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

FORM 10-K

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

For the fiscal year ended December 31, 2022

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

For the transition period from to

Commission file number 1-8267

EMCOR Group, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**11-2125338**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)
301 Merritt Seven Norwalk, Connecticut	**06851-1092**
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: (203) 849-7800

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

Title of each class	Trading Symbol	Name of each exchange on which registered
Common Stock	**EME**	**New York Stock Exchange**

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

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

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

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (Section 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

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

Large Accelerated Filer	☒	Accelerated Filer ☐	Non-accelerated Filer	☐	Smaller Reporting Company	☐	Emerging Growth Company ☐

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

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☒

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b). ☐

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

The aggregate market value of the common stock held by non-affiliates of the registrant was approximately $3,258,000,000 as of the last business day of the registrant's most recently completed second fiscal quarter, based upon the closing sale price on the New York Stock Exchange reported for such date. Shares of common stock held by each executive officer and director and by each person who owns 5% or more of the outstanding common stock (based solely on filings of such 5% holders) have been excluded from such calculation as such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

Number of shares of the registrant's common stock outstanding as of the close of business on February 17, 2023: 47,687,820 shares.

DOCUMENTS INCORPORATED BY REFERENCE

Part III. Portions of the definitive proxy statement for the 2023 Annual Meeting of Stockholders, which document will be filed with the Securities and Exchange Commission pursuant to Regulation 14A not later than 120 days after the end of the fiscal year to which this Form 10-K relates, are incorporated by reference into Items 10 through 14 of Part III of this Form 10-K.

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FORWARD-LOOKING STATEMENTS

This report contains forward-looking statements. You can identify these statements by the fact that they do not relate strictly to historical or current facts. They generally contain words such as “anticipate,” “estimate,” “expect,” “project,” “intend,” “plan,” “believe,” “may,” “can,” “could,” “might,” variations of such wording and other words or phrases of similar meaning. Forward-looking statements in this report include discussions of our future operating or financial performance and other forward-looking commentary regarding aspects of our business, including market share growth, gross profit, remaining performance obligations, project mix, projects with varying profit margins, selling, general and administrative expenses, our ability to maintain a strong safety record, and trends in our business, and other characterizations of future events or circumstances, such as the effects of the COVID-19 pandemic and supply chain disruptions and delays. Each forward-looking statement included in this report is subject to risks and uncertainties, including those identified in the “Risk Factors” section, the “Management’s Discussion and Analysis of Financial Condition and Results of Operations” section, and other sections of this report. Applicable risks and uncertainties include, but are not limited to:

- adverse effects of general economic conditions;
- changes in interest rates;
- domestic and international political developments;
- changes in the specific markets for EMCOR’s services;
- adverse business conditions, including scarcity of skilled labor, productivity challenges, the nature and extent of supply chain disruptions impacting availability and pricing of materials, and inflationary trends more generally, including fluctuations in energy costs;
- the impact of legislation and/or government regulations;
- the availability of adequate levels of surety bonding;
- increased competition;
- unfavorable developments in the mix of our business;
- the continuing impact of the COVID-19 pandemic, including the nature, extent, and impact of future variant surges, as well as other health emergencies, and government orders and mandates related thereto, on our revenue and operations; and
- other factors discussed elsewhere in this report.

Such risks and uncertainties could cause actual results to differ materially from those that might be anticipated from, or projected or implied by, our forward-looking statements. Accordingly, these statements do not guarantee future performance or events. The forward-looking statements contained in this report speak only as of the filing date of this report. We undertake no obligation to update any forward-looking statements unless required by law. However, any further disclosures made on related subjects in our subsequent reports filed with the Securities and Exchange Commission (the “SEC”) should be consulted. We caution investors not to place undue reliance on forward-looking statements, due to their inherent uncertainty.

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PART I

ITEM 1. BUSINESS

References to the “Company,” “EMCOR,” “we,” “us,” “our” and similar words refer to EMCOR Group, Inc. and its consolidated subsidiaries unless the context indicates otherwise.

Overview

We are one of the largest specialty contractors in the United States and a leading provider of electrical and mechanical construction and facilities services, building services, and industrial services. In 2022, we had revenues of approximately $11.1 billion. Our services are provided to a broad range of commercial, industrial, healthcare, utility, and institutional customers through approximately 100 operating subsidiaries, which specialize principally in providing construction services relating to electrical and mechanical systems in all types of facilities and in providing various services relating to the operation, maintenance, and management of those facilities. Such operating subsidiaries are organized into the following reportable segments:

- United States electrical construction and facilities services
- United States mechanical construction and facilities services
- United States building services
- United States industrial services
- United Kingdom building services

Our operating subsidiaries offer comprehensive and diverse solutions on a broad scale and have many long-standing customer relationships. We provide construction services and building services directly to corporations, municipalities and federal and state governmental entities, owners/developers, and tenants of buildings. We also provide our construction services indirectly by acting as a subcontractor to general contractors, systems suppliers, construction managers, developers, property managers, and other subcontractors. Our industrial services are generally provided directly to refineries and petrochemical plants.

Our revenues are derived from many different customers in numerous industries, which have operations in several different geographical areas. Of our 2022 revenues, approximately 96% were generated in the United States and approximately 4% were generated in foreign countries, substantially all in the United Kingdom. In 2022, approximately 61% of our revenues were derived from our construction operations, approximately 29% of our revenues were derived from our building services operations and approximately 10% of our revenues were derived from our industrial services operations. For additional information regarding our revenues, see Note 3 - Revenue from Contracts with Customers of the notes to consolidated financial statements included in Item 8. Financial Statements and Supplementary Data.

We believe that our range of service offerings, technical capability, skilled workforce, and strong project execution, along with our safety culture and financial resources, differentiate us from our competition and position us to benefit from future capital and maintenance spending by our customers. Our strategies of expanding our portfolio of service offerings for existing and potential customers and increasing or enhancing our presence in core end markets and geographies, along with our commitment to industry-leading best practices and technological and training capabilities, place us in the position to capitalize on opportunities and trends in the industries we serve and continue to grow our business.

Increasingly, our services are focused on delivering sustainable energy solutions, enhancements in energy efficiency, reductions in waste and emissions, and improvements in the safety and comfort of our customers’ facilities, as discussed in further detail below.

The broad scope of our operations is more particularly described below. For detailed segment financial information refer to Note 18 - Segment Information of the notes to consolidated financial statements included in Item 8. Financial Statements and Supplementary Data.

Our executive offices are located at 301 Merritt Seven, Norwalk, Connecticut 06851-1092, and our telephone number at those offices is (203) 849-7800.

Operations

United States electrical and mechanical construction and facilities services operations:

Our electrical and mechanical construction services primarily involve the design, integration, installation, start-up, operation and maintenance, and provision of services relating to:

- Systems for electrical power transmission, distribution, and generation, including power cables, conduits, distribution panels, transformers, generators, uninterruptible power supply systems, and related switch gear and controls;
- Sustainable energy solutions such as solar, photovoltaic, and wind, as well as the installation of electric vehicle charging stations;
- Premises electrical and lighting systems, including fixtures and controls;
- Process instrumentation in the refining, chemical processing, and food processing industries;
- Low-voltage systems, such as fire alarm, security, and process control systems;
- Voice and data communications, including fiber optic and low voltage cabling, distributed antenna systems, audiovisual systems, and wireless access points;
- Roadway and transit lighting and signaling and fiber optic lines;
- Computerized traffic control systems, and signal and communication equipment for mass transit systems;
- Heating, ventilation, air conditioning, and refrigeration, including both traditional mechanical systems as well as geothermal solutions;
- Clean-room process ventilation systems;
- Fire protection and suppression systems;
- Plumbing, process and high-purity piping systems;
- Controls and filtration systems;
- Water and wastewater treatment systems;
- Central plant heating and cooling systems, including manufacturing and installing sheet metal air handling systems;
- Crane and rigging services;
- Millwright services; and
- Steel fabrication, erection, and welding services.

The electrical and mechanical construction services industry has experienced growth due principally to the increased content, complexity, and sophistication of electrical and mechanical systems resulting, in part, from growth in digital processing, cloud computing, and data storage. In addition, facilities of all types require extensive electrical distribution systems, sophisticated power supplies, networks of low-voltage and fiber-optic communications cabling, and various mechanical, plumbing, and fire protection and suppression systems. Moreover, the need for substantial environmental controls within a building, due to the heightened need to maintain extensive computer systems at optimal temperatures, and the demand for increased energy efficiency, have continued to expand opportunities for our electrical and mechanical services businesses. The demand for these services is typically driven by non-residential construction and renovation activity and, in recent years, has benefited from the re-shoring of the supply chain, the need for additional high-tech manufacturing facilities, and the energy transition/expansion throughout the United States.

Our electrical and mechanical construction services generally fall into one of three categories: (a) large installation projects, with contracts often in the multi-million dollar range, that involve: (i) the construction of manufacturing facilities, data centers, warehousing and distribution facilities, and commercial buildings, (ii) institutional and public works projects, or (iii) the fit-out of large blocks of space within commercial or mixed-use buildings, (b) large and medium sized capital and maintenance projects for commercial, manufacturing, pharmaceutical, healthcare, oil and gas, and industrial clients, and (c) smaller installation projects, of a short duration, typically involving fit-out, renovation, and retrofit work.

Our United States electrical and mechanical construction operations accounted for approximately 61% of our 2022 total revenues. Of such revenues, approximately 36% were generated by our electrical construction operations and approximately 64% were generated by our mechanical construction operations.

Our largest projects typically include those: (a) for commercial purposes (such as office buildings, data centers, convention centers, sports stadiums, and shopping malls); (b) for high-tech manufacturing purposes (such as semiconductor, biotech, life-sciences, and pharmaceutical facilities); (c) for traditional manufacturing and industrial purposes (such as steel, pulp and paper mills, food processing and automotive manufacturing facilities, power generation (including sustainable energy solutions such as solar and wind), oil and gas refineries, and chemical processing plants); (d) for transportation purposes (such as highways, bridges, airports, and transit systems); (e) for institutional purposes (such as educational and correctional facilities and research laboratories); (f) for healthcare purposes (such as hospitals, surgical centers, rehabilitation and nursing facilities, and medical offices); (g) for water and wastewater purposes; and (h) for hospitality purposes (such as resorts, hotels, and gaming facilities). Our largest projects, which typically range in size from $10 million up to and occasionally exceeding $200 million, represented approximately 40% of our electrical and mechanical construction services revenues in 2022. These projects often involve new construction and a combination of design, installation, and start-up services. Depending on the size and complexity of these projects, they may span multiple years and typically require significant technical and management skills and the financial strength to obtain performance bonds, which are often a condition to bidding for and winning these projects.

Our projects of less than $10 million accounted for approximately 60% of our electrical and mechanical construction services revenues in 2022. These projects are typically completed in less than one year. They usually involve electrical and mechanical construction services when an end-user or owner undertakes construction or modification of a facility to accommodate a specific use, upgrade or replace aging systems, or increase energy efficiency. These projects frequently require electrical and mechanical systems to meet special needs such as critical systems power supply, fire protection systems, special environmental controls and high-purity air systems, sophisticated electrical and mechanical systems for data centers, new production lines in manufacturing plants, and office arrangements in existing office buildings. They are not usually dependent upon the new construction market. Demand for these projects and types of services is often prompted by the expiration of leases, changes in technology, the demand for more energy efficient systems, or changes in the customer's plant or office layout in the normal course of a customer's business.

United States and United Kingdom building services operations:

Our building services include:

- Mobile mechanical maintenance and services for mechanical, electrical, plumbing, fire safety, and building automation systems;
- Modification and retrofit projects;
- Program development, management, and maintenance for energy systems, including LEED and other sustainable solutions to assist our customers in reducing energy consumption;
- Technical consulting and diagnostic services;
- Services aimed at improving indoor air quality;
- Installation and support for building systems;
- Commercial and government site-based operations and maintenance;
- Facility management, maintenance, and services;
- Floor care and janitorial services, including enhanced cleaning and sanitization services;
- Landscaping, lot sweeping, and snow removal;
- Other building services, including reception, security, and catering services;
- Vendor management and call center services;
- Military base operations support services; and
- Infrastructure and building projects for federal, state, and local governmental agencies.

While not all of the above services are performed in both countries, we provide building services throughout the United States and United Kingdom. Our building services operations have built upon our traditional electrical and mechanical construction operations and our client relationships to expand the scope of services being offered and to develop packages of services for customers on a local, regional, and national basis.

Our building services operations, which generated approximately 29% of our 2022 total revenues, provide services to owners, operators, tenants, and managers of all types of facilities both on a contractual basis for a specified period of time and on an individual task order basis. Of our building services revenues for 2022, approximately 85% were generated in the United States and approximately 15% were generated in the United Kingdom.

Demand for our building services is often driven by customers' decisions to focus on their core competencies, customers' programs to reduce costs, the increasing technical complexity of customers' facilities, including their mechanical, electrical, building automation, voice and data, and other systems, and the need for increased reliability, energy efficiency, and air filtration and sanitization. These trends have led to outsourcing and privatization programs whereby customers in both the private and public sectors seek to contract out those activities that support, but are not directly associated with, the customer's core business. Clients of our building services business include federal and state governments, institutional organizations, utilities, healthcare providers, and major corporations engaged in information technology, telecommunications, pharmaceuticals, financial services, and manufacturing, as well as large retailers and other businesses with geographically dispersed locations.

We provide building services at a number of prominent buildings in the United States, including those that house the National Archives and Records Administration, the Federal Deposit Insurance Corporation, the Government Accountability Office, and the Department of Health and Human Services, as well as other government facilities, including the NASA Jet Propulsion Laboratory. We also provide building services, as a prime contractor or a subcontractor, to U.S. military bases, including the Defense Intelligence Agency located on Joint Base Anacostia-Bolling, and are involved in a joint venture providing building services to NASA's Armstrong Flight Research Center. The agreements pursuant to which this division provides services to the federal government are frequently for a base period and a number of option years exercisable at the sole discretion of the government, are often subject to renegotiation by the government in terms of scope of services, and are subject to termination by the government prior to the expiration of the applicable term.

United States industrial services operations:

Our industrial services are primarily provided to customers within the oil, gas, and petrochemical industries and consist of:

- Refinery turnaround planning and engineering services;
- Specialty welding services;
- Overhaul and maintenance of critical process units in refineries and petrochemical plants;
- Specialty technical services for refineries and petrochemical plants;
- Instrumentation and electrical services for energy infrastructure;
- On-site repairs, maintenance, and service of heat exchangers, towers, vessels, and piping;
- Design, manufacturing, repair, and hydro blast cleaning of shell and tube heat exchangers and related equipment; and
- Renewable energy services, including large scale solar projects, energy storage, and waste to biogas solutions.

Our industrial services business, which generated approximately 10% of our 2022 total revenues, is a recognized leader in the refinery turnaround market and has a presence in the petrochemical market. Demand for these services is highly dependent on the strength of the oil and gas and related industrial markets. Our industrial services operations perform turnaround and maintenance services for critical units of refineries and petrochemical plants to upgrade, repair, and maintain them. Such services include: (a) engineering and planning in advance of complex refinery turnarounds; (b) overhaul and maintenance of critical process units (including hydrofluoric alkylation units, fluid catalytic cracking units, coking units, heaters, heat exchangers, and related mechanical equipment) during refinery and petrochemical plant shut downs; (c) replacement and new construction capital projects for refineries and petrochemical plants; (d) instrumentation and electrical services for energy infrastructure; and (e) other related specialty services such as: (i) welding (including pipe welding) and fabrication; (ii) heater, boiler, and reformer repairs and replacements; converter repair and revamps; and vessel, exchanger and tower services; (iii) tower and column repairs in refineries and petrochemical plants; (iv) installation and repair of refractory materials for critical units in process plants to protect equipment from corrosion, erosion, and extreme temperatures; and (v) acid-proofing services to protect critical components at refineries from chemical exposure. These businesses also design and manufacture highly engineered shell and tube heat exchangers and provide maintenance, repair, and cleaning services for heat exchangers both in the field and at our own shops, including tube and shell repairs, bundle repairs, and extraction services.

In addition to these traditional industrial services, we are working to leverage our expertise in industrial services to construct and maintain carbon capture technologies and renewable energy projects.

Competition

Across our operations, we compete with national, regional, and local companies, many of which are small, owner-operated entities that carry on their businesses in a limited geographic area, as well as with certain foreign companies.

The electrical and mechanical construction services industry is highly fragmented and our competition includes thousands of small companies across the United States. In addition, there are a number of larger public companies focused on providing electrical and/or mechanical construction services, such as APi Group Corporation, Comfort Systems USA, Inc., Dycom Industries, Inc., IES Holdings, Inc., MasTec, Inc., MYR Group, Inc., and Tutor Perini Corporation. A majority of our revenues are derived from projects requiring competitive bids; however, an invitation to bid is often conditioned upon prior experience, technical capability, and financial strength. Competitive factors in the electrical and mechanical construction services business include: (a) the availability of qualified and/or licensed personnel; (b) reputation for integrity and quality; (c) safety record; (d) cost structure and the ability to control project costs; (e) relationships with customers; (f) price; (g) geographic diversity; (h) experience in specialized markets; (i) the ability to obtain surety bonding; and (j) adequate working capital or access to bank credit. We believe our financial position, operating results, access to bank credit and surety bonding, technical expertise, and safety record, among other factors, give us an advantage over many of our competitors. However, relatively few barriers exist to prevent entry into the electrical and mechanical construction services industry.

While the building services industry is also highly fragmented, with most competitors operating in a specific geographic region, a number of large corporations such as Amentum Services, Inc., IAP Worldwide Services, Inc., Fluor Corporation, J&J Worldwide Services, Cushman & Wakefield plc, CBRE Group, Inc., Jones Lang LaSalle Incorporated, Sodexo, Inc., Aramark, and ABM Industries Incorporated are engaged in this field, as are large original equipment manufacturers such as Carrier Global Corporation and Trane Technologies plc. In addition, we compete with several regional firms serving all or portions of the markets we target, such as BrightView Holdings, Inc., Kellermeyer Bergensons Services, LLC, SMS Assist, L.L.C., and Ferrandino & Son, Inc. Our principal competitors in the United Kingdom include CBRE Group, Inc., Bouygues UK Ltd., ISS UK Ltd., and Mitie Group PLC. The key competitive factors in the building services industry include: (a) availability of qualified personnel and managers; (b) service quality and technical expertise; (c) cost structure and the ability to control project costs; (d) price; and (e) geographic diversity. Due to our size, our technical capability and management experience, and our geographic presence, we believe our building services operations are in a strong competitive position. However, there are relatively few barriers to entry into the building services industry.

The market for providing industrial services includes large national providers, as well as numerous regional companies. In the manufacture of heat exchangers, we compete with both U.S. and foreign manufacturers. Competitors within this industry include JVIC Catalyst Services, Universal Plant Services, Inc., Turner Industries Group, LLC, Team, Inc., Cust-O-Fab, Inc., Dunn Heat Exchangers, Inc., and Wyatt Field Service Company, LLC, among others. The key competitive factors in the industrial services market consist of: (a) availability of skilled workforce; (b) technical expertise; (c) service, quality, and ability to respond quickly; (d) price; and (e) safety record. Due to our technical capabilities, skilled workforce, and safety record, we believe that we are in a strong competitive position in the industrial services markets that we serve. Because of the complex tasks associated with turnaround projects, and the precision and cost investment required in manufacturing heat exchangers, we believe that the barriers to entry in this business are significant.

