be responsible for, among other things, all or part of the costs required to remove or remediate wastes or hazardous substances at locations we, or our predecessors, have owned or operated. From time to time, we also have been alleged to be liable for all or part of the costs incurred to clean up third-party sites where there might have been an alleged improper disposal of hazardous substances. At present, we are not involved in any such matters.

From time to time, we incur routine expenses and capital expenditures associated with compliance with existing environmental regulations, including control of air emissions and water discharges, and plant decommissioning costs. We have not incurred any material expenses or capital expenditures related to environmental matters during the past three fiscal years, and do not expect to incur a material amount of such costs in fiscal 2017. While we will continue to have future expenditures related to environmental matters, any such amounts are impossible to reasonably estimate at this time. Based upon our experience to date, we do not believe that our compliance with environmental requirements will have a material adverse effect on our operations, financial condition or cash flows.

Spacer Migration

We were notified by certain customers through our German operation that the vapor barrier employed on certain spacer products manufactured prior to March 2014 may fail and permit spacer migration in certain extreme circumstances. This product does not have a specific customer warranty, but we have received claims from customers related to this issue, which we continue to investigate on a claim-by-claim basis. We cannot estimate any future liability with regard to unasserted claims but we have received new claims in 2015 and 2016. We evaluate this reserve at each reporting date. We will investigate any future claims, but we are not obligated to honor any future claims.

A reconciliation of the claims activity related to our spacer migration accrual for the years ended October 31, 2016 and 2015 follows:

	Year Ended October 31,	
	2016	2015
	(In thousands)	
Beginning balance as of November 1, 2015, and 2014, respectively	\$ 1,133	\$ 1,187
Additional claims received	1,147	1,049
Claim payments made	(1,476)	(956)
Foreign currency translation adjustment	(3)	(147)
Total spacer migration accrual	\$ 801	\$ 1,133

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

Litigation

From time to time, we, along with our subsidiaries, are involved in various litigation matters arising in the ordinary course of our business. We are currently involved in litigation related to alleged defects in a sealant product manufactured and sold by one of our subsidiaries during the 2000s. While we strongly believe that our product was not defective and that we will prevail in these claims, the ultimate resolution and impact of the claims is not presently determinable and we cannot reasonably estimate a range of potential loss, if any, associated with these claims. Nevertheless, we believe that the eventual outcome of such litigation will not have a material adverse effect on our overall financial condition, results of operations or cash flows.

13. Derivative Instruments

Our derivative activities are subject to the management, direction, and control of the Chief Financial Officer and Chief Executive Officer. Certain transactions in excess of specified levels require further approval from the Board of Directors.

The nature of our business activities requires the management of various financial and market risks, including those related to changes in foreign currency exchange rates and aluminum scrap prices. We have historically used foreign currency forwards and options to mitigate or eliminate certain of those risks at our subsidiaries. We use foreign currency contracts to offset fluctuations in the value of accounts receivable and payable balances that are denominated in currencies other than the United States Dollar, including the Euro, British Pound Sterling and Canadian Dollar. Currently, we do not enter into derivative transactions for speculative or trading purposes. We are exposed to credit loss in the event of nonperformance by the counterparties to our derivative transactions. We attempt to mitigate this risk by monitoring the creditworthiness of our counterparties and limiting our exposure to individual counterparties. In addition, we have established master netting agreements in certain cases to facilitate the settlement of gains and losses on specific derivative contracts.

We have not designated any of our derivative contracts as hedges for accounting purposes in accordance with the provisions under the Accounting Standards Codification topic 815 "*Derivatives and Hedging*" (ASC 815). Therefore, changes in the fair value of these contracts and the realized gains and losses are recorded in the consolidated statements of income (loss) for the years ended October 31, 2016, 2015 and 2014 were as follows (in thousands):

Derivatives Not Designated as Hedging Instruments	Location of Gain or (Loss):	Year Ended October 31,		
		2016	2015	2014
Foreign currency derivatives	Other, net	77	654	568

We have chosen not to offset any of our derivative instruments in accordance with the provisions of ASC 815. Therefore, the assets and liabilities are presented on a gross basis on our accompanying consolidated balance sheets. Less than \$0.1 million of fair value related to foreign currency derivatives was included in prepaid and other current assets as of the years ended October 31, 2016 and 2015, and less than \$0.1 million of fair value related to foreign currency derivatives was included in accrued liabilities as of October 31, 2016.

The following table summarizes the notional amounts and fair value of outstanding derivative contracts at October 31, 2016 and 2015 (in thousands):

		Notional as indicated		Fair Value in \$	
		October 31, 2016	October 31, 2015	October 31, 2016	October 31, 2015
Foreign currency derivatives:					
Sell EUR, Buy USD	EUR	5,251	8,076	\$ (79)	\$ 37
Sell CAD, Buy USD	CAD	186	280	1	1
Sell GBP, Buy USD	GBP	187	226	(1)	3
Buy EUR, Sell GBP	EUR	130	2	1	—
Buy USD, Sell EUR	USD	1	—	—	—
Buy EUR, Sell USD	EUR	—	807	—	3

For the classification in the fair value hierarchy, see Note 14, "Fair Value Measurement of Assets and Liabilities", included herewith.

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

14. Fair Value Measurement of Assets and Liabilities

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value hierarchy distinguishes between (1) market participant assumptions developed based on market data obtained from independent sources (observable inputs) and (2) an entity's own assumptions about market participant assumptions developed based on the best information available in the circumstances (unobservable inputs). The fair value hierarchy consists of three broad levels, which gives the highest priority to Level 1 and the lowest priority to Level 3. The three levels of the fair value hierarchy are described below:

- Level 1 - Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities.
- Level 2 - Inputs other than quoted prices included within Level 1 that are observable for the asset or liability either directly or indirectly including quoted prices for similar assets or liabilities in active markets; quoted prices for identical or similar assets or liabilities in markets that are not active; inputs other than quoted prices that are observable for the asset or liability (e.g., interest rates) and inputs that are derived principally from or corroborated by observable market data by correlation or other means.
- Level 3 - Inputs that are both significant to the fair value measurement and unobservable.

The following table summarizes the assets measured on a recurring basis based on the fair value hierarchy (in thousands):

	October 31, 2016				October 31, 2015			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Assets								
Foreign currency derivatives	\$ —	\$ 2	\$ —	\$ 2	\$ —	\$ 44	\$ —	\$ 44
Total assets	\$ —	\$ 2	\$ —	\$ 2	\$ —	\$ 44	\$ —	\$ 44
Liabilities								
Foreign currency derivatives	\$ —	\$ 80	\$ —	\$ 80	\$ —	\$ —	\$ —	\$ —
Contingent consideration	—	—	8,376	8,376	—	—	10,414	10,414
Total liabilities	\$ —	\$ 80	\$ 8,376	\$ 8,456	\$ —	\$ —	\$ 10,414	\$ 10,414

All of our derivative contracts are valued using quoted market prices from brokers or exchanges and are classified within Level 2 of the fair value hierarchy. We liquidated our short-term investments as of June 2015 and used the proceeds, along with borrowings under our revolving credit facility, to acquire HLP. Contingent consideration of \$8.4 million associated with the HLP acquisition, which was paid during November 2016, is included above as a Level 3 measurement (see Note 2, "Acquisitions").

As of October 31, 2016 and 2015, we had approximately \$2.4 million of certain property, plant and equipment that was recorded at fair value on a non-recurring basis and classified as Level 3. The fair value was based on broker opinions.

Carrying amounts reported on the balance sheet for cash, cash equivalents, accounts receivable and accounts payable approximate fair value due to the short-term maturity of these instruments. Our outstanding debt was variable rate debt that re-prices frequently, thereby limiting our exposure to significant change in interest rate risk. As a result, the fair value of our debt instruments approximates carrying value at October 31, 2016 and 2015 (Level 3 measurement).

15. Stock-Based Compensation

We have established and maintain an Omnibus Incentive Plan (2008 Plan) that provides for the granting of restricted stock awards, stock options, restricted stock units, performance share awards and other stock-based and cash-based awards. The 2008 Plan is administered by the Compensation and Management Development Committee of the Board of Directors.

The aggregate number of shares of common stock originally authorized for grant under the 2008 Plan was 2,900,000. In February 2011 and February 2014, shareholders approved increases of the aggregate number of shares available for grant by 2,400,000 shares and 2,350,000 shares, respectively. Any officer, key employee and/or non-employee director or any of our affiliates is eligible for awards under the 2008 Plan. Our initial grant of awards under the 2008 Plan was on April 23, 2008. Historically, our practice has been to grant stock options and restricted stock units to non-employee directors on the last business day of each fiscal year, with an additional grant of options to each director on the date of his or her first anniversary of service. In May 2015, the Nominating & Corporate Governance Committee of our Board of Directors changed the structure of the annual

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

grant to our directors to a grant of restricted stock units on the first day of the new fiscal year, November 1 and eliminated the stock option grant to the non - employee directors. Annually, pending approval by the Compensation & Management Development Committee of our Board of Directors in December, we grant stock options, restricted stock awards, restricted stock units and/or performance shares to employees. Occasionally, we may make additional grants to key employees at other times during the year.

Restricted Stock Awards

Restricted stock awards are granted to key employees and officers annually, and typically cliff vest over a three-year period with service and continued employment as the only vesting criteria. The recipient of the restricted stock awards is entitled to all of the rights of a shareholder, except that the awards are nontransferable during the vesting period. The fair value of the restricted stock award is established on the grant date and then expensed over the vesting period resulting in an increase in additional paid-in-capital. Shares are generally issued from treasury stock at the time of grant.

A summary of non-vested restricted stock awards activity during the years ended October 31, 2016, 2015 and 2014, follows:

	Restricted Stock Awards	Weighted Average Grant Date Fair Value per Share
Non-vested at October 31, 2013	183,400	\$ 17.46
Granted	83,400	17.67
Vested	(30,700)	17.45
Forfeited	(15,300)	19.25
Non-vested at October 31, 2014	220,800	17.42
Granted	118,800	20.17
Vested	(34,000)	15.12
Forfeited	(12,600)	19.57
Non-vested at October 31, 2015	293,000	18.71
Granted	85,500	19.21
Vested	(102,000)	17.84
Forfeited	(9,800)	18.97
Non-vested at October 31, 2016	266,700	\$ 19.19

The total weighted average grant-date fair value of restricted stock awards that vested during the years ended October 31, 2016, 2015 and 2014 was \$1.8 million, \$0.5 million and \$0.5 million, respectively. As of October 31, 2016, total unrecognized compensation cost related to unamortized restricted stock awards totaled \$2.1 million. We expect to recognize this expense over the remaining weighted average period of 1.8 years.

Stock Options

Historically, stock options have been awarded to key employees, officers and non-employee directors. Effective May 2015, the director compensation structure was revised to eliminate the grant of stock options to non-employee directors. Key employee and officer stock options typically vest ratably over a three-year period with service and continued employment as the vesting conditions. Our stock options may be exercised up to a maximum of ten years from the date of grant. The fair value of the stock options is determined on the grant date and expensed over the vesting period resulting in an increase in additional paid-in-capital.

We use the Black-Scholes pricing model to estimate the fair value of our stock options. A description of the methodology for the valuation assumption follows:

- *Expected Volatility* – For stock options granted prior to July 1, 2013, we used an estimate of the historical volatility of a selected peer group. Effective July 1, 2013, we determined that we had sufficient historical data to calculate the volatility of our common stock since our spin-off in April 2008. We believe there has been uncertainty in the United States equities market over the past several years and that uncertainty has contributed to volatility in equities in general. We expect this volatility to continue over the foreseeable future. Therefore, we believe that our historical volatility is a proxy for expected volatility. We have not excluded any of our historical data from the volatility calculation, and we are not aware of any specific significant factors which might impact our future volatility.

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

- *Expected Term* – For stock options granted prior to July 1, 2013, we determined the expected term using historical information of our former parent company prior to the spin-off in 2008, with regards to option vesting, exercise behavior and contractual expiration, as we believed that this employee group was the most similar to our employee group. Separate groups of employees that have similar historical exercise behavior were considered separately. Effective July 1, 2013, we determined that we had sufficient historical data to estimate our expected term using our own data with regards to the exercise behavior, cancellations, retention patterns and remaining contractual terms. When analyzing these patterns and variables, we considered the stratification of the awards (large grants to relatively few employees versus smaller grants to many others), the age of certain employees with larger grants, the historical exercise behavior of the employee group, and fluctuations/volatility of our underlying common stock, as to whether the stock options are expected to be out-of-the-money. For our directors, stock options vested immediately, and, as such, the expected term approximated the contractual term, after adjusting for historical forfeitures. We believe our estimates are reasonable given these factors.
- *Risk-Free Rate* – We base the risk-free rate on the yield at the date of grant of a zero-coupon United States Treasury bond whose maturity period equals the option's expected term.
- *Expected Dividend Yield* – We base the expected dividend yield on our historical dividend payment of approximately \$0.16 per share.

The following table summarizes the assumptions used to estimate the fair value of our stock options granted during the years ended October 31, 2016, 2015 and 2014.

	Year Ended October 31,		
	2016	2015	2014
Weighted-average expected volatility	37.1%	47.7%	55.3%
Weighted-average expected term (in years)	5.4	5.6	6.1
Risk-free interest rate	1.7%	1.6%	1.9%
Expected dividend yield over expected term	1.0%	1.0%	1.0%
Weighted average grant date fair value	\$6.32	\$8.40	\$8.78

The following table summarizes our stock option activity for the years ended October 31, 2016, 2015 and 2014.

	Stock Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value (000s)
Outstanding at October 31, 2013	2,875,276	15.64		\$ 7,748
Granted	189,200	17.99		
Exercised	(306,611)	19.27		
Forfeited/Expired	(169,476)	18.71		
Outstanding at October 31, 2014	2,588,389	16.21	6.2	\$ 10,238
Granted	123,900	20.28		
Exercised	(327,700)	15.59		
Forfeited/Expired	(32,401)	20.21		
Outstanding at October 31, 2015	2,352,188	16.46	5.4	\$ 6,672
Granted	297,900	19.23		
Exercised	(221,850)	15.43		
Forfeited/Expired	(42,018)	19.78		
Outstanding at October 31, 2016	2,386,220	16.84	5.1	\$ 2,384
Vested or expected to vest at October 31, 2016	2,377,254	16.83	5.1	\$ 2,384
Exercisable at October 31, 2016	1,978,013	\$ 16.34	4.4	\$ 2,384

Intrinsic value is the amount by which the market price of the common stock on the date of exercise exceeds the exercise price of the stock option. For the years ended October 31, 2016, 2015 and 2014, the total intrinsic value of our stock options that were exercised totaled \$1.0 million, \$1.3 million and \$2.7 million, respectively. The total fair value of stock options vested during

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

the years ended October 31, 2016, 2015 and 2014, was \$1.9 million, \$2.8 million and \$3.8 million, respectively. As of October 31, 2016, total unrecognized compensation cost related to stock options was \$0.8 million. We expect to recognize this expense over the remaining weighted average vesting period of 1.8 years.

Restricted Stock Units

Restricted stock units may be awarded to key employees and officers from time to time, and annually to non-employee directors. The non-employee director restricted stock units vest immediately but are payable only upon the director's cessation of service unless an election is made by the non-employee director to settle and pay the award on an earlier specified date. Restricted stock units awarded to employees and officers typically cliff vest after a three-year period with service and continued employment as the vesting conditions. Restricted stock units are not considered outstanding shares and do not have voting rights, although the holder does receive a cash payment equivalent to the dividend paid, on a one-for-one basis, on our outstanding common shares. Once the vesting criteria is met, each restricted stock unit is payable to the holder in cash based on the market value of one share of our common stock. Accordingly, we record a liability for the restricted stock units on our balance sheet and recognize any changes in the market value during each reporting period as compensation expense.

The following table summarizes non-vested restricted stock unit activity during the years ended October 31, 2016, 2015 and 2014:

	Restricted Stock Units	Weighted Average Grant Date Fair Value
Non-vested at October 31, 2013	101,000	\$ 15.62
Granted	12,135	18.58
Vested	(29,635)	18.35
Non-vested at October 31, 2014	83,500	15.08
Granted	—	—
Vested	(83,500)	15.08
Non-vested at October 31, 2015	—	—
Granted	20,445	19.56
Vested	(20,445)	19.56
Non-vested at October 31, 2016	—	—

During the years ended October 31, 2015 and 2014, we paid \$1.7 million and \$0.5 million, respectively, to settle restricted stock units; we did not make any payments to settle restricted stock units during the year ended October 31, 2016. All outstanding restricted stock units awarded to officers and employees have vested as of October 31, 2016. The directors received a grant of restricted stock units on November 1, 2016, which vested immediately.

Performance Share Awards

We have granted performance share awards to key employees and officers annually in December. In addition, we awarded performance shares in January 2016 to a new officer. These awards cliff vest after a three-year period with service and performance measures such as relative total shareholder return and earnings per share growth as vesting conditions. The number of performance share awards earned is variable depending on the metrics achieved. The settlement method is 50% in cash and 50% in our common stock.

To account for the performance share awards, we have bifurcated the portion subject to a market condition (relative total shareholder return) and the portion subject to an internal performance measure (earnings per share growth). We have further bifurcated these awards based on the settlement method, as the portion expected to settle in stock (equity component) and the portion expected to settle in cash (liability component).

To value the shares subject to the market condition, we utilized a Monte Carlo simulation model to arrive at a grant-date fair value. This amount will be expensed over the three-year term of the award with a credit to additional paid-in-capital. To value the shares subject to the internal performance measure, we used the value of our common stock on the date of grant as the grant-date fair value per share. This amount will be expensed over the three-year term of the award, with a credit to additional paid-in-capital, and could fluctuate depending on the number of shares ultimately expected to vest based on our assessment of the probability that the performance conditions will be achieved. For both performance conditions, the portion of the award expected to settle in cash

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

will be recorded as a liability and will be marked to market over the three-year term of the award, and could fluctuate depending on the number of shares ultimately expected to vest.

In conjunction with the annual grants in December 2015, 2014 and 2013, we awarded 158,100, 137,400 and 155,800 performance shares, respectively. We also awarded 4,300 performance shares in January 2016. Depending on the achievement of the performance conditions, 0% to 200% of these shares may ultimately vest. During 2016, 9,100 of the performance shares issued in December 2015 were forfeited. During 2015, 9,200 of the performance shares issued in December 2013 were forfeited and 8,200 of the performance shares issued in December 2014 were forfeited. During 2014, 7,000 of the performance shares issued in December 2013 were forfeited. For the years ended October 31, 2016, 2015 and 2014, we have recorded \$2.7 million, \$1.5 million and \$1.0 million of compensation expense related to these performance share awards.

Performance share awards are not considered outstanding shares and do not have voting rights, although dividends are accrued over the performance period and will be payable in cash based upon the number of performance shares ultimately earned.

Performance shares are excluded from the diluted weighted-average shares used to calculate earnings per share until the performance criteria is probable to result in the issuance of contingent shares. We evaluate the probability of the performance share vesting within one year of the vesting date. As of October 31, 2016, we have deemed 135,100 performance share awards to vest, of which 67,550 will be paid in our common stock and 67,550, along with accrued dividends, will settle in cash. The 67,550 awards payable in our common stock are potentially dilutive and considered in the diluted weighted average shares calculation for the year ended October 31, 2016. No contingent shares related to performance shares are included in diluted weighted average shares for the years ended October 31, 2015 or 2014.

The following table summarizes amounts expensed as selling, general and administrative expense related to restricted stock awards, stock options, restricted stock units and performance share awards for the years ended October 31, 2016, 2015 and 2014 (in thousands):

	Year Ended October 31,		
	2016	2015	2014
Restricted stock awards	\$ 1,911	\$ 1,670	\$ 1,220
Stock options	2,486	1,713	2,301
Restricted stock units	161	(57)	781
Performance share awards	2,703	1,504	981
Total compensation expense	7,261	4,830	5,283
Income tax effect	4,858	1,575	2,092
Net compensation expense	\$ 2,403	\$ 3,255	\$ 3,191

16. Stockholders' Equity

As of October 31, 2016, our authorized capital stock consists of 125,000,000 shares of common stock, at par value of \$0.01 per share, and 1,000,000 shares of preferred stock, with no par value. As of October 31, 2016 and 2015, we had 37,560,249 and 37,609,563 shares of common stock issued, respectively, and 34,220,496 and 33,962,460 shares of common stock outstanding, respectively. There were no shares of preferred stock issued or outstanding at October 31, 2016 and 2015.