Human Capital

At December 31, 2022, we employed approximately 35,500 people, approximately 32,000 of whom were located within the United States and approximately 3,500 of whom were located in the United Kingdom.

Based on the most recent information available from our latest filing with the U.S. Equal Employment Opportunity Commission, the gender demographic of our U.S. employees was 90% male and 10% female. Additionally, based on such information, our U.S. employees had the following race and ethnicity demographics:

Employee Demographic	% of Total
White	69 %
Hispanic / Latinx	18 %
Black / African American	8 %
Asian	2 %
Multiracial, Native American, Native Hawaiian, and Pacific Islander	3 %

Approximately 60% of our employees are represented by various unions pursuant to approximately 450 collective bargaining agreements between our individual subsidiaries or trade associations and local unions, as well as two collective bargaining agreements that are national or regional in scope. We believe that our relations with our labor unions are generally positive.

Our ability to execute complex projects for our customers, and to perform all of our services with the excellence that makes us an industry leader, depends on our success in attracting and retaining skilled labor in a competitive market. We therefore strive to be and remain an employer of choice for the most talented employees in each of the industries and markets in which we operate. This begins with offering competitive employee compensation and benefits packages, specifically designed to meet the unique needs of each individual in our organization, which include:

- *Health and Welfare Plans*: All full-time employees who do not participate in union plans are offered a range of choices among medical, dental and vision plans, life, accident, dependent and disability insurance, and pre-tax health spending accounts that include employer contributions.
- *Retirement Savings*: We help provide our employees with financial security by offering a 401(k) Savings Plan and an Employee Stock Purchase Plan, both of which include company matching contributions.
- *Degree Assistance*: Eligible employees may apply for reimbursement for job-related courses or courses taken as part of a curriculum for a business or job-related degree at an accredited institution.
- *Employee Assistance Program*: Through our Employee Assistance Program, we offer our employees, and their dependents or household members, access to services and counseling on a variety of personal, professional, legal, and financial matters, at no cost. Most recently, we started offering college counseling services for the children of our employees.

Key to our attraction and retention of employees is our commitment to our EMCOR Values and our focus on employee safety and diversity, equity, and inclusion. Our Board of Directors and senior leadership engage in oversight and management, respectively, of our significant human capital initiatives. Our Board of Directors is regularly briefed and provides input on key human capital initiatives and metrics.

Commitment to Core Values

We are committed to our EMCOR Values of Mission First: *Integrity, Discipline, and Transparency* and People Always: *Mutual Respect and Trust, Commitment to Safety, and Teamwork.* We constantly strive to ensure these values are reflected in how we do business every day, from our corporate culture and "tone at the top," established by our Board of Directors and management team, to the critical work performed by all of our people at every level throughout our organization. We reinforce our EMCOR Values through many ongoing initiatives. Our EMCOR Values are embodied in our policies and procedures, including our Code of Business Ethics and Conduct. We also regularly provide training on these values, both at time of hire and on an ongoing, periodic basis. In addition, to develop and reinforce our values company-wide, and empower our leaders to perform at the highest levels, senior leaders are invited to our Leadership for Results course at Babson College and our Leading with Character program at the Thayer Leadership Development Group at West Point.

Workplace Safety

We believe that our focus on employee safety and well-being is reflected in our results. In a year in which our employees worked approximately 77.5 million hours, the Company's Total Recordable Incident Rate in 2022 was approximately 1.2, which was approximately 55% lower than the most recently available industry average of 2.70. This represents our fourteenth consecutive year with a Total Recordable Incident Rate which was less than half the industry average. Our position as an industry leader in safety begins with a strong culture of care and vigilance embodied in our EMCOR Values and is supported by a comprehensive suite of training, resources, and analytics. These include: (a) our signature Be There for Life! Zero Injuries Program and Be Vigilant! Campaign, (b) incident and injury prevention planning, including in-person and online training tools, adoption of new technology, and best practice guides available through our company intranet, (c) enterprise level reporting and analysis of leading and lagging indicators, (d) a 24-hour incident reporting hotline, and (e) a company-wide program to share and champion best safety practices across our range of businesses.

Diversity, Equity, and Inclusion

We believe that a diverse workforce is important to the long-term success of our business. We actively seek to increase the diversity of our workforce and to practice our commitment to diversity and inclusion in hiring, development, and training. This extends to our senior leadership and Board of Directors, where we require that any slate of recruited candidates for a named executive officer or other corporate officer position, and new management-supported director nominees, include individuals from underrepresented demographics. We have also designed and implemented policies and practices to promote a workplace free from discrimination, including our Affirmative Action and Equal Opportunity Policy, the implementation, effectiveness, and reporting requirements of which are overseen by our designated Affirmative Action Officer.

We strive to help all our employees realize their full potential with an equal opportunity to succeed. We work to unlock the full potential of all employees at every level through: (a) the EMCOR Manager Certificate Program, which promotes supervisory management skills, (b) our Degree Assistance Program, which provides tuition reimbursement for continuing education, and (c) the resources available to all employees on our online learning platform, the EMCOR Learning Center, which includes thousands of on-demand training courses on a wide range of topics.

In furtherance of our EMCOR Values, all EMCOR employees are required to complete diversity and inclusion training, and our current and future leaders undergo implicit association and unconscious bias training.

Available Information

We file annual, quarterly and current reports, proxy statements and other information with the SEC. These filings are available to the public over the internet at the SEC's website at http://www.sec.gov.

Our Internet address is www.emcorgroup.com. We make available, free of charge, through www.emcorgroup.com our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports, as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. References to our website addressed in this report are provided as a convenience and do not constitute, and should not be viewed as, an incorporation by reference of the information contained on, or available through, the website. Therefore, such information should not be considered part of this report.

Our Board of Directors has an audit committee, a compensation and personnel committee, and a nominating and corporate governance committee. Each of these committees has a formal charter. We also have Corporate Governance Guidelines, which include guidelines regarding related party transactions, a Code of Ethics for our Chief Executive Officer and Senior Financial Officers, and a Code of Ethics and Business Conduct for Directors, Officers, and Employees. Copies of these charters, guidelines and codes, and any waivers or amendments to such codes which are applicable to our executive officers, senior financial officers, or directors, can be obtained on our website, www.emcorgroup.com.

You may request a copy of the foregoing filings (excluding exhibits), charters, guidelines and codes, and any waivers or amendments to such codes which are applicable to our executive officers, senior financial officers, or directors, at no cost by writing to us at EMCOR Group, Inc., 301 Merritt Seven, Norwalk, CT 06851-1092, Attention: Corporate Secretary, or by telephoning us at (203) 849-7800.

ITEM 1A. RISK FACTORS

Our business is subject to a variety of risks, including the risks described below as well as adverse business and market conditions and risks associated with our operations. The risks and uncertainties described below are not the only ones facing us. Additional risks and uncertainties not known to us or not described below, which we have not determined to be material, may also impair our business operations. You should carefully consider the risks described below, together with all other information in this report, including information contained in the "Business," "Management's Discussion and Analysis of Financial Condition and Results of Operations," and "Quantitative and Qualitative Disclosures about Market Risk" sections. If any of the following risks actually occur, our business, financial position, results of operations, and/or cash flows could be adversely affected, and we may not be able to achieve our goals. Such events may cause actual results to differ materially from expected and historical results, and the trading price of our common stock could decline.

Economic and Strategic Risk Factors

Economic downturns have historically led to reductions in demand for our services. Negative conditions in the credit markets, including rising interest rates, may adversely impact our results of operations and our ability to operate our business. The level of demand from our clients for our services has been, in the past, adversely impacted by slowdowns in the industries we service, as well as in the economy in general. When the general level of economic activity has been reduced from historical levels, certain of our ultimate customers have delayed or canceled projects or capital spending, especially with respect to more profitable private sector work, and such slowdowns adversely affect our ability to grow, reducing our revenues and profitability. A number of economic factors, including financing conditions, the prices of commodities, and energy prices, have, in the past, adversely affected the industries we serve and our ultimate customers' ability or willingness to fund expenditures. General concerns about the fundamental soundness of domestic and foreign economies may also cause ultimate customers to defer projects even if they have credit available to them. A prolonged stagnation or weakening in financial and macroeconomic conditions, including rising interest rates, supply chain challenges, inflation, and any continuing impacts of the COVID-19 pandemic, could therefore have a significant adverse effect on our revenues and profitability.

We are exposed to market risk for changes in interest rates for borrowings under our credit facilities, which bear interest at variable rates. Throughout 2022, the Federal Reserve Board significantly increased the federal funds rate, further raised it in February 2023, and has indicated that rate increases are likely to continue through the remainder of 2023. Increases in benchmark interest rates impact our interest expense and cost of capital, which may adversely impact our ability to make payments on outstanding debt, raise additional funds through the issuance of debt, fund capital expenditures or other liquidity needs. Any of these impacts may adversely affect our liquidity, results of operations, and financial position. For further information on our outstanding debt and borrowing rates, refer to Note 9 - Debt of the notes to consolidated financial statements included in Item 8. Financial Statements and Supplementary Data.

Many of our clients depend on the availability of credit to help finance their capital and maintenance projects. At times, tightened availability of credit or increased interest rates have negatively impacted the ability of existing and prospective ultimate customers to fund projects we might otherwise perform, particularly those in the more profitable private sector. As a result, our ultimate customers may defer such projects for an unknown, and perhaps lengthy, period. Any such deferrals would inhibit our growth and would adversely affect our results of operations.

In a weak economic environment, particularly in a period of restrictive credit markets, we may experience greater difficulties in collecting payments from, and negotiating change orders and/or claims with, our clients due to, among other reasons, a diminution in our ultimate customers' access to the credit markets or potential bankruptcies. If clients delay in paying or fail to pay a significant amount of our outstanding receivables, or we fail to successfully negotiate a significant portion of our change orders and/or claims with clients, it could have an adverse effect on our liquidity, results of operations, and financial position.

Our business has traditionally lagged recoveries in the general economy and, therefore, after an economic downtown we may not recover as quickly as the economy at large.

Certain of our businesses, including those within our United States industrial services segment, are exposed to risks associated with the oil and gas industry. These risks, which are not subject to our control, include volatility in the price and production of crude oil, the development of and consumer demand for alternative energy sources, including as a result of a change in consumer preference, or in an effort to reduce greenhouse gas emissions or combat climate change, and legislative and regulatory actions. In addition, macroeconomic conditions, influenced by a variety of events and circumstances, can also affect customer demand for our services within these businesses and lower prices and production volumes, or perceived risk thereof, typically results in the curtailment or deferral of spending by our customers. For example, during 2020, the escalation of geopolitical tensions between the Organization of Petroleum Exporting Countries (OPEC) and Russia contributed to a significant drop in the price of crude oil, impacting customers in the energy sector and the demand for certain of our services. On the other hand, the Russian invasion of Ukraine in February 2022 and the resulting supply chain disruptions and sanctions imposed on Russian oil and gas exports caused the prices of crude oil and natural gas to increase significantly for several months. While higher prices for our customers' products may increase demand for our services, significant increases in the price or demand for crude oil may also result in the short-term curtailment or deferral of spending by our customers, as facility downtime to perform certain of the services we provide comes at a higher opportunity cost. Continued uncertain conditions within these markets, including the impact of geopolitical instability and the lingering impacts of the COVID-19 pandemic, could negatively impact our financial position, results of operations, and cash flows.

Our business is vulnerable to the cyclical nature of the markets in which our clients operate and is dependent upon the timing and funding of new awards. We provide construction and maintenance services to ultimate customers operating in a number of markets which have been, and we expect will continue to be, cyclical and subject to significant fluctuations due to a variety of factors beyond our control, including economic conditions and changes in client spending.

Regardless of economic or market conditions, investment decisions by our ultimate customers may vary by location or as a result of other factors like the availability of labor, relative construction costs, or competitive conditions in their industries. Because we are dependent on the timing and funding of new awards, we are therefore vulnerable to changes in our clients' markets and investment decisions.

Our business may be adversely affected by significant reductions in government spending, delays or disruptions in the government appropriations process or the failure to fund or implement recent legislation, including the CHIPS and Science Act of 2022 and the Inflation Reduction Act, both of which could benefit our business. Some of our businesses derive a significant portion of their revenues from federal, state, and local governmental agencies. As a result, reduced or delayed spending by the federal government and/or state and local governments may have a material and adverse impact on our business, financial condition, results of operations, and cash flows. Significant reductions in spending aimed at reducing federal, state, or local budget deficits, the absence of a bipartisan agreement on the federal government's budget or raising the debt ceiling, renewed focus on budget deficits following recent increases in government spending in response to the COVID-19 pandemic, personnel reductions, the closure of government facilities and offices, or other changes in budget priorities could result in the deferral, delay, disruption, or cancellation of projects or contracts that we might otherwise have sought to perform. These potential events could impact the level of demand for our services and our ability to execute, complete, and receive compensation for our current contracts, or bid for and enter into new contracts with governmental agencies.

Volatility in the prices or availability of certain materials and equipment used in our businesses and those of our customers, including as a result of inflation, geopolitical instability, and protectionist trade measures, could adversely affect our businesses. We are exposed to market risk of increases in certain commodity prices of materials, such as copper and steel, which are used as components of supplies or materials utilized in our operations. We are also exposed to increases in energy prices, particularly as they relate to gasoline prices for our fleet of approximately 13,200 vehicles. While we believe we can increase our prices to adjust for some price increases in commodities, there can be no assurance that price increases of commodities, if they were to occur, would be recoverable. Further, the timing of our price increases may lag the timing of the underlying increases in commodity or material prices. Additionally, our fixed price contracts generally do not allow us to adjust our prices and, as a result, increases in material or fuel costs could reduce our profitability with respect to projects in progress. For example, we experienced supply chain delays, including long lead times for certain materials and equipment, as well as an escalation in material and fuel prices, to varying degrees throughout 2021 and 2022. These disruptions, which are anticipated to persist throughout 2023, resulted in declines in gross profit and gross profit margin for certain of our operations. Fluctuations in energy prices as well as in commodity prices of materials, whether resulting from fluctuations in market supply or demand, or geopolitical conditions, including Russia's invasion of Ukraine and the resulting supply chain disruptions and sanctions on Russian exports, an increase in trade protection measures such as tariffs, or the disruption, modification, or cancellation of multilateral trade agreements, may adversely affect our customers and as a result cause them to curtail the use of our services.

On the other hand, because certain of our construction and service offerings are designed to improve energy efficiency in our clients' operations, or to assist in the generation of new sources of renewable energy, such as wind, solar, and geothermal generation, decreases in the costs of traditional energy sources such as oil and natural gas, including as a result of recessionary pressure and reduced demand, may lower our customers' demand for efficiency improvements and alternative energy sources, which could have an adverse effect on our financial position, results of operations, and cash flows.

Business and Operational Risk Factors

The loss of one or a few customers could have an adverse effect on us. Although we provide services to a diverse portfolio of end markets and have long-standing relationships with many of our significant customers, our customers may unilaterally reduce, fail to renew, or terminate their contracts with us at any time. A loss of business from a significant customer, or a number of significant customers, could have a material adverse effect on our business, financial position, and results of operations.

Our industry is highly competitive. Our industry is served by numerous small, owner-operated private companies, a few public companies, and several large regional companies. In addition, relatively few barriers exist to prevent entry into most of the industries in which we operate. As a result, any organization that has adequate financial resources, and access to technical expertise, may become a competitor. Competition in our industry depends on numerous factors, including price. Certain of our competitors have lower overhead cost structures and, therefore, are able to provide their services at lower rates than we are currently able to provide. Our project and service work is frequently awarded through a competitive bidding process, which is standard in our industry. We are constantly competing for contracts based on pricing, schedule, and technical expertise. Competition can place downward pressure on our contract prices and profit margins, which may make it difficult to win the project or force us to accept contractual terms and conditions that are less favorable to us, thereby increasing the risk that, among other things, we may not realize profit margins at the same rates we have seen in the past or may become responsible for costs or other liabilities we have not incurred in the past.

In addition, some of our competitors have greater resources than we do. We cannot be certain that our competitors will not develop the expertise, experience, and resources necessary to provide services that are superior in quality, and lower in price, to ours. Similarly, we cannot be certain that we will be able to maintain or enhance our competitive position within our industries or maintain a customer base at current levels. We may also face competition from the in-house service organizations of existing or prospective customers, particularly with respect to building services. Many of our customers employ personnel who perform some of the same types of building services that we do. We cannot be certain that our existing or prospective customers will continue to outsource building services in the future. If we are unable to compete effectively, we may experience a loss of market share, reduced profitability, or both, which if significant, could have a material adverse effect on our business, financial condition, and results of operations. Refer also to “Business - Competition” in Item 1 of this Form 10-K.

We are a decentralized company, which presents certain risks. While we believe decentralization has enhanced our growth and enabled us to remain responsive to opportunities and to our customers’ needs, it necessarily places significant control and decision-making powers in the hands of local management. This presents various risks, including the risk that we may be slower or less able to identify or react to external market conditions or problems affecting a key business than we would in a more centralized environment.

Our business may be affected by weather conditions. Adverse weather conditions, particularly during the winter season, could impact our construction services operations as those conditions affect our ability to safely and efficiently perform work outdoors in certain regions of the United States, adversely affecting the revenues and profitability of those operations. However, the absence of snow in certain regions of the United States during the winter could also cause us to experience reduced revenues and profitability in our United States building services segment, as a portion of their revenues is generated from snow removal contracts. In addition, cooler than normal temperatures during the summer months could reduce the need for our services, particularly in our businesses that install or service air conditioning units, and result in reduced revenues and profitability during the period that such unseasonal weather conditions persist.

Our business may be affected by the work environment. We perform our work under a variety of conditions, including but not limited to, difficult terrain, challenging site conditions, busy urban centers where delivery of materials and availability of labor may be impacted, clean-room environments where strict procedures must be followed, and sites which contain harsh or hazardous conditions, especially at chemical plants, refineries, and other process facilities. Performing work under these conditions can increase the cost of such work or negatively affect efficiency and, therefore, our profitability.

Our dependence upon fixed price contracts could adversely affect our business. We currently generate, and expect to continue to generate, a significant portion of our revenues from fixed price contracts. We must estimate the total costs of a particular project to bid for fixed price contracts. Cost and scheduling estimates are based on a number of assumptions, including those about future economic conditions, commodity and other materials pricing, cost and availability of labor, equipment, and materials, and supply chain efficiency, among other factors. The actual cost of labor and materials, however, may vary from the costs we originally estimated, something which we have experienced and may continue to experience due to inflationary pressures, supply chain challenges, and rising interest rates. These variations, along with other risks, inherent in the execution of projects subject to fixed price contracts, may cause actual gross profits from projects to differ from those we originally estimated and could result in reduced profitability or losses on projects. Depending upon the size of a particular project, variations from the estimated contract costs can have a significant impact on our operating results for any fiscal quarter or year.

We could incur additional costs to cover certain guarantees or other contractual requirements. In some instances, we guarantee completion of a project by a specific date or price, cost savings, achievement of certain performance standards, or performance of our services at a certain standard of quality. For other arrangements, including those within our government services operations, the terms of our contracts may include provisions which require us to achieve certain minority participation or small or disadvantaged business “set-aside” goals. Such requirements have become more frequent in recent years and we expect them to be increasingly prevalent, and more strictly enforced in the near future, especially under the current administration in Washington, D.C. If we subsequently fail to meet such guarantees, or comply with such provisions, we may be held responsible for costs resulting from such failures, including payment of penalties or liquidated or other damages. To the extent that any of these events occur, the total costs of a project could exceed the original estimated costs, and we would experience reduced profits or, in some cases, a loss.

Many of our contracts, especially our building and industrial services contracts, may be canceled or delayed on short notice, and we may be unsuccessful in replacing such contracts if they are canceled or as they are completed or expire. We could experience a decrease in revenues, net income, and liquidity if any of the following occur:

- customers cancel a significant number of contracts or delay services or projects;
- we fail to win a significant number of our existing contracts upon re-bid;
- we complete a significant number of non-recurring projects and cannot replace them with similar projects; or
- we fail to reduce operating and overhead expenses consistent with any decrease in our revenues.

Uncertainty surrounding the timing of contract awards, or project cancellations or delays, can also present difficulties in matching our workforce size with contract needs. In some cases, in anticipation of contract awards, we maintain and bear the cost of a ready workforce that is larger than necessary under our existing contract portfolio. When a contract is canceled or delayed, or an anticipated contract award is not received, it may result in lower profitability as a result of labor under-utilization, or additional costs resulting from reductions in staff, which could have a material adverse effect on our business, financial condition, and results of operations.

We may be unsuccessful in generating internal growth. Our ability to generate internal growth will be affected by, among other factors, our ability to:

- expand the range of services offered to customers to address their evolving needs;
- attract new customers; and
- retain and/or increase the number of projects performed for existing customers.

In addition, existing and potential customers may reduce the number or size of projects available to us because of general economic conditions or due to their inability to obtain capital or pay for services we provide. Many of the factors affecting our ability to generate internal growth are beyond our control, and we cannot be certain that our strategies will be successful or that we will be able to generate cash flow sufficient to fund our operations and to support internal growth. If we are not successful, we may not be able to achieve internal growth, expand operations, or grow our business.

Fluctuating foreign currency exchange rates impact our financial results. We have operations in the United Kingdom, which in 2022 accounted for approximately 4% of our revenues. Our reported financial position and results of operations are exposed to the effects (both positive and negative) that fluctuating exchange rates have on the process of translating the financial statements of our United Kingdom operations, which are denominated in the British pound, into the U.S. dollar. For example, for the year ended December 31, 2022, revenues and operating income of our United Kingdom building services segment were negatively impacted by $53.5 million and $3.1 million, respectively, when compared to the results for the year ended December 31, 2021, as a result of unfavorable exchange rate movements. The factors that impact exchange rate fluctuation, including macroeconomic and geopolitical conditions, are outside the control of the Company.

As part of our risk management strategy, we are effectively self-insured against certain potential liabilities. Although we maintain insurance policies with respect to a broad range of risks, including automobile liability, general liability, workers’ compensation, and employee-related healthcare, these policies do not cover all possible claims and certain of the policies are subject to large deductibles and retentions. In addition, we maintain a wholly-owned captive insurance subsidiary to manage certain of our insurance liabilities. Accordingly, we are effectively self-insured for a substantial number of actual and potential claims. Further, if any of our insurance carriers defaulted on its obligations to provide insurance coverage by reason of its insolvency or for other reasons, our exposure to claims would increase and our profits would be adversely affected. Our estimates for unpaid claims and expenses are based on known facts, historical trends, and industry averages, utilizing the assistance of an independent third-party actuary. The determination of such estimated liabilities and their appropriateness are reviewed and updated at least quarterly. However, these liabilities are difficult to assess and estimate due to many relevant factors, the effects of which are often unknown, including the severity of an injury or damage, the determination of liability in proportion to other parties, the timeliness of reported claims, the effectiveness of our risk management and safety programs, and the terms and conditions of our insurance policies. Our accruals are based upon known facts, historical trends and our reasonable estimate of future expenses, and we believe such accruals are adequate. However, unknown or changing trends, risks, or circumstances, such as increases in claims, a weakening economy, increases in medical costs, changes in case law or legislation, or changes in the nature of the work we perform, could render our current estimates and accruals inadequate. In such case, adjustments may be required to increase our insurance liabilities in the period that the experience becomes known.

External market conditions, including catastrophic losses resulting from an increase in severe weather events and the prolonged pandemic, among other factors, have resulted in an insurance market that is characterized by higher premiums, diminished capacity, and more conservative underwriting. If these market conditions persist, or if we experience an increase in the number or severity of claims incurred, insurance carriers may be unwilling, in the future, to provide our current levels of coverage without a significant increase in insurance premiums, self-insured retention limits, or collateral requirements to cover our obligations to them. Increased collateral requirements may be in the form of additional letters of credit, surety bonds, and/or cash, and an increase in collateral requirements could significantly reduce our liquidity. If insurance premiums or self-insured retention limits increase, and/or if insurance claims are higher than our estimates, our profitability could be adversely affected.

Failure to provide our services in accordance with professional standards or contractual requirements could expose us to significant monetary damages. Our services often involve professional judgments regarding the planning, design, development, construction, or operations and management of complex facilities. Although we have adopted a range of insurance, risk management, and risk avoidance programs designed to reduce potential liabilities, a catastrophic event at one of our project sites or a completed project, resulting from the services we have performed, could result in significant professional or product liability and warranty or other claims against us, as well as reputational harm. These liabilities could exceed our insurance limits or impact our ability to obtain insurance in the future. Further, even where insurance coverage applies, such policies have limits and deductibles or retentions, which could result in our assumption of exposure for certain amounts with respect to any claim filed against us. In addition, customers or subcontractors who have agreed to indemnify us against any such liabilities or losses might refuse or be unable to uphold their obligations to us, or we may be liable to our customers based on the terms of our contracts, which may require us to provide indemnification to them. An uninsured claim, either in part or in whole, as well as any claim covered by insurance but subject to a policy limit, high deductible and/or retention, could have a material adverse effect on our business, financial condition, and results of operations.

Our business strategy relies, in part, on acquisitions to sustain our growth, and these transactions present certain risk and uncertainties. As part of our growth strategy, we acquire companies that expand, complement, and/or diversify our businesses. However, there is no guarantee that we will be successful in identifying targets that meet our requirements for acquisition. We may also face increased competition from other potential acquirers who may have greater financial resources available to them or who may be in a position to offer more favorable terms to the target company. This competition may limit our ability to pursue acquisition opportunities. Additionally, circumstances beyond our control, such as rising interest rates, inflation and the ongoing impacts of the COVID-19 pandemic, may hinder our ability to pursue and complete acquisitions. Further, realization of the anticipated benefits of an acquisition, and avoiding or mitigating the potential risks associated with an acquisition, will depend, among other things, upon our ability to: (a) effectively conduct due diligence to identify and mitigate potential problems at companies we propose to acquire, (b) recognize incompatibilities or other obstacles to the successful integration of the acquired business with our other operations, and (c) gain greater efficiencies and scale that will translate into reduced costs or anticipated synergies in a timely manner. However, there can be no assurance that an acquisition we may make in the future will provide the benefits anticipated when entering into the transaction. Acquisitions we have completed, and future acquisitions we may make, could expose us to operational challenges and risks, including the diversion of management’s attention from our existing businesses, the failure to retain key personnel or customers of the acquired business, and the assumption of unknown liabilities of the acquired business for which there are inadequate reserves. Our ability to sustain our growth and maintain our competitive position may be affected by our ability to identify and acquire desirable businesses and successfully integrate any acquired business.

In addition, while we work to rapidly implement or maintain internal controls and financial reporting standards and procedures in the businesses we acquire, including integrating such acquired businesses into our consolidated financial reporting systems and controls, we cannot be certain that such implementation and integration will be quickly and effectively completed. Our internal control processes and procedures with respect to such businesses may need to be adjusted or enhanced in order to ensure that such businesses are in compliance with the regulations we are subject to as well as our internal policies and standards. Such changes could result in significant additional costs to us and could require the diversion of management’s attention from our existing businesses or other strategic initiatives.

Amounts included in our remaining performance obligations may not result in actual revenues or translate into profits. Many contracts are subject to cancellation or suspension on short notice at the discretion of the client, and the contracts in our remaining performance obligations are subject to changes in the scope of services to be provided as well as adjustments to the costs relating to the contract. The risk of contracts included in our remaining performance obligations being delayed or canceled generally increases during economic slowdowns or in response to significant fluctuations in commodity prices. Accordingly, there is no assurance that revenue from remaining performance obligations will actually be realized. If our remaining performance obligations fail to materialize, we could experience a decline in profitability, which could result in a deterioration of our financial position and liquidity.

We recognize revenue for the majority of our construction projects based on estimates; therefore, variations of actual results from our assumptions may reduce our profitability. As discussed in further detail in the "Critical Accounting Policies and Estimates" section included in Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, revenue is recognized as performance obligations are satisfied and earnings or losses recognized on individual contracts are based on estimates of contract price, costs, and profitability. Changes in estimates of transaction prices as well as estimated costs are recognized on a cumulative catch-up basis in the period in which the revisions to the estimates are made. Consequently, changes in estimates, or variations of actual results from previous projections, on an unusually large project, or on a number of average size projects, could be material and could have an adverse impact on our financial condition, results of operations, and cash flows.

We are increasingly dependent on sophisticated information technology systems; our business and results of operations are subject to adverse impacts due to disruption, failure, and cybersecurity breaches of these systems. We and our customers and third-party providers rely on information technology systems, hardware, and software to run critical accounting, project management, and financial information systems. We rely upon security measures, products, and services to attempt to secure our information technology systems and the confidential, proprietary, and sensitive information they contain. However, our information technology systems and data, and that of our customers and third-party providers, are subject to cyber-attacks, hacking, nation state threats, and other intrusions, encryption, erasure, failure, and damage, which could result in operational disruption and information misappropriation, such as theft of intellectual property or inappropriate disclosure of customer data or confidential or personal information. On February 15, 2020, for example, we became aware of an infiltration and encryption of portions of our information technology network. This attack temporarily disrupted our use of the impacted systems. While we maintain insurance coverage for these types of incidents, such policies may not completely provide coverage for, or completely offset, the costs associated with such incidents. We are continuously developing and enhancing our controls, processes, and practices designed to protect our systems, computers, software, data, and networks from attack, damage, or unauthorized access. This continued development and enhancement requires us to expend additional resources. However, we may not anticipate or combat all types of potential disruptions or breaches. If any of these events were to occur, we could be required to expend additional capital and other resources, including costs to deploy additional personnel and protection technologies, train employees, and engage third-party experts and consultants. Additionally, as many of our employees use our information technology systems to collaborate with colleagues in different geographic locations and periodically access our systems remotely, we may be subject to heightened security risks, including the risks of cyber-attacks.

The proper functioning of our information technology systems could also be impacted by other causes and circumstances beyond our control, including malware embedded in third party applications, the decision by software vendors to discontinue further development, integration, or long-term software maintenance support for our information systems, or hardware interruption, damage or disruption as a result of power outages, natural disasters, or computer network failures. Key business processes are subject to interruption to the extent that our information technology systems, or those of our customers or third-party providers, are disabled for a long period of time. Such operational disruptions and/or misappropriation or inappropriate disclosure of information could result in lost or reduced revenues, negative publicity, loss of customers or contracts, or business delays that could have a material adverse effect on our business, financial position, and results of operations.

In addition, new or evolving laws and regulations governing data privacy and the unauthorized disclosure of confidential information, including the European Union General Data Protection Regulation ("GDPR"), the California Consumer Privacy Act, the California Privacy Rights Act, state biometric laws, and other emerging U.S. state privacy laws pose increasingly complex compliance challenges and could potentially elevate our compliance costs. Any failure to comply with these laws and regulations could result in significant penalties and legal liability, and increased costs in this area could have a negative impact on our financial condition, results of operations, and cash flow.

Financial Risk Factors

A material portion of our business depends on our ability to provide surety bonds. We may be unable to compete for or work on certain projects if we are not able to obtain the necessary surety bonds. Our construction contracts frequently require that we obtain from surety companies, and provide to our customers, payment and performance bonds as a condition to the award of such contracts. Such surety bonds secure our payment and performance obligations. Under standard terms in the surety market, surety companies issue bonds on a project-by-project basis and can decline to issue bonds at any time or require the posting of collateral as a condition to issuing any bonds. Current or future market conditions, as well as changes in our sureties' assessment of our or their own operating and financial risk, could cause our surety companies to decline to issue, or substantially reduce the amount of, bonds for our work or to increase our bonding costs. These actions can be taken on short notice. If our surety companies were to limit or eliminate our access to bonding, our alternatives would include seeking bonding capacity from other surety companies, increasing business with clients that do not require bonds, or posting other forms of collateral for project performance, such as letters of credit, parent company guarantees, or cash.

However, we may be unable to secure these alternatives in a timely manner, on acceptable terms, or at all. Accordingly, if we were to experience an interruption or reduction in the availability of bonding, we may be unable to compete for or work on certain projects. Increases in the costs of surety bonds could also adversely impact our profitability.

Our results of operations could be adversely affected as a result of goodwill and identifiable intangible asset impairments. When we acquire a business, we record an asset called "goodwill" equal to the excess of the consideration transferred over the fair value of the net tangible and identifiable intangible assets acquired. Goodwill and indefinite-lived intangible assets are not amortized but instead evaluated for impairment annually, or more frequently if events or circumstances indicate that the carrying amount of the asset may be impaired. Impairment may result from a deterioration in macroeconomic conditions, declining financial performance, deterioration in the operational environment, or changes in the manner in which acquired assets are used. While no impairment was recognized during 2022 or 2021, we recorded $232.8 million of impairment charges during 2020 as a result of certain of these conditions. Significant judgment is required in determining whether goodwill and indefinite-lived intangible assets are impaired and assumptions utilized for purposes of our impairment testing may change in future periods. There can be no assurance that our estimates and assumptions will prove to be accurate predictions of the future. Significant adverse changes to external market conditions or our internal forecasts, if any, could result in future impairment charges. It is not possible at this time to determine if any future impairment charge will result or, if it does, whether such a charge would be material to our results of operations. For further discussion of our impairment testing, see Note 8 - Goodwill, Identifiable Intangible Assets, and Other Long-Lived Assets included in Item 8. Financial Statements and Supplementary Data.

Failure to maintain effective internal controls over financial reporting could adversely impact our ability to timely and accurately report financial results and comply with our reporting obligations, which could materially affect our business. Regardless of how internal financial reporting control systems are designed, implemented, and enforced, they cannot ensure with absolute certainty that our policy objectives will be met in every instance. Because of the inherent limitations of all such systems, our internal controls over financial reporting may not always prevent or detect misstatements. Failure to maintain effective internal control over financial reporting could adversely affect our ability to accurately and timely report financial results, to prevent or detect fraud, or to comply with the requirements of the SEC or the Sarbanes-Oxley Act of 2002, which could necessitate a restatement of our financial statements, and/or result in an investigation, or the imposition of sanctions, by regulators. Such failure could additionally expose us to litigation and/or reputational harm, impair our ability to obtain financing, or increase the cost of any financing we obtain. All of these impacts could adversely affect the price of our common stock and our business overall.

Legal and Regulatory Risk Factors

We are subject to many laws and regulations in the jurisdictions in which we operate; changes to such laws and regulations may result in additional costs and impact our operations. We are committed to upholding the highest standards of corporate governance and legal and ethical compliance. We are subject to many laws and regulations, including various laws and regulations that apply specifically to U.S. public companies. These include the rules and regulations of the New York Stock Exchange, the Sarbanes-Oxley Act of 2002, and the Dodd-Frank Wall Street Reform and Consumer Protection Act, as well as the various regulations, standards, and guidance put forth by the SEC and other governmental agencies to implement and enforce those laws. New laws, rules, and regulations, or changes to existing laws or their interpretations, could create added legal and compliance costs and uncertainty for us. In addition, our United Kingdom operations are subject to laws and regulations that are in some cases different from those of the United States, including labor laws such as the U.K. Modern Slavery Act and laws and regulations governing information collected from employees, customers and others, specifically the GDPR. These laws and regulations could increase the cost and complexity of doing business in the U.K. and negatively impact our financial position and results of operations. Our efforts to comply with evolving laws, regulations, and reporting standards may increase our general and administrative expenses, divert management time and attention, or limit our operational flexibility, all of which could have a material adverse effect on our business, financial position, and results of operations. Many of our non-public competitors and competitors operating solely in the U.S. are not subject to these laws and regulations and the related costs and expenses of compliance.

Our failure to comply with environmental laws could result in significant liabilities. Our operations are subject to various laws, including environmental laws and regulations, among which many deal with the handling and disposal of hazardous or universal waste products, polychlorinated biphenyls (PCBs), per- and polyfluoroalkyl substances (PFAS), and fuel storage. A violation of such laws and regulations, or a release of or exposure to such substances, including mold, lead paint, and asbestos, has and may in the future, expose us to various claims, including claims by third parties, as well as remediation costs and fines. We own and lease many facilities. Some of these facilities contain hazardous materials, such as asbestos, and fuel storage tanks, which may be above or below ground. If there is a release of such hazardous materials, or these tanks were to leak, we could be responsible for the cost of remediation as well as potential fines. As a part of our business, we also install fuel storage tanks and are sometimes required to deal with hazardous materials, all of which may expose us to environmental liability.

In addition, new laws and regulations, stricter enforcement of existing laws and regulations, the discovery of previously unknown contamination or leaks, exposure to or the release of materials subsequently identified as hazardous by a governmental authority, the imposition of new clean-up requirements, or the exposure of our employees or other contractors to hazardous materials, could require us to incur significant costs or become the basis for new or increased liabilities that could harm our financial position and results of operations, although certain of these costs might be covered by insurance. In some instances, we have obtained indemnification or covenants from third parties (including predecessors or lessors) for such clean-up and other obligations and liabilities, and we believe such indemnities and covenants are adequate to cover such obligations and liabilities. However, such third-party indemnities or covenants may not cover all of such costs or third-party indemnitors may default on their obligations. In addition, unanticipated obligations or liabilities, or future obligations and liabilities, may have a material adverse effect on our business operations. Further, we cannot be certain that we will be able to identify, or be indemnified for, all potential environmental liabilities relating to any acquired business.

Adverse resolution of litigation and other legal and regulatory proceedings may harm our operating results or financial position. From time to time, we are a party to lawsuits and other legal proceedings, most of which occur in the normal course of our business. These actions and proceedings may involve actual or threatened claims by customers, employees, or other third parties for, among other things, compensation or indemnification for alleged personal injury, workers' compensation, employment discrimination, breach of contract, property damage, or other general commercial disputes. In addition, we have been, and may in the future be, subject to class action claims alleging violations of the Fair Labor Standards Act and state wage and hour laws. Litigation and other legal proceedings can be expensive, lengthy, and disruptive to normal business operations, and their outcome is inherently uncertain and difficult to accurately predict or quantify. In addition, plaintiffs in many types of actions may seek punitive damages, civil penalties, consequential damages or other losses, or injunctive or declaratory relief. An unfavorable resolution of a particular legal proceeding or claim, whether through a settlement, mediation, court judgment, or otherwise, could have a material adverse effect on our business, operating results, financial position, and cash flows, and in some cases, on our reputation or our ability to obtain projects from customers, including governmental entities. See Item 3. Legal Proceedings and Note 15 - Commitments and Contingencies of the notes to consolidated financial statements included in Item 8. Financial Statements and Supplementary Data, for more information regarding any significant legal proceedings in which we are involved.