Stock Repurchase Program and Treasury Stock

On September 5, 2014, our Board cancelled our existing stock repurchase program and approved a new stock repurchase program authorizing us to use up to \$75.0 million to repurchase shares of our common stock. For the period from September 5, 2014 through October 31, 2014, we purchased 1,316,326 shares at a cost of \$24.2 million under the new program. During the year ended October 31, 2015, we purchased an additional 2,675,903 shares at a cost of \$50.8 million. From inception of the program, we purchased 3,992,229 at a cost of \$75.0 million.

We record treasury stock purchases under the cost method whereby the entire cost of the acquired stock is recorded as treasury stock. Shares are generally issued from treasury stock at the time of grant of restricted stock awards, upon the exercise of stock options and upon the vesting of performance shares. On the subsequent issuance of treasury shares, we record proceeds in excess of cost as an increase in additional paid in capital. A deficiency of such proceeds relative to costs would be applied to reduce paid-

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

in-capital associated with prior issuances to the extent available, with the remainder recorded as a charge to retained earnings. We recorded a charge to retained earnings of \$0.6 million and \$0.7 million in the years ended October 31, 2016 and 2015, respectively.

The following table summarizes the treasury stock activity during the year ended October 31, 2016:

	<u>October 31, 2016</u>
Beginning balance as of November 1, 2015	3,647,103
Restricted stock awards granted	(85,500)
Stock options exercised	(221,850)
Balance at end of period	<u>3,339,753</u>

17. Other Income (Expense)

Other income (expense) included under the caption "Other, net" on the accompanying consolidated statements of income (loss), consisted of the following (in thousands):

	<u>Year Ended October 31,</u>		
	<u>2016</u>	<u>2015</u>	<u>2014</u>
Foreign currency transaction losses	\$ (5,457)	\$ (1,433)	\$ (695)
Foreign currency exchange derivative gains	77	654	568
Interest income	106	64	119
Other	(205)	184	100
Other (expense) income	<u>\$ (5,479)</u>	<u>\$ (531)</u>	<u>\$ 92</u>

18. Segment Information

In 2014, we did not disclose segment information as we aggregated four operating segments into a common reportable segment. In our Annual Report on Form 10-K as of October 31, 2015 we presented two reportable business segments, in accordance with ASC Topic 280-10-50, "Segment Reporting" (ASC 280): (1) Engineered Products, comprised of four operating segments, focused primarily on North American fenestration, and (2) International Extrusion, comprised solely of HLP that was acquired on June 15, 2015. In addition, we recorded LIFO inventory adjustments, corporate office charges and inter-segment eliminations as Corporate & Other.

With the acquisition of Woodcraft on November 2, 2015, we re-evaluated our reportable operating segment presentation and changed the presentation to have three reportable business segments: (1) North American Engineered Components segment ("NA Engineered Components"), comprised of four operating segments primarily focused on the fenestration market in North America including vinyl profiles, insulating glass (IG) spacers, screens & other fenestration components; (2) European Engineered Components segment ("EU Engineered Components"), comprised of our United Kingdom-based vinyl extrusion business, manufacturing vinyl profiles & conservatories, and the European insulating glass business manufacturing IG spacers; and (3) North American Cabinet Components segment ("NA Cabinet Components"), comprised solely of the North American cabinet door and components business acquired in November 2015. We continue to maintain what was previously called Corporate & Other, now called Unallocated Corporate & Other, but a portion of the general and administrative costs associated with the corporate office have been allocated to the reportable operating segments, based upon a relative measure of profitability in order to more accurately reflect each reportable operating segment's administrative cost. Certain costs were not allocated to the business segments, but remain in Unallocated Corporate & Other, including transaction expenses, stock-based compensation, long-term incentive awards based on the performance of our common stock and other factors, certain severance and legal costs not deemed to be allocable to all segments, depreciation of corporate assets, interest expense, other, net, income taxes and inter-segment eliminations. This treatment was applied to avoid an asymmetrical allocation amongst the operating segments for the comparative period due to the timing of acquisitions. The accounting policies of our operating segments are the same as those used to prepare the accompanying consolidated financial statements. The following table summarizes corporate general and administrative expense allocated during the years ended October 31, 2016, 2015 and 2014:

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

	Year Ended October 31,		
	2016	2015	2014
	(in thousands)		
NA Engineered Components	\$ 10,487	\$ 9,638	\$ 10,170
EU Engineered Components	3,814	2,109	740
NA Cabinet Components	4,767	—	—
Unallocated Corporate & Other	—	5,776	7,581
Allocated general and administrative expense	<u>\$ 19,068</u>	<u>\$ 17,523</u>	<u>\$ 18,491</u>

ASC Topic 280-10-50, “*Segment Reporting*” (ASC 280) permits aggregation of operating segments based on factors including, but not limited to: (1) similar nature of products serving the building products industry, primarily the fenestration business; (2) similar production processes, although there are some differences in the amount of automation amongst operating plants; (3) similar types or classes of customers, namely the primary OEMs; (4) similar distribution methods for product delivery, although the extent of the use of third-party distributors will vary amongst the businesses; (5) similar regulatory environment; and (6) converging long-term economic similarities.

Segment information for the years ended October 31, 2016, 2015 and 2014 was as follows (in thousands):

	NA Eng Comp.	EU Eng. Comp.	NA Cabinet Comp.	Unallocated Corp. & Other	Total
<u>Year Ended October 31, 2016</u>					
Net sales	\$ 560,029	\$ 150,203	\$ 223,391	\$ (5,439)	\$ 928,184
Depreciation and amortization	30,298	9,339	12,948	561	53,146
Operating income (loss)	37,883	13,225	1,821	(16,576)	36,353
Capital expenditures	22,713	6,141	8,110	279	37,243
Total assets	\$ 290,725	\$ 190,995	\$ 287,012	\$ 11,621	\$ 780,353
<u>Year Ended October 31, 2015</u>					
Net sales	\$ 556,550	\$ 93,644	\$ —	\$ (4,666)	\$ 645,528
Depreciation and amortization	28,911	5,020	—	1,289	35,220
Operating income (loss)	39,253	3,253	—	(17,831)	24,675
Capital expenditures	25,499	4,396	—	87	29,982
Total assets	\$ 314,397	\$ 231,261	\$ —	\$ 19,858	\$ 565,516
<u>Year Ended October 31, 2014</u>					
Net sales	\$ 544,045	\$ 55,891	\$ —	\$ (4,552)	\$ 595,384
Depreciation and amortization	28,888	1,898	—	3,083	33,869
Operating income (loss)	27,604	3,756	—	(17,084)	14,276
Capital expenditures	\$ 20,990	\$ 2,445	\$ —	\$ 294	\$ 23,729

Capital expenditures per the accompanying cash flow statements include \$10.1 million for the year ended October 31, 2014 related to Nichols business which was discontinued in 2014.

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

The following table reconciles our segment presentation for the years ended October 31, 2015 and 2014 as previously reported in our Annual Report on Form 10-K for the year ended October 31, 2015 to the current presentation.

<u>Year Ended October 31, 2015</u>	<u>As Previously Reported</u>	<u>Reclassification</u>	<u>Current Presentation</u>
	(in thousands)		
Engineered Products			
Net sales	\$ 603,296	\$ (603,296)	\$ —
Depreciation and amortization	30,587	(30,587)	—
Operating income (loss)	52,850	(52,850)	—
Capital expenditures	28,013	(28,013)	—
Total assets	\$ 361,281	\$ (361,281)	\$ —
International Extrusion			
Net sales	\$ 42,232	\$ (42,232)	\$ —
Depreciation and amortization	3,344	(3,344)	—
Operating income (loss)	1,404	(1,404)	—
Capital expenditures	1,882	(1,882)	—
Total assets	\$ 184,377	\$ (184,377)	\$ —
Corporate & Other			
Net sales	\$ —	\$ —	\$ —
Depreciation and amortization	1,289	(1,289)	—
Operating income (loss)	(29,579)	29,579	—
Capital expenditures	87	(87)	—
Total assets	\$ 19,858	\$ (19,858)	\$ —
NA Engineered Components			
Net sales	\$ —	\$ 556,550	\$ 556,550
Depreciation and amortization	—	28,911	28,911
Operating income (loss)	—	39,253	39,253
Capital expenditures	—	25,499	25,499
Total assets	\$ —	\$ 314,397	\$ 314,397
EU Engineered Components			
Net sales	\$ —	\$ 93,644	\$ 93,644
Depreciation and amortization	—	5,020	5,020
Operating income (loss)	—	3,253	3,253
Capital expenditures	—	4,396	4,396
Total assets	\$ —	\$ 231,261	\$ 231,261
Unallocated Corporate & Other			
Net sales	\$ —	\$ (4,666)	\$ (4,666)
Depreciation and amortization	—	1,289	1,289
Operating income (loss)	—	(17,831)	(17,831)
Capital expenditures	—	87	87
Total assets	\$ —	\$ 19,858	\$ 19,858

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

<u>Year Ended October 31, 2014</u>	<u>As Previously Reported</u>	<u>Reclassification</u>	<u>Current Presentation</u>	
	(in thousands)			
Engineered Products				
Net sales	\$ 595,384	\$ (595,384)	\$	—
Depreciation and amortization	30,785	(30,785)		—
Operating income (loss)	42,271	(42,271)		—
Capital expenditures	\$ 23,435	\$ (23,435)	\$	—
Corporate & Other				
Net sales	\$ —	\$ —	\$	—
Depreciation and amortization	3,084	(3,084)		—
Operating income (loss)	(27,995)	27,995		—
Capital expenditures	\$ 294	\$ (294)	\$	—
NA Engineered Components				
Net sales	\$ —	\$ 544,045	\$	544,045
Depreciation and amortization	—	28,888		28,888
Operating income (loss)	—	27,604		27,604
Capital expenditures	\$ —	\$ 20,990	\$	20,990
EU Engineered Components				
Net sales	\$ —	\$ 55,891	\$	55,891
Depreciation and amortization	—	1,898		1,898
Operating income (loss)	—	3,756		3,756
Capital expenditures	\$ —	\$ 2,445	\$	2,445
Unallocated Corporate & Other				
Net sales	\$ —	\$ (4,552)	\$	(4,552)
Depreciation and amortization	—	3,083		3,083
Operating income (loss)	—	(17,084)		(17,084)
Capital expenditures	\$ —	\$ 294	\$	294

The following table summarizes the change in the carrying amount of goodwill by segment for the years ended October 31, 2016 and 2015 (in thousands):

	<u>NA Eng. Comp.</u>	<u>EU Eng. Comp.</u>	<u>NA Cabinet Comp.</u>	<u>Unalloc. Corp. & Other</u>	<u>Total</u>
Balance as of October 31, 2014	\$ 51,314	\$ 19,232	\$ —	\$ —	\$ 70,546
HLP acquisition	—	61,524	—	—	61,524
Asset impairment charge	—	—	—	—	—
Foreign currency translation adjustment	—	(2,300)	—	—	(2,300)
Balance as of October 31, 2015	\$ 51,314	\$ 78,456	\$ —	\$ —	\$ 129,770
Woodcraft acquisition	—	—	113,747	—	113,747
Asset impairment charge	(12,602)	—	—	—	(12,602)
Other	—	(575)	—	—	(575)
Foreign currency translation adjustment	—	(13,305)	—	—	(13,305)
Balance as of October 31, 2016	\$ 38,712	\$ 64,576	\$ 113,747	\$ —	\$ 217,035

For further details of Goodwill, see Note 6, "Goodwill & Intangible Assets", located herewith.

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

We did not allocate non-operating expense or income tax expense to the reportable segments. The following table reconciles operating income (loss) as reported above to net (loss) income for the years ended October 31, 2016, 2015 and 2014:

	Year Ended October 31,		
	2016	2015	2014
	(in thousands)		
Operating income	\$ 36,353	\$ 24,675	\$ 14,276
Interest expense	(36,498)	(991)	(562)
Other, net	(5,479)	(531)	92
Income tax benefit (expense)	3,765	(7,539)	(5,468)
(Loss) income from continuing operations	<u>\$ (1,859)</u>	<u>\$ 15,614</u>	<u>\$ 8,338</u>

Geographic Information

Our manufacturing facilities and all long-lived assets are located in the United States, United Kingdom, Germany and Mexico. We attribute our net sales to a geographic region based on the location of the customer. The following tables provide information concerning our net sales for the years ended October 31, 2016, 2015 and 2014, and our long-lived assets as of October 31, 2016 and 2015 (in thousands):

Net Sales:	Year Ended October 31,		
	2016	2015	2014
United States	\$ 724,045	\$ 500,171	\$ 484,601
Europe	150,710	94,564	57,098
Canada	24,141	22,973	26,605
Asia	20,404	19,268	18,867
Other foreign countries	8,884	8,552	8,213
Total net sales	<u>\$ 928,184</u>	<u>\$ 645,528</u>	<u>\$ 595,384</u>

Long-lived assets, net	Year Ended October 31,	
	2016	2015
United States	\$ 428,203	\$ 214,479
Germany	19,479	20,117
United Kingdom	121,416	156,656
Mexico	614	—
Total long-lived assets, net	<u>\$ 569,712</u>	<u>\$ 391,252</u>

Long-lived assets, net includes: property, plant and equipment, net; goodwill; and intangible assets, net.

Product Sales

We produce a wide variety of products that are used in the fenestration industry, including: window and door systems design, engineering and fabrication; accessory trim profiles with real wood veneers and wood grain laminate finishes; window spacer systems; extruded vinyl products; metal fabrication; and astragals, thresholds and screens. In addition, we produce certain non-fenestration products, including: kitchen and bath cabinet doors and components, flooring and trim moldings, solar edge tape, plastic decking, fencing, water retention barriers, conservatory roof components, and other products.

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

The following table summarizes our product sales for the years ended October 31, 2016, 2015 and 2014 into general groupings to provide additional information to our shareholders.

	Year Ended October 31,		
	2016	2015	2014
	(in thousands)		
NA Engineered Components:			
United States - fenestration	\$ 466,351	\$ 462,650	\$ 453,571
International - fenestration	38,439	33,991	43,345
United States - non-fenestration	36,986	42,143	33,583
International - non-fenestration	18,253	17,766	13,546
	<u>\$ 560,029</u>	<u>\$ 556,550</u>	<u>\$ 544,045</u>
EU Engineered Components:			
United States - fenestration	\$ 412	\$ 44	\$ —
International - fenestration	134,631	87,943	55,891
International - non-fenestration	15,160	5,657	—
	<u>\$ 150,203</u>	<u>\$ 93,644</u>	<u>\$ 55,891</u>
NA Cabinet Components:			
United States	\$ 220,715	\$ —	\$ —
International	2,676	—	—
	<u>\$ 223,391</u>	<u>\$ —</u>	<u>\$ —</u>
Unallocated Corporate & Other			
Eliminations	\$ (5,439)	\$ (4,666)	\$ (4,552)
	<u>\$ (5,439)</u>	<u>\$ (4,666)</u>	<u>\$ (4,552)</u>
Net sales	<u>\$ 928,184</u>	<u>\$ 645,528</u>	<u>\$ 595,384</u>

19. (Loss) Earnings Per Share

We compute basic (loss) earnings per share by dividing net (loss) income by the weighted average number of common shares outstanding during the period. Diluted earnings per common and potential common shares include the weighted average of additional shares associated with the incremental effect of dilutive employee stock options, non-vested restricted stock as determined using the treasury stock method prescribed by U.S. GAAP and contingent shares associated with performance share awards, if dilutive.

Basic and diluted loss per share was \$0.05 for the twelve months ended October 31, 2016. The computation of diluted earnings per share excludes outstanding stock options and other common stock equivalents when their inclusion would be anti-dilutive. This is always the case when an entity incurs a net loss. During the twelve-month period ended October 31, 2016, 378,542 shares of common stock equivalents, 152,227 shares of restricted stock and 67,550 contingent shares related to performance share awards were excluded from the computation of diluted earnings per share.

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

The computation of basic and diluted earnings per share for the years ended October 31, 2015 and 2014 was as follows (in thousands, except per share data):

	Year Ended October 31, 2015		
	Net Income from Continuing Operations	Weighted Average Shares	Per Share
Basic earnings per common share	\$ 15,614	33,993	\$ 0.46
<i>Effect of dilutive securities:</i>			
Stock options	—	378	
Restricted stock	—	131	
Diluted earnings per common share	<u>\$ 15,614</u>	<u>34,502</u>	<u>\$ 0.46</u>

	Year Ended October 31, 2014		
	Net Income from Continuing Operations	Weighted Average Shares	Per Share
Basic earnings per common share	\$ 8,338	37,128	\$ 0.22
<i>Effect of dilutive securities:</i>			
Stock options	—	467	
Restricted stock	—	84	
Diluted earnings per common share	<u>\$ 8,338</u>	<u>37,679</u>	<u>\$ 0.22</u>

There were no potentially dilutive contingent shares related to performance share awards for the years ended October 31, 2015 and 2014.

For the years ended October 31, 2016, 2015 and 2014, we had 807,372, 860,272 and 954,372 securities, respectively, that were potentially dilutive in future earnings per share calculations. Such dilution will be dependent on the excess of the market price of our stock over the exercise price and other components of the treasury stock method.

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

20. Unaudited Quarterly Data

Selected quarterly financial data for the years ended October 31, 2016 and 2015 was as follows (amounts in thousands, except per share amounts):

For the Quarter Ended	January 31, 2016	April 30, 2016	July 31, 2016	October 31, 2016
Net sales	\$ 201,468	\$ 229,460	\$ 248,085	\$ 249,171
Cost of sales (excluding depreciation and amortization)	159,348	176,497	186,631	188,168
Depreciation and amortization	12,970	13,816	12,973	13,387
Operating (loss) income	(2,138)	10,556	19,930	8,005
(Loss) income from continuing operations	(7,249)	3,935	(3,976)	5,431
Net (loss) income	\$ (7,249)	\$ 3,935	\$ (3,976)	\$ 5,431
Basic (loss) earnings per share, continuing operations	\$ (0.21)	\$ 0.12	\$ (0.12)	\$ 0.16
Diluted (loss) earnings per share, continuing operations	(0.21)	0.12	(0.12)	0.16
Basic (loss) earnings per share	(0.21)	0.11	(0.12)	0.16
Diluted (loss) earnings per share	(0.21)	0.11	(0.12)	0.16
Cash dividends paid per common share	\$ 0.04	\$ 0.04	\$ 0.04	\$ 0.04

For the Quarter Ended	January 31, 2015	April 30, 2015	July 31, 2015	October 31, 2015
Net sales	\$ 127,893	\$ 141,970	\$ 180,206	\$ 195,459
Cost of sales (excluding depreciation and amortization)	105,804	110,812	136,853	145,628
Depreciation and amortization	8,208	7,831	8,502	10,679
Operating (loss) income	(5,615)	3,689	9,828	16,773
(Loss) income from continuing operations	(3,094)	2,294	6,471	9,943
Net (loss) income	\$ (3,071)	\$ 2,294	\$ 6,927	\$ 9,943
Basic (loss) earnings per share, continuing operations	\$ (0.09)	\$ 0.07	\$ 0.20	\$ 0.30
Diluted (loss) earnings per share, continuing operations	(0.09)	0.07	0.19	0.29
Basic (loss) earnings per share	(0.09)	0.07	0.21	0.30
Diluted (loss) earnings per share	(0.09)	0.07	0.20	0.29
Cash dividends paid per common share	\$ 0.04	\$ 0.04	\$ 0.04	\$ 0.04

Quarterly earnings (loss) per share results may not sum to the consolidated earnings per share results on the accompanying consolidated statements of income (loss) due to rounding and changes in weighted average shares during the respective periods.

21. New Accounting Guidance Adopted

In November 2015, the FASB issued ASU No. 2015-17, *Income Taxes (Topic 740): Balance Sheet Classification of Deferred Taxes*. The amendments require deferred tax liabilities and assets be classified as noncurrent in a classified statement of financial position. We adopted ASU No. 2015-17 as of November 1, 2015 on a retrospective basis. As a result, our presentation of deferred taxes at October 31, 2016 and October 31, 2015 is consistent with this guidance, and therefore the October 31, 2015 presentation reflects a reclassification of current deferred income tax asset of \$14.0 million and the noncurrent deferred income tax liability of \$5.2 million as a noncurrent deferred income tax asset of \$8.8 million.

QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

In April 2015, the FASB issued ASU No. 2015-03, *Interest - Imputation of Interest (Subtopic 835-30): Simplifying the Presentation of Debt Issuance Costs*. This amendment requires debt issuance costs related to a recognized debt liability be presented in the balance sheet as a direct deduction from the carrying amount of that debt liability, consistent with the treatment of debt discounts. In August 2015, the FASB issued ASU 2015-15, *Interest - Imputation of Interest (Subtopic 835-30) Presentation and Subsequent Measurement of Debt Issuance Costs Associated with Line-of-Credit Arrangements*, to clarify guidance within ASU 2015-03 with respect to line-of-credit arrangements. ASU 2015-15 allows an entity, in the case of a line-of-credit arrangement, to either follow ASU 2015-03 or defer and present debt issuance costs as an asset and subsequently amortize the deferred debt issuance costs ratably over the term of the line-of-credit arrangement, regardless of whether there are any outstanding borrowings on the line-of-credit arrangement. For the years ended October 31, 2016 and 2015, we elected to forgo the option to present line-of-credit debt issuance costs as an asset provided in ASU 2015-15 and have presented outstanding unamortized deferred loan costs as a direct deduction from the carrying value of all debt outstanding to the extent there is debt outstanding. We elected to early adopt ASU No. 2015-03 as of October 31, 2016 on a retrospective basis. As a result, our presentation of all debt issuance costs at October 31, 2016 and October 31, 2015 is a direct deduction from the carrying amount of the outstanding debt, and the October 31, 2015 presentation reflects a reclassification of \$1.3 million of unamortized deferred financing fees from other assets to long term debt, resulting in other assets of \$7.3 million and long-term debt of \$53.8 million (see Note 8, "Debt and Capital Lease Obligations").

In April 2014, the FASB issued ASU No. 2014-08, *Presentation of Financial Statements (Topic 205) and Property, Plant, and Equipment (Topic 360): Reporting Discontinued Operations and Disclosures of Disposals of Components of an Entity*. This new guidance clarifies the definition of a discontinued operation as a disposal of a component of any entity, or a group of such components, which represent a strategic shift that has or will have a major effect on an entity's operations and financial results. This guidance should result in fewer applications of discontinued operations accounting treatment. However, if such accounting treatment is required, the guidance requires additional footnote disclosures with regard to the major classes of line items constituting pretax profit or loss of the discontinued operation, a reconciliation of the major classes of assets and liabilities of the discontinued operation, and additional disclosure with regard to cash flows of the discontinued operation. This guidance became effective for fiscal years beginning on or after December 15, 2014. We adopted this guidance during fiscal 2016 with no material impact on our consolidated financial statements.

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

None.

Item 9A. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

Under the supervision and with the participation of our management, including the Chief Executive Officer and Chief Financial Officer, we have evaluated the effectiveness of our disclosure controls and procedures pursuant to Rules 13a-15(e) under the Securities Exchange Act of 1934 (1934 Act) as of October 31, 2016. Based on that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that, as of October 31, 2016, the disclosure controls and procedures are effective.

Management's Annual Report on Internal Control over Financial Reporting

Refer to Management's Annual Report on Internal Control over Financial Reporting located in "Part 2, Item 8. Financial Information" of this Annual Report on Form 10-K.

Auditor's Report Relating to Effectiveness of Internal Control over Financial Reporting

Refer to the Report of Independent Registered Public Accounting Firm located "Part 2, Item 8. Financial Information" in this Annual Report on Form 10-K.

Changes in Internal Control over Financial Reporting

There have been no changes in internal controls over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the 1934 Act) during the most recent fiscal quarter that have materially affected or are reasonably likely to materially affect our internal control over financial reporting.

Item 9B. Other Information.

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

Pursuant to General Instruction G(3) to Form 10-K, the information on "Directors, Executive Officers and Corporate Governance" is incorporated herein by reference from the Registrant's Definitive Proxy Statement relating to the 2017 Annual Meeting of Stockholders of Quanex Building Products Corporation or an amendment to this Form 10-K, which is to be filed with the SEC pursuant to Regulation 14A under the Securities Exchange Act of 1934, as amended, within 120 days after the close of the fiscal year ended October 31, 2016.

Item 11. Executive Compensation.

Pursuant to General Instruction G(3) to Form 10-K, the information on "Executive Compensation" is incorporated herein by reference from the Registrant's Definitive Proxy Statement relating to the 2017 Annual Meeting of Stockholders of Quanex Building Products Corporation or an amendment to this Form 10-K, which is to be filed with the SEC pursuant to Regulation 14A under the Securities Exchange Act of 1934, as amended, within 120 days after the close of the fiscal year ended October 31, 2016.

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

Pursuant to General Instruction G(3) to Form 10-K, the information on "Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters" is incorporated herein by reference from the Registrant's Definitive Proxy Statement relating to the 2017 Annual Meeting of Stockholders of Quanex Building Products Corporation or an amendment to this Form 10-K, which is to be filed with the SEC pursuant to Regulation 14A under the Securities Exchange Act of 1934, as amended, within 120 days after the close of the fiscal year ended October 31, 2016.

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

Pursuant to General Instruction G(3) to Form 10-K, the information on "Certain Relationships and Related Transactions, and Director Independence" is incorporated herein by reference from the Registrant's Definitive Proxy Statement relating to the 2017 Annual Meeting of Stockholders of Quanex Building Products Corporation or an amendment to this Form 10-K, which is to be filed with the SEC pursuant to Regulation 14A under the Securities Exchange Act of 1934, as amended, within 120 days after the close of the fiscal year ended October 31, 2016.

Item 14. Principal Accountant Fees and Services.

Pursuant to General Instruction G(3) to Form 10-K, the information on "Principal Accountant Fees and Services" is incorporated herein by reference from the Registrant's Definitive Proxy Statement relating to the 2017 Annual Meeting of Stockholders of Quanex Building Products Corporation or an amendment to this Form 10-K, which is to be filed with the SEC pursuant to Regulation 14A under the Securities Exchange Act of 1934, as amended, within 120 days after the close of the fiscal year ended October 31, 2016.

PART IV

Item 15. Exhibits and Financial Statement Schedules.

1. Financial Statements

The financial statements included in this report are listed in the Index to Financial Statements located elsewhere in this Annual Report on Form 10-K.

2. Financial Statement Schedules

Schedules for which provision is made in the applicable accounting regulations of the SEC are either not required under the related instructions or inapplicable.

3. Exhibits

The exhibits required to be filed pursuant to Item 15(b) of Form 10-K are listed in the Exhibit Index filed herewith, which Exhibit Index is incorporated herein by reference. Exhibits 10.1 through 10.43 listed in the Exhibit Index filed herewith, are management or compensatory plans or arrangements required to be filed as exhibits to this Annual Report on Form 10-K pursuant to Item 15(b) thereof.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

QUANEX BUILDING PRODUCTS CORPORATION

Date: December 16, 2016

/s/ Brent L. Korb

Brent L. Korb

Senior Vice President – Finance and Chief Financial Officer
(Principal Financial Officer)

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

Name	Title	Date
<u>/s/ William C. Griffiths</u> William C. Griffiths	Chairman of the Board, President and Chief Executive Officer	December 16, 2016
<u>/s/ Susan F. Davis</u> Susan F. Davis	Director	December 16, 2016
<u>/s/ LeRoy D. Nosbaum</u> LeRoy D. Nosbaum	Director	December 16, 2016
<u>/s/ Joseph D. Rupp</u> Joseph D. Rupp	Director	December 16, 2016
<u>/s/ Curtis M. Stevens</u> Curtis M. Stevens	Director	December 16, 2016
<u>/s/ Robert R. Buck</u> Robert R. Buck	Director	December 16, 2016
<u>/s/ Brent L. Korb</u> Brent L. Korb	Senior Vice President—Finance and Chief Financial Officer (Principal Financial Officer)	December 16, 2016
<u>/s/ Dewayne Williams</u> Dewayne Williams	Vice President and Controller (Principal Accounting Officer)	December 16, 2016

EXHIBIT INDEX

Exhibit Number	Description of Exhibits
2.1	Distribution Agreement among Quanex Corporation, Quanex Building Products LLC and Quanex Building Products Corporation (incorporated by reference to Exhibit 10.1 to Quanex Corporation's Current Report on Form 8-K (Reg. No. 001-05725) filed with the Commission on December 24, 2007).
2.2	Agreement and Plan of Merger, dated as of January 31, 2011, by and among Quanex Building Products Corporation, QSB Inc., Lauren Holdco Inc., Lauren International, Inc. and Kevin E. Gray, as agent for the shareholders of Lauren Holdco Inc., filed as Exhibit 2.1 of the Registrant's Current Report on Form 8-K (Reg. No. 001-33913) as filed with the Securities and Exchange Commission on February 2, 2011, and incorporated herein by reference.
2.3	Limited Liability Company Interest Purchase Agreement dated February 7, 2014, by and among Quanex Building Products Corporation, Nichols Aluminum, LLC and Aleris International Inc., filed as Exhibit 2.1 of the Registrant's Current Report on Form 8-K (Reg. No. 001-33913) as filed with the Securities and Exchange Commission on February 10, 2014, and incorporated herein by reference.
2.4	First Amendment to Limited Liability Company Interest Purchase Agreement dated April 1, 2014, by and among Quanex Building Products Corporation, Nichols Aluminum, LLC and Aleris International Inc., filed as Exhibit 10.1 of the Registrant's Current Report on Form 8-K (Reg. No. 001-33913) as filed with the Securities and Exchange Commission on April 7, 2014, and incorporated herein by reference.
2.5	Share Purchase Agreement dated June 15, 2015 by and among R.L. Hartshorn and others, and Quanex Building Products Corporation, filed as Exhibit 2.1 to the Registrant's Current Report on Form 8-K (Reg. No. 001-33913), as filed with the Securities and Exchange Commission on June 16, 2015, and incorporated herein by reference.
2.6	Agreement and Plan of Merger, dated as of August 30, 2015, by and among Quanex Building Products Corporation, QWMS, Inc., WII Holding, Inc., and Olympus Growth Fund IV, L.P, solely in its capacity as the representative of the stockholders of WII Holding, Inc, filed as Exhibit 2.1 to the Registrant's Current Report on Form 8-K (Reg. No. 001-33913), as filed with the Securities and Exchange Commission on August 30, 2015, and incorporated herein by reference.
3.1	Restated Certificate of Incorporation of the Registrant dated as of March 4, 2016, filed as Exhibit 3.1 of the Registrant's Current Report on Form 8-K (Reg. No. 001-33913) as filed with the Securities and Exchange Commission on March 7, 2016, and incorporated herein by reference.
3.2	Third Amended and Restated Bylaws of the Registrant dated as of March 4, 2016, filed as Exhibit 3.2 of the Registrant's Quarterly Report on Form 10-Q (Reg. No. 001-33913) for the quarter ended July 31, 2016, and incorporated herein by reference.
4.1	Form of Registrant's common stock certificate, filed as Exhibit 4.1 of Amendment No. 1 to the Registrant's Registration Statement on Form 10 (Reg. No. 001-33913), as filed with the Securities and Exchange Commission on February 14, 2008, and incorporated herein by reference.
4.2	Credit Agreement dated as of July 29, 2016, by and among the Company; the lenders party thereto; and Wells Fargo Bank, National Association, as Agent; filed as Exhibit 10.1 of the Registrant's Current Report on Form 8-K (Reg. No. 001-33913) as filed with the Securities and Exchange Commission on August 1, 2016, and incorporated herein by reference.
†10.1	Quanex Building Products Corporation Amended and Restated 2008 Omnibus Incentive Plan, filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K (Reg. No. 001-33913) as filed with the Securities and Exchange Commission on February 28, 2014, and incorporated herein by reference.
†10.2	Quanex Building Products Corporation Deferred Compensation Plan as amended, filed as Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q (Reg. No. 001-33913) for the quarter ended January 31, 2014, as filed with the Securities and Exchange Commission on March 6, 2014, and incorporated herein by reference.
†10.3	Quanex Building Products Corporation Restoration Plan, filed as Exhibit 10.8 of Amendment No. 4 to the Registrant's Registration Statement on Form 10 (Reg. No. 001-33913), as filed with the Securities and Exchange Commission on March 17, 2008, and incorporated herein by reference.
†10.4	Quanex Building Products Corporation Supplemental Employees Retirement Plan, filed as Exhibit 10.9 of Amendment No. 4 to the Registrant's Registration Statement on Form 10 (Reg. No. 001-33913), as filed with the Securities and Exchange Commission on March 17, 2008, and incorporated herein by reference.

EXHIBIT INDEX

Exhibit Number	Description of Exhibits
†10.5	Form of Severance Agreement between the Registrant and certain of its executive officers, filed as Exhibit 10.5 of Amendment No. 1 to the Registrant's Registration Statement on Form 10 (Reg. No. 001-33913), as filed with the Securities and Exchange Commission on February 14, 2008, and incorporated herein by reference.
†10.6	Form of Change in Control Agreement between the Registrant and certain of its executive officers, filed as Exhibit 10.6 of Amendment No. 1 to the Registrant's Registration Statement on Form 10 (Reg. No. 001-33913), as filed with the Securities and Exchange Commission on February 14, 2008, and incorporated herein by reference.
†10.7	Form of Indemnity Agreement between the Registrant and each of its independent directors, effective September 2, 2008, filed as Exhibit 10.1 of the Registrant's Current Report on Form 8-K (Reg. No. 001-33913), as filed with the Securities and Exchange Commission on August 29, 2008, and incorporated herein by reference.
†10.8	Form of Indemnity Agreement between the Registrant and each of its officers, effective September 2, 2008, filed as Exhibit 10.2 of the Registrant's Current Report on Form 8-K (Reg. No. 001-33913), as filed with the Securities and Exchange Commission on August 29, 2008, and incorporated herein by reference.
†10.9	Agreement between Quanex Building Products Corporation and Dewayne Williams, effective July 1, 2013, filed as Exhibit 10.1 of the Registrant's Current Report on Form 8-K (Reg. No. 001-33913), as filed with the Securities and Exchange Commission on June 20, 2013, and incorporated herein by reference.
†10.10	Change in Control Agreement between Quanex Building Products Corporation and Dewayne Williams, effective July 1, 2013, filed as Exhibit 10.2 of the Registrant's Current Report on Form 8-K (Reg. No. 001-33913), as filed with the Securities and Exchange Commission on June 20, 2013, and incorporated herein by reference.
†10.11	Indemnity Agreement between Quanex Building Products Corporation and Dewayne Williams, effective July 1, 2013, the form of which is filed as Exhibit 10.2 of the Registrant's Current Report on Form 8-K (Reg. No. 001-33913), as filed with the Securities and Exchange Commission on August 29, 2008, and incorporated herein by reference.
†10.12	Agreement between Quanex Building Products Corporation and William C. Griffiths, effective July 9, 2013, filed as Exhibit 10.1 of the Registrant's Current Report on Form 8-K (Reg. No. 001-33913), as filed with the Securities and Exchange Commission on July 9, 2013, and incorporated herein by reference.
†10.13	Change in Control Agreement between Quanex Building Products Corporation and William C. Griffiths, effective July 9, 2013, filed as Exhibit 10.2 of the Registrant's Current Report on Form 8-K (Reg. No. 001-33913), as filed with the Securities and Exchange Commission on July 9, 2013, and incorporated herein by reference.
†10.14	Indemnity Agreement between Quanex Building Products Corporation and William C. Griffiths, effective July 9, 2013, the form of which is filed as Exhibit 10.2 of the Registrant's Current Report on Form 8-K (Reg. No. 001-33913), as filed with the Securities and Exchange Commission on August 29, 2008, and incorporated herein by reference.
†10.15	Form of Stock Option Agreement for Employees under the Quanex Building Products Corporation 2008 Omnibus Incentive Plan, as amended, filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K (Reg. No. 001-33913), as filed with the Securities and Exchange Commission on April 29, 2014, and incorporated herein by reference.
†10.16	Form of Stock Option Agreement for Section 16 Officers under the Quanex Building Products Corporation 2008 Omnibus Incentive Plan, as amended, filed as Exhibit 10.2 to the Registrant's Current Report on Form 8-K (Reg. No. 001-33913), as filed with the Securities and Exchange Commission on April 29, 2014, and incorporated herein by reference.
†10.17	Form of Stock Option Agreement for Key Leaders under the Quanex Building Products Corporation 2008 Omnibus Incentive Plan, as amended, filed as Exhibit 10.3 to the Registrant's Current Report on Form 8-K (Reg. No. 001-33913), as filed with the Securities and Exchange Commission on April 29, 2014, and incorporated herein by reference.
†10.18	Form of Stock Option Agreement for Non-Employee Directors under the Quanex Building Products Corporation 2008 Omnibus Incentive Plan, as amended, filed as Exhibit 10.4 to the Registrant's Current Report on Form 8-K (Reg. No. 001-33913), as filed with the Securities and Exchange Commission on April 29, 2014, and incorporated herein by reference.

EXHIBIT INDEX

Exhibit Number	Description of Exhibits
†10.19	Form of Restricted Stock Award Agreement for Employees under the Quanex Building Products Corporation 2008 Omnibus Incentive Plan, as amended, filed as Exhibit 10.5 to the Registrant's Current Report on Form 8-K (Reg. No. 001-33913), as filed with the Securities and Exchange Commission on April 29, 2014, and incorporated herein by reference.
†10.20	Form of Restricted Stock Award Agreement for Section 16 Officers under the Quanex Building Products Corporation 2008 Omnibus Incentive Plan, as amended, filed as Exhibit 10.6 to the Registrant's Current Report on Form 8-K (Reg. No. 001-33913), as filed with the Securities and Exchange Commission on April 29, 2014, and incorporated herein by reference.
†10.21	Form of Restricted Stock Award Agreement for Key Leaders under the Quanex Building Products Corporation 2008 Omnibus Incentive Plan, as amended, filed as Exhibit 10.7 to the Registrant's Current Report on Form 8-K (Reg. No. 001-33913), as filed with the Securities and Exchange Commission on April 29, 2014, and incorporated herein by reference.
†10.22	Form of Restricted Stock Award Agreement for Non-Employee Directors under the Quanex Building Products Corporation 2008 Omnibus Incentive Plan, as amended, filed as Exhibit 10.8 to the Registrant's Current Report on Form 8-K (Reg. No. 001-33913), as filed with the Securities and Exchange Commission on April 29, 2014, and incorporated herein by reference.
†10.23	Form of Restricted Stock Unit Award Agreement for Employees under the Quanex Building Products Corporation 2008 Omnibus Incentive Plan, as amended, filed as Exhibit 10.9 to the Registrant's Current Report on Form 8-K (Reg. No. 001-33913), as filed with the Securities and Exchange Commission on April 29, 2014, and incorporated herein by reference.
†10.24	Form of Restricted Stock Unit Award Agreement for Section 16 Officers under the Quanex Building Products Corporation 2008 Omnibus Incentive Plan, as amended, filed as Exhibit 10.10 to the Registrant's Current Report on Form 8-K (Reg. No. 001-33913), as filed with the Securities and Exchange Commission on April 29, 2014, and incorporated herein by reference.
†10.25	Form of Restricted Stock Unit Award Agreement for Key Leaders under the Quanex Building Products Corporation 2008 Omnibus Incentive Plan, as amended, filed as Exhibit 10.11 to the Registrant's Current Report on Form 8-K (Reg. No. 001-33913), as filed with the Securities and Exchange Commission on April 29, 2014, and incorporated herein by reference.
†10.26	Form of Restricted Stock Unit Award Agreement for Non-Employee Directors under the Quanex Building Products Corporation 2008 Omnibus Incentive Plan, as amended, filed as Exhibit 10.12 to the Registrant's Current Report on Form 8-K (Reg. No. 001-33913), as filed with the Securities and Exchange Commission on April 29, 2014, and incorporated herein by reference.
†10.27	Amended Form of Performance Share Award Agreement for Employees under the Quanex Building Products Corporation 2008 Omnibus Incentive Plan, as amended, filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K (Reg. No. 001-33913), as filed with the Securities and Exchange Commission on December 7, 2015, and incorporated herein by reference.
†10.28	Amended Form of Performance Share Award Agreement for Section 16 Officers under the Quanex Building Products Corporation 2008 Omnibus Incentive Plan, as amended, filed as Exhibit 10.2 to the Registrant's Current Report on Form 8-K (Reg. No. 001-33913), as filed with the Securities and Exchange Commission on December 7, 2015, and incorporated herein by reference.
†10.29	Amended Form of Performance Share Award Agreement for Key Leaders under the Quanex Building Products Corporation 2008 Omnibus Incentive Plan, as amended, filed as Exhibit 10.3 to the Registrant's Current Report on Form 8-K (Reg. No. 001-33913), as filed with the Securities and Exchange Commission on December 7, 2015, and incorporated herein by reference.
†10.30	Form of Performance Share Award Agreement for Non-Employee Directors the Quanex Building Products Corporation 2008 Omnibus Incentive Plan, as amended, filed as Exhibit 10.16 to the Registrant's Current Report on Form 8-K (Reg. No. 001-33913), as filed with the Securities and Exchange Commission on April 29, 2014, and incorporated herein by reference.
†10.31	Amended Form of Performance Unit Award Agreement for Employees under the Quanex Building Products Corporation 2008 Omnibus Incentive Plan, as amended, filed as Exhibit 10.4 to the Registrant's Current Report on Form 8-K (Reg. No. 001-33913), as filed with the Securities and Exchange Commission on December 7, 2015, and incorporated herein by reference.

EXHIBIT INDEX

Exhibit Number	Description of Exhibits
†10.32	Amended Form of Performance Unit Award Agreement for Section 16 Officers under the Quanex Building Products Corporation 2008 Omnibus Incentive Plan, as amended, filed as Exhibit 10.5 to the Registrant's Current Report on Form 8-K (Reg. No. 001-33913), as filed with the Securities and Exchange Commission on December 7, 2015, and incorporated herein by reference.
†10.33	Amended Form of Performance Unit Award Agreement for Key Leaders under the Quanex Building Products Corporation 2008 Omnibus Incentive Plan, as amended, filed as Exhibit 10.6 to the Registrant's Current Report on Form 8-K (Reg. No. 001-33913), as filed with the Securities and Exchange Commission on December 7, 2015, and incorporated herein by reference.
†10.34	Form of Performance Unit Award Agreement for Non-Employee Directors under the Quanex Building Products Corporation 2008 Omnibus Incentive Plan, as amended, filed as Exhibit 10.20 to the Registrant's Current Report on Form 8-K (Reg. No. 001-33913), as filed with the Securities and Exchange Commission on April 29, 2014, and incorporated herein by reference.
†10.35	Form of Stock Appreciation Right Agreement for Employees under the Quanex Building Products Corporation 2008 Omnibus Incentive Plan, as amended, filed as Exhibit 10.21 to the Registrant's Current Report on Form 8-K (Reg. No. 001-33913), as filed with the Securities and Exchange Commission on April 29, 2014, and incorporated herein by reference.
†10.36	Form of Stock Appreciation Right Agreement for Section 16 Officers under the Quanex Building Products Corporation 2008 Omnibus Incentive Plan, as amended, filed as Exhibit 10.22 to the Registrant's Current Report on Form 8-K (Reg. No. 001-33913), as filed with the Securities and Exchange Commission on April 29, 2014, and incorporated herein by reference.
†10.37	Form of Stock Appreciation Right Agreement for Key Leaders under the Quanex Building Products Corporation 2008 Omnibus Incentive Plan, as amended, filed as Exhibit 10.23 to the Registrant's Current Report on Form 8-K (Reg. No. 001-33913), as filed with the Securities and Exchange Commission on April 29, 2014, and incorporated herein by reference.
†10.38	Form of Stock Appreciation Right Agreement for Non-Employee Directors under the Quanex Building Products Corporation 2008 Omnibus Incentive Plan, as amended, filed as Exhibit 10.24 to the Registrant's Current Report on Form 8-K (Reg. No. 001-33913), as filed with the Securities and Exchange Commission on April 29, 2014, and incorporated herein by reference.
†10.39	Form of Other Stock Based Award Agreement under the Quanex Building Products Corporation 2008 Omnibus Incentive Plan, as amended, filed as Exhibit 10.25 to the Registrant's Current Report on Form 8-K (Reg. No. 001-33913), as filed with the Securities and Exchange Commission on April 29, 2014, and incorporated herein by reference.
†10.40	Amended Form of Annual Incentive Award Agreement under the Quanex Building Products Corporation 2008 Omnibus Incentive Plan, as amended, filed as Exhibit 10.7 to the Registrant's Current Report on Form 8-K (Reg. No. 001-33913), as filed with the Securities and Exchange Commission on December 7, 2015, and incorporated herein by reference.
†10.41	Agreement between Quanex Building Products Corporation and Scott Zuehlke, effective January 25, 2016, filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K (Reg. No. 001-33913), as filed with the Securities and Exchange Commission on January 27, 2016, and incorporated herein by reference.
†10.42	Change in Control Agreement between Quanex Building Products Corporation and Scott Zuehlke, effective January 25, 2016, filed as Exhibit 10.2 to the Registrant's Current Report on Form 8-K (Reg. No. 001-33913), as filed with the Securities and Exchange Commission on January 27, 2016, and incorporated herein by reference.
†10.43	Indemnity Agreement between Quanex Building Products Corporation and Scott Zuehlke, effective January 25, 2016, the form of which is filed as Exhibit 10.2 of the Registrant's Current Report on Form 8-K (Reg. No. 001-33913), as filed with the Securities and Exchange Commission on August 29, 2008, and incorporated herein by reference.
*10.44	Lease dated February 9, 2016, between Garner Properties Ltd. and HL Plastics Limited.
10.45	Amended and Completely Restated Lease Agreement dated August 25, 2016, between Lauren Real Estate Holding LLC and Quanex IG Systems, Inc., filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K (Reg. No. 001-33913), as filed with the Securities and Exchange Commission on August 26, 2016, and incorporated herein by reference.

EXHIBIT INDEX

Exhibit Number	Description of Exhibits
*21.1	Subsidiaries of the Registrant.
*23.1	Consent of Grant Thornton LLP
*31.1	Certification by chief executive officer pursuant to Rule 13a-14(a)/15d-14(a).
*31.2	Certification by chief financial officer pursuant to Rule 13a-14(a)/15d-14(a).
*32	Certification pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
*101.INS	XBRL Instance Document
*101.SCH	XBRL Taxonomy Extension Schema Document
*101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
*101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
*101.LAB	XBRL Taxonomy Extension Label Linkbase Document
*101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document

* Filed herewith

† Management Compensation or Incentive Plan

As permitted by Item 601(b)(4)(iii)(A) of Regulation S-K, the Registrant has not filed with this Annual Report on Form 10-K certain instruments defining the rights of holders of long-term debt of the Registrant and its subsidiaries because the total amount of securities authorized under any of such instruments does not exceed 10% of the total assets of the Registrant and its subsidiaries on a consolidated basis. The Registrant agrees to furnish a copy of any such agreements to the Securities and Exchange Commission upon request.

Garner Properties Limited

9th February 2016

HL Plastics Limited
Flamstead House
Denby Hall Business Park
Denby
Derbyshire
DE5 8JX

To whom it may concern,

I am writing to you to inform you that we, Garner Properties Limited, have purchased the land and buildings from Flamstead Investments Limited, as a going concern.

Your leases under Flamstead Investments Ltd (previously Flamstead Investments LLP) have been novated across to Garner Properties Limited and all terms remain the same.

The bank details have changed and you now need to amend your standing order to the following:

Garner Properties Ltd
Lloyds Bank
Sort Code [REDACTED]
Account No. [REDACTED]

Please do not hesitate to contact me if you have any queries.

Yours sincerely



Roger Hartshorn
Director

**Registered Office: Flamstead House, Denby Hall Business Park, Denby,
Derbyshire, DE5 8JX
Company Registration Number: 08403462**

These are the notes referred to on the following official copy

Title Number DY396741

The electronic official copy of the document follows this message.

This copy may not be the same size as the original.

Please note that this is the only official copy we will issue. We will not issue a paper official copy.

SEE LETTER OF LIMITATION & PLAN ATTACHED

LR1. Date of Lease	8 / FEB / 2007
LR2. Title number(s)	LR2.1 Landlord's title number DY396741 LR2.2 Other title number
LR3. Parties to this lease	Landlord FLAMSTEAD INVESTMENTS LLP of Hilltop Farm, Matlock, Derbyshire DE45 5GY (Company No. OC315577) Tenant H I. PLASTICS LIMITED of Duffield Road Industrial Estate, Little Eaton, Derbyshire DE21 5EH (Company No. 03360857) Other parties
LR4. Property	In the case of a conflict between this clause and the remainder of this lease then, for the purpose of registration, this clause shall prevail. All those premises and parking spaces known as H L Plastics Unit, situated at Denby Hall Business Park, Derby Road, Denby, Derbyshire shown edged red on the plan attached hereto (the Plan) including all additions, alterations and improvements thereto and forming part of the Landlord's estate (the Estate) which is registered Land Registry under title no. DY396741
LR5. Prescribed statements etc.	LR5.1 Statements prescribed under rules 179 (dispositions in favour of a charity), 180 (dispositions by a charity) or 196 (leases under the Leasehold Reform, Housing and Urban Development Act 1993) of the Land Registration Rules 2003. None LR5.2 This lease is made under, or by reference to provisions of: Leasehold Reform Act 1967 Housing Act 1985 Housing Act 1988 Housing Act 1996 Not applicable
LR6. Term for which the Property is leased	From and including To and From including OR The term as specified in this lease at clause/schedule/paragraph OR The term is as follows: Twenty years commencing 8 day of Feb 2007
LR7. Premium	Nil
LR8. Prohibitions or restrictions on disposing of this lease	This lease contains a provision that prohibits or restricts dispositions (Clause 3.8)
LR 9. Rights of acquisition etc.	LR9.1 Tenant's contractual rights to renew this lease, to acquire the reversion or another lease of the Property, or to acquire an interest in other land Tenant's contractual rights to renew this lease LR9.2 Tenant's covenant to (or offer to) surrender this lease LR9.3 Landlord's contractual rights to acquire

Document Ref: 2153179571

We certify this to be a true and correct copy of the original document.
Signed *[Signature]* Date 22/3/07
Robinsons Solicitors 10 11 St James' Court
Friar Gate, Derby DE1 1BT

<p>LR10. Restrictive covenants given in this lease by the Landlord in respect of land other than the Property</p>	
<p>LR11. Easements</p>	<p>LR11.1 Easements granted by this lease for the benefit of the Property The rights set out in Schedule 1</p> <p>LR11.2 Easements granted or reserved by this lease over the Property for the benefit of other property The rights set out in Schedule 2</p>
<p>LR12. Estate rentcharge burdening the Property</p>	<p>None</p>
<p>LR13. Application for standard form of restriction</p>	<p>The Parties to this lease apply to enter the following standard form of restriction [against the title of the Property] or [against title number]</p> <p>Not applicable</p>
<p>LR14. Declaration of trust where there is more than one person comprising the Tenant</p>	<p>The Tenant is more than one person. They are to hold the Property on Trust for themselves as joint tenants.</p> <p>OR</p> <p>The Tenant is more than one person. They are to hold the Property on trust themselves as tenants in common in equal shares.</p> <p>OR</p> <p>The Tenant is more than one person. They are to hold the Property on trust. <i>Complete as necessary</i></p> <p>Not applicable</p>

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HM LAND REGISTRY
LAND REGISTRATION ACT 2002

Administrative area	Derbyshire – Amber Valley
Title number out of which lease is granted	DY396741
Property let	H L Plastics Unit, Denby Hall Business Park, Derby Road, Denby, Derbyshire

THIS LEASE is made the 8 day of Feb, 2007 BETWEEN:

- (1) FLAMSTEAD INVESTMENTS LLP of Hilltop Farm, Matlock, Derbyshire DE4 5GY, Company Registration no OC315577 ('the Landlord') and
- (2) H L PLASTICS LIMITED of Duffield Road Industrial Estate, Little Eaton, Derbyshire DE21 5EH, Company Registration no 03360857 ('the Tenant')

NOW THIS DEED WITNESSES as follows:

1 DEFINITIONS AND INTERPRETATION

For all purposes of this Lease the terms defined in this clause have the meanings specified.

1.1 'The Adjoining Conduits'

'The Adjoining Conduits' means the pipes, sewers, drains, mains, ducts, conduits, gutters, watercourses, wires, cables, laser optical fibres, data or impulse transmission, communication or reception systems, channels, flues and all other conducting media -- including any fixings, louvres, cowls, covers and other ancillary apparatus -- that are in, on, over or under any adjoining property of the Landlord that serve the Premises.

1.2 'Adjoining property of the Landlord'

References to 'adjoining property of the Landlord' are references to each and every part of the land neighbouring or adjoining the Premises in which the Landlord, or a company that is a member of the same group as the Landlord within the meaning of the 1954 Act Section 42, has or during the Term acquires an interest or estate.

1.3 'The Blue Land'

The Blue Land means that part of the Adjoining Property of the Landlord edged blue on the plan and each and every part thereof.

1.4 'The Commencement Rent'

The Commencement Rent means the sum of £195,000.

1.5 'The Conduits'

'The Conduits' means the pipes, sewers, drains, mains, ducts, conduits, gutters, watercourses, wires, cables, laser optical fibres, data or impulse transmission, communication or reception systems, channels, flues and all other conducting media -- including any fixings, louvres, cowls, covers and any other ancillary apparatus -- that are in, on, over or under the Premises.

1.6 'The Contractual Term'

'The Contractual Term' means twenty years commencing on and including 8 Feb 2007

1.7 'Development'

References to 'development' are references to development as defined by the Town and Country Planning Act 1990 Section 55.

1.8 'The Exterior Decorating Years'

'The Exterior Decorating Years' means 2012, 2017 and 2022.

1.9 Gender and number

Words importing one gender include all other genders; words importing the singular include the plural and vice versa⁸.

1.10 Headings

The clause, paragraph and schedule headings and the table of contents do not form part of this document and are not to be taken into account in its construction or interpretation.

1.11 'The Industrial Covenants'

'The Industrial Covenants' means the covenants set out in schedule 4 THE INDUSTRIAL COVENANTS.

1.12 'The Initial Rent'

'The Initial Rent' means the sum of £345,000 a year.

1.13 'The Insurance Rent'

'The Insurance Rent' means the gross sums including any commission that the Landlord from time to time pays --

- 1.13.1 by way of premium for insuring the Premises, including insuring for loss of rent, in accordance with his obligations contained in this Lease,
- 1.13.2 by way of premium for insuring in such amount and on such terms as the Landlord acting reasonably considers appropriate against all liability of the Landlord to third parties arising out of or in connection with any matter including or relating to the Premises, and
- 1.13.3 for insurance valuations,

provided that where the insurance includes other premises the Tenant is only to be obliged to pay the proportion of those sums reasonably attributable to the Premises. That proportion is to be determined from time to time by the Surveyor acting as an expert and not as arbitrator.

1.14 'The Insured Risks'

'The Insured Risks' means the risks of loss or damage by fire, storm, tempest, earthquake, lightning, explosion, riot, civil commotion, malicious damage, terrorism, impact by vehicles and by aircraft and articles dropped from aircraft -- other than war risks -- flood damage and bursting and overflowing of water pipes and tanks, and such other risks,

whether or not in the nature of the foregoing, as the Landlord acting reasonably from time to time decides to insure against.

1.15 'Interest'

References to 'interest' are references to interest payable during the period from the date on which the payment is due to the date of payment, both before and after any judgment, at the Interest Rate then prevailing or, should the base rate referred to in clause 1.14 'THE INTEREST RATE' cease to exist, at another rate of interest closely comparable with the Interest Rate to be agreed between the parties or in default of agreement to be determined by the Surveyor, acting as an expert and not as an arbitrator.

1.16 'The Interest Rate'

'The Interest Rate' means the rate of 4% a year above the base lending rate of National Westminster Bank Plc or such other bank being a member of the British Bankers Association as the Landlord may from time to time nominate in writing.

1.17 'The Interior Decorating Years'

'The Interior Decorating Years' means 2012, 2017 and 2022.

1.18 Interpretation of 'consent' and 'approved'

1.18.1 *Prior written consent or approval*

References to 'consent of the Landlord' or words to similar effect are references to a prior written consent signed by or on behalf of the Landlord and references to the need for anything to be 'approved by the Landlord' or words to similar effect are references to the need for a prior written approval by or on behalf of the Landlord.

1.18.2 *Consent or approval of mortgagee or head landlord*

Any provisions in this Lease referring to the consent or approval of the Landlord are to be construed as also requiring the consent or approval of any mortgagee of the Premises and any head landlord where that consent is required. Nothing in this Lease is to be construed as imposing any obligation on a mortgagee or head landlord not to refuse any such consent or approval unreasonably.

1.19 Interpretation of 'the Guarantor'

The expression 'the Guarantor' includes any person who enters into covenants with the Landlord pursuant to clause 3.8.5.2 CONDITIONS or clause 3.23 REPLACEMENT GUARANTOR.

1.20 Interpretation of 'the Landlord'

The expression 'the Landlord' includes the person or persons from time to time entitled to possession of the Premises when this Lease comes to an end.

1.21 Interpretation of 'the last year of the Term' and 'the end of the Term'

References to 'the last year of the Term' are references to the actual last year of the Term howsoever it determines, and references to 'the end of the Term' are references to the end of the Term whensoever and howsoever it determines.

1.22 Interpretation of 'the Tenant'

'The Tenant' includes any person who is for the time being bound by the tenant covenants of this Lease except where the name of H L Plastics Limited appears.

1.23 Interpretation of 'this Lease'

Unless expressly stated to the contrary, the expression 'this Lease' includes any document supplemental to or collateral with this document or entered into in accordance with this document.

1.24 Joint and several liability

Where any party to this Lease for the time being comprises two or more persons, obligations expressed or implied to be made by or with that party are deemed to be made by or with the persons comprising that party jointly and severally.

1.25 'The Liability Period'

'The Liability Period' means --

- 1.25.1 in the case of any guarantor required pursuant to clause 3.8.5.2 CONDITIONS, the period during which the relevant assignee is bound by the tenant covenants of this Lease together with any additional period during which that assignee is liable under an authorised guarantee agreement,
- 1.25.2 in the case of any guarantor under an authorised guarantee agreement, the period during which the relevant assignee is bound by the tenant covenants of this Lease, and
- 1.25.3 in the case of any guarantor required pursuant to clause 3.8.8.7 TERMS OF A PERMITTED SUBLLEASE, the period during which the relevant assignee of the sublease is bound by the tenant covenants of that sublease.

1.26 'Losses'

References to 'losses' are references to liabilities, damages or losses, awards of damages or compensation, penalties, costs, disbursements or expenses arising from any claim, demand, action or proceedings.

1.27 'The 1954 Act'

'The 1954 Act' means the Landlord and Tenant Act 1954 and all statutes, regulations and orders included by virtue of clause 1.35 REFERENCES TO STATUTES²³.

1.28 'The 1995 Act'

'The 1995 Act' means the Landlord and Tenant (Covenants) Act 1995 and all statutes, regulations and orders included by virtue of clause 1.35 REFERENCES TO STATUTES²⁴.

1.29 'The New Access'

The New Access means the proposed access over the area coloured yellow on the Plan between the Blue Land and the Road.

1.30 Obligation not to permit or suffer

Any covenant by the Tenant not to do anything includes an obligation to use reasonable endeavours not to permit or suffer that thing to be done by another person where the Tenant is aware that the thing is being done.

1.31 'Other buildings'

References to 'other buildings' are references to any buildings now or at any time during the Term erected on any adjoining property of the Landlord.

1.32 'The Permitted Use'

'The Permitted Use' means any use that falls within Classes B1, B2 or B8 of the Schedule to the Town and Country Planning (Use Classes) Order 1987, notwithstanding any amendment or revocation of that Order.

1.33 'The Plan'

'The Plan' means the plan annexed to this Lease.

1.34 'The Planning Acts'

'The Planning Acts' means the Town and Country Planning Act 1990, the Planning (Listed Buildings and Conservation Areas) Act 1990, the Planning (Consequential Provisions) Act 1990, the Planning (Hazardous Substances) Act 1990, the Planning and Compensation Act 1991, the Planning and Compulsory Purchase Act 2004 and all statutes, regulations and orders included by virtue of clause 1.35 REFERENCES TO STATUTESⁿ.

1.35 'The Premises'

1.35.1 *Definition of 'the Premises'*

'The Premises' means the land and building known as H L Plastics Unit, Denby Hall Business Park, Derby Road, Denby, Derbyshire shown edged red on the Plan.