We may incur liabilities or suffer negative financial impacts relating to occupational, health, and safety matters. Our operations are subject to extensive laws and regulations relating to the maintenance of safe conditions in the workplace. While we have invested, and will continue to invest, substantial resources in our robust occupational, health, and safety programs, many of our businesses involve a high degree of operational risk, and there can be no assurance that we will avoid significant exposure. These hazards can cause personal injury and loss of life, severe damage to or destruction of property and equipment, and other consequential damages, and could lead to suspension of operations, large damage claims, an increase in employee turnover, and, in extreme cases, criminal liability. Any of the foregoing could result in financial losses or reputational harm, which could have a material adverse impact on our business, financial condition, and results of operations.

Our customers seek to minimize safety risks on their sites and they frequently review the safety records of contractors during the bidding process. Accordingly, if our safety record were to substantially deteriorate over time, we might become ineligible to bid on certain work and our customers could cancel our contracts and/or not award us future business.

Our failure to comply with anti-bribery statutes, such as the Foreign Corrupt Practices Act and the U.K. Bribery Act of 2010, or sanction regulations, could result in fines, criminal penalties, and other sanctions that could have an adverse effect on our business. The U.S. Foreign Corrupt Practices Act (the "FCPA"), the U.K. Bribery Act of 2010 (the "Bribery Act"), and similar anti-bribery laws in other jurisdictions generally prohibit companies and their intermediaries from making improper payments to foreign officials for the purpose of obtaining or retaining business or securing an improper advantage. In addition, sanctions against foreign persons and entities have increased in recent years, especially as a result of the war in the Ukraine. Our policies require that all of our employees, subcontractors, vendors, and agents worldwide must comply with applicable anti-bribery and sanction laws. However, there is no assurance that our policies and procedures to ensure compliance with the FCPA, the Bribery Act, and similar anti-bribery and sanction laws, will eliminate the possibility of liability under such laws for actions taken by our employees, agents, and intermediaries. If we were found to be liable for violations under the FCPA, the Bribery Act, or similar anti-bribery or sanction laws, either due to our own acts or omissions or due to the acts or omissions of others, we could incur substantial legal expenses and suffer civil and criminal penalties, which could have a material adverse effect on our business, financial condition, and results of operations, as well as our reputation. In addition, whether or not such expenses, penalties, or sanctions are actually incurred, the actual or alleged violation of the FCPA, the Bribery Act, or any similar anti-bribery or sanction laws could have a negative impact on our reputation.

Opportunities within the government sector could lead to increased governmental rules and regulations applicable to us. As a government contractor, we are subject to a number of procurement rules and other regulations, any deemed violation of which could lead to fines or penalties or a loss of business. Government agencies routinely audit and investigate government contractors. Government agencies may review a contractor's performance under its contracts, cost structure, and compliance with applicable laws, regulations, and standards. If government agencies determine through these audits or reviews that costs are improperly allocated to specific contracts, they will not reimburse the contractor for those costs or may require the contractor to refund previously reimbursed costs. If government agencies determine that we are engaged in improper activity, we may be subject to civil and criminal penalties and debarment or suspension from doing business with the government. Government contracts are also subject to renegotiation of terms by the government, termination by the government prior to the expiration of the term, and non-renewal by the government.

Human Capital and Labor Risk Factors

The departure of key personnel could disrupt our business. We depend on the continued efforts of our senior management. The loss of key personnel, including a temporary loss as a result of illness, or the inability to hire and retain qualified executives, could negatively impact our ability to manage our business.

We may be unable to attract and retain skilled employees. Our ability to grow and maintain productivity and profitability will be limited by our ability to employ, train, and retain skilled personnel necessary to meet our requirements. We are dependent upon a workforce of approximately 35,500 employees, including our project managers and field supervisors who are responsible for managing our projects, and there can be no assurance that any individual will continue in his or her capacity for any particular period of time. The loss of such qualified employees could have an adverse effect on our business. We cannot be certain that we will be able to maintain an adequate skilled labor force necessary to operate efficiently and to support our business strategy or that labor expenses will not increase as a result of a shortage in the supply of these skilled personnel. The availability and costs to adequately train and maintain a skilled labor force could be impacted by factors we cannot control, including changes in the unemployment rate, prevailing wage rates, benefit costs, the ongoing impacts of the COVID-19 pandemic, and competition for labor from our competitors in the markets we serve. Labor shortages or increased labor costs, such as those currently being experienced throughout the United States and United Kingdom, could impair our ability to provide services to our customers, maintain our business, or grow our revenues. Proposed rules by the Federal Trade Commission to eliminate almost all non-competition agreements with employees, if implemented, may also impact retention of key employees by reducing barriers to individuals with such agreements leaving to work for our competitors.

Our unionized workforce could adversely affect our operations; our participation in many multiemployer pension plans could result in substantial liabilities being incurred. As of December 31, 2022, approximately 60% of our employees were covered by collective bargaining agreements. Although the majority of these agreements prohibit strikes and work stoppages, we cannot be certain that strikes or work stoppages will not occur in the future. However, only two of our collective bargaining agreements are national or regional in scope, and not all of our collective bargaining agreements expire at the same time. Strikes or work stoppages likely would adversely impact our relationships with our customers and could have a material adverse effect on our financial position, results of operations, and cash flows. We contribute to approximately 200 multiemployer pension plans. Under the Employee Retirement Income Security Act, we may become liable for our proportionate share of a multiemployer pension plan's underfunding if we cease to contribute to that pension plan or significantly reduce the employees in respect of which we make contributions to that pension plan. Our potential liability for unfunded liabilities could be material. See Note 14 - Retirement Plans of the notes to consolidated financial statements included in Item 8. Financial Statements and Supplementary Data for additional information regarding multiemployer pension plans.

Risk Factors Related to the Ownership of our Common Stock

Certain provisions of our corporate governance documents could make an acquisition of us, or a substantial interest in us, more difficult. The following provisions of our certificate of incorporation and by-laws, as currently in effect, as well as Delaware law, could discourage potential proposals to acquire us, delay or prevent a change in control of us, or limit the price that investors may be willing to pay in the future for shares of our common stock:

- our certificate of incorporation permits our board of directors to issue "blank check" preferred stock and to adopt amendments to our by-laws;
- our by-laws contain restrictions regarding the right of our stockholders to nominate directors and to submit proposals to be considered at stockholder meetings;
- our certificate of incorporation and by-laws limit the right of our stockholders to call a special meeting of stockholders and to act by written consent; and
- we are subject to provisions of Delaware law, which prohibit us from engaging in any of a broad range of business transactions with an "interested stockholder" for a period of three years following the date such stockholder becomes classified as an interested stockholder.

Climate Change Related Risk Factors

Climate change and related environmental issues could have a material adverse impact on our business, financial condition, and results of operations. Climate change related events, such as increased frequency and severity of storms, floods, wildfires, droughts, hurricanes, freezing conditions, and other natural disasters, may have an adverse impact on our business, financial condition, and results of operation. While we have invested in programs to mitigate the risk that these events disrupt our ability to serve our customers, and also maintain insurance coverage to offset the costs which could result, these events pose inherent risks regardless of where or how we conduct our business. For example, severe weather or a catastrophic natural disaster could negatively impact our and our customers' offices, facilities, or job sites. Access to clean water and reliable energy where we conduct our business is also critical to our operations. Accordingly, severe weather events or natural disasters have the potential to disrupt our and our customers' businesses and may cause us to experience work stoppages, project delays or cancellations, financial losses, and additional costs to resume operations, in addition to potential adverse impacts on the health and safety of our workforce and their ability to work or travel. Further, climate change poses direct physical risks to infrastructure across the industry sectors we serve, both as a result of chronic environmental changes, such as rising sea levels and temperatures, as well as acute events, such as hurricanes, droughts, and wildfires. These impacts, and the costs to address them, could result in fewer resources for strategic investment by our customers, which could result in a decrease in demand for certain of our services. Any of these events could have a material adverse impact on our business, financial condition, and results of operations.

We may be affected by market or regulatory responses to climate change. Growing public concern about climate change has resulted in the increased focus of local, state, regional, national, and international regulatory bodies on greenhouse gas ("GHG") emissions and climate change issues. Legislation to regulate GHG emissions has periodically been introduced in the U.S. Congress, and there has been a wide-ranging policy debate, both in the United States and internationally, regarding the impact of these gases and possible means for their regulation. The Biden Administration has made climate change and the limitation of GHG emissions one of its primary objectives, including a renewed commitment to the Paris Agreement and a Nationally Determined Contribution under such agreement that aims to reduce U.S. emissions by 50-52%, compared to a 2005 baseline, by 2030. Several states and geographic regions in the United States have also adopted legislation and regulations to reduce emissions of GHGs. Additional legislation or regulation by the federal government or state and local governments or agencies, and/or any international agreements to which the United States may become a party that control or limit GHG emissions or otherwise seek to address climate change, could result in increased compliance costs for us and our clients or have other impacts on our clients, including those who are involved in the exploration, production, or refining of fossil fuels, or who emit greenhouse gases through the combustion of fossil fuels or through the mining, manufacture, utilization, or production of materials or goods. Such policy changes could increase the costs of projects for our clients or, in some cases, prevent a project from going forward, thereby potentially reducing the need for certain of our services, which could in turn have a material adverse effect on our business, financial condition, and results of operations. However, policy changes and climate legislation could also increase the overall demand for our services as our clients and partners work to comply with these policies, such as by decarbonizing their industries, transitioning from fossil fuels to renewable energy sources, reducing their energy consumption, and developing integrated and sustainable solutions, all of which could have a positive impact on our business. We cannot predict with certainty what the effect of such regulation may be on us or our customers.

In addition, in March 2022, the SEC proposed new rules that would require significant climate-related disclosures by public companies, including evaluation and disclosure of material climate-related risks and opportunities, GHG emissions inventory, climate-related targets and goals, and financial impacts of physical and transition risks (the “SEC Climate Rules”). If the SEC Climate Rules take effect, in whole or in part, our legal, accounting, and other compliance expenses may increase significantly, and compliance efforts may divert management time and attention. We may also be exposed to legal or regulatory action or claims as a result of these new regulations. All of these risks could have a material adverse effect on our business, financial position, and/or stock price.

We may be unable to achieve our current or future climate commitments and targets, or we may incur substantial costs in meeting such targets. To help mitigate the impacts of GHG emissions on climate change, EMCOR has established initial carbon-based fuel consumption and GHG emission reduction targets and committed to setting science-based GHG emissions targets. However, achievement of such targets, or similar targets that may be established in the future, is subject to risks and uncertainties, many of which are outside of our control. These risks and uncertainties include, but are not limited to: (a) our ability to execute our operational strategies and achieve our goals within the currently projected costs and the expected timeframes; (b) the availability and cost of alternative fuels, electrical charging infrastructure, off-site renewable energy, and other materials and components; (c) unforeseen design, operational, and technological difficulties; (d) the outcome of research efforts and future technology developments, including alternate or more fuel efficient vehicles for our fleet, such as hybrid or electric vehicles, the availability of which has been impacted by the global shortage in supply of vehicles generally; (e) regulations and requirements that restrict or prohibit our ability to impose requirements on third party contractors; (f) an acquisition of or merger with another company that has not adopted similar targets and goals or whose progress towards reaching its goals is not as advanced as ours; and (g) the pace of recovery from the COVID-19 pandemic, which could result in fluctuations in our fuel consumption and GHG emissions in a given period. In addition, we could be required to expend amounts in future periods as we continue to work towards achieving our targets, which may have a material effect on our business, financial condition, results of operations, or liquidity.

General Risk Factors

Public health emergencies, epidemics, or pandemics, including the COVID-19 pandemic, impact our business. The continuing impact of the global spread of COVID-19, and the responses of governments, businesses, and individuals to combat it, have caused significant volatility, uncertainty, and economic disruption, which has and may continue to adversely impact our operations and those of our customers. Government authorities in the United States and United Kingdom have at various times recommended or imposed certain social distancing, quarantine, and isolation measures to varying degrees, with many such measures impacting large portions of the population. These measures have included limitations on travel and mandatory cessation of certain business activities, some of which have been relaxed or adjusted and others of which remain in effect. Both the outbreak and the containment and mitigation measures resulted in serious adverse impacts on the economy, some of which are ongoing, and both the severity and duration of those impacts and the extent and pace of economic recovery continue to remain uncertain.

Our workforce and ongoing operations have been, are, and may continue to be impacted by the COVID-19 pandemic. For example, we have experienced disruptions that have impacted our ability to perform our work. Such impacts include, but are not limited to, access restrictions and temporary job site shutdowns, reduced labor efficiency resulting from adherence to physical distancing, quarantine, and isolation requirements due to illness or exposure to an infected person, and other enhanced safety protocols mandated at the majority of our worksite locations, and the deferral of maintenance and service projects by our customers. The extent to which the COVID-19 pandemic or another epidemic, pandemic or public health emergency could impact our business and results of operations in the future remains highly uncertain and will be affected by a number of factors. These include the duration and extent of the pandemic, epidemic or public health emergency; the potential for additional viruses or variants of viruses that are more virulent, contagious, or against which current vaccines are less effective; the duration and extent of containment and mitigation measures; the widespread adoption and long-term efficacy of vaccines and the availability and efficacy of other treatments; the cost and/or disruption of testing that may be required of our employees either by customer requirements or government mandates; the impact of the pandemic, epidemic or other public health emergency on economic activity, including on planning and funding for construction projects and our customers’ demand for our services; supply chain disruptions or commodity price volatility that could impact our and our vendors’ ability to source the supplies and materials needed to operate our business; our ability to effectively operate, including as a result of travel restrictions and mandatory business and facility closures; the ability of our customers to pay us for services rendered; any closures of our and our customers’ offices and facilities; and any project delays or shutdowns. Any of these events could have a material adverse effect on our business, financial condition, results of operations, and/or stock price.

Additionally, as many of our employees continue to periodically access our systems remotely, in part as a result of the COVID-19 pandemic and the potential business or facility closures or reduced or staggered in-person attendance, we may be subject to heightened security risks, including the risks of cyber-attacks. Further, if any of our key personnel are unable to perform their duties for a period of time, including as a result of illness, our results of operations could be adversely affected.

Terrorist attacks and other catastrophic events could disrupt our operations and services. Acts of terrorism and other catastrophic events, and the actions taken by the United States and/or other governments or actors in response to such events, may result in property damage, supply disruption, or economic dislocations throughout the country. Although it is not possible to predict such events or their consequences, these events could increase the volatility of our financial results due to decreased demand and unforeseen costs, with partial or no corresponding compensation from clients.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

We own a limited number of facilities; however, the majority of our operations are conducted at leased properties, which are located throughout the United States and United Kingdom. These properties consist of offices, warehouses, fabrication shops, and maintenance and cleaning facilities. We do not consider any one of these locations to be material to our operations. We believe that our facilities are well maintained, in good operating condition, and suitable for the purposes for which they are used.

See Note 16 - Leases of the notes to consolidated financial statements included in Item 8. Financial Statements and Supplementary Data for additional information regarding our leases. We utilize substantially all of our leased or owned facilities and believe there will be no difficulty either in negotiating the renewal of such leases as they expire or in finding alternative space, if necessary.

ITEM 3. LEGAL PROCEEDINGS

We are involved in several legal proceedings in which damages and claims have been asserted against us. We believe that we have a number of valid defenses to such proceedings and claims and intend to vigorously defend ourselves. We do not believe that any such matters will have a material adverse effect on our financial position, results of operations, or liquidity. We record a loss contingency if the potential loss from a proceeding or claim is considered probable and the amount can be reasonably estimated or a range of loss can be determined. We provide disclosure when it is reasonably possible that a loss will be incurred in excess of any recorded provision. Significant judgment is required in these determinations. As additional information becomes available, we reassess prior determinations and may change our estimates. Additional claims may be asserted against us in the future. Litigation is subject to many uncertainties, and the outcome of litigation is not predictable with assurance. It is possible that a litigation matter for which liabilities have not been recorded could be decided unfavorably to us, and that any such unfavorable decision could have a material adverse effect on our financial position, results of operations, or liquidity.

ITEM 4. MINE SAFETY DISCLOSURES

Information concerning mine safety violations or other regulatory matters required by Section 1503(a) of the Dodd-Frank Wall Street Reform and Consumer Protection Act and Item 104 of Regulation S-K (17 CFR 229.104) is included in Exhibit 95.1 to this Form 10-K.

EXECUTIVE OFFICERS OF THE REGISTRANT

Anthony J. Guzzi, Age 58; President since October 2004, Chief Executive Officer since January 2011 and Chairman of the Board since June 2018. From October 2004 to January 2011, Mr. Guzzi served as Chief Operating Officer of the Company. From August 2001 until he joined the Company, Mr. Guzzi was President of the North American Distribution and Aftermarket Division of Carrier Corporation ("Carrier"). Carrier is a manufacturer and distributor of commercial and residential HVAC and refrigeration systems and equipment and a provider of aftermarket services and components of its own products and those of other manufacturers in both the HVAC and refrigeration industries.

Mark A. Pompa, Age 58; Executive Vice President and Chief Financial Officer of the Company since April 2006 and Treasurer of the Company from October 2019 to June 2020. From June 2003 to April 2006, Mr. Pompa was Senior Vice President-Chief Accounting Officer of the Company, and from June 2003 to January 2007, Mr. Pompa also served as Treasurer of the Company. From September 1994 to June 2003, Mr. Pompa was Vice President and Controller of the Company.

R. Kevin Matz, Age 64; Executive Vice President-Shared Services of the Company since December 2007 and Senior Vice President-Shared Services from June 2003 to December 2007. From April 1996 to June 2003, Mr. Matz served as Vice President and Treasurer of the Company and Staff Vice President-Financial Services of the Company from March 1993 to April 1996.

Maxine L. Mauricio, Age 51; General Counsel and Secretary of the Company since January 2016 and Executive Vice President since February 2021. Ms. Mauricio was a Senior Vice President of the Company from January 2016 to February 2021. From January 2012 to December 2015, Ms. Mauricio was Vice President and Deputy General Counsel of the Company, and from May 2002 to December 2011, she served as Assistant General Counsel of the Company. Prior to joining the Company, Ms. Mauricio was an associate at Ropes & Gray LLP.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Market Information. Our common stock trades on the New York Stock Exchange under the symbol "EME."

Holders. As of February 17, 2023, there were approximately 470 stockholders of record.

Dividends. We have paid quarterly dividends since October 25, 2011. We expect that such quarterly dividends will be paid for the foreseeable future. Prior to October 25, 2011, no cash dividends had been paid on the Company's common stock. We currently pay a regular quarterly dividend of $0.15 per share. Subsequent to December 31, 2022, our Board of Directors announced its intention to increase the regular quarterly dividend to $0.18 per share commencing with the dividend to be paid in April 2023. Our 2020 Credit Agreement places limitations on the payment of dividends on our common stock. However, we do not believe that the terms of such agreement currently materially limit our ability to pay such quarterly dividends for the foreseeable future. See Note 9 - Debt of the notes to consolidated financial statements included in Item 8. Financial Statements and Supplementary Data for further information regarding our 2020 Credit Agreement.

Purchase of Equity Securities by the Issuer and Affiliated Purchasers

The following table summarizes repurchases of our common stock made by us during the quarter ended December 31, 2022:

Period	Total Number of Shares Purchased [1] [2]	Average Price Paid Per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Number (or Approximate Dollar Value) of Shares That May Yet be Purchased Under the Plan or Programs
October 1, 2022 to October 31, 2022	—	—	—	$389,799,870
November 1, 2022 to November 30, 2022	—	—	—	$389,799,870
December 1, 2022 to December 31, 2022	—	—	—	$389,799,870
Total	—	—	—	

(1) In September 2011, our Board of Directors (the "Board") authorized a share repurchase program allowing us to begin repurchasing shares of our outstanding common stock. Subsequently, the Board has from time to time increased the amount of our common stock that we may repurchase under such program. Since the inception of the repurchase program, the Board has authorized us to repurchase up to $2.15 billion of our outstanding common stock. As of December 31, 2022, there remained authorization for us to repurchase approximately $389.8 million of our shares. No shares have been repurchased by us since the program was announced other than pursuant to such program. Refer to Note 12 - Common Stock of the notes to consolidated financial statements included in Item 8. Financial Statements and Supplementary Data for further information regarding our share repurchase program.