1.35.2 *Interpretation of 'the Premises'*

The expression 'the Premises' includes --

- 1.35.2.1 all buildings, erections, structures, fixtures, fittings and appurtenances on the Premises from time to time,
- 1.35.2.2 the fence/wall dividing the Premises from any adjoining property of the Landlord
- 1.35.2.3 all additions, alterations and improvements carried out during the Term, and
- 1.35.2.4 the Conduits,

but excludes the air space above and any fixtures installed by the Tenant or any predecessors in title that can be removed from the Premises without defacing the Premises. Unless the contrary is expressly stated 'the Premises' includes any part or parts of the Premises.

1.36 The Quarter Days

'Quarter Days' means the last day of the following months namely March, June, September and December and reference to Quarter Day means any one of the above days.

1.37 References to clauses and schedules

Any reference in this document to a clause, paragraph or schedule without further designation is to be construed as a reference to the clause, paragraph or schedule of this document so numbered.

1.38 References to rights of access

References to any right of the Landlord to have access to the Premises are to be construed as extending to any head landlord and any mortgagee of the Premises and to all persons authorised in writing by the Landlord and any head landlord or mortgagee, including agents, professional advisers, contractors, workmen and others.

1.39 References to statutes

Unless expressly stated to the contrary, any reference to a specific statute includes any statutory extension or modification, amendment or re-enactment of that statute and any regulations or orders made under it, and any general reference to a statute includes any regulations or orders made under that statute.

1.40 'The Rent'

From the Rent Commencement Date until the 23 June 2007, 'The Rent' means the Commencement Rent and thereafter until the First Review Date 'the Rent' means the Initial Rent. Thereafter 'the Rent' means the sum ascertained in accordance with schedule 3 THE RENT AND RENT REVIEW or in accordance with Schedule 7 FIVE YEAR RENT REVIEWS. 'The Rent' does not include the Insurance Rent⁴, but the term 'the Lease Rents' means the Rent and the Insurance Rent.

1.41 'The Rent Commencement Date'

'The Rent Commencement Date' means 1st day of Feb 2007.

1.42 'The Review Dates'

'The First Review Date' means 30th day of June 2008. 'The Review Dates' means the First Review Date and every anniversary of it during the Term. References to 'a review date' are references to any one of the Review Dates.

1.43 'The Road'

'The Road' means the road shown edged brown on the Plan.

1.44 'The Surveyor'

'The Surveyor' means Harris Lamb Limited or any person or firm appointed by the Landlord in his place. The Surveyor may be an employee of the landlord or a company that is a member of the same group as the Landlord within the meaning of the 1954 Act Section 42. The expression 'the Surveyor' includes the person or firm appointed by the Landlord to collect the Lease Rents.

1.45 'The Term'

'The Term' means the Contractual Term and any period of holding-over or extension or continuance of the Contractual Term whether by statute or common law.

1.46 Terms from the 1995 Act

Where the expressions 'landlord covenants', 'tenant covenants', or 'authorised guarantee agreement' are used in this Lease they are to have the same meaning as is given by the 1995 Act Section 28(1).

1.47 'VAT'

'VAT' means value added tax or any other tax of a similar nature and unless otherwise expressly stated all references to rents or other sums payable by the Tenant are exclusive of VAT.

2 DEMISE

The Landlord lets the Premises to the Tenant with full title guarantee, together with the rights specified in schedule 1 THE RIGHTS GRANTED, but excepting and reserving to the Landlord the rights specified in schedule 2 THE RIGHTS RESERVED, to hold the Premises to the Tenant for the Contractual Term, subject to all rights, easements, privileges, restrictions, covenants and stipulations of whatever nature affecting the Premises including any matters contained or referred to in schedule 5 THE SUBJECTIONS the rights, easements, privileges, restrictions, covenants and stipulations affecting the Premises contained or referred to in schedule 5 THE SUBJECTIONS, yielding and paying to the Landlord –

- 2.1 the Rent, without any deduction or set-off, by equal quarterly payments in advance on the Quarter Days in every year and proportionately for any period of less than a year, the first such payment, being the Commencement Rent in respect of the period from and including the Rent Commencement Date to 23 June 2007 to be paid on the date of this document, and
- 2.2 by way of further rent the Insurance Rent payable on demand in accordance with clause 5.4 PAYMENT OF THE INSURANCE RENT.

3 THE TENANT'S COVENANTS

The Tenant covenants with the Landlord to observe and perform the requirements of this clause 3.

3.1 Rent

3.1.1 *Payment of the Lease Rents*

The Tenant must pay the Lease Rents on the days and in the manner set out in this Lease and must not exercise or seek to exercise any right or claim to withhold rent or any right or claim to legal or equitable set-off.

3.1.2 *Payment by banker's order*

If so required in writing by the Landlord, the Tenant must pay the Lease Rents by banker's order or credit transfer to any bank and account in the United Kingdom that the Landlord nominates from time to time.

3.2 Outgoings and VAT

3.2.1 *Outgoings exclusive to the Premises*

The Tenant must pay, and must indemnify the Landlord against --

- 3.2.1.1 all rates, taxes, assessments, duties, charges, impositions and outgoings that are now or may at any time during the Term be charged, assessed or imposed upon the Premises or upon the owner or occupier of them, excluding any payable by the Landlord occasioned by receipt of the Lease Rents or by any disposition of or dealing with this Lease or ownership of any interest reversionary to the interest created by it -- provided that if the Landlord suffers any loss of rating relief that may be applicable to empty premises after the end of the Term because the relief has been allowed to the Tenant in respect of any period before the end of the Term then the Tenant must make good such loss to the Landlord,
- 3.2.1.2 all VAT that may from time to time be charged on the Lease Rents or other sums payable by the Tenant under this Lease, and

3.2.1.3 all VAT incurred in relation to any costs that the Tenant is obliged to pay or in respect of which he is required to indemnify the Landlord under the terms of this Lease, save where such VAT is recoverable or available for set-off by the Landlord as input tax.

3.2.2 *Outgoings assessed on the Premises and other property*

The Tenant must pay, and must indemnify the Landlord against, the proportion reasonably attributable to the Premises - to be determined from time to time by the Surveyor, acting as an expert and not as an arbitrator - of all rates, taxes, assessments, duties, charges, impositions and outgoings that are now or at any time during the Term may be charged, assessed or imposed on the Premises and any other property, including any adjoining property of the Landlord, or on their owners or occupiers.

3.3 *Repair, cleaning and decoration*

3.3.1 *Repair of the Premises*

The Tenant must repair the Premises and keep them in good condition and repair, except for damage caused by one or more of the Insured Risks save to the extent that the insurance money is irrecoverable due to any act or default of the Tenant or anyone at the Premises expressly or by implication with his authority.

3.3.2 *Replacement of landlord's fixtures*

The Tenant must replace from time to time any landlord's fixtures and fittings in the Premises that are beyond repair at any time during or at the end of the Term.

3.3.3 *Cleaning and tidying*

The Tenant must keep the Premises clean and tidy and clear of all rubbish and, without prejudice to the generality of the above, must clean both sides of all windows in the Premises at least once every month as is reasonably necessary.

3.3.4 *The Open Land*

3.3.4.1 *Care of the Open Land*

The Tenant must keep that part of the Premises that is not built on ('the Open Land') adequately surfaced, in good condition and free from weeds and must keep all landscaped areas properly cultivated.

3.3.4.2 *Storage on the Open Land*

The Tenant must not store anything on the Open Land or bring anything onto it that is or might become untidy, unclean, unsightly or in any way detrimental to the Premises or any adjoining property of the Landlord or the area generally.

3.3.4.3 *Rubbish on the Open Land*

The Tenant must not deposit any waste, rubbish or refuse on the Open Land.

3.3.4.4 Vehicles on the Open Land

The Tenant must not keep or store any caravan or movable dwelling on the Open Land.

3.3.5 Care of adjoining property and abutting land

The Tenant must not cause any adjoining property of the Landlord or any other land, roads or pavements abutting the Premises to be untidy or dirty and in particular, but without prejudice to the generality of the foregoing, must not deposit refuse or other materials on them.

3.3.6 Decoration

The Tenant must redecorate the outside of the Premises in each of the External Decorating Years and the last year of the Term and must redecorate the inside of the Premises in each of the Interior Decorating Years and the last year of the Term, in all instances in a good and workmanlike manner and with appropriate materials of good quality, to the reasonable satisfaction of the Surveyor, any change in the tints, colours and patterns of the decoration to be approved by the Landlord, whose approval may not be unreasonably withheld or delayed, provided that the covenants relating to the last year of the Term are not to apply where the Tenant has performed the obligation in question less than 12 months before the end of the Term.

3.3.7 Shared facilities

Where the use of any of the Conduits or any boundary structures or other things is common to the Premises and any adjoining or neighbouring premises, other than any adjoining property of the Landlord, the Tenant must be responsible for, and indemnify the Landlord against, all sums due from the owner, tenant or occupier of the Premises in relation to those Conduits, boundary structures or other things, and must undertake all work in relation to them that is his responsibility.

3.4 Waste and alterations

3.4.1 Waste, additions and alterations

The Tenant must not commit any waste, make any addition to the Premises, unite the Premises with any adjoining premises, or make any alteration to the Premises save as permitted by the provisions of this clause 3.4.

3.4.2 Pre-conditions for alterations

The Tenant must not make any internal non-structural alterations to the Premises unless he first --

- 3.4.2.1 obtains and complies with the necessary consents of the competent authorities and pays their charges for them,
- 3.4.2.2 makes an application to the Landlord for consent, supported by drawings and where appropriate a specification in duplicate prepared by an architect, or a member of some other appropriate profession, who must supervise the work throughout to completion,
- 3.4.2.3 pays the fees of the Landlord, any head landlord, any mortgagee and their respective professional advisers,
- 3.4.2.4 enters into any covenants the Landlord requires as to the execution and reinstatement of the alterations, and
- 3.4.2.5 obtains the consent of the Landlord, whose consent may not be unreasonably withheld or delayed.

In the case of any works of a substantial nature, the Landlord may require the Tenant to provide, before starting the works, adequate security in the form of a deposit of money or the provision of a bond, as assurance to the Landlord that any works he permits from time to time will be fully completed.

3.4.3 Removal of alterations

At the end of the Term, if so requested by the Landlord, the Tenant must remove any additional buildings, additions, alterations or improvements made to the Premises and must make good any part or parts of the Premises that may be damaged by their removal.

3.4.4 Connection to the Conduits

The Tenant must not make any connection with the Conduits except in accordance with plans and specifications approved by the Landlord, and subject to consent to make the connection having previously been obtained from the competent authority, undertaker or supplier.

3.5 Aerials, signs and advertisements

3.5.1 Masts and wires

The Tenant must not erect any pole or mast or install any cable or wire on the Premises, whether in connection with telecommunications or otherwise.

3.5.2 Advertisements

The Tenant must not, without the consent of the Landlord, fix to or exhibit on the outside of the Premises, or fix to or exhibit through any window of the Premises, or display anywhere on the Premises, any placard, sign, notice, fascia board or advertisement.

3.6 Statutory obligations

3.6.1 General provision

The Tenant must comply in all respects with the requirements of any statutes, and any other obligations so applicable imposed by law or by any byelaws, applicable to the Premises or the trade or business for the time being carried on there.

3.6.2 Particular obligations

3.6.2.1 Works required by statute, department or authority

Without prejudice to the generality of clause 3.6.1, the Tenant must execute all works and provide and maintain all arrangements on or in respect of the Premises or the use to which they are being put that are required in order to comply with the requirements of any statute already or in the future to be passed, or the requirements of any government department, local authority or other public or competent authority or court of competent jurisdiction, regardless of whether the requirements are imposed on the owner, the occupier, or any other person.

3.6.2.2 Acts causing losses

Without prejudice to the generality of clause 3.6.1, the Tenant must not do anything in or near the Premises by reason of which the Landlord may incur any losses under any statute.

3.6.2.3 Construction (Design and Management) Regulations

Without prejudice to the generality of clause 3.6.1, the Tenant must comply with the provisions of the Construction (Design and Management) Regulations 1994 ('the CDM Regulations'), be the only client, as defined in the provisions of the CDM Regulations, fulfil, in relation to all and any works, all the obligations of the client as set out in or reasonably to be inferred from the CDM Regulations, and make a declaration to that effect to the Health and Safety Executive in accordance with the Approved Code of Practice published from time to time by the Health and Safety Executive in relation to the CDM Regulations. The provisions of clause 5.7.3 FIRE-FIGHTING EQUIPMENT are to have effect in any circumstances to which these obligations apply.

3.6.2.4 Delivery of health and safety files

At the end of the Term, the Tenant must forthwith deliver to the Landlord any and all health and safety files relating to the premises in accordance with the CDM Regulations.

3.7 Entry to inspect and notice to repair

3.7.1 Entry and notice

The Tenant must permit the Landlord on reasonable notice during normal business hours except in emergency --

- 3.7.1.1 to enter the Premises to ascertain whether or not the covenants and conditions of this Lease have been observed and performed,
- 3.7.1.2 to view the state of repair and condition of the Premises, and to open up floors and other parts of the Premises where that is necessary in order to do so, and
- 3.7.1.3 to give to the Tenant, or notwithstanding clause 8.7 NOTICES leave on the Premises, a notice ('a notice to repair') specifying the works required to remedy any breach of the Tenant's obligations as to the repair and condition of the Premises in this Lease,

provided that any opening-up must be made good by and at the cost of the Landlord if it reveals no breach of the terms of this Lease.

3.7.2 Works to be carried out

The Tenant must carry out the works specified in a notice to repair immediately, including making good any opening up that revealed a breach of the terms of this Lease.

3.7.3 Landlord's power in default

If within one month of the service of a notice to repair the Tenant has not started to execute the work referred to in that notice, or is not proceeding diligently with it, or if the Tenant fails to finish the work within two months, or if in the Landlord's Surveyor's reasonable opinion the Tenant is unlikely to finish the work within that period, the Tenant must permit the Landlord to enter the Premises to execute the outstanding work, and must within **14 days** of a written demand pay to the Landlord the cost of so doing and all expenses incurred by the Landlord, including legal costs and surveyor's fees.

3.8 Alienation

3.8.1 Alienation prohibited

The Tenant must not hold the Premises on trust for another. The Tenant must not part with possession of the Premises or any part of the Premises or permit another to occupy them or any part of them except pursuant to a transaction permitted by and effected in accordance with the provisions of this Lease.

3.8.2 *Assignment, subletting and charging of part*

The Tenant must not assign or charge part only of the Premises and must not sublet the whole or any part of the Premises.

3.8.3 *Assignment of the whole*

Subject to clauses 3.8.4 CIRCUMSTANCES and 3.8.5 CONDITIONS, the Tenant must not assign the whole of the Premises without the consent of the Landlord, whose consent may not be unreasonably withheld or delayed.

3.8.4 *Circumstances*

If any of the following circumstances -- which are specified for the purposes of the Landlord and Tenant Act 1927 Section 19(1A) -- applies either at the date when application for consent to assign is made to the Landlord, or after that date but before the Landlord's consent is given, the Landlord may withhold his consent and if, after the Landlord's consent has been given but before the assignment has taken place, any such circumstances apply, the Landlord may revoke his consent, whether his consent is expressly subject to a condition as referred to in clause 3.8.5.4 CONDITIONS or not. The circumstances are --

- 3.8.4.1 that any sum due from the Tenant under this Lease remains unpaid,
- 3.8.4.2 that in the Landlord's reasonable opinion the assignee is not a person who is likely to be able to comply with the tenant covenants of this Lease and to continue to be able to comply with them following the assignment,
- 3.8.4.3 that without prejudice to clause 3.8.4.2, in the case of an assignment to a company in the same group as the Tenant within the meaning of the 1954 Act Section 42 in the Landlord's reasonable opinion the assignee is a person who is, or may become, less likely to be able to comply with the tenant covenants of this Lease than the Tenant requesting consent to assign, which likelihood is adjudged by reference in particular to the financial strength of that Tenant aggregated with that of any guarantor of the obligations of that Tenant and the value of any other security for the performance of the tenant covenants of this Lease when assessed at the date of grant or -- where that Tenant is not **H L Plastics Limited** -- the date of the assignment of this Lease to that Tenant, or
- 3.8.4.4 that the assignee or any guarantor for the assignee, other than any guarantor under an authorised guarantee agreement, is a corporation registered -- or otherwise resident -- in a jurisdiction in which the order of a court obtained in England and Wales will not necessarily be enforced against the assignee or guarantor without any consideration of the merits of the case.

3.8.5 *Conditions*

The Landlord may impose any or all of the following conditions -- which are specified for the purposes of the Landlord and Tenant Act 1927 Section 19(1A) -- on giving any consent for an assignment by the Tenant, and any such consent is to be treated as being subject to each of the following conditions --

- 3.8.5.1 a condition that on or before any assignment and before giving occupation to the assignee, the Tenant requesting consent to assign, together with any former tenant who by virtue of the 1995 Act Section 11 was not released on an earlier assignment of this Lease, must enter into an authorised guarantee agreement⁹² in favour of the Landlord in the terms set out in schedule 6 THE AUTHORISED GUARANTEE AGREEMENT,
- 3.8.5.2 a condition that if reasonably so required by the Landlord on an assignment to a limited company, the assignee must ensure that at least 2 directors of the company, or some other guarantor or guarantors reasonably acceptable to the Landlord, enter into direct covenants with the Landlord in the form of the Guarantor's covenants contained in clause 6 GUARANTEE PROVISIONS with 'the Assignee' substituted for 'the Tenant',
- 3.8.5.3 a condition that on or before any assignment, the Tenant making the request for consent to assign must give to the Landlord a copy of the health and safety file required to be maintained under the Construction (Design and Management) Regulations 1994 containing full details of all works undertaken to the Premises by that Tenant, and
- 3.8.5.4 a condition that if, at any time before the assignment, the circumstances specified in clause 3.8.4 CIRCUMSTANCES, or any of them, apply, the Landlord may revoke the consent by written notice to the Tenant.

3.8.6 Charging of the whole

The Tenant must not charge the whole of the Premises without the consent of the Landlord, whose consent may not be unreasonably withheld or delayed.

3.8.7 Registration of permitted dealings

Within 28 days of any assignment, charge, or any transmission or other devolution relating to the Premises, the Tenant must produce a certified copy of any relevant document for registration with the Landlord's solicitor, and must pay the Landlord's solicitor's charges for registration of at least £50 together with VAT.

3.8.8 Sharing with a group company

Notwithstanding clause 3.8.1 ALIENATION PROHIBITED, the Tenant may share the occupation of the whole or any part of the Premises with a company that is a member of the same group as the Tenant within the meaning of the 1954 Act Section 42, for so long as both companies remain members of that group and otherwise than in a manner that transfers or creates a legal estate.

3.9 Nuisance and residential restrictions

3.9.1 Nuisance

The Tenant must not do anything on the Premises, or allow anything to remain on them, that may be or become or cause a nuisance, or annoyance, disturbance, inconvenience, injury or damage to the Landlord or his tenants or the owners or occupiers of any adjoining property of the Landlord or any other adjacent or neighbouring premises.

3.9.2 Auctions, trades and immoral purposes

The Tenant must not use the Premises for any auction sale, any dangerous, noxious, noisy or offensive trade, business, manufacture or occupation, or for any illegal or immoral act or purpose.

3.9.3 Residential use, sleeping and animals

The Tenant must not use the Premises as sleeping accommodation or for residential purposes, or keep any animal, bird or reptile on them.

3.10 Costs of applications, notices and recovery of arrears

The Tenant must pay to the Landlord on an indemnity basis all costs, fees, charges, disbursements and expenses -- including without prejudice to the generality of the above those payable to counsel, solicitors, surveyors and bailiffs -- properly and reasonably incurred by the Landlord in relation to or incidental to --

- 3.10.1 every application made by the Tenant for a consent or licence required by the provisions of this Lease, whether it is granted, refused or offered subject to any lawful qualification or condition, or the application is withdrawn,
- 3.10.2 the contemplation, preparation and service of a notice under the Law of Property Act 1925 Section 146, or by reason or the contemplation of proceedings under Sections 146 or 147 of that Act, even if forfeiture is avoided otherwise than by relief granted by the court,

- 3.10.3 the recovery or attempted recovery of arrears of rent or other sums due under this Lease, and
3.10.4 any steps taken in contemplation of or in connection with the preparation and service of a schedule of dilapidations during or after the end of the Term.

3.11 Planning and development

3.11.1 Compliance with the Planning Acts

The Tenant must observe and comply with the provisions and requirements of the Planning Acts affecting the Premises and their use and must indemnify the Landlord, and keep him indemnified, both during the Term and following the end of it, against all losses in respect of any contravention of those Acts.

3.11.2 Consent for application

The Tenant must not make any application for planning permission without the consent of the Landlord, whose consent may not be unreasonably withheld or delayed in any case where application for and implementation of the planning permission will not create or give rise to any tax liability for the Landlord or where the Tenant indemnifies the Landlord against such liability.

3.11.3 Permissions and notices

The Tenant must at his expense obtain any planning permissions and serve any notices that may be required to carry out any development on or at the Premises.

3.11.4 Charges and levies

Subject only to any statutory direction to the contrary, the Tenant must pay and satisfy any charge or levy that may subsequently be imposed under the Planning Acts in respect of the carrying out or maintenance of any development on or at the Premises.

3.11.5 Pre-conditions for development

Notwithstanding any consent that may be granted by the Landlord under this Lease, the Tenant must not carry out any development on or at the Premises until all necessary notices under the Planning Acts have been served and copies produced to the Landlord, all necessary permissions under the Planning Acts have been obtained and produced to the Landlord, and the Landlord has acknowledged that every necessary planning permission is acceptable to him such acknowledgement not to be unreasonably withheld. The Landlord may refuse to acknowledge his acceptance of a planning permission on the grounds that any condition contained in it or anything omitted from it or the period referred to in it would in the reasonable opinion of the Surveyor be, or be likely to be, prejudicial to the Landlord or to his reversionary interest in the Premises or any adjoining property of the Landlord whether during or following the end of the Term.

3.11.6 Completion of development

Where a condition of any planning permission granted for development begun before the end of the Term requires works to be carried out to the Premises by a date after the end of the Term, the Tenant must, unless the Landlord directs otherwise, finish those works before the end of the Term.

3.11.7 Security for compliance with conditions

In any case where a planning permission is granted subject to conditions, and if the Landlord reasonably so requires, the Tenant must provide sufficient security for his compliance with the conditions and must not implement the planning permission until that security has been provided.

3.12 Plans, documents and information

3.12.1 Evidence of compliance with this Lease

If so requested, the Tenant must produce to the Landlord or the Surveyor any plans, documents and other evidence the Landlord reasonably requires in order to satisfy himself that the provisions of this Lease have been complied with.

3.12.2 Information for renewal or rent review

If so requested, the Tenant must produce to the Landlord, the Surveyor, or any person acting as the third party determining the Rent in default of agreement between the Landlord and the Tenant under any provisions for rent review contained in this Lease, any information reasonably requested in writing in relation to any pending or intended step under the 1954 Act or the implementation of any provisions for rent review.

3.13 Indemnities

The Tenant must keep the Landlord fully indemnified against all losses arising directly or indirectly out of any act, omission or negligence of the Tenant or any persons at the Premises expressly or impliedly with his authority, or any breach or non-observance by the Tenant of the covenants, conditions or other provisions of this Lease or any of the matters to which this demise is subject.

3.14 Reletting boards and viewing

At any time during the last six months of the Contractual Term and at any time thereafter, the Tenant must permit the Landlord to enter the Premises and fix and retain anywhere on them a board advertising them for reletting. While any such board is on the Premises the Tenant must permit viewing of the Premises at reasonable times of the day.

3.15 Obstruction and encroachment

3.15.1 Obstruction of windows

The Tenant must not stop up, darken or obstruct any windows or light belonging to the Premises.

3.15.2 Encroachments

The Tenant must take all reasonable steps to prevent the construction of any new window, light, opening, doorway, path, passage, pipe or the making of any encroachment or the acquisition of any easement in relation to the Premises and must notify the Landlord immediately if any such thing is constructed, encroachment is made or easement acquired, or any attempt is made to construct such a thing, to encroach or acquire an easement. At the request of the Landlord the Tenant must adopt such means as are reasonably required to prevent the construction of such a thing, the making of any encroachment or the acquisition of any easement.

3.16 Yielding up

At the end of the Term the Tenant must yield up the Premises with vacant possession, decorated and repaired in accordance with and in the condition required by the provisions of this Lease, give up all keys of the Premises to the Landlord, remove tenant's fixtures and fittings if requested to do so by the Landlord, and remove all signs erected by the Tenant or any of his predecessors in title in upon or near the Premises, immediately making good any damage caused by their removal.

3.17 Interest on arrears

The Tenant must pay interest on any of the Lease Rents or other sums due under this Lease that are not paid within 14 days of the date due whether formally demanded or not, the interest to be recoverable as rent. Nothing in this clause entitles the Tenant to withhold or delay any payment of the Lease Rents or any other sum due under this Lease or affects the rights of the Landlord in relation to any non-payment.

3.18 Statutory notices

The Tenant must give full particulars to the Landlord of any notice, direction, order or proposal relating to the Premises made, given or issued to the Tenant by any government department or local, public, regulatory or other authority or court within 7 days of receipt, and if so requested by the Landlord must produce it to the Landlord. The Tenant must without delay take all necessary steps to comply with the notice, direction or order. At the request of the Landlord, but at his own cost, the Tenant must make or join with the Landlord in making any objection or representation the Landlord deems expedient against or in respect of any notice, direction, order or proposal.

3.19 Keyholders

The Tenant must ensure that at all times the Landlord and the local police force have written notice of the name, home address and home telephone number of at least 2 keyholders of the Premises.

3.20 Viewing on sale of reversion

The Tenant must, on reasonable notice, at any time during the Term, permit prospective purchasers of the Landlord's reversion or any other interest superior to the Term, or agents instructed in connection with the sale of the reversion or such an interest, to view the Premises without interruption provided they have the prior written authority of the Landlord or his agents.

3.21 Defective premises

The Tenant must give notice to the Landlord of any defect in the Premises that might give rise to an obligation on the Landlord to do or refrain from doing anything in order to comply with the provisions of this Lease or the duty of care imposed on the Landlord, whether pursuant to the Defective Premises Act 1972 or otherwise, and must at all times display and maintain any notices the Landlord from time to time reasonably requires him to display at the Premises.

3.22 Replacement guarantor

3.22.1 Guarantor replacement events

In this clause 3.22 references to a 'guarantor replacement event' are references, in the case of an individual, to death, bankruptcy, having a receiving order made against him or having a receiver appointed under the Mental Health Act 1983 or entering into a voluntary arrangement and, in the case of a company, to passing a resolution to wind up, entering into liquidation, a voluntary arrangement or administration or having a receiver appointed.

3.22.2 Action on occurrence of a guarantor replacement event

Where during the relevant Liability Period a guarantor replacement event occurs to the Guarantor or any person who has entered into an authorised guarantee agreement, the Tenant must give notice of the event to the Landlord within 14 days of his becoming aware of it. If so required by the Landlord, the Tenant must within 28 days obtain some other person reasonably acceptable to the Landlord to execute a guarantee in the form of the Guarantor's covenants in clause 6 GUARANTEE PROVISIONS or the authorised guarantee agreement in schedule 6 THE AUTHORISED GUARANTEE AGREEMENT, as the case may be, for the residue of the relevant Liability Period.

3.23 Exercise of the Landlord's rights

The Tenant must permit the Landlord to exercise any of the rights granted to him by virtue of the provisions of this Lease at all times during the Term without interruption or interference.

3.24 The Industrial Covenants

The Tenant must observe and perform the Industrial Covenants.

3.25 Costs of grant of this Lease

The Tenant must pay the fees and disbursements of the Landlord's solicitors, agents and surveyors and all other costs and expenses incurred by the Landlord in relation to the negotiation, preparation, execution and grant of this Lease.

3.26 Consent to the Landlord's release

The Tenant must not unreasonably withhold consent to a request made by the Landlord under the 1995 Act Section 8 for a release from all or any of the landlord covenants of this Lease.

4 THE LANDLORD'S COVENANTS

The Landlord covenants with the Tenant to observe and perform the requirements of this clause 4.

4.1 Quiet enjoyment

The Landlord must permit the Tenant peaceably and quietly to hold and enjoy the Premises without any interruption or disturbance from or by the Landlord or any person claiming under or in trust for him.

4.2 Repairs

The Landlord must maintain the Road -- unless it is adopted as a highway maintainable at the public expense -- and the Adjoining Conduits, and keep it and them in good and substantial repair and condition.

5 INSURANCE

5.1 Warranty as to convictions

The Tenant warrants that before the execution of this document he has disclosed to the Landlord in writing any conviction, judgment or finding of any court or tribunal relating to the Tenant, or any director, other officer or major shareholder of the Tenant, of such a nature as to be likely to affect the decision of any insurer or underwriter to grant or to continue insurance of any of the Insured Risks.

5.2 Covenant to insure

The Landlord covenants with the Tenant to insure the Premises in the joint names of the Landlord and the Tenant and any other person the Landlord reasonably requires unless the insurance is vitiated by any act of the Tenant or by anyone at the Premises expressly or by implication with the his authority.

5.3 Details of the insurance

5.3.1 Office, underwriters and agency

Insurance is to be effected in such substantial and reputable insurance office, or with such underwriters, and through such agency as the Landlord from time to time decides.

5.3.2 Insurance cover

Insurance must be effected for the following amounts --

- 5.3.2.1 the sum that the Landlord is from time to time advised by the Surveyor is the full cost of rebuilding and reinstating the Premises, including VAT, architects', surveyors', engineers', solicitors' and all other professional persons' fees, the fees payable on any applications for planning permission or other permits or consents that may be required in relation to rebuilding or reinstating the Premises, the cost of preparation of the site including shoring-up, debris removal, demolition, site clearance and any works that may be required by statute, and incidental expenses, and
- 5.3.2.2 loss of the Rent, taking account of any rent review that may be due, for 3 years or such longer period as the Landlord from time to time reasonably requires for planning and carrying out the rebuilding or reinstatement.

5.3.3 Risks insured

Insurance must be effected against damage or destruction by any of the Insured Risks to the extent that such insurance may ordinarily be arranged with a substantial and reputable insurer for properties such as the Premises, subject to such excesses, exclusions or limitations as the insurer requires.

5.4 Payment of the Insurance Rent

The Tenant covenants to pay the Insurance Rent for the period starting on the Rent Commencement Date and ending on the day before the next policy renewal date on the date of this Lease, and subsequently to pay the Insurance Rent on demand and, if so demanded, in advance of the policy renewal date.

5.5 Suspension of the Rent

5.5.1 Events giving rise to suspension

If and whenever the Premises or any part of them are damaged or destroyed by one or more of the Insured Risks -- except one against which insurance may not ordinarily be arranged for properties such as the Premises unless the Landlord has in fact insured against that risk -- so that the Premises or any part of them are unfit for occupation or use, or the Road or the Adjoining Conduits are damaged or destroyed so that the Premises or any part of them are unfit for occupation or use, and payment of the insurance money is not wholly or partly refused because of any act or default of the Tenant or anyone at the Premises expressly or by implication with his authority then the provisions of clause 5.5.2 SUSPENDING THE RENT are to have effect.

5.5.2 Suspending the Rent

In the circumstances mentioned in clause 5.5.1 EVENTS GIVING RISE TO SUSPENSION the Rent, or a fair proportion of it according to the nature and the extent of the damage sustained, is to cease to be payable until the Premises, or the affected part, or the Road or the Adjoining Conduits have been rebuilt or reinstated so as to render the Premises, or the affected part, fit for occupation and use, or until the end of 3 years from the destruction or damage, whichever period is the shorter, the proportion of the Rent suspended and the period of the suspension to be determined by the Surveyor acting as an expert and not as an arbitrator.

5.6 Reinstatement and termination

5.6.1 Obligation to obtain permissions

If and whenever the Premises or any part of them are damaged or destroyed by one or more of the Insured Risks -- except one against which insurance may not ordinarily be arranged for properties such as the Premises, unless the Landlord has in fact insured against that risk --, or the Road or the Adjoining Conduits are damaged or destroyed so that the Premises or any part of them are unfit for occupation or use, and payment of the insurance money is not wholly or partly refused because of any act or default of the Tenant or anyone at the Premises expressly or by implication with his authority, the Landlord must use his best endeavours to obtain the planning permissions and other permits and consents ('permissions') that are required under the Planning Acts or otherwise to enable him to rebuild and reinstate the Premises, the Road or the Adjoining Conduits.

5.6.2 Obligation to reinstate

Subject to the provisions of clause 5.6.3 RELIEF FROM THE OBLIGATION TO REINSTATE, and, if any permissions are required, after they have been obtained, the Landlord must as soon as reasonably practicable apply all money received in respect of the insurance effected by the Landlord pursuant to this Lease, except sums in respect of loss of the Rent, in rebuilding or reinstating the Premises, or as the case may be in rebuilding or reinstating the Road or the Adjoining Conduits.

5.6.3 Relief from the obligation to reinstate

The Landlord need not rebuild or reinstate the Premises, the Road or the Adjoining Conduits if and for so long as rebuilding or reinstating is prevented because --

- 5.6.3.1 the Landlord, despite using his best endeavours, cannot obtain any necessary permission,
- 5.6.3.2 any permission is granted subject to a lawful condition with which in all the circumstances it is unreasonable to expect the Landlord to comply,
- 5.6.3.3 there is some defect or deficiency in the site on which the rebuilding or reinstatement is to take place that renders it impossible or means it can only be undertaken at a cost that is unreasonable in all the circumstances,
- 5.6.3.4 the Landlord is unable to obtain access to the site to rebuild or reinstate,
- 5.6.3.5 the rebuilding or reinstating is prevented by war, act of God, government action, strike or lock-out, or

because of the occurrence of any other circumstances beyond the Landlord's control.

5.6.4 Notice to terminate

If at the end of a period of 3 years starting on the date of the damage or destruction the Premises, the Road, or the Adjoining Conduits have not been rebuilt or reinstated so that the Premises are fit for the Tenant's occupation and use, either the Landlord or the Tenant may by notice served at any time within 6 months of the end of that period ('a notice to terminate following failure to reinstate') implement the provisions of clause 5.6.5 TERMINATION FOLLOWING FAILURE TO REINSTATE.

5.6.5 Termination following failure to reinstate

On service of a notice to terminate following failure to reinstate, the Term is to cease absolutely -- but without prejudice to any rights or remedies that may have accrued -- and all money received in respect of the insurance effected by the Landlord pursuant to this Lease is to belong to the Landlord absolutely.

5.7 Tenant's further insurance covenants

The Tenant covenants with the Landlord to observe and perform the requirements of this clause 5.7.

5.7.1 Requirements of insurers

The Tenant must comply with all the requirements and recommendations of the insurers.

5.7.2 Policy avoidance and additional premiums

The Tenant must not do or omit anything that could cause any insurance policy on or in relation to the Premises to become wholly or partly void or voidable, or do or omit anything by which additional insurance premiums may become payable unless he has previously notified the Landlord and has agreed to pay the increased premium.

5.7.3 Fire-fighting equipment

The Tenant must keep the Premises supplied with such fire fighting equipment as the insurers and the fire authority require and must maintain the equipment to their satisfaction. At least once in every 6 months the Tenant must cause any sprinkler system and other fire fighting equipment to be inspected by a competent person.

5.7.4 Combustible materials

The Tenant must not store on the Premises or bring onto them anything of a specially combustible, inflammable or explosive nature, and must comply with the requirements and recommendations of the fire authority and the reasonable requirements of the Landlord as to fire precautions relating to the Premises.

5.7.5 Fire escapes, equipment and doors

The Tenant must not obstruct the access to any fire equipment or the means of escape from the Premises, or lock any fire door while the Premises are occupied.

5.7.6 Notice of events affecting the policy

The Tenant must give immediate notice to the Landlord of any event that might affect any insurance policy on or relating to the Premises and any event against which the Landlord may have insured under this Lease.

5.7.7 Notice of convictions

The Tenant must give immediate notice to the Landlord of any conviction, judgment or finding of any court or tribunal relating to the Tenant, or any director other officer or major shareholder of the Tenant, of such a nature as to be likely to affect the decision of any insurer or underwriter to grant or to continue any insurance.

5.7.8 Other insurance

If at any time the Tenant is entitled to the benefit of any insurance of the Premises that is not effected or maintained in pursuance of any obligation contained in this Lease, the Tenant must apply all money received by virtue of that insurance in making good the loss or damage in respect of which the money is received.

5.7.9 Reinstatement on refusal of money through default

If at any time the Premises or any part of them are damaged or destroyed by one or more of the Insured Risks and the insurance money under the policy of insurance effected by the Landlord pursuant to his obligations contained in this Lease is wholly or partly irrecoverable because of any act or default of the Tenant or of anyone at the Premises expressly or by implication⁽⁶⁾ with his authority and under his control, the Tenant must immediately, at the option of the

Landlord, either rebuild and reinstate the Premises or the part of them destroyed or damaged, to the reasonable satisfaction and under the supervision of the Surveyor -- in which case, on completion of the rebuilding and refurbishment, the Landlord must pay to the Tenant the amount that the Landlord has actually received under the insurance policy in respect of the destruction or damage -- or pay to the Landlord on demand with interest the amount of the insurance money so irrecoverable -- in which case the provisions of clauses 5.5 SUSPENSION OF THE RENT and 5.6 REINSTATEMENT AND TERMINATION are to apply.

5.8 Landlord's further insurance covenants

The Landlord covenants with the Tenant to observe and perform the requirements set out in this clause 5.8 in relation to the insurance policy effected by the Landlord pursuant to his obligations contained in this Lease.

5.8.1 Copy policy

The Landlord must produce to the Tenant on demand a copy of the policy and the last premium renewal receipt .

5.8.2 Noting of the Tenant's interest

The Landlord must ensure that the interest of the Tenant is noted or endorsed on the policy.

5.8.3 Change of risks

The Landlord must notify the Tenant of any material change in the risks covered by the policy from time to time.

6 GUARANTEE PROVISIONS

6.1 The Guarantor's covenants

6.1.1 Nature and duration

The Guarantor's covenants with the Landlord are given as sole or principal debtor or covenantor, with the landlord for the time being and with all his successors in title without the need for any express assignment, and the Guarantor's obligations to the Landlord will last throughout the Liability Period.

6.1.2 The covenants

The Guarantor covenants with the Landlord to observe and perform the requirements of this clause 6.1.2.

6.1.2.1 Payment of rent and performance of the Lease

The Tenant must pay the Lease Rents and VAT charged on them punctually and observe and perform the covenants and other terms of this Lease, and if, at any time during the Liability Period while the Tenant is bound by the tenant covenants of this Lease, the Tenant defaults in paying the Lease Rents or in observing or performing any of the covenants or other terms of this Lease, then the Guarantor must pay the Lease Rents and observe or perform the covenants or terms in respect of which the Tenant is in default and make good to the Landlord on demand, and indemnify the Landlord against, all losses resulting from such non-payment, non-performance or non-observance notwithstanding --

- (a) any time or indulgence granted by the Landlord to the Tenant, any neglect or forbearance of the Landlord in enforcing the payment of the Lease Rents or the observance or performance of the covenants or other terms of this Lease, or any refusal by the Landlord to accept rent tendered by or on behalf of the Tenant at a time when the Landlord is entitled -- or will after the service of a notice under the Law of Property Act 1925 Section 146 be entitled -- to re-enter the Premises,

- (b) that the terms of this Lease may have been varied by agreement between the Landlord and the Tenant
- (c) that the Tenant has surrendered part of the Premises -- in which event the liability of the Guarantor under this Lease is to continue in respect of the part of the Premises not surrendered after making any necessary apportionments under the Law of Property Act 1925 Section 140, and
- (d) anything else (other than a release by deed) by which, but for this clause 6.1.2.1, the Guarantor would be released.

6.1.2.2 New lease following disclaimer

If, at any time during the Liability Period while the Tenant is bound by the tenant covenants of this Lease, any trustee in bankruptcy or liquidator of the Tenant disclaims this Lease, the Guarantor must, if so required by notice served by the Landlord within 60 days of the Landlord's becoming aware of the disclaimer, take from the Landlord forthwith a lease of the Premises for the residue of the Contractual Term as at the date of the disclaimer, at the Rent then payable under this Lease and subject to the same covenants and terms as in this Lease -- except that the Guarantor need not ensure that any other person is made a party to that lease as guarantor -- the new lease to commence on the date of the disclaimer. The Guarantor must pay the costs of the new lease and VAT charged thereon, except where such VAT is recoverable or available for set-off by the Landlord as input tax, and execute and deliver to the Landlord a counterpart of the new lease.