(2) Excludes 1,751 shares surrendered to the Company by participants in our share-based compensation plans to satisfy minimum tax withholdings for common stock issued under such plans.

ITEM 6. [RESERVED]

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Business Description

We are one of the largest specialty contractors in the United States and a leading provider of electrical and mechanical construction and facilities services, building services, and industrial services. Our services are provided to a broad range of commercial, industrial, healthcare, utility, and institutional customers through approximately 100 operating subsidiaries. Such operating subsidiaries are organized into the following reportable segments:

- United States electrical construction and facilities services;
- United States mechanical construction and facilities services;
- United States building services;
- United States industrial services; and
- United Kingdom building services.

We refer to our United States electrical construction and facilities services segment and our United States mechanical construction and facilities services segment together as our United States construction segments.

For a more complete description of our operations, refer to Item 1. Business.

Our reportable segments and related disclosures reflect certain reclassifications of prior year amounts from our United States mechanical construction and facilities services segment to our United States building services segment, and from our United States building services segment to our United States construction segments, due to changes in our internal reporting structure aimed at realigning our service offerings.

Market Update

Throughout 2022, our business and end markets remained resilient despite the impact of uncertain global economic conditions, including supply chain, production, and other logistical issues, an inflationary cost environment, rising interest rates, skilled labor shortages in certain regions, and the lingering effects of the COVID-19 pandemic.

For example, we experienced pressures in our supply chain, which resulted in material and equipment lead times significantly in excess of normal levels. These disruptions, which are expected to persist to varying degrees in 2023, have manifested themselves through project delays or scheduling impacts and reduced labor productivity and efficiency, particularly within our United States construction segments and our United States building services segment. Delays in critical material and equipment deliveries have additionally resulted in us funding purchases at earlier stages of project progression, or in advance of project commencement, which has and will continue to apply pressure on working capital requirements. During 2022, we also experienced the effects of inflation through increases in fuel, material, and other commodity prices. While current economic indicators suggest that inflation will slow, we anticipate that our business will continue to be impacted by wage and general inflation to some extent throughout 2023. Further, in an effort to mitigate inflation, the Federal Reserve Board has increased the federal funds rate throughout 2022, raised it further in February 2023, and it is anticipated that rate increases will continue through the remainder of 2023. These actions have resulted, and may continue to result, in an increase in our interest expense.

Beyond these impacts, the Russian invasion of Ukraine in February 2022 has created another layer of uncertainty, especially with respect to energy costs as the resulting sanctions imposed on Russian oil and gas exports caused the prices of crude oil and natural gas to increase significantly for several months. While higher energy prices have historically led to an increase in demand for certain of our services, such as those performed by our United States industrial services segment, significant increases in the price or demand for crude oil may also result in the short-term curtailment or deferral of spending by our customers, as facility downtime to perform certain of the services we provide comes at a higher opportunity cost.

In response to these challenges, we continue to strive to manage our business more effectively through enhanced labor planning and project scheduling, increased pricing to the extent contractually permitted, and by leveraging our relationships with our suppliers and customers. While we believe the actions we have taken continue to be effective, as evidenced in part by the sequential improvement in our operating performance throughout each quarter of 2022, the impact of these disruptions continues to evolve and there can be no assurance that our actions will serve to mitigate such impacts in future periods. Further, while we believe our remaining performance obligations are firm, and we have not experienced any material project cancellations to date, prolonged delays in the receipt of critical equipment could impact our ability to convert such remaining performance obligations to revenues in the near term, or result in our customers seeking to delay or terminate existing or pending agreements. Lastly, rising interest rates may cause a decline in capital or maintenance spending of our customers or prospective customers and, therefore, the demand for our services. Any of these events could have a material adverse effect on our business, financial condition, and/or results of operations.

2022 versus 2021

Overview

The following table presents selected financial data for the fiscal years ended December 31, 2022 and 2021 (in thousands, except percentages and per share data):

	2022	2021
Revenues	$ 11,076,120	$ 9,903,580
Revenues increase from prior year	11.8 %	12.6 %
Gross profit	$ 1,603,594	$ 1,501,737
Gross profit as a percentage of revenues	14.5 %	15.2 %
Operating income	$ 564,877	$ 530,800
Operating income as a percentage of revenues	5.1 %	5.4 %
Net income attributable to EMCOR Group, Inc.	$ 406,122	$ 383,532
Diluted earnings per common share	$ 8.10	$ 7.06

Revenues of $11.08 billion for the year ended December 31, 2022 set a new annual record for the Company and represent an increase of 11.8% from revenues of $9.90 billion for the year ended December 31, 2021. Demand for our services continues to be strong and, as described in further detail below, we experienced revenue growth within all of our reportable segments except for our United Kingdom building services segment, the reduction in revenues of which was entirely due to unfavorable exchange rate movements during 2022, which more than offset revenue growth that was experienced on a local currency basis.

Operating income for 2022 was $564.9 million, or 5.1% of revenues, compared to operating income of $530.8 million, or 5.4% of revenues, in 2021. This increase resulted from greater operating income contribution, largely as a result of the aforementioned increase in revenues, from each of our reportable segments, other than our United States electrical construction and facilities services segment. The decrease in operating margin period over period was driven by a 70 basis point reduction in consolidated gross profit margin, due to reduced gross profit margins within each of our United States construction segments. Partially offsetting the decrease in gross profit margin was a reduction in the ratio of selling, general and administrative expenses to revenues as we were able to leverage our overhead cost structure during this period of revenue growth. Refer to the operating income section below for further discussion regarding the operating performance of each of our reportable segments.

Net income of $406.1 million, or $8.10 per diluted share, for the year ended December 31, 2022, compares favorably to net income of $383.5 million, or $7.06 per diluted share, for the year ended December 31, 2021. In addition to the increase in operating income referenced above, our diluted earnings per share for 2022 benefited from a reduced weighted average share count given the impact of common stock repurchases made by us throughout 2021 and 2022.

Impact of Acquisitions

In order to provide a more meaningful period-over-period discussion of our operating results, we may discuss amounts generated or incurred (revenues, gross profit, selling, general and administrative expenses, and operating income) from companies acquired. The amounts discussed reflect the acquired companies' operating results in the current reported period only for the time period these entities were not owned by EMCOR in the comparable prior reported period.

During 2022, we acquired six companies for total consideration of $100.8 million. Such acquisitions include: (a) a company that provides electrical construction services in the Greater Boston area, the results of operations of which have been included in our United States electrical construction and facilities services segment, and (b) five companies that enhance our presence in geographies where we have existing operations, the results of operations of which were de minimis, consisting of: (i) two companies that provide fire protection services in the Northeastern and Southern regions of the United States, respectively, and that have been included within our United States mechanical construction and facilities services segment, (ii) two companies that specialize in either building automation and controls or mechanical services in the Southwestern and Southern regions of the United States, respectively, and that have been included within our United States building services segment, and (iii) a company that provides electrical construction services in the Midwestern region of the United States and that has been included within our United States electrical construction and facilities services segment.

We acquired eight companies during 2021 for total consideration of $131.2 million. Such acquisitions include: (a) two companies, the results of operations of which were de minimis, included within our United States mechanical construction and facilities services segment, consisting of: (i) a company that provides mechanical services within the Southern region of the United States and (ii) a company that provides fire protection services in the Midwestern region of the United States, (b) two companies that provide electrical construction services for a broad array of customers in the Midwestern region of the United States, the results of operations of which have been included in our United States electrical construction and facilities services segment, and (c) four companies included within our United States building services segment, consisting of: (i) a company that provides mobile mechanical services across North Texas and (ii) three companies, the results of operations of which were de minimis, that enhance our presence in geographies where we have existing operations and provide either mobile mechanical services or building automation and controls solutions.

Companies acquired in 2022 and 2021 generated incremental revenues of $149.7 million and incremental operating income of $3.9 million, inclusive of $7.3 million of amortization expense associated with identifiable intangible assets, for the year ended December 31, 2022.

Discussion and Analysis of Results of Operations

Revenues

The following table presents our revenues for each of our operating segments and the approximate percentages that each segment's revenues were of total revenues for the years ended December 31, 2022 and 2021 (in thousands, except for percentages):

	2022	% of Total	2021	% of Total
Revenues from unrelated entities:				
United States electrical construction and facilities services	$ 2,433,114	22 %	$ 2,029,893	21 %
United States mechanical construction and facilities services	4,326,674	39 %	3,952,586	40 %
United States building services	2,720,487	25 %	2,424,743	24 %
United States industrial services	1,118,767	10 %	986,407	10 %
Total United States operations	10,599,042	96 %	9,393,629	95 %
United Kingdom building services	477,078	4 %	509,951	5 %
Total operations	$ 11,076,120	100 %	$ 9,903,580	100 %

As described in more detail below, revenues for the year ended December 31, 2022 increased to $11.08 billion compared to revenues of $9.90 billion for the year ended December 31, 2021. During 2022, we experienced increases in revenues from all of our reportable segments, except for our United Kingdom building services segment, the reduction in revenues of which was entirely due to unfavorable exchange rate movements, which more than offset revenue growth that was experienced on a local currency basis. Companies acquired in 2022 and 2021 generated incremental revenues of $149.7 million in 2022.

Revenues of our United States electrical construction and facilities services segment were $2,433.1 million for the year ended December 31, 2022 compared to revenues of $2,029.9 million for the year ended December 31, 2021. This segment's results for the year ended December 31, 2022 included $135.1 million of incremental revenues from acquired companies. Excluding the impact of acquisitions, revenues of this segment increased by $268.1 million primarily as a result of an increase in revenues from: (a) the commercial market sector, predominantly within the telecommunications sub-market sector, inclusive of our data center projects, and the technology sub-market sector, (b) the healthcare market sector due to large project activity, and (c) certain transmission and distribution projects, including those to support sustainable energy solutions such as solar and wind. These revenue increases were partially offset by a reduction in transportation and institutional market sector activity due to the completion or substantial completion of various projects.

Our United States mechanical construction and facilities services segment revenues for the year ended December 31, 2022 were $4,326.7 million, a $374.1 million increase compared to revenues of $3,952.6 million for the year ended December 31, 2021. The increase in this segment's revenues for the year ended December 31, 2022 was primarily attributable to revenue growth within: (a) the commercial market sector, as a result of increased demand: (i) for our mechanical construction and/or fire protection services by certain customers engaged in the design and manufacturing of semiconductors as well as customers within the biotech, life-sciences, and pharmaceutical industries, (ii) for our fire protection services within various warehousing and distribution facilities to support the build-out of our customers' e-commerce supply chains, and (iii) from certain of our data center customers, (b) the institutional market sector, due to project activity throughout several of the regions in which we operate, (c) the manufacturing market sector, driven by certain large food processing projects currently in process, and (d) the water and wastewater market sector, given greater project activity within the Southern region of the United States.

Revenues of our United States building services segment were $2,720.5 million and $2,424.7 million for the years ended December 31, 2022 and 2021, respectively. Excluding incremental acquisition revenues within this segment's mobile mechanical services division of $14.6 million during 2022, this segment's revenue growth was primarily attributable to: (a) its mobile mechanical services division, due to: (i) increased project work, including incremental demand for HVAC system retrofits and building automation and controls services, partially as our customers continue to seek ways to improve the energy efficiency or indoor air quality of their facilities, and (ii) greater service repair and maintenance volumes, partially as a result of incremental repair opportunities driven by supply chain delays, which have created a need to extend the life of existing equipment in instances when replacement equipment is not readily available, and (b) its commercial site-based services division, due to the award of facilities maintenance contracts with new customers, as well as scope or site expansion and increased project work with existing customers.

Revenues of our United States industrial services segment for the year ended December 31, 2022 were $1,118.8 million, a $132.4 million increase compared to revenues of $986.4 million for the year ended December 31, 2021. While there remains significant disruption and uncertainty within the broader oil and gas industry, most notably within the upstream and midstream energy sectors, we began to experience a resumption in downstream energy demand within this segment during the second half of 2021. Such increased demand continued into 2022, resulting in revenue growth within this segment. Specifically, more normalized turnaround project demand and an increase in maintenance and capital project activity, when compared to the prior year, has resulted in increased revenues from this segment's field services operations. In addition, revenues of this segment's shop services operations have increased as a result of greater maintenance, repair, and hydro blast cleaning services and a slight increase in new build heat exchanger sales.

Our United Kingdom building services segment revenues were $477.1 million in 2022 compared to $510.0 million in 2021. The year-over-year decrease in this segment's revenues was entirely a result of unfavorable exchange rate movements for the British pound versus the United States dollar, which negatively impacted this segment's revenues by $53.5 million for the year ended December 31, 2022. Excluding the impact of foreign exchange rate movements, this segment's revenues for 2022 increased as a result of growth in project activities with existing customers, primarily within the commercial market sector, including certain telecommunication projects, and the transportation market sector.

Cost of sales and gross profit

The following table presents cost of sales, gross profit (revenues less cost of sales), and gross profit margin (gross profit as a percentage of revenues) for the years ended December 31, 2022 and 2021 (in thousands, except for percentages):

	2022	**2021**
Cost of sales	$ 9,472,526	$ 8,401,843
Gross profit	$ 1,603,594	$ 1,501,737
Gross profit margin	14.5 %	15.2 %

Our gross profit for the year ended December 31, 2022 was $1,603.6 million, a $101.9 million increase compared to gross profit of $1,501.7 million for the year ended December 31, 2021. Companies acquired in 2022 and 2021 generated incremental gross profit of approximately $21.1 million in 2022. Excluding the impact of acquisitions, the increase in gross profit for 2022 was largely a result of increased revenue volume, which despite the decrease in gross profit margin discussed below, resulted in an increase in consolidated gross profit.

Our gross profit margin was 14.5% and 15.2% for 2022 and 2021, respectively. The decrease in gross profit margin for the year ended December 31, 2022 was primarily attributable to a reduction in gross profit margin within each of our United States construction segments, partially as a result of a less favorable project mix. For the year ended December 31, 2022, certain discrete project losses within both our United States electrical construction and facilities services segment and our United States mechanical construction and facilities services segment negatively impacted our consolidated gross profit margin by 40 basis points. Refer to the operating income section below for further discussion regarding the operating performance of each of our reportable segments, including the above referenced losses.

Selling, general and administrative expenses

The following table presents selling, general and administrative expenses and SG&A margin (selling, general and administrative expenses as a percentage of revenues) for the years ended December 31, 2022 and 2021 (in thousands, except for percentages):

	2022	2021
Selling, general and administrative expenses	$ 1,038,717	$ 970,937
SG&A margin	9.4 %	9.8 %

Our selling, general and administrative expenses for the year ended December 31, 2022 were $1,038.7 million compared to selling, general and administrative expenses of $970.9 million for the year ended December 31, 2021. For the year ended December 31, 2022, selling, general and administrative expenses included $17.2 million of incremental expenses directly related to companies acquired in 2022 and 2021, including amortization expense attributable to identifiable intangible assets of $4.5 million. Excluding incremental expenses from businesses acquired, our selling, general and administrative expenses increased by $50.6 million for the year ended December 31, 2022. The organic increase in selling, general and administrative expenses was primarily attributable to an increase in: (a) salaries and related employment expenses, largely as a result of an increase in headcount to support our organic revenue growth, (b) incentive compensation expense within those of our reportable segments which had higher operating results than in the prior year, (c) travel and entertainment expenses, given a resumption in travel and business meals as COVID-19 related restrictions have eased, (d) rent and other occupancy costs driven by: (i) the expansion or addition of certain fabrication facilities, which support our operations, and (ii) the impact of inflation on the real estate market, and (e) computer hardware and software costs, as a result of various information technology and cybersecurity initiatives currently in process.

Selling, general and administrative expenses as a percentage of revenues were 9.4% and 9.8% for 2022 and 2021, respectively. The year-over-year decrease in SG&A margin was largely a result of an increase in revenues without a commensurate increase in overhead costs, as we were able to leverage our existing overhead cost structure.

Operating income (loss)

The following table presents by segment our operating income (loss) and each segment's operating margin (operating income (loss) as a percentage of such segment's revenues) for the years ended December 31, 2022 and 2021 (in thousands, except for percentages):

	2022	% of Segment Revenues	2021	% of Segment Revenues
Operating income (loss):				
United States electrical construction and facilities services	$ 148,728	6.1 %	$ 169,355	8.3 %
United States mechanical construction and facilities services	332,294	7.7 %	314,420	8.0 %
United States building services	144,670	5.3 %	122,724	5.1 %
United States industrial services	19,787	1.8 %	(1,666)	(0.2)%
Total United States operations	645,479	6.1 %	604,833	6.4 %
United Kingdom building services	29,838	6.3 %	27,998	5.5 %
Corporate administration	(110,440)	—	(102,031)	—
Total operations	564,877	5.1 %	530,800	5.4 %
Other items:				
Net periodic pension (cost) income	4,311		3,625	
Interest expense	(13,199)		(6,071)	
Interest income	2,761		949	
Income before income taxes	$ 558,750		$ 529,303	

As described in more detail below, operating income was $564.9 million for the year ended December 31, 2022, compared to operating income of $530.8 million for the year ended December 31, 2021. Largely as a result of increases in revenues, we experienced greater operating income contribution from each of our reportable segments other than our United States electrical construction and facilities services segment. Companies acquired in 2022 and 2021 generated incremental operating income of $3.9 million, inclusive of $7.3 million of amortization expense associated with identifiable intangible assets, for the year ended December 31, 2022.

Operating margin was 5.1% and 5.4% for the years ended December 31, 2022 and 2021, respectively. The decrease in operating margin year-over-year was driven by a reduction in gross profit margin within our United States construction segments, due to a change in project mix as well as the impact of certain discrete project losses, described in further detail below. These declines in gross profit margin were partially offset by increased gross profit margins from the remainder of our reportable segments as well as a reduction in the ratio of selling, general and administrative expenses to revenues across each of our reportable segments.

Operating income of our United States electrical construction and facilities services segment for the year ended December 31, 2022 was $148.7 million, or 6.1% of revenues, compared to operating income for the year ended December 31, 2021 of $169.4 million, or 8.3% of revenues. This segment's results for the year ended December 31, 2022 included incremental operating income from acquired companies of $6.3 million, inclusive of $4.7 million of amortization expense associated with identifiable intangible assets. Excluding the contribution from acquisitions, operating income of this segment decreased by $26.9 million year-over-year. A less favorable project mix within the institutional and transportation market sectors, coupled with certain discrete project losses recognized during 2022, due, in part, to supply chain disruptions and delays, resulted in a decrease in gross profit and gross profit margin. Based on an evaluation of individual projects that had revisions to total estimated costs or anticipated contract value, which resulted in a reduction of profitability in excess of $1.0 million, the operating results of our United States electrical construction and facilities services segment were negatively impacted by approximately $33.5 million during the year ended December 31, 2022. These reductions in estimated project profitability negatively affected the operating margin of this segment by 140 basis points in 2022. In addition to the impact of supply chain disruptions, a portion of these losses were attributable to project completion delays and time extensions, beyond our control, on certain projects which were bid a number of years ago under different economic conditions. We continue to evaluate our contractual rights and are pursuing recovery for such impacts to the extent permitted. The aforementioned reductions in gross profit margin were partially offset by a reduction in the ratio of selling, general and administrative expense to revenues as: (a) this segment was able to successfully leverage its overhead cost structure during this period of revenue growth and (b) the reduced profitability has resulted in a decrease in incentive compensation expense for certain of the operating subsidiaries within this segment.