6.1.2.3 Payments following disclaimer

If this Lease is disclaimed and the Landlord does not require the Guarantor to accept a new lease of the Premises in accordance with clause 6.1.2.2 NEW LEASE FOLLOWING DISCLAIMER, the Guarantor must pay to the Landlord on demand an amount equal to the difference between any money received by the Landlord for the use or occupation of the Premises and the Lease Rents in both cases for the period commencing with the date of the disclaimer and ending on whichever is the earlier of the date 6 months after the disclaimer, the date, if any, upon which the Premises are relet, and the end of the Contractual Term.

6.1.2.4 Guarantee of the Tenant's liabilities under an authorised guarantee agreement

If, at any time during the Liability Period while the Tenant is bound by an authorised guarantee agreement, the Tenant defaults in his obligations under that agreement, the Guarantor must make good to the Landlord on demand, and indemnify the Landlord against, all losses resulting from that default notwithstanding --

- (a) any time or indulgence granted by the Landlord to the Tenant, or neglect or forbearance of the Landlord in enforcing the payment of any sum or the observance or performance of the covenants of the authorised guarantee agreement,
- (b) that the terms of the authorised guarantee agreement may have been varied by agreement between the Landlord and the Tenant or
- (c) anything else (other than a release by deed) by which, but for this clause 6.1.2.4, the Guarantor would be released.

6.1.3 Severance

6.1.3.1 Severance of void provisions

Any provision of this clause 6 rendered void by virtue of the 1995 Act Section 25 is to be severed from all remaining provisions, and the remaining provisions are to be preserved.

6.1.3.2 Limitation of provisions

If any provision in this clause 6 extends beyond the limits permitted by the 1995 Act Section 25, that provision is to be varied so as not to extend beyond those limits.

7 FORFEITURE

If and whenever during the Term --

- 7.1 the Lease Rents, or any of them or any part of them, or any VAT payable on them, are outstanding for 14 days after becoming due, whether formally demanded or not, or
- 7.2 the Tenant or the Guarantor breaches any covenant or other term of this Lease, or
- 7.3 the Tenant or the Guarantor, being an individual, becomes subject to a bankruptcy order or has an interim receiver appointed to his property, or
- 7.4 the Tenant or the Guarantor, being a company, enters into liquidation whether compulsory or voluntary -- but not if the liquidation is for amalgamation or reconstruction of a solvent company --or enters into administration or has a receiver appointed over all or any part of its assets, or
- 7.5 the Tenant or the Guarantor enters into or makes a proposal to enter into any voluntary arrangement pursuant to the Insolvency Act 1986 or any other arrangement or composition for the benefit of his creditors, or
- 7.6 the Tenant has any distress, sequestration or execution levied on his goods

and, where the Tenant or the Guarantor is more than one person, if and whenever any of the events referred to in this clause happens to any one or more of them, the Landlord may at any time re-enter the Premises or any part of them in the name of the whole -- even if any previous right of re-entry has been waived -- and thereupon the Term is to cease absolutely but without prejudice to any rights or remedies that may have accrued to the Landlord against the Tenant or the Guarantor in respect of any breach of covenant or other term of this Lease, including the breach in respect of which the re-entry is made.

8 MISCELLANEOUS

8.1 Exclusion of warranty as to use

Nothing in this Lease or in any consent granted by the Landlord under this Lease is to imply or warrant that the Premises may lawfully be used under the Planning Acts for the Permitted Use.

8.2 Exclusion of third party rights

Nothing in this Lease is intended to confer any benefit on any person who is not a party to it.

8.3 Representations

The Tenant acknowledges that this Lease has not been entered into in reliance wholly or partly on any statement or representation made by or on behalf of the Landlord, except any such statement or representation expressly set out in this Lease.

8.4 Documents under hand

While the Landlord is a limited company or other corporation, any licence, consent, approval or notice required to be given by the Landlord is to be sufficiently given if given under the hand of a director, the secretary or other duly authorised officer of the Landlord.

8.5 Tenant's property

If, after the Tenant has vacated the Premises at the end of the Term, any property of his remains in or on the Premises and he fails to remove it within 7 days after a written request from the Landlord to do so, or, if the Landlord is unable to make such a request to the Tenant, within 14 days from the first attempt to make it, then the Landlord may, as the agent of the Tenant, sell that property. The Tenant must indemnify the Landlord against any liability incurred by the Landlord to any third party whose property is sold by him in the mistaken belief held in good faith -- which is to be presumed unless the contrary is proved -- that the property belonged to the Tenant. If, having made reasonable efforts to do so, the

Landlord is unable to locate the Tenant, then the Landlord may retain the proceeds of sale absolutely unless the Tenant claims them within 6 months of the date upon which he vacated the Premises. The Tenant must indemnify the Landlord against any damage occasioned to the Premises and any losses caused by or related to the presence of the property in or on the Premises.

8.6 Compensation on vacating excluded

Any statutory right of the Tenant to claim compensation from the Landlord on vacating the Premises is excluded to the extent that the law allows.

8.7 Notices

8.7.1 Form and service of notices

A notice under this Lease must be in writing and, unless the receiving party or his authorised agent acknowledges receipt, is valid if, and only if --

- 8.7.1.1 it is given by hand, sent by registered post or recorded delivery, or sent by fax provided that a confirmatory copy is given by hand or sent by registered post or recorded delivery on the same day, and
- 8.7.1.2 it is served --

- (a) where the receiving party is a company incorporated within Great Britain, at the registered office,
- (b) where the receiving party is the Tenant and the Tenant is not such a company, at the Premises, and
- (c) where the receiving party is the Landlord and the Landlord is not such a company, at the Landlord's address shown in this Lease or at any address specified in a notice given by the Landlord to the Tenant.

8.7.2 Deemed delivery

8.7.2.1 By registered post or recorded delivery

Unless it is returned through the Royal Mail undelivered, a notice sent by registered post or recorded delivery is to be treated as served on the third working day after posting whenever, and whether or not, it is received.

8.7.2.2 By fax

A notice sent by fax is to be treated as served on the day on which it is sent, or the next working day where the fax is sent after 1600 hours or on a day that is not a working day, whenever and whether or not it or the confirmatory copy is received unless the confirmatory copy is returned through the Royal Mail undelivered.

8.7.2.3 'A working day'

References to 'a working day' are references to a day when the United Kingdom clearing banks are open for business in the City of London.

8.7.3 Joint recipients

If the receiving party consists of more than one person, a notice to one of them is notice to all.

8.8 Rights and easements

The operation of the Law of Property Act 1925 Section 62 is excluded from this Lease. The only rights granted to the Tenant are those expressly set out in this Lease and the Tenant is not to be entitled to any other rights affecting any adjoining property of the Landlord.

8.9 The perpetuity period

The perpetuity period applicable to this Lease is 80 years from the commencement of the Contractual Term, and whenever in this Lease any party is granted a future interest it must vest within that period or be void for remoteness.

8.10 Party walls

Any walls dividing the buildings on the Premises from any other buildings are to be party walls within the meaning of the Law of Property Act 1925 Section 38 and must be maintained at the equally shared expense of the Tenant and the Landlord.

8.11 New lease

This Lease is a new tenancy for the purposes of the 1995 Act Section 1.

SCHEDULE 1: THE RIGHTS GRANTED

1-1 Right of way

The right, subject to temporary interruption for repair, alteration, rebuilding or replacement, for the Tenant and all persons expressly or by implication authorised by him - in common with the Landlord and all other persons having a like right - to pass and repass to and from the Premises over and along the Road at all times for all purposes connected with the use and enjoyment of the Premises but not otherwise, with or without vehicles of any description.

1-2 Passage and running through the Adjoining Conduits

The right, subject to temporary interruption for repair, alteration or replacement, to the free passage and running of all services to and from the Premises through the appropriate Adjoining Conduits, in common with the Landlord and all other persons having a like right.

SCHEDULE 2: THE RIGHTS RESERVED

2-1 Passage and running through the Conduits

The right to the free and uninterrupted passage and running of all appropriate services and supplies from and to any adjoining property of the Landlord in and through the appropriate Conduits and through any structures of a similar use or nature that may at any time be constructed in, on, over or under the Premises as permitted by paragraph 2-2 RIGHT TO CONSTRUCT CONDUITS.

2-2 Right to construct conduits

The right to construct and to maintain at any time during the Term any pipes, sewers, drains, mains, ducts, conduits, gutters, watercourses, wires, cables, laser optical fibres, data or impulse transmission, communication or reception systems, channels, flues and other necessary conducting media for the provision of services or supplies -- including any fixings, louvres, cowls and any other ancillary apparatus -- for the benefit of any adjoining property of the Landlord, making good any damage caused by the exercise of the right.

2-3 Access

2-3.1 Access to inspect etc

The right to enter, or in emergency to break into and enter, the Premises at any time during the Term (or as required) at reasonable times and on reasonable notice except in emergency --

2-3.1.1 to inspect the condition and state of repair of the Premises,

2-3.1.2 to inspect, clean, connect to, repair, remove, replace with others, alter or execute any works whatever to or in connection with the conduits, easements, services or supplies referred to in paragraphs 2-1 PASSAGE AND RUNNING THROUGH THE CONDUITS and 2-2 RIGHT TO CONSTRUCT CONDUITS,

2-3.1.3 to carry out work of any kind to any adjoining property of the Landlord or any other buildings ,

2-3.1.4 to carry out work or do anything whatever that the Landlord is obliged to do under this Lease,

2-3.1.5 to take schedules or inventories of fixtures and other items to be yielded up at the end of the Term, and

2-3.1.6 to exercise any of the rights granted to the Landlord in this Lease.

2-3.2 Access on renewal or rent review

The right to enter the Premises with the Surveyor and the third party determining the Rent under any provisions for rent review contained in this Lease at any convenient hours and on reasonable prior notice to inspect and measure the Premises for all purposes connected with any pending or intended step under the 1954 Act or the implementation of the provisions for rent review.

2-4 Right to erect new buildings

Full right and liberty at any time to build, rebuild, alter or raise the height of any building on any adjoining property of the Landlord in such manner as the Landlord thinks fit, even if doing so obstructs, affects or interferes with the amenity of or the access to the Premises or the passage of light and air to the Premises and even if it materially affects the Premises or the use and enjoyment of the Premises.

2-5 Right of New Access

The right for the Landlord and all persons expressly or by implication authorised or by the Landlord to pass and repass over and along the New Access at all times and for all purposes connected with the use and enjoyment of the Blue Land with or without vehicles of any description.

SCHEDULE 3: THE RENT AND RENT REVIEW

1 Definitions

In this schedule:

- 1.1 'the First Review Date' means 30th June 2008, 'the Review Dates' means the First Review Date and every anniversary of it during the Term, and references to 'a review date' are references to any one of the Review Dates;
- 1.2 'a Five Year Rent Notice' means a notice served on the Tenant by the Landlord at least 3 months prior to the 5th, 10th or 15th years of the Contractual Term requiring in the notice that the provisions of schedule 7 shall apply on the next Review Date
- 1.3 'the Initial Rent' means the sum of £345,000.00; and
- 1.4 references to 'a review period' are references to a period beginning on any review date and ending on the day before the next review date or the day before the end of the Term as the case may be, and qualified uses of the term are to be construed accordingly.

2 Ascertaining the Rent

2.1 The Rent

Until the First Review Date the Rent is to be firstly the Commencement Rent until 23rd June 2007 and then the Initial Rent, and thereafter during each successive review period the Rent is to be a sum equal to the greater of the rent payable under this lease immediately before the relevant review date or the revised rent that is ascertained in accordance with this schedule or schedule 7 (if applicable).

2.2 The revised rent

The Rent for any review period is to be determined at the relevant review date by multiplying the Initial Rent by the All Items index value of the Index of Retail Prices published by the Office for National Statistics, or any official publication substituted for it, published for the month of March preceding the relevant review date and dividing the result by the All Items index value of that Index for the month of March 2006.

2.3 Changes in the Index

If the reference base used to compile the Index of Retail Prices changes after the date of this lease, the figure taken to be shown in the Index after the change shall be the figure that would have been shown in the Index if the reference base current at March 2006 had been retained.

2.4 Disputes

If it becomes impossible to calculate the Rent for any review period by reference to the Index of Retail Prices because of any change in the methods used to compile the Index after the date of this lease or for any other reason whatever, or if any dispute or question whatever arises between the parties as to the amount of the Rent for any review period or the construction or effect of this schedule, the dispute or question is to be determined by a valuer acting as expert who shall have full power to determine on such dates as he deems appropriate what would have been the relevant value had the Index continued on the basis and giving the information assumed to be available for the operation of this schedule.

2.5 Calculation of the Rent

- 2.5.1 The Landlord must obtain copies of the Index of Retail Prices and must supply the Tenant with a copy of the latest publication of the Index before each review date together with a calculation of the Rent for the next review period.
- 2.5.2 Within 14 days of receipt the Tenant must, in writing, acknowledge receipt of the copy and statement and state whether or not he agrees with the calculation.
- 2.5.3 If the Tenant fails to acknowledge the Landlord's calculation of the Rent, or the procedure laid down in this schedule is not complied with, the Rent for the next review period shall be the amount stated in the Landlord's calculation.
- 2.5.4 If it is impossible to determine the Rent in accordance with paragraph 2.2, it shall be determined in accordance with paragraph 2.4.

3 Payment of the Rent as ascertained

- 3.1 The Tenant must continue to pay the Initial Rent or the Rent as last reviewed in accordance with the terms of this lease until ascertainment of the revised rent for any review period.
- 3.2 The revised rent for any review period is to be payable from the relevant review date and must be paid until ascertainment of the rent for the next review period or as appropriate for the remainder of the Term.
- 3.3 On ascertainment of the Rent for any review period, the Tenant must forthwith pay to the Landlord the difference between the rent previously payable and the revised rent, for the period from the relevant review date to the date of first payment of the revised rent with interest at the Interest Rate calculated on a daily basis for that period.

4 Memorandum of new rent

When the Rent for any review period has been ascertained in accordance with this schedule a memorandum of the amount payable, signed by or on behalf of the Landlord and the Tenant, must be annexed to this lease and the counterpart of it. The Landlord and the Tenant must bear their own costs in this respect.

5 Costs

The fees and expenses of any valuer appointed to act under this schedule are to be borne equally between the Landlord and the Tenant, unless the valuer considers that either of them has acted unreasonably in which case he may require that party to meet the whole or any part of all fees including the costs of the other party.

6 The Five Year Rent Reviews

The Landlord reserves the right in its sole discretion to serve a 'Five Year Rent Notice'. In event of service by the Landlord of a Five Year Rent Notice on the Tenant the provisions of schedule 7 shall apply at that next Review Date in place of the provisions of this schedule 3.

SCHEDULE 4: THE INDUSTRIAL COVENANTS

4-1 Use of the Road and the Adjoining Conduits

4-1.1 Contribution to costs

The Tenant must pay the Landlord on demand a fair proportion, to be determined by the Surveyor, acting as an expert and not as an arbitrator, of any sums that may be incurred by the Landlord in or incidentally to the performance of his obligations under clause 4.2 REPAIRS maintaining the Road -- unless it is adopted as a highway maintainable at the public expense -- and the Adjoining Conduits, and keeping it and them in good and substantial repair and condition.

4-1.2 Parking

The Tenant must not permit any vehicles belonging to him or to any persons calling on the Premises expressly or by implication with his authority to stand on the Road or on the pavements and must use his best endeavours to ensure that any such persons do not permit any vehicle so to stand on the Road or pavements.

4-2 Use

4-2.1 Permitted Use only

The Tenant must use the Premises for the Permitted Use only.

4-2.2 Cesser of business

The Tenant must not cease carrying on business in the Premises or leave the Premises continuously unoccupied for more than 1 month without notifying the Landlord, and providing such caretaking or security arrangements for the protection of the Premises as the Landlord reasonably requires and the insurers or underwriters require.

4-3 Smoke abatement

4-3.1 Furnace construction

The Tenant must ensure that every furnace boiler or heater at the Premises is constructed and used so as substantially to consume or burn the smoke arising from it.

4-3.2 *Noxious emissions*

The Tenant must not cause or permit any gritty, noxious or offensive emissions from any engine, furnace, chimney or other apparatus on the Premises without using all reasonable means for preventing or counteracting the emissions.

4-3.3 *Statutory controls*

The Tenant must comply with the provisions of the Clean Air Act 1993 and with the requirements of any notice served under it by the relevant authority or body.

4-4 *Environmental protection*

4-4.1 *Discharge of dangerous substances*

4-4.1.1 *Damage to the Conduits and environment*

The Tenant must not permit any oil or grease or any deleterious, objectionable, dangerous, poisonous or explosive matter or substance to be discharged into any of the Conduits, and must take all reasonable measures to ensure that any effluent discharged into the Conduits does not harm the environment, or corrode or otherwise harm the Conduits or cause obstruction or deposit in them.

4-4.1.2 *Poisons and pollutants*

The Tenant must not permit the discharge into any of the Conduits of any fluid of a poisonous or noxious nature or of a kind likely to sicken or injure the fish, or that does in fact destroy them, or likely to contaminate or pollute the water of any stream or river.

4-4.2 *Spillages and contamination*

The Tenant must take all practicable precautions to ensure that no noxious substances are spilled or deposited on the Premises and that contamination does not occur.

4-4.3 *Controlled, special or radioactive waste*

The Tenant must not deposit on the Premises any controlled or special waste as defined in the Environmental Protection Act 1990, or radioactive waste as defined in the Radioactive Substances Act 1993 Section 18, or any other substance that may produce concentrations or accumulations of noxious gasses or noxious liquids that may cause pollution of the environment or harm to human health.

4-4.4 *Notice of spillages and inspection*

Within 14 days of the spilling or deposit on the Premises of any noxious substance in a quantity that may cause serious damage to or pollution of the environment or serious damage to property or serious harm to human health, the Tenant must inform the Landlord of this and permit him to enter and inspect the Premises.

4-4.5 *Indemnity for damage and pollution*

The Tenant must indemnify the Landlord, and keep him indemnified, against any losses in respect of damage to, or pollution of, the environment or damage to property or harm to human health caused by the Premises or any substance on them whether in liquid or solid form or in the form of gas or vapour.

4-5 Roof and floor loading

4-5.1 Heavy Items

The Tenant must not bring into or permit to remain in any building on the Premises any safes, machinery, goods or other articles that will or may strain or damage the building or any part of it.

4-5.2 Protection of the roof

The Tenant must not, without the consent of the Landlord, suspend any weight from the portal frames, stanchions or roof purlins (*or as the case may be*) of any building on the Premises or use them for the storage of goods or place any weight on them.

4-5.3 Expert advice

If the Tenant applies for the Landlord's consent under paragraph 4-5.2 PROTECTION OF THE ROOF the Landlord may consult any engineer or other person in relation to the roof or floor loading proposed by the Tenant, and the Tenant must repay the fees of the engineer or other person to the Landlord on demand.

4-6 Machinery

4-6.1 Maintenance of machinery

The Tenant must keep all plant, apparatus and machinery, including any boilers and furnaces, on the Premises, ('the Machinery') properly maintained and in good working order, and for that purpose must employ reputable contractors to be approved in writing by the Landlord, whose approval may not be unreasonably withheld or delayed, ('the Contractors') to carry out regular periodic inspection and maintenance of the Machinery.

4-6.2 Renewal of parts

The Tenant must renew all working and other parts of the Machinery as and when necessary or when recommended by the Contractors.

4-6.3 Operation

The Tenant must ensure by directions to his staff and otherwise that the Machinery is properly operated.

4-6.4 Damage from the Machinery

The Tenant must avoid damage to the Premises by vibration or otherwise.

4-7 Signs

The Tenant must at all times display and maintain, at a point on the Premises to be specified in writing by the Landlord, a suitable sign, of a size and kind first approved by the Landlord, showing the Tenant's trading name and business.

SCHEDULE 5: THE SUBJECTIONS

The matters other than financial encumbrances referred to or contained in the registers of Title Number DY396741.