Our United States mechanical construction and facilities services segment's operating income for the year ended December 31, 2022 was $332.3 million, a $17.9 million increase compared to operating income of $314.4 million for the year ended December 31, 2021. Operating margins within this segment for the years ended December 31, 2022 and 2021 were 7.7% and 8.0%, respectively. The increase in operating income for the year ended December 31, 2022 was primarily a result of increased gross profit contribution from the commercial market sector, including profit recognized on: (a) certain construction projects for customers engaged in the manufacturing of semiconductors and (b) several fire protection projects. Partially offsetting the growth in operating income for the year ended December 31, 2022, and the primary factor resulting in the decline in operating margin for such period, were certain project write-downs, partially a result of supply chain disruptions and/or material price escalations, a portion of which we are seeking recovery from our customers. Based on an evaluation of individual projects that had revisions to total estimated costs or anticipated contract value, which resulted in a reduction of profitability in excess of $1.0 million, the operating results of our United States mechanical construction and facilities services segment were negatively impacted by approximately $13.7 million during the year ended December 31, 2022. These reductions in estimated project profitability negatively affected the operating margin of this segment by 30 basis points in 2022. Similar to our United States electrical construction and facilities services segment, operating margin of this segment for 2022 benefited from a reduction in the ratio of selling, general and administrative expenses to revenues, given an increase in revenues without a commensurate increase in certain overhead costs.

Operating income of our United States building services segment for the year ended December 31, 2022 was $144.7 million compared to operating income of $122.7 million for the year ended December 31, 2021. The year-over-year increase in operating income was largely due to greater gross profit contribution from this segment's mobile mechanical services division resulting from improved profitability across the majority of its service lines, including projects, service repair and maintenance, and building automation and controls. Further contributing to the increase in operating income of this segment was an increase in gross profit contribution from its commercial site-based services division. Despite certain economic headwinds which have impacted this segment throughout the year, including supply chain disruptions, increased fuel prices, material and wage inflation, and skilled labor shortages, operating margin of this segment was 5.3% for the year ended December 31, 2022, an increase from the operating margin of 5.1% for the year ended December 31, 2021. This improvement in operating margin reflects our continued focus on project execution and pricing as well as disciplined cost management.

Our United States industrial services segment reported operating income of $19.8 million for the year ended December 31, 2022 compared to an operating loss of $1.7 million for the year ended December 31, 2021. Operating margin of this segment was 1.8% and (0.2)% for 2022 and 2021, respectively. The improved performance for the year ended December 31, 2022 was primarily due to: (a) the growth in this segment's revenues referenced above, which resulted in both incremental gross profit contribution as well as greater absorption of certain indirect costs of sales, and (b) an improvement in gross profit margin, most notably from this segment's shop services division given: (i) a greater percentage of repair and cleaning projects, which tend to carry higher profit margins, and (ii) more favorable pricing across this division's portfolio of work. Operating performance of our United States industrial services segment for the year ended December 31, 2022 also benefited from a reduction in selling, general and administrative expenses as well as a decrease in the ratio of selling, general and administrative expenses to revenues, when compared to the prior year. In addition to successfully leveraging its overhead cost structure during 2022, the year-over-year comparison was impacted by an increase in the provision for credit losses in 2021, which included $5.8 million of expense associated with two customer bankruptcies, that negatively impacted this segment's 2021 operating margin by 60 basis points.

Our United Kingdom building services segment operating income for the year ended December 31, 2022 was $29.8 million, or 6.3% of revenues, which compares favorably to operating income of $28.0 million, or 5.5% of revenues, for the year ended December 31, 2021. This segment's operating income for the year ended December 31, 2022 was negatively impacted by $3.1 million related to the effect of unfavorable exchange rates for the British pound versus the United States dollar. Excluding the impact of foreign exchange rate movements, operating income of this segment increased by $4.9 million year-over-year. The improvement in this segment's operating income and operating margin for 2022 was primarily a result of: (a) an increase in gross profit and gross profit margin, primarily as a result of a change in the mix of work, which included a greater amount of revenue generated from project activity as opposed to traditional facilities maintenance services, including an increased number of telecommunication projects as referenced in the revenue commentary for this segment, and (b) the favorable close-out of certain other contracts throughout 2022.

Our corporate administration expenses were $110.4 million for 2022 compared to $102.0 million in 2021. The increase in corporate administration expenses for the year ended December 31, 2022 was primarily due to greater: (a) incentive compensation expense and (b) employment costs, given an increase in headcount to support the revenue growth within our business as well as annual cost of living wage increases.

Other items

Interest expense was $13.2 million and $6.1 million for 2022 and 2021, respectively, and interest income was $2.8 million and $0.9 million for 2022 and 2021, respectively. The increase in both interest expense and interest income for 2022 resulted from higher average interest rates when compared to 2021. In addition, the increase in interest expense was attributable to greater average outstanding borrowings year-over-year.

Our income tax provision for the year ended December 31, 2022 was $152.6 million, based on an income tax rate of 27.3%, compared to an income tax provision and an income tax rate of $145.6 million and 27.5%, respectively, for the year ended December 31, 2021. The increase in our income tax provision for 2022 was due to increased income before income taxes, while the slight decrease in our income tax rate for 2022 was attributable to the favorable impact of certain discrete tax items.

Remaining Unsatisfied Performance Obligations

The following table presents the transaction price allocated to remaining unsatisfied performance obligations ("remaining performance obligations") for each of our reportable segments and their respective percentage of total remaining performance obligations (in thousands, except for percentages):

	December 31, 2022	% of Total	December 31, 2021	% of Total
Remaining performance obligations:				
United States electrical construction and facilities services	$ 2,014,079	27 %	$ 1,224,577	22 %
United States mechanical construction and facilities services	4,008,919	54 %	3,272,124	58 %
United States building services	1,151,031	15 %	872,550	16 %
United States industrial services	124,653	2 %	111,838	2 %
Total United States operations	7,298,682	98 %	5,481,089	98 %
United Kingdom building services	160,617	2 %	118,208	2 %
Total operations	$ 7,459,299	100 %	$ 5,599,297	100 %

Our remaining performance obligations at December 31, 2022 were $7.46 billion compared to $5.60 billion at December 31, 2021. The increase in remaining performance obligations year-over-year was attributable to an increase in remaining performance obligations within all of our reportable segments. Most notably, we experienced an increase in remaining performance obligations from: (a) our United States construction segments, driven by the award of various construction projects within the majority of the market sectors in which we operate, and (b) our United States building services segment given increased project opportunities within its mobile mechanical services division and the award or renewal of several facilities maintenance contracts within its commercial site-based services division. From a market sector perspective, we experienced the largest growth in remaining performance obligations within the commercial market sector, inclusive of data center, semiconductor, and other projects for customers: (i) within the biotech, life-sciences, and pharmaceutical industries or (ii) engaged in the production and development of electric vehicles and/or lithium batteries. Remaining performance obligations of our United Kingdom building services segment increased by $42.4 million since December 31, 2021, despite unfavorable exchange rates for the British pound versus the United States dollar, which negatively impacted this segment's remaining performance obligations by $19.0 million.

While the continued growth in our remaining performance obligations is largely due to the strength in demand for our services, a portion of this increase can likely be attributed to external market factors such as material and labor inflation, which has increased the price of certain of our project work, as well as supply chain delays, which has impacted the timing of conversion of our remaining performance obligations to revenue, in certain instances.

See Note 3 - Revenue from Contracts with Customers of the notes to consolidated financial statements included in Item 8. Financial Statements and Supplementary Data for further disclosure regarding our remaining performance obligations.

2021 versus 2020

For discussion and analysis of results of operations for the year ended December 31, 2021 compared to the year ended December 31, 2020, refer to Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations of our Form 10-K for the year ended December 31, 2021.

Liquidity and Capital Resources

The following section discusses our principal liquidity and capital resources, as well as our primary liquidity requirements and sources and uses of cash.

We are focused on the efficient conversion of operating income into cash to provide for the Company's material cash requirements, including working capital needs, investment in our growth strategies through business acquisitions and capital expenditures, satisfaction of contractual commitments, including principal and interest payments on our outstanding indebtedness, and shareholder return through dividend payments and share repurchases. We strive to maintain a balanced approach to capital allocation in order to achieve growth, deliver value, and minimize risk.

Management monitors financial markets and overall economic conditions for factors that may affect our liquidity and capital resources and adjusts our capital allocation strategy as necessary. Negative macroeconomic trends could have an adverse effect on future liquidity if we experience delays in the payment of outstanding receivables beyond normal payment terms, an increase in credit losses, or significant increases in the price of commodities or the materials and equipment utilized for our project and service work, beyond those experienced to date. In addition, during economic downturns, there have typically been fewer small discretionary projects from the private sector and our competitors have aggressively bid larger long-term infrastructure and public sector contracts. Our liquidity is also impacted by: (a) the type and length of construction contracts in place, as performance of long duration contracts typically requires greater amounts of working capital, (b) the level of turnaround activities within our United States industrial services segment, as such projects are billed in arrears pursuant to contractual terms that are standard within the industry, and (c) the billing terms of our maintenance contracts, including those within our United States and United Kingdom building services segments. While we strive to negotiate favorable billing terms, which allow us to invoice in advance of costs incurred on certain of our contracts, there can be no assurance that such terms will be agreed to by our customers.

As of December 31, 2022, we had cash and cash equivalents, excluding restricted cash, of $456.4 million, which are maintained in depository accounts and highly liquid investments with original maturity dates of three months or less. Both our short-term and long-term liquidity requirements are expected to be met through our cash and cash equivalent balances, cash generated from our operations, and, as necessary, the borrowing capacity under our revolving credit facility. Our credit agreement provides for a $1.30 billion revolving credit facility, for which there is $1.23 billion of available capacity as of December 31, 2022.

Refer to Note 9 - Debt of the notes to consolidated financial statements included in Item 8. Financial Statements and Supplementary Data for further information regarding our credit agreement. Based upon our current credit rating and financial position, we can also reasonably expect to be able to secure long-term debt financing if required to achieve our strategic objectives; however, no assurances can be made that such debt financing will be available on favorable terms. We believe that we have sufficient financial resources available to meet our short-term and foreseeable long-term liquidity requirements.

Cash Flows

The following table presents a summary of our operating, investing, and financing cash flows (in thousands):

	2022	2021
Net cash provided by operating activities	$ 497,933	$ 318,817
Net cash used in investing activities	$ (140,800)	$ (153,076)
Net cash used in financing activities	$ (710,118)	$ (245,456)
Effect of exchange rate changes on cash, cash equivalents, and restricted cash	$ (12,515)	$ (1,279)
Decrease in cash, cash equivalents, and restricted cash	$ (365,500)	$ (80,994)

For the year ended December 31, 2022, our cash balance, including cash equivalents and restricted cash, decreased by $365.5 million from $822.6 million at December 31, 2021 to $457.1 million at December 31, 2022. Changes in our cash position from December 31, 2021 to December 31, 2022 are described in further detail below. For a discussion of the changes in our cash position from December 31, 2020 to December 31, 2021, refer to the Liquidity and Capital Resources section included in Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations of our Form 10-K for the year ended December 31, 2021.

Operating Activities – Operating cash flows generally represent our net income as adjusted for certain non-cash items and changes in assets and liabilities. For 2022, net cash provided by operating activities was approximately $497.9 million compared to approximately $318.8 million of net cash provided by operating activities in 2021. The $179.1 million increase in operating cash flows during 2022, when compared to 2021, was primarily a result of the collection of advanced billings on certain of our uncompleted construction projects, as evidenced in part by the growth in our contract liabilities, net of the increase in outstanding accounts receivable.

Investing Activities – Investing cash flows consist primarily of payments for the acquisition of businesses, capital expenditures, and proceeds from the sale or disposal of property, plant, and equipment. For 2022, we utilized approximately $140.8 million of cash for investing activities compared to $153.1 million in 2021. The decrease in investing cash outflows year-over-year was primarily driven by a decrease in payments for business acquisitions, partially offset by higher capital expenditures used to invest in organic growth.

Financing Activities – Financing cash flows consist primarily of the issuance and repayment of short-term and long-term debt, repurchases of common stock, payments of dividends to stockholders, and the issuance of common stock through certain equity plans. Net cash used in financing activities for 2022 was $710.1 million compared to $245.5 million in 2021.

The increase in cash used in financing activities in 2022, when compared to 2021, was primarily due to the increase in funds used for the repurchase of our common stock. During the year ended December 31, 2022, cash payments related to share repurchases were $660.6 million compared to $195.5 million for the year ended December 31, 2021. The timing of common stock repurchases is at management's discretion subject to securities laws and other legal requirements and depends upon several factors, including market and business conditions, current and anticipated future liquidity, share price, and share availability, among others. For additional detail regarding our share repurchase program, refer to Note 12 - Common Stock of the notes to consolidated financial statements included in Item 8. Financial Statements and Supplementary Data.

We currently pay a regular quarterly dividend of $0.15 per share. For the years ended December 31, 2022 and 2021, cash payments related to dividends were $27.2 million and $28.2 million, respectively. Subsequent to December 31, 2022, our Board of Directors announced its intention to increase the regular quarterly dividend to $0.18 per share commencing with the dividend to be paid in April 2023. Our credit agreement places limitations on the payment of dividends on our common stock. However, we do not believe that the terms of such agreement currently materially limit our ability to pay such quarterly dividends for the foreseeable future.

Effect of Exchange Rate Changes on Cash, Cash Equivalents, and Restricted Cash – We are exposed to fluctuations in foreign currency exchange rates, almost entirely with respect to the British pound. Therefore, the $11.2 million variance between the years ended December 31, 2022 and 2021 was a direct result of unfavorable exchange rate movements for the British pound versus the United States dollar.

Material Cash Requirements from Contractual and Other Obligations

As of December 31, 2022, our short-term and long-term material cash requirements for known contractual and other obligations were as follows:

Outstanding Debt and Interest Payments – As of December 31, 2022, there were no direct borrowings outstanding under our revolving credit facility and the amount outstanding under our term loan was $242.8 million. We are required to make annual principal payments on our term loan of $13.9 million on December 31 of each year until maturity. All remaining unpaid amounts are due on March 2, 2025, when the credit agreement governing our term loan and revolving credit facility expires. Until such time, we are required to make periodic interest payments on our outstanding indebtedness. Future interest payments will be determined based on prevailing interest rates during that time, which are anticipated to increase in the near term. Refer to Note 9 - Debt of the notes to consolidated financial statements included in Item 8. Financial Statements and Supplementary Data for further detail of our debt obligations, including our term loan and revolving credit facility.

Operating and Finance Leases – In the normal course of business, we lease real estate, vehicles, and equipment under various arrangements which are classified as either operating or finance leases. Future payments for such leases, excluding leases with initial terms of one year or less, were $325.7 million at December 31, 2022, with $78.3 million payable within the next 12 months. Refer to Note 16 - Leases of the notes to consolidated financial statements included in Item 8. Financial Statements and Supplementary Data for further detail surrounding our lease obligations and the timing of expected future payments.

Open Purchase Obligations – As of December 31, 2022, we had $2.24 billion of open purchase obligations, of which payments totaling approximately $1.94 billion are expected to become due within the next 12 months. These obligations represent open purchase orders to suppliers and subcontractors related to our construction and services contracts. These purchase orders are not reflected in the Consolidated Balance Sheets and are not expected to impact future liquidity as amounts should be recovered through customer billings.

Insurance Obligations – As described in further detail in Note 2 - Summary of Significant Accounting Policies of the notes to consolidated financial statements included in Item 8. Financial Statements and Supplementary Data, we have loss payment deductibles and/or self-insured retentions for certain insurance matters. As of December 31, 2022, our insurance liabilities, net of estimated recoveries, were $201.5 million. Of this net amount, approximately $38.8 million is estimated to be payable within the next 12 months. Due to many uncertainties inherent in resolving these matters, it is not practical to estimate these payments beyond such period. To the extent that the amount required to settle claims covered by insurance continues to increase, the cost of our insurance coverage, including premiums and deductibles, is likely to increase.

Retirement Plan Obligations – As of December 31, 2022, expected future payments relating to our defined benefit post retirement plans were approximately $1.5 million per year. We provide funding to our post retirement plans based on at least the minimum funding required by applicable regulations. In determining the minimum funding required, we utilize current actuarial assumptions and exchange rates to forecast amounts that may be payable. In our judgment, minimum funding estimates cannot be reliably estimated beyond a five-year time horizon. Refer to Note 14 - Retirement Plans of the notes to consolidated financial statements in Item 8. Financial Statements and Supplementary Data for further information about our post retirement plans.

Contingent Consideration Liabilities – We have incurred liabilities related to contingent consideration arrangements associated with certain acquisitions, payable in the event discrete performance objectives are achieved by the acquired businesses during designated post-acquisition periods. The aggregate amount of these liabilities can change due to additional business acquisitions, settlement of outstanding liabilities, changes in the fair value of amounts owed based on performance during such post-acquisition periods, and accretion in present value. As of December 31, 2022, the present value of expected future payments relating to these contingent consideration arrangements was $16.9 million. Of this amount, $10.0 million is estimated as being payable during 2023, with the remainder due pursuant to the terms of our contractual agreements some of which extend through 2025.

In addition, material cash requirements for other potential obligations, for which we cannot reasonably estimate future payments, include the following:

Legal Proceedings – We are involved in several legal proceedings in which damages and claims have been asserted against us. While litigation is subject to many uncertainties and the outcome of litigation is not predictable with assurance, we do not believe that any such matters will have a material adverse effect on our financial position, results of operations, or liquidity. Refer to Note 15 - Commitments and Contingencies of the notes to consolidated financial statements included in Item 8. Financial Statements and Supplementary Data for more information regarding legal proceedings.

Multiemployer Benefit Plans – In addition to our Company sponsored benefit plans, we participate in certain multiemployer pension and other post retirement plans. The cost of these plans is equal to the annual required contributions determined in accordance with the provisions of negotiated collective bargaining agreements. During 2022, 2021, and 2020, contributions made to these plans were $449.9 million, $399.5 million, and $360.4 million, respectively; however, our future contributions to the multiemployer plans are dependent upon a number of factors. Amounts of future contributions that we would be contractually obligated to make pursuant to these plans cannot be reasonably estimated. Refer to Note 14 - Retirement Plans of the notes to consolidated financial statements included in Item 8. Financial Statements and Supplementary Data for more information regarding these multiemployer benefit plans.

Off-Balance Sheet Arrangements and Other Commercial Commitments

The terms of our construction contracts frequently require that we obtain from surety companies, and provide to our customers, surety bonds as a condition to the award of such contracts. These surety bonds are issued in return for premiums, which vary depending on the size and type of the bond, and secure our payment and performance obligations under such contracts. We have agreed to indemnify the surety companies for amounts, if any, paid by them in respect of surety bonds issued on our behalf. As of December 31, 2022, based on the percentage-of-completion of our projects covered by surety bonds, our aggregate estimated exposure, assuming defaults on all our then existing contractual obligations, was approximately $1.5 billion, which represents approximately 20% of our total remaining performance obligations.