SCHEDULE 6: THE AUTHORISED GUARANTEE AGREEMENT

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THIS GUARANTEE is made the day of BETWEEN:

- (1) *(name of outgoing tenant)* [of *(address)* (or as appropriate) the registered office of which is at *(address)*] [Company Registration no ...] ('the Guarantor') and
- (2) *(name of landlord)* [of *(address)* (or as appropriate) the registered office of which is at *(address)*] [Company Registration no ...] ('the Landlord')

NOW THIS DEED WITNESSES as follows:

I DEFINITIONS AND INTERPRETATION

For all purposes of this Guarantee the terms defined in this clause have the meanings specified.

1.1 'The Assignee'

'The Assignee' means *(insert name of incoming tenant)* [Company Registration no ...].

1.2 Gender and number

Words importing one gender include all other genders: words importing the singular include the plural and vice versa.

1.3 Headings

The clause headings do not form part of this document and are not to be taken into account in its construction or interpretation.

1.4 Interpretation of 'this Guarantee'

Unless expressly stated to the contrary, the expression 'this Guarantee' includes any document supplemental to or collateral with this document or entered into in accordance with this document.

1.5 Joint and several liability

If any party to this Guarantee at any time comprises two or more persons, obligations expressed or implied to be made by or with that party are deemed to be made by or with the persons comprising that party jointly and severally.

1.6 'The Lease'

1.6.1 Definition

'The Lease' means a lease of the Premises dated *(date of lease)* and made between (1) [the Landlord *(or as appropriate)* *(name of original landlord)*] and (2) [the Guarantor *(or as appropriate)* *(name of original tenant)*] for the Term.

1.6.2 Interpretation

The term 'the Lease' includes all or any deeds and documents supplemental to the Lease whether or not expressed to be so.

1.7 'The Liability Period'

'The Liability Period' means the period during which the Assignee is bound by the tenant covenants of the Lease.

1.8 'The 1995 Act'

'The 1995 Act' means the Landlord and Tenant (Covenants) Act 1995 and all statutes, regulations and orders included by virtue of clause 1.11 REFERENCES TO STATUTES.

1.9 'The Premises'

'The Premises' means all that.

1.10 References to clauses

Any reference in this Guarantee to a clause without further designation is to be construed as a reference to the clause of this document so numbered.

1.11 References to statutes

Unless expressly stated to the contrary, any reference to a specific statute includes any statutory extension or modification, amendment or re-enactment of that statute and any regulations or orders made under it, and any general reference to a statute includes any regulations or orders made under that statute.

1.12 'The Term'

'The Term' means 20 years commencing on and including.

1.13 Terms from the 1995 Act

'Tenant covenants' and 'authorised guarantee agreement' have the same meaning as is given by the 1995 Act Section 28(1).

2 RECITALS

2.1 The Lease

This Guarantee is supplemental to the Lease by which the Premises were let for the Term subject to the payment of the rents reserved by and the performance and observance of the covenants on the tenant's part and the conditions contained in the Lease.

2.2 Devolution of title

The immediate reversion to the Lease remains (*or as appropriate*) is now vested in the Landlord and the unexpired residue of the Term [*remains (or as appropriate) is now*] vested in the Tenant.

2.3 Consent required

By clause 3.8 of the Lease, the Landlord's consent to an assignment of the Lease is required.

2.4 Agreement to consent

The Landlord has agreed to give consent to the assignment of the Lease to the Assignee on condition that the Guarantor enters into this Guarantee.

2.5 Effective time

This Guarantee is intended to take effect only when the Lease is assigned to the Assignee.

2.6 Authorised guarantee agreement

This Guarantee is intended to be an authorised guarantee agreement within the meaning of the 1995 Act.

3 THE GUARANTOR'S COVENANTS

3.1 Nature and duration

The Guarantor's covenants with the Landlord are given as sole or principal debtor or covenantor with the landlord for the time being under the Lease and with all his successors in title without the need for any express assignment and the Guarantor's obligations to the Landlord will last throughout the Liability Period.

3.2 The covenants

The Guarantor covenants with the Landlord to observe and perform the requirements of this clause 3.2.

3.2.1 *Payment of rent and performance of the Lease*

The Assignee must punctually pay the rents reserved by the Lease (including any VAT chargeable) and observe and perform the tenant covenants and other terms of the Lease throughout the Liability Period, and if the Assignee should fail to do so, the Guarantor must pay the rents and observe and perform the tenant covenants or terms in respect of which the Assignee is in default.

3.2.2 *Indemnity*

The Guarantor must make good to the Landlord on demand, and indemnify the Landlord against, all liabilities, damages or losses, awards of damages or compensation, penalties, costs, disbursements and expenses arising from any claim, demand, action or proceedings resulting from any failure of the Assignee to pay the rents reserved by the Lease or observe and perform the tenant covenants and other terms of the Lease during the Liability Period.

3.2.3 *New lease following disclaimer¹³*

If, at any time during the Liability Period, any trustee in bankruptcy or liquidator of the Assignee disclaims the Lease, the Guarantor must, if so required by notice served by the Landlord within 60 days of the Landlord's becoming aware of the disclaimer, take from the Landlord forthwith a lease of the Premises for the residue of the Term as at the date of the disclaimer, at the rents then payable under the Lease and subject to the same covenants and terms as in the Lease -- except that the Guarantor need not ensure that any other person is made a party to that lease as guarantor-- the new lease to commence on the date of the disclaimer. The Guarantor must pay the costs of the new lease and VAT charged thereon, except where such VAT is recoverable or available for set-off by the Landlord as input tax¹⁴, and execute and deliver to the Landlord a counterpart of the new lease.

3.2.4 *Payments following disclaimer*

If the Lease is disclaimed and the Landlord does not require the Guarantor to accept a new lease of the Premises in accordance with clause 3.2.3 NEW LEASE FOLLOWING DISCLAIMER, the Guarantor must pay to the Landlord on demand an amount equal to the difference between any money received by the Landlord for the use or occupation of the Premises and the rents reserved by the Lease in both cases for the period commencing with the date of the disclaimer and ending on whichever is the earlier of the date 6 months after the disclaimer, the date, if any, upon which the Premises are relet, and the end of the Term.

3.2.5 Supplemental documents

As and when called upon to do so, the Guarantor must enter into any document supplemental to the Lease for the purposes of consenting to the Assignee entering into that supplemental document and of confirming that, subject only to the 1995 Act Section 18(3), all the obligations of the Guarantor will continue in full force and effect.

4 THE LANDLORD'S COVENANT

The Landlord covenants with the Guarantor to notify the Guarantor in writing within 14 days of being informed of the facts bringing the Guarantor's liability under this Guarantee to an end.

5 MISCELLANEOUS

5.1 Discharge

Without prejudice to the 1995 Act Section 18(3), the Guarantor will not be released from any liability under this Guarantee nor shall any such liability be affected or any way exonerated by--

- 5.1.1 any time or indulgence granted by the Landlord to the Assignee, any neglect or forbearance of the Landlord in enforcing the payment of the rents reserved by the Lease or the observance or performance of the covenants or other terms of the Lease, or any refusal by the Landlord to accept rent tendered by or on behalf of the Assignee at a time when the Landlord is entitled--or will after the service of a notice under the Law of Property Act 1925 Section 146 be entitled--to re-enter the Premises⁹,
- 5.1.2 the terms of the Lease having been varied by agreement between the parties,
- 5.1.3 the Assignee surrendering part of the Premises--in which event the liability of the Guarantor under the Lease is to continue in respect of the part of the Premises not surrendered after making any necessary apportionments under the Law of Property Act 1925 Section 140, and
- 5.1.4 anything else (other than a release by deed) by which, but for this clause 5.1, the Guarantor would have been released.

5.2 Exclusion of third party rights

Nothing in this Guarantee is intended to confer any benefit on any person who is not a party to it.

5.3 Notices

5.3.1 Form and service of notices

A notice under this Guarantee must be in writing and, unless the receiving party or his authorised agent acknowledges receipt, is valid if, and only if--

- 5.3.1.1 it is given by hand, sent by registered post or recorded delivery, or sent by fax provided that a confirmatory copy is given by hand or sent by registered post or recorded delivery on the same day, and
- 5.3.1.2 it is served--

- (a) where the receiving party is a company incorporated within Great Britain, at the registered office, and
- (b) where the receiving party is not such a company, at that party's address shown in this

Guarantee or at any address specified in a notice given by that party to the other party.

5.3.2 Deemed delivery

5.3.2.1 By registered post or recorded delivery

Unless it is returned through the Royal Mail undelivered, a notice sent by registered post or recorded delivery is to be treated as served on the third working day after posting whenever and whether or not it is received.

5.3.2.2 By fax

A notice sent by fax is to be treated as served on the day upon which it is sent, or the next working day where the fax is sent after 1600 hours or on a day that is not a working day, whenever and whether or not it or the confirmatory copy is received unless the confirmatory copy is returned through the Royal Mail undelivered.

5.3.2.3 'A working day'

References to 'a working day' are references to a day when the United Kingdom clearing banks are open for business in the City of London.

5.3.3 Joint recipients

If the receiving party consists of more than one person, a notice to one of them is notice to all.

5.4 Severance

5.4.1 Severance of void provisions

Any provision of this Guarantee rendered void by virtue of the 1995 Act Section 25 is to be severed from all remaining provisions, and the remaining provisions are to be preserved.

5.4.2 Limitation of provisions

If any provision in this Guarantee extends beyond the limits permitted by the 1995 Act Section 25, that provision is to be varied so as not to extend beyond those limits.

SCHEDULE 7: THE FIVE YEAR RENT REVIEWS

1-1 Definitions

For all purposes of this schedule the terms defined in this paragraph 1-1 have the meanings specified.

1-1.1 'The Assumptions'

'The Assumptions' means--

1-1.1.1 the assumption that no work has been carried out on the Premises during the Term by the Tenant, his subtenants or their predecessors in title or any occupiers that has diminished the rental value of the Premises other than work carried out in compliance with clause 3.7 STATUTORY OBLIGATIONS,

1-1.1.2 the assumption that if the Premises have been destroyed or damaged they have been fully

rebuilt or reinstated,

1-1.1.3 the assumption that the covenants contained in this Lease on the part of the Landlord and the Tenant have been fully performed and observed,

1-1.1.4 the assumption that the Premises are available to let by a willing landlord to a willing tenant in the open market by one lease ('the Hypothetical Lease') without a premium being paid by either party and with vacant possession,

1-1.1.5 the assumption that the Premises have already been fitted out and equipped by and at the expense of the incoming tenant so that they are capable of being used by the incoming tenant from the beginning of the Hypothetical Lease for all purposes required by the incoming tenant that would be permitted under this Lease,

1-1.1.6 the assumption that the Hypothetical Lease contains the same terms as this Lease, except the amount of the Initial Rent and any rent-free period allowed to the Tenant for fitting out the Premises for his occupation and use at the commencement of the Term, but including the provisions for rent review on the Review Dates, and except as set out in paragraph {1}-1.1.7,

1-1.1.7 the assumption that the term of the Hypothetical Lease is equal in length to Term and that such term begins on the relevant review date, that the rent commences to be payable on that date, and that the years during which the tenant covenants to decorate the Premises are at the same intervals after the beginning of the term of the Hypothetical Lease as those specified in this Lease,

1-1.1.8 the assumption that the Hypothetical Lease will be renewed at the expiry of its term under the provisions of the 1954 Act, and

1-1.1.9 the assumption that every prospective willing landlord and willing tenant is able to recover VAT in full.

1-1.2 'The Disregards'

'The Disregards' means--

1-1.2.1 disregard of any effect on rent of the fact that the Tenant, his subtenants, or their predecessors in title or any lawful occupier have been in occupation of the Premises,

1-1.2.2 disregard of any goodwill attached to the Premises because the business of the Tenant, his subtenants, or their predecessors in title in their respective businesses is or was carried on there, and

1-1.2.3 disregard of any increase in rental value of the Premises attributable at the relevant review date to any improvement to the Premises carried out, with consent where required, otherwise than in pursuance of an obligation except an obligation contained in clause {3.7} STATUTORY OBLIGATIONS to the Landlord or his predecessors in title either--

- (a) by the Tenant, his subtenants, or their predecessors in title or any lawful occupier during the Term or during any period of occupation before the Term, or
- (b) by any tenant or subtenant of the Premises or any lawful occupiers before the commencement of the Term, provided that the Landlord or his predecessors in title have not since the improvement was carried out had vacant possession of the relevant part of the Premises, and

1-1.2.4 disregard of the taxable status of the Landlord or the Tenant for the purpose of VAT.

1-1.3 'An expert'

References to 'an expert' are references to an independent valuer appointed by agreement between the Landlord and the Tenant or, in the absence of agreement within 14 days of one of them giving notice to the other of his nomination, nominated by the President on the application of either made not earlier than one month after the Five Year Rent Notice or at any time thereafter to determine the rent under this schedule.

1-1.4 'The President'

'The President' means the President for the time being of the Royal Institution of Chartered Surveyors or any person authorised by him to make appointments on his behalf.

1-1.5 'A review period'

References to 'a review period' are references to the period beginning on any review date and ending on the day before the next review date.

2-2 Ascertaining the Rent

2-2.1 The Rent

The Rent under the provisions of this schedule 7 is to be a sum equal to the greater of the Rent payable under this lease immediately before the Five Year Rent Notice, assuming it having been reviewed in accordance with the provisions of schedule 3, or the revised Rent ascertained in accordance with this schedule 7.

2-2.2 Agreement of the Rent

The Rent for any review period under the provisions of this Schedule 7 may be agreed at any time or, in the absence of agreement, is to be determined by an expert.

2-2.3 Open market rent

The sum to be determined by the expert must be the sum at which, acting as an expert and not as an arbitrator or quasi-arbitrator, he decides the Premises might reasonably be expected to be let in the open market at the relevant review date making the Assumptions but disregarding the Disregards.

2-2.4 Conduct of the determination

2-2.4.1 Fees and expenses

The fees and expenses of an expert and any VAT payable on them, including the cost of his appointment, are to be borne equally by the Landlord and the Tenant, who must otherwise each bear their own costs.

2-2.4.2 Representations

An expert must afford each of the parties an opportunity to make written representations to him and also an opportunity to make written counter-representations on any representations made to him by the other party but is not to be in any way limited or fettered by such representations and counter-representations and is to be entitled to rely on his own judgment and opinion.

2-2.4.3 Replacement of an expert

If an expert dies or refuses to act or becomes incapable of acting or if he fails to publish his determination within 4 months of the date on which he accepted the appointment, either party may apply to the President to discharge him and appoint another in his place.

2-2.5 Memoranda of agreement

Whenever the Rent has been ascertained in accordance with this schedule 7, memoranda to that effect must be signed by or on behalf of the Landlord and the Tenant and annexed to this document and its counterpart, and the Landlord and the Tenant must bear their own costs in this respect.

2-2.6 Reimbursement of costs

If, on publication of an expert's determination, the Landlord or the Tenant pays all his fees and expenses, the paying party may, in default of payment within 21 days of a demand to that effect, recover half of them from the other party in the case of the Landlord as rent arrears or in the case of the Tenant by deduction from the Rent.

2-3 Payment of the Rent as ascertained

2-3.1 *Where the Rent is not ascertained by a review date*

If the Rent payable has not been ascertained by the relevant review date, then rent is to continue to be payable at the rate previously payable, such payments being on account of the Rent for that review period.

2-3.2 *Where a review date is not a quarter day*

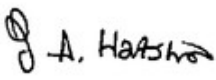
If the Rent for any review period is ascertained on or before the relevant review date but that date is not a Quarter Day, then the Tenant must pay to the Landlord on that review date the difference between the Rent due for that quarter and the Rent already paid for it

2-3.3 *Back-payment where review delayed*

If the Rent payable has not been ascertained by the relevant review date, then the Tenant must pay to the Landlord, on the date on which the Rent is agreed or the expert's determination is received by him, any shortfall between the Rent that would have been paid for that period had it been ascertained on or before the relevant review date and the payments made by the Tenant on account and any VAT payable thereon, and interest, at the base lending rate from time to time of the bank referred to in or nominated pursuant to clause 1.12 'THE INTEREST RATE', in respect of each instalment of rent due on or after that review date on the amount by which the instalment of the Rent that would have been paid had it been ascertained exceeds the amount paid by the Tenant on account, the interest to be payable for the period from the date on which the instalment was due up to the date of payment of the shortfall.

SIGNED AND DELIVERED as a DEED by
FLAMSTEAD INVESTMENTS LLP
acting by two of its Members:-

Member: 

Member: 

SUBSIDIARIES OF QUANEX BUILDING PRODUCTS CORPORATION

Quanex Homeshield, LLC
Mikron Industries, Inc.
Mikron Washington, LLC
Quanex IG Systems, Inc.
Edgetech Europe GmbH
Quanex Screens LLC
Edgetech (UK) LTD.
Flamstead Holdings Limited
HL Plastics Ltd.
Woodcraft Industries, Inc.
Brentwood Acquisition Corp.
Primewood, Inc.

LOCATION OF INCORPORATION

Delaware
Washington
Washington
Ohio
Germany
Delaware
United Kingdom and Wales
United Kingdom and Wales
United Kingdom and Wales
Minnesota
Minnesota
North Dakota

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We have issued our reports dated December 16, 2016, with respect to the consolidated financial statements and internal control over financial reporting included in the Annual Report of Quanex Building Products Corporation on Form 10-K for the year ended October 31, 2016. We hereby consent to the incorporation by reference of said reports in the Registration Statements of Quanex Building Products Corporation on Forms S-8 (File No. 333-150392, File No. 333-173245 and File No. 333-194812).

/s/ GRANT THORNTON LLP

Houston, Texas
December 16, 2016

CHIEF EXECUTIVE OFFICER CERTIFICATION

I, William C. Griffiths, certify that:

1. I have reviewed this annual report on Form 10-K of Quanex Building Products Corporation (the Registrant);
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Registrant as of, and for, the periods presented in this report;
4. The Registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures [as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)] and internal control over financial reporting [as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)] for the Registrant and have:
 - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. Evaluated the effectiveness of the Registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. Disclosed in this report any change in the Registrant's internal control over financial reporting that occurred during the Registrant's most recent fiscal quarter (the Registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the Registrant's internal control over financial reporting; and
5. The Registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Registrant's auditors and the audit committee of Registrant's board of directors (or persons performing the equivalent functions):
 - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Registrant's ability to record, process, summarize and report financial information; and
 - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the Registrant's internal control over financial reporting.

December 16, 2016

/s/ WILLIAM C. GRIFFITHS

WILLIAM C. GRIFFITHS

Chairman of the Board, President and Chief Executive Officer
(Principal Executive Officer)

CHIEF FINANCIAL OFFICER CERTIFICATION

I, Brent L. Korb, certify that:

1. I have reviewed this annual report on Form 10-K of Quanex Building Products Corporation (the Registrant);
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Registrant as of, and for, the periods presented in this report;
4. The Registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures [as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)] and internal control over financial reporting [as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)] for the Registrant and have:
 - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. Evaluated the effectiveness of the Registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. Disclosed in this report any change in the Registrant's internal control over financial reporting that occurred during the Registrant's most recent fiscal quarter (the Registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the Registrant's internal control over financial reporting; and
5. The Registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Registrant's auditors and the audit committee of Registrant's board of directors (or persons performing the equivalent functions):
 - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Registrant's ability to record, process, summarize and report financial information; and
 - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the Registrant's internal control over financial reporting.

December 16, 2016

/s/ BRENT L. KORB

BRENT L. KORB
Senior Vice President – Finance and
Chief Financial Officer
(Principal Financial Officer)

**Certification Pursuant To Section 906
of the Sarbanes-Oxley Act of 2002
(18 U.S.C. SECTION 1350)**

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (Subsections (a) and (b) of Section 1350, Chapter 63 of Title 18, United States Code) (the Act), William C. Griffiths, President and Chief Executive Officer of Quanex Building Products Corporation (the Company) and Brent L. Korb, Senior Vice President – Finance and Chief Financial Officer of the Company, each hereby certify that, to the best of their knowledge:

- (a) the Company's Annual Report on Form 10-K for the fiscal year ended October 31, 2016 as filed with the Securities and Exchange Commission on the date hereof (the Report), fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934, as amended; and
- (b) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

December 16, 2016

/S/ WILLIAM C. GRIFFITHS

WILLIAM C. GRIFFITHS

*Chairman of the Board, President and
Chief Executive Officer*

/S/ BRENT L. KORB

BRENT L. KORB

*Senior Vice President—Finance and
Chief Financial Officer*

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