Surety bonds expire at various times ranging from final completion of a project to a period extending beyond contract completion in certain circumstances. Such amounts can also fluctuate from period to period based upon the mix and level of our bonded operating activity. For example, public sector contracts require surety bonds more frequently than private sector contracts and, accordingly, our bonding requirements typically increase as the amount of our public sector work increases. Our estimated maximum exposure as it relates to the value of the surety bonds outstanding is lowered on each bonded project as the cost to complete is reduced, and each commitment under a surety bond generally extinguishes concurrently with the expiration of its related contractual obligation.

Surety bonds are sometimes provided to secure obligations for wages and benefits payable to or for certain of our employees, at the request of labor unions representing such employees. In addition, surety bonds or letters of credit may be issued as collateral for certain insurance obligations. As of December 31, 2022, we satisfied approximately $48.1 million and $71.2 million of the collateral requirements of our insurance programs by utilizing surety bonds and letters of credit, respectively. All such letters of credit were issued under our revolving credit facility, therefore reducing the available capacity of such facility.

We are not aware of any losses in connection with surety bonds that have been posted on our behalf, and we do not expect to incur significant losses in the foreseeable future.

From time to time, we discuss with our current and other surety bond providers the amounts of surety bonds that may be available to us based on our financial strength and the absence of any default by us on any surety bond issued on our behalf and believe those amounts are currently adequate for our needs. However, if we experience changes in our bonding relationships or if there are adverse changes in the surety industry, we may: (a) seek to satisfy certain customer requests for surety bonds by posting other forms of collateral in lieu of surety bonds, such as letters of credit, parent company guarantees, or cash, in order to convince customers to forego the requirement for surety bonds, (b) increase our activities in our businesses that rarely require surety bonds, and/or (c) refrain from bidding for certain projects that require surety bonds.

There can be no assurance that we would be able to effectuate alternatives to providing surety bonds to our customers or to obtain, on favorable terms, sufficient additional work that does not require surety bonds. Accordingly, a reduction in the availability of surety bonds could have a material adverse effect on our financial position, results of operations, and/or cash flows.

In the ordinary course of business, we, at times, guarantee obligations of our subsidiaries under certain contracts. Generally, we are liable under such an arrangement only if our subsidiary fails to perform its obligations under the contract. Historically, we have not incurred any substantial liabilities as a consequence of these guarantees.

We do not have any other material financial guarantees or off-balance sheet arrangements other than those disclosed herein.

Other Items

To help mitigate the impacts of greenhouse gas emissions on climate change, EMCOR has established initial carbon-based fuel consumption and greenhouse gas emission reduction targets, and has committed to setting science-based targets. Although to date we have not incurred any material costs or capital expenditures associated with achieving our targets, we could be required to expend amounts in future periods as we continue to work towards our goals. During 2022, EMCOR purchased carbon credits totaling 31,000 metric tons, for approximately $0.2 million. It is not possible, at this time, to estimate the impact that future costs and/or capital expenditures may have on our business, financial condition, results of operations, or liquidity.

New Accounting Pronouncements

We review new accounting standards to determine the expected impact, if any, that the adoption of such standards will have on our financial position and/or results of operations. See Note 2 - Summary of Significant Accounting Policies of the notes to consolidated financial statements included in Item 8. Financial Statements and Supplementary Data for further information regarding new accounting standards, including the anticipated dates of adoption and the effects on our consolidated financial position, results of operations, or liquidity.

Critical Accounting Policies and Estimates

The preparation of our consolidated financial statements is based on the application of significant accounting policies, which require management to make estimates and assumptions. Our significant accounting policies are described further in Note 2 - Summary of Significant Accounting Policies of the notes to consolidated financial statements included in Item 8. Financial Statements and Supplementary Data. We base our estimates on historical experience, known or expected trends, third-party valuations, and various other assumptions that we believe to be reasonable under the circumstances. As future events and their effects cannot be determined with precision, actual results could differ significantly from these estimates. There have been no significant changes to our critical accounting policies or methods for the year ended December 31, 2022. We believe the following critical accounting policies govern the more significant judgments and estimates used in the preparation of our financial statements.

Revenue Recognition from Contracts with Customers

The Company recognizes revenue when it transfers promised goods or services to customers in an amount that reflects the consideration to which we expect to be entitled in exchange for those goods or services by applying the following five step model: (1) identify the contract with a customer; (2) identify the performance obligations in the contract; (3) determine the transaction price; (4) allocate the transaction price to the performance obligations in the contract; (5) recognize revenue as performance obligations are satisfied.

The nature of our contracts gives rise to several types of variable consideration, including pending change orders and claims; contract bonuses and incentive fees; and liquidated damages and penalties. We recognize revenue for such variable consideration when it is probable, in our judgment, that a significant future reversal in the amount of cumulative revenue recognized under the contract will not occur when the uncertainty associated with the variable consideration is subsequently resolved. The Company estimates the amount of variable consideration to be included in the transaction price utilizing one of two prescribed methods, depending on which method better predicts the amount of consideration to which the entity will be entitled.

Due to uncertainties inherent in the estimation process, as well as the significant judgment involved in determining variable consideration, it is possible that estimates of costs to complete a performance obligation, and/or our estimates of transaction prices, will be revised in the near term. For those performance obligations for which revenue is recognized using a cost-to-cost input method, changes in total estimated costs, and related progress towards complete satisfaction of the performance obligation, or changes in the estimate of transaction prices, are recognized on a cumulative catch-up basis in the period in which the revisions to the estimates are made.

Based on an evaluation of individual projects that had revisions to total estimated costs or anticipated contract value, which resulted in a reduction of profitability in excess of $1.0 million, our operating results were negatively impacted by approximately $48.5 million during the year ended December 31, 2022. Of this amount, approximately $33.5 million was reported within our United States electrical construction and facilities services segment, approximately $13.7 million was reported within our United States mechanical construction and facilities services segment, and approximately $1.3 million was reported within our United States building services segment. There were no increases in total estimated costs or reductions to anticipated contract value that had a significant impact on our operating results during each of the years ended December 31, 2021 and 2020. Additionally, there were no significant amounts of revenue recognized during the years ended December 31, 2022 or 2021 related to performance obligations satisfied in prior periods. During the year ended December 31, 2020, we recognized revenue of $6.1 million associated with the final settlement of contract value for two projects within our United States electrical construction and facilities services segment that were completed or substantially completed in prior periods.

Due to the significant judgments utilized in the estimation process described above, if subsequent actual results and/or updated assumptions, estimates, or projections related to our underlying project positions were to change from those utilized at December 31, 2022, it could result in a material impact to our results of operations. For example, a 50 basis point increase or decrease in the estimated gross profit margin on our uncompleted construction projects, in the aggregate, as a result of a revision in estimated costs to complete a performance obligation or a revision in estimated transaction price, would have resulted in an increase or decrease to operating income of nearly $90 million for the year ended December 31, 2022.

See Note 3 - Revenue from Contracts with Customers of the notes to consolidated financial statements included in Item 8. Financial Statements and Supplementary Data for further disclosure regarding revenue recognition.

Accounts Receivable and Allowance for Credit Losses

Accounts receivable are recognized in the period we deliver goods or provide services to our customers or when our right to consideration is unconditional. The Company maintains an allowance for credit losses to reduce outstanding receivables to their net realizable value. A considerable amount of judgment is required when determining expected credit losses. Estimates of such losses are recorded when we believe a customer, or group of customers, may not be able to meet their financial obligations due to deterioration in financial condition or credit rating. Factors relevant to our assessment include our prior collection history with our customers, the related aging of past due balances, projections of credit losses based on historical trends in credit quality indicators or past events, and forecasts of future economic conditions. In addition to monitoring delinquent accounts, management reviews the credit quality of its receivables by, among other things, obtaining credit ratings of significant customers, assessing economic and market conditions, and evaluating material changes to a customer's business, cash flows, and financial condition.

At December 31, 2022 and 2021, our accounts receivable of $2,567.4 million and $2,204.5 million, respectively, were recorded net of allowances for credit losses of $22.4 million and $23.5 million, respectively. The decrease in our allowance for credit losses was attributable to the write-off of specific amounts deemed uncollectible, partially offset by the provision for credit losses recorded during 2022. We have adjusted our allowance for credit losses during 2022 to account for the impact of changing economic conditions, including rising interest rates. Allowances for credit losses are based on the best facts available and are reassessed and adjusted on a regular basis as additional information is received.

The provision for credit losses during 2022, 2021, and 2020 amounted to approximately $5.2 million, $8.0 million, and $3.3 million, respectively. The decrease in the provision for credit losses for the year ended December 31, 2022, when compared to the year ended December 31, 2021, was a result of the impact, in 2021, of $5.8 million of reserves established in connection with two customer bankruptcies within our United States industrial services segment. Such reduction was partially offset by incremental expense taken during 2022, which primarily resulted from the aforementioned change in economic conditions.

Should anticipated collections fail to materialize, or if future economic conditions compare unfavorably to our forecasts, we could experience an increase in our allowances for credit losses. For example, if economic conditions were to significantly deteriorate, such as to those experienced during the last global financial crisis, the portion of our allowance for credit losses, which is estimated based on our historical credit loss experience, could increase by up to approximately $12.5 million.

Insurance Liabilities

We have loss payment deductibles for certain workers' compensation, automobile liability, general liability, and property claims, have self-insured retentions for certain other casualty claims, and are self-insured for employee-related healthcare claims. In addition, we maintain a wholly-owned captive insurance subsidiary to manage certain of our insurance liabilities. Losses are recorded based upon estimates of our liability for claims incurred and for claims incurred but not reported. The liabilities are derived from known facts, historical trends, and industry averages, utilizing the assistance of an independent third-party actuary to determine the best estimate for the majority of these obligations. We believe the liabilities recognized on the Consolidated Balance Sheets for these obligations are adequate. However, such obligations are difficult to assess and estimate due to numerous factors, including severity of injury, determination of liability in proportion to other parties, timely reporting of occurrences, and effectiveness of safety and risk management programs. Therefore, if our actual experience differs from the assumptions and estimates used for recording the liabilities, adjustments may be required and will be recorded in the period that the experience becomes known. In addition, as discussed above, an increase in the cost to settle insurance claims could result in higher insurance costs and deductibles. Our estimated net insurance liabilities for workers' compensation, automobile liability, general liability, and property claims increased by $22.9 million for the year ended December 31, 2022 compared to the year ended December 31, 2021, partially as a result of greater potential exposures and an increase in certain of our deductibles or self-insured retentions. If our estimated insurance liabilities for workers' compensation, automobile liability, general liability, and property claims were to increase by 10%, it would have resulted in $20.1 million of additional expense for the year ended December 31, 2022.

Income Taxes

As of December 31, 2022 and 2021, we had net deferred income tax liabilities of $61.6 million and $51.0 million, respectively, primarily resulting from differences between the carrying value and income tax bases of certain identifiable intangible assets, goodwill, and depreciable fixed assets. Included within these net deferred income tax liabilities are $211.9 million and $212.3 million of deferred income tax assets as of December 31, 2022 and 2021, respectively. The total valuation allowance on deferred income tax assets was approximately $3.6 million and $2.5 million as of December 31, 2022 and 2021, respectively. The ultimate realization of deferred income tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. Based on our taxable income, which has generally exceeded the amount of our net deferred income tax asset balance, as well as current projections of future taxable income, we have determined that it is more likely than not that our net deferred income tax assets will be realized. However, revisions to our forecasts or declining macroeconomic conditions could result in changes to our assessment of the realization of these deferred income tax assets. Refer to Note 11 - Income Taxes of the notes to consolidated financial statements in Item 8. Financial Statements and Supplementary Data for further detail regarding our deferred income taxes.

Goodwill, Identifiable Intangible Assets, and Other Long-Lived Assets

Goodwill

As of December 31, 2022 and 2021, we had goodwill of $919.2 million and $890.3 million, respectively, arising out of the acquisition of businesses. Goodwill is not amortized but instead allocated to its respective reporting unit and evaluated for impairment annually, or more frequently if events or circumstances indicate that the carrying amount of goodwill may be impaired. We have determined that our reporting units are consistent with the reportable segments identified in Note 18 - Segment Information of the notes to consolidated financial statements included in Item 8. Financial Statements and Supplementary Data. As of December 31, 2022, approximately 19.4% of our goodwill related to our United States electrical construction and facilities services segment, approximately 34.3% related to our United States mechanical construction and facilities services segment, approximately 33.9% related to our United States building services segment, and approximately 12.4% related to our United States industrial services segment.

Absent any earlier identified impairment indicators, we perform our annual goodwill impairment assessment on October 1 each fiscal year. Qualitative indicators that may trigger the need for interim quantitative impairment testing include, among others, a deterioration in macroeconomic conditions, declining financial performance, deterioration in the operational environment, or an expectation of selling or disposing of a portion of a reporting unit. Additionally, an interim impairment test may be triggered by a significant change in business climate, a loss of a significant customer, increased competition, or a sustained decrease in share price. In assessing whether our goodwill is impaired, we compare the fair value of the reporting unit to its carrying amount, including goodwill. If the fair value exceeds the carrying amount, no impairment is recognized. However, if the carrying amount of the reporting unit exceeds the fair value, the goodwill of the reporting unit is impaired and an impairment loss in the amount of the excess is recognized and charged to operations.

We performed our annual impairment assessment of all reporting units as of October 1, 2022 and determined there was no impairment of goodwill. Based on these impairment assessments, the fair values of our United States electrical construction and facilities services segment, our United States mechanical construction and facilities services segment, our United States building services segment, and our United States industrial services segment exceeded their carrying values by approximately $1,135.3 million, $2,580.5 million, $1,035.9 million, and $48.0 million, respectively.

In completing our annual impairment assessment, we determined the fair value of each of our reporting units using an income approach whereby fair value was calculated utilizing discounted estimated future cash flows, assuming a risk-adjusted industry weighted average cost of capital. The weighted average cost of capital used in our annual impairment testing was 10.3% for our United States construction segments, 10.2% for our United States building services segment, and 11.2% for our United States industrial services segment. These weighted average cost of capital estimates were developed with the assistance of an independent third-party valuation specialist and reflect the overall level of inherent risk within the respective reporting unit and the rate of return a market participant would expect to earn.

Our cash flow projections were derived from our most recent internal forecasts of anticipated revenue growth rates and operating margins, with cash flows beyond the discrete forecast period estimated using a terminal value calculation which incorporated historical and forecasted trends, an estimate of long-term growth rates, and assumptions about the future demand for our services. The perpetual growth rate used for our annual testing was 2.5% for all of our reporting units.

Due to the inherent uncertainties involved in making estimates, our assumptions may change in future periods. Estimates and assumptions made for purposes of our goodwill impairment testing may prove to be inaccurate predictions of the future, and other factors used in assessing fair value, such as the weighted average cost of capital, are outside the control of management. Unfavorable changes in certain of these key assumptions may affect future testing results. For example, keeping all other assumptions constant, a 50 basis point increase in the weighted average cost of capital would cause the estimated fair values of our United States electrical construction and facilities services segment, our United States mechanical construction and facilities services segment, our United States building services segment, and our United States industrial services segment to decrease by approximately $90.9 million, $172.1 million, $92.8 million, and $24.1 million, respectively. In addition, keeping all other assumptions constant, a 50 basis point reduction in the perpetual growth rate would cause the estimated fair values of our United States electrical construction and facilities services segment, our United States mechanical construction and facilities services segment, our United States building services segment, and our United States industrial services segment to decrease by approximately $45.0 million, $94.2 million, $48.1 million, and $9.2 million, respectively. Given the amounts by which the fair value exceeds the carrying value for each of our reporting units, the decreases in estimated fair values described above would not have significantly impacted the results of our impairment tests. Further, for each of our reporting units, other than our United States industrial services segment, a 10% decline in the estimated fair value of such reporting unit, due to other changes in our assumptions, including forecasted future cash flows, would not have significantly impacted the results of our impairment tests. In the case of our United States industrial services segment, however, a 10% decrease would cause the estimated fair value of this reporting unit to approximate its carrying value.

Identifiable Intangible Assets and Other Long-Lived Assets

As of December 31, 2022 and 2021, net identifiable intangible assets (primarily consisting of our customer relationships, subsidiary trade names, developed technology/vendor network, and contract backlog) arising out of the acquisition of businesses were $594.0 million and $589.4 million, respectively. The determination of related estimated useful lives for identifiable intangible assets and whether those assets are impaired involves significant judgments based upon short- and long-term projections of future performance. These forecasts reflect assumptions regarding anticipated macroeconomic conditions as well as our ability to successfully integrate acquired businesses.

Absent earlier indicators of impairment, we test for impairment of subsidiary trade names that are not subject to amortization on an annual basis (October 1). In addition, we review for impairment of identifiable intangible assets that are being amortized as well as other long-lived assets whenever facts and circumstances indicate that their carrying values may not be fully recoverable.

As of October 1, 2022, we performed our annual impairment testing of all subsidiary trade names that are not subject to amortization and determined that there was no impairment of these assets. In performing this impairment assessment, we considered the sensitivity of the reported amounts to the methods, assumptions, and estimates underlying our testing. For example, we performed sensitivity analyses and concluded that, individually, none of the following changes in estimates or assumptions would have significantly impacted the results of our testing or resulted in a material impairment of our subsidiary trade names: (a) a 50 basis point increase in the discount rate utilized in our testing, (b) a 50 basis point decline in the perpetual growth rate utilized in our testing, or (c) a 10% decrease in the estimated fair value of each trade name.

With respect to identifiable intangible assets that are being amortized as well as other long-lived assets, no impairment was recognized during the year ended December 31, 2022.

Other Considerations

As referenced above, impairment testing is based upon assumptions and estimates determined by management from a review of our operating results and business plans as well as forecasts of anticipated growth rates and margins, among other considerations. In addition, estimates of weighted average costs of capital are developed with the assistance of an independent third-party valuation specialist. These assumptions and estimates may change in future periods. Significant adverse changes to external market conditions or our internal forecasts, if any, could result in future impairment charges, particularly with respect to our United States industrial services segment given that the fair value of this reporting unit more closely approximates its carrying value. It is not possible at this time to determine if any future impairment charge will result or, if it does, whether such a charge would be material to our results of operations.

Refer to Note 8 - Goodwill, Identifiable Intangible Assets, and Other Long-Lived Assets of the notes to consolidated financial statements included in Item 8. Financial Statements and Supplementary Data for further information about our goodwill and identifiable intangible assets as well as our impairment testing, including the $232.8 million of impairment charges recorded during the year ended December 31, 2020. For the year ended December 31, 2021, no impairment of our goodwill, identifiable intangible assets, or other long-lived assets was recognized.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We have not used any derivative financial instruments during the years ended December 31, 2022 and 2021, including trading or speculating on changes in interest rates or commodity prices of materials used in our business.

As noted previously, the Federal Reserve Board has been increasing interest rates, and it is anticipated that rate increases will continue throughout 2023. We are exposed to market risk for changes in interest rates for borrowings under the 2020 Credit Agreement, which provides for a revolving credit facility and a term loan. Borrowings under the 2020 Credit Agreement bear interest at variable rates and, as a result of the actions referenced above, such rates have increased throughout 2022. For further information on our outstanding debt and borrowing rates, refer to Note 9 - Debt of the notes to consolidated financial statements included in Item 8. Financial Statements and Supplementary Data. As of December 31, 2022, there were no direct borrowings outstanding under the 2020 Revolving Credit Facility; however, the balance of the 2020 Term Loan was $242.8 million. Based on the $242.8 million of borrowings outstanding under the 2020 Credit Agreement, if overall interest rates were to increase by 200 basis points, interest expense, net of income taxes, would increase by approximately $3.6 million in the next twelve months. Conversely, if overall interest rates were to decrease by 200 basis points, interest expense, net of income taxes, would decrease by approximately $3.6 million in the next twelve months. The 2020 Credit Agreement expires on March 2, 2025.

At the end of 2021, one-week and two-month LIBOR were discontinued. It is expected that the remaining maturities of LIBOR will continue to be published through June 2023. We believe our exposure to market risk associated with the discontinuation of LIBOR is limited as: (a) our 2020 Credit Agreement contains provisions which allow for the use of alternate benchmark rates, (b) we have not historically utilized the maturities that were discontinued in 2021 for any transaction, including borrowings under our 2020 Credit Agreement, and (c) we are not exposed to any other material contracts that reference LIBOR.

We are exposed to construction market risk and its potential related impact on accounts receivable or contract assets on uncompleted contracts. The amounts recorded may be at risk if our customers' ability to pay these obligations is negatively impacted by economic conditions. We continually monitor the creditworthiness of our customers and maintain on-going discussions with customers regarding contract status with respect to change orders and billing terms. Therefore, we believe we take appropriate action to manage market and other risks, but there is no assurance that we will be able to reasonably identify all risks with respect to the collectability of these assets. See also the previous discussion of Accounts Receivable and Allowance for Credit Losses under the heading "Critical Accounting Policies and Estimates" in Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Amounts invested in our foreign operations are translated into U.S. dollars at the exchange rates in effect at year end. The resulting translation adjustments are recorded as accumulated other comprehensive (loss) income, a component of equity, in the Consolidated Balance Sheets. We believe our exposure to the effects that fluctuating foreign currencies may have on our consolidated results of operations is limited because our foreign operations primarily invoice customers and collect obligations in their respective local currencies. Additionally, expenses associated with these transactions are generally contracted and paid for in their same local currencies.

In addition, we are exposed to market risk of fluctuations in certain commodity prices of materials, such as copper and steel, which are used as components of supplies or materials utilized in our construction, building services, and industrial services operations. We are also exposed to increases in energy prices, particularly as they relate to gasoline prices for our fleet of approximately 13,200 vehicles. While we believe we can increase our contract prices to adjust for some price increases in commodities, there can be no assurance that such price increases, if they were to occur, would be recoverable. Additionally, our fixed price contracts generally do not allow us to adjust our prices and, as a result, increases in material costs could reduce our profitability with respect to projects in progress. Refer to Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations for further discussion regarding the impact of fluctuations in commodity and material prices on our results of operations for the year ended December 31, 2022.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

EMCOR Group, Inc. and Subsidiaries

CONSOLIDATED BALANCE SHEETS

(In thousands, except share and per share data)

	December 31, 2022	December 31, 2021
ASSETS		
Current assets:		
Cash and cash equivalents	$ 456,439	$ 821,345
Accounts receivable, less allowance for credit losses of $22,382 and $23,534, respectively	2,567,371	2,204,519
Contract assets	273,176	230,143
Inventories	85,641	54,098
Prepaid expenses and other	79,346	80,889
Total current assets	3,461,973	3,390,994
Property, plant and equipment, net	157,819	152,066
Operating lease right-of-use assets	268,063	260,778
Goodwill	919,151	890,268
Identifiable intangible assets, net	593,975	589,365
Other assets	123,626	157,975
Total assets	$ 5,524,607	$ 5,441,446
LIABILITIES AND EQUITY		
Current liabilities:		
Current maturities of long-term debt and finance lease liabilities	$ 15,567	$ 16,235
Accounts payable	849,284	734,275
Contract liabilities	1,098,263	788,134
Accrued payroll and benefits	465,000	490,867
Other accrued expenses and liabilities	258,190	274,406
Operating lease liabilities, current	67,218	57,814
Total current liabilities	2,753,522	2,361,731
Long-term debt and finance lease liabilities	231,625	245,450
Operating lease liabilities, long-term	220,764	220,836
Other long-term obligations	344,405	360,340
Total liabilities	3,550,316	3,188,357
Equity:		
EMCOR Group, Inc. stockholders' equity:		
Preferred stock, $0.10 par value, 1,000,000 shares authorized, zero issued and outstanding	—	—
Common stock, $0.01 par value, 200,000,000 shares authorized, 60,947,947 and 60,737,006 shares issued, respectively	609	607
Capital surplus	74,795	61,874
Accumulated other comprehensive loss	(93,451)	(83,562)
Retained earnings	3,214,281	2,835,504
Treasury stock, at cost 13,281,222 and 7,437,268 shares, respectively	(1,222,645)	(562,036)
Total EMCOR Group, Inc. stockholders' equity	1,973,589	2,252,387
Noncontrolling interests	702	702
Total equity	1,974,291	2,253,089
Total liabilities and equity	$ 5,524,607	$ 5,441,446

The accompanying notes to consolidated financial statements are an integral part of these statements.

EMCOR Group, Inc. and Subsidiaries

CONSOLIDATED STATEMENTS OF OPERATIONS
For The Years Ended December 31,
(In thousands, except per share data)

	2022	2021	2020
Revenues	$ 11,076,120	$ 9,903,580	$ 8,797,061
Cost of sales	9,472,526	8,401,843	7,401,679
Gross profit	1,603,594	1,501,737	1,395,382
Selling, general and administrative expenses	1,038,717	970,937	903,584
Restructuring expenses	—	—	2,214
Impairment loss on goodwill, identifiable intangible assets, and other long-lived assets	—	—	232,750
Operating income	564,877	530,800	256,834
Net periodic pension (cost) income	4,311	3,625	2,980
Interest expense	(13,199)	(6,071)	(9,009)
Interest income	2,761	949	1,521
Income before income taxes	558,750	529,303	252,326
Income tax provision	152,628	145,602	119,383
Net income including noncontrolling interests	406,122	383,701	132,943
Net income attributable to noncontrolling interests	—	169	—
Net income attributable to EMCOR Group, Inc.	$ 406,122	$ 383,532	$ 132,943
Basic earnings per common share	$ 8.13	$ 7.09	$ 2.41
Diluted earnings per common share	$ 8.10	$ 7.06	$ 2.40
Dividends declared per common share	$ 0.54	$ 0.52	$ 0.32

The accompanying notes to consolidated financial statements are an integral part of these statements.

EMCOR Group, Inc. and Subsidiaries

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
For The Years Ended December 31,
(In thousands)

	2022	2021	2020
Net income including noncontrolling interests	$ 406,122	$ 383,701	$ 132,943
Other comprehensive (loss) income, net of tax:			
Foreign currency translation adjustments	(10,786)	(360)	2,088
Changes in post retirement plans [(1)]	897	26,031	(22,033)
Other comprehensive (loss) income	(9,889)	25,671	(19,945)
Comprehensive income	396,233	409,372	112,998
Comprehensive income attributable to noncontrolling interests	—	169	—
Comprehensive income attributable to EMCOR Group, Inc.	$ 396,233	$ 409,203	$ 112,998

(1) Net of tax (provision) benefit of $(0.3) million, $(8.7) million, and $5.1 million for the years ended December 31, 2022, 2021, and 2020, respectively.

The accompanying notes to consolidated financial statements are an integral part of these statements.

EMCOR Group, Inc. and Subsidiaries

CONSOLIDATED STATEMENTS OF CASH FLOWS
For The Years Ended December 31,
(In thousands)

	2022	2021	2020
Cash flows - operating activities:			
Net income including noncontrolling interests	$ 406,122	$ 383,701	$ 132,943
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	47,296	48,347	46,721
Amortization of identifiable intangible assets	61,315	64,089	59,950
Provision for credit losses	5,166	8,041	3,269
Deferred income taxes	10,483	9,517	(36,354)
Gain on sale or disposal of property, plant and equipment	(6,393)	(782)	(122)
Excess tax benefits from share-based compensation	(1,654)	(828)	(191)
Equity (income) loss from unconsolidated entities	(391)	1,170	(14)
Non-cash expense for amortization of debt issuance costs	960	960	998
Non-cash expense from contingent consideration arrangements	1,610	1,810	649
Non-cash expense for impairment of goodwill, identifiable intangible assets, and other long-lived assets	—	—	232,750
Non-cash share-based compensation expense	12,125	11,107	11,151
Distributions from unconsolidated entities	400	44	—
Changes in operating assets and liabilities, excluding the effect of businesses acquired:			
(Increase) decrease in accounts receivable	(340,091)	(246,856)	139,377
Increase in inventories	(31,541)	(116)	(12,709)
(Increase) decrease in contract assets	(44,725)	(50,648)	7,829
Increase (decrease) in accounts payable	111,488	54,849	(9,022)
Increase in contract liabilities	299,897	44,713	85,142
(Decrease) increase in accrued payroll and benefits and other accrued expenses and liabilities	(30,025)	46,573	113,835
Changes in other assets and liabilities, net	(4,109)	(56,874)	30,164
Net cash provided by operating activities	497,933	318,817	806,366
Cash flows - investing activities:			
Payments for acquisitions of businesses, net of cash acquired	(98,656)	(118,239)	(50,357)
Proceeds from sale or disposal of property, plant and equipment	7,145	2,754	3,463
Purchases of property, plant and equipment	(49,289)	(36,192)	(47,969)
Investments in and advances to unconsolidated entities	—	(1,595)	—
Distributions from unconsolidated entities	—	196	—
Net cash used in investing activities	(140,800)	(153,076)	(94,863)
Cash flows - financing activities:			
Proceeds from revolving credit facility	270,000	—	200,000
Repayments of revolving credit facility	(270,000)	—	(250,000)
Proceeds from long-term debt	—	—	300,000
Repayments of long-term debt and debt issuance costs	(13,875)	(13,875)	(286,987)
Repayments of finance lease liabilities	(3,551)	(4,189)	(4,470)
Dividends paid to stockholders	(27,187)	(28,163)	(17,674)
Repurchases of common stock	(660,609)	(195,546)	(112,553)
Taxes paid related to net share settlements of equity awards	(7,539)	(4,210)	(2,640)
Issuances of common stock under employee stock purchase plan	8,177	7,328	6,557
Payments for contingent consideration arrangements	(5,534)	(6,758)	(4,070)
Distributions to noncontrolling interests	—	(43)	(70)
Net cash used in financing activities	(710,118)	(245,456)	(171,907)
Effect of exchange rate changes on cash, cash equivalents, and restricted cash	(12,515)	(1,279)	4,046
(Decrease) increase in cash, cash equivalents, and restricted cash	(365,500)	(80,994)	543,642
Cash, cash equivalents, and restricted cash at beginning of year (1)	822,568	903,562	359,920
Cash, cash equivalents, and restricted cash at end of period (1)	$ 457,068	$ 822,568	$ 903,562

(1) Includes $0.6 million, $1.2 million, $0.7 million, and $1.1 million of restricted cash classified as “Prepaid expenses and other” in the Consolidated Balance Sheets as of December 31, 2022, 2021, 2020, and 2019, respectively.

The accompanying notes to consolidated financial statements are an integral part of these statements.

EMCOR Group, Inc. and Subsidiaries

CONSOLIDATED STATEMENTS OF EQUITY
For The Years Ended December 31,
(In thousands)

		EMCOR Group, Inc. Stockholders					
	Total	Common stock	Capital surplus	Accumulated other comprehensive loss (1)	Retained earnings	Treasury stock	Noncontrolling interests
Balance, December 31, 2019	$ 2,057,780	$ 604	$ 32,274	$ (89,288)	$ 2,367,481	$ (253,937)	$ 646
Net income including noncontrolling interests	132,943	—	—	—	132,943	—	—
Other comprehensive loss	(19,945)	—	—	(19,945)	—	—	—
Cumulative-effect adjustment (2)	(2,307)	—	—	—	(2,307)	—	—
Common stock issued under share-based compensation plans	2	2	—	—	—	—	—
Tax withholding for common stock issued under share-based compensation plans	(2,640)	—	(2,640)	—	—	—	—
Common stock issued under employee stock purchase plan	6,557	—	6,557	—	—	—	—
Common stock dividends	(17,674)	—	122	—	(17,796)	—	—
Repurchases of common stock	(112,553)	—	—	—	—	(112,553)	—
Distributions to noncontrolling interests	(70)	—	—	—	—	—	(70)
Share-based compensation expense	11,151	—	11,151	—	—	—	—
Balance, December 31, 2020	$ 2,053,244	$ 606	$ 47,464	$ (109,233)	$ 2,480,321	$ (366,490)	$ 576
Net income including noncontrolling interests	383,701	—	—	—	383,532	—	169
Other comprehensive income	25,671	—	—	25,671	—	—	—
Common stock issued under share-based compensation plans	—	1	(1)	—	—	—	—
Tax withholding for common stock issued under share-based compensation plans	(4,210)	—	(4,210)	—	—	—	—
Common stock issued under employee stock purchase plan	7,328	—	7,328	—	—	—	—
Common stock dividends	(28,163)	—	186	—	(28,349)	—	—
Repurchases of common stock	(195,546)	—	—	—	—	(195,546)	—
Distributions to noncontrolling interests	(43)	—	—	—	—	—	(43)
Share-based compensation expense	11,107	—	11,107	—	—	—	—
Balance, December 31, 2021	$ 2,253,089	$ 607	$ 61,874	$ (83,562)	$ 2,835,504	$ (562,036)	$ 702
Net income including noncontrolling interests	406,122	—	—	—	406,122	—	—
Other comprehensive loss	(9,889)	—	—	(9,889)	—	—	—
Common stock issued under share-based compensation plans	2	2	—	—	—	—	—
Tax withholding for common stock issued under share-based compensation plans	(7,539)	—	(7,539)	—	—	—	—
Common stock issued under employee stock purchase plan	8,177	—	8,177	—	—	—	—
Common stock dividends	(27,187)	—	158	—	(27,345)	—	—
Repurchases of common stock	(660,609)	—	—	—	—	(660,609)	—
Share-based compensation expense	12,125	—	12,125	—	—	—	—
Balance, December 31, 2022	$ 1,974,291	$ 609	$ 74,795	$ (93,451)	$ 3,214,281	$ (1,222,645)	$ 702

(1) Represents cumulative foreign currency translation and post retirement liability adjustments of $(8.3) million and $(85.2) million, respectively, as of December 31, 2022, $2.5 million and $(86.1) million, respectively, as of December 31, 2021, and $2.9 million and $(112.1) million, respectively, as of December 31, 2020.

(2) Represents adjustment to retained earnings upon the adoption of Accounting Standards Codification Topic 326.

The accompanying notes to consolidated financial statements are an integral part of these statements.

EMCOR Group, Inc. and Subsidiaries

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE 1 - NATURE OF OPERATIONS

References to the "Company," "EMCOR," "we," "us," "our" and similar words refer to EMCOR Group, Inc. and its consolidated subsidiaries unless the context indicates otherwise.

We are one of the largest specialty contractors in the United States and a leading provider of electrical and mechanical construction and facilities services, building services, and industrial services. Our services are provided to a broad range of commercial, industrial, healthcare, utility, and institutional customers through approximately 100 operating subsidiaries, which specialize principally in providing construction services relating to electrical and mechanical systems in all types of facilities and in providing various services relating to the operation, maintenance, and management of those facilities.

NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Principles of Consolidation

The consolidated financial statements include the accounts of the Company and the subsidiaries and joint ventures it controls. All intercompany accounts and transactions have been eliminated. Investments over which we exercise significant influence, but do not control, are accounted for using the equity method of accounting. For joint ventures that have been accounted for using the consolidation method of accounting, noncontrolling interests represent the allocation of earnings to our joint venture partners who either have a minority-ownership interest in the joint venture or are not the primary beneficiary of the joint venture.

The results of operations of companies acquired have been included in the results of operations from the date of the respective acquisition.

Principles of Preparation

The preparation of the consolidated financial statements, in conformity with accounting principles generally accepted in the United States, requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could materially differ from those estimates.

Our reportable segments and related disclosures reflect certain reclassifications of prior year amounts from our United States mechanical construction and facilities services segment to our United States building services segment, and from our United States building services segment to our United States construction segments, due to changes in our internal reporting structure aimed at realigning our service offerings.

Revenue Recognition

Revenue is recognized when promised goods or services are transferred to customers in an amount that reflects the consideration to which the Company expects to be entitled in exchange for those goods or services. Refer to Note 3 - Revenue from Contracts with Customers of the notes to consolidated financial statements for additional information.

Cash and Cash Equivalents

For purposes of the consolidated financial statements, we consider all highly liquid instruments with original maturities of three months or less to be cash equivalents. We maintain a centralized cash management system whereby our excess cash balances are invested in high quality short-term money market instruments, which are considered cash equivalents. We have cash balances in certain of our domestic bank accounts that exceed federally insured limits.

Accounts Receivable and Allowance for Credit Losses

Accounts receivable are recognized in the period we deliver goods and services to our customers or when our right to consideration is unconditional. The Company maintains an allowance for credit losses to reduce outstanding receivables to their net realizable value. A considerable amount of judgment is required when determining expected credit losses. Estimates of such losses are recorded when we believe a customer, or group of customers, may not be able to meet their financial obligations due to deterioration in financial condition or credit rating. Factors relevant to our assessment include our prior collection history with our customers, the related aging of past due balances, projections of credit losses based on historical trends in credit quality indicators or past events, and forecasts of future economic conditions. In addition to monitoring delinquent accounts, management reviews the credit quality of its receivables by, among other things, obtaining credit ratings of significant customers, assessing economic and market conditions, and evaluating material changes to a customer's business, cash flows, and financial condition.

NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

At December 31, 2022 and 2021, our accounts receivable of $2,567.4 million and $2,204.5 million, respectively, were recorded net of allowances for credit losses of $22.4 million and $23.5 million, respectively. The decrease in our allowance for credit losses was attributable to the write-off of specific amounts deemed uncollectible, partially offset by the provision for credit losses recorded during 2022. We have adjusted our allowance for credit losses during 2022 to account for the impact of changing economic conditions, including rising interest rates. Allowances for credit losses are based on the best facts available and are reassessed and adjusted on a regular basis as additional information is received. Should anticipated collections fail to materialize, or if future economic conditions compare unfavorably to our forecasts, we could experience an increase in our credit losses. The provision for credit losses during 2022, 2021, and 2020 amounted to approximately $5.2 million, $8.0 million, and $3.3 million, respectively.

The change in the allowance for credit losses for the year ended December 31, 2022 was as follows (in thousands):

Balance at December 31, 2021	$	23,534
Provision for credit losses		5,166
Amounts written off against the allowance, net of recoveries		(6,318)
Balance at December 31, 2022	$	22,382

Inventories

Inventories are stated at the lower of cost or net realizable value. Cost is determined principally using the average cost method.

Leases

At the inception of a contract, we determine whether the arrangement is or contains a lease. Leases are classified as either operating or finance, based on our evaluation of certain criteria. With the exception of short-term leases (leases with an initial term of 12 months or less), we record right-of-use assets and corresponding lease liabilities on the Consolidated Balance Sheets for all leases with contractual fixed payments. Lease liabilities are measured at the present value of remaining lease payments, while right-of-use assets are initially set equal to the lease liability, as adjusted for any payments made prior to lease commencement, lease incentives, and any initial direct costs incurred by us. For operating leases, rent expense is recognized on a straight-line basis over the term of the lease, and right-of-use assets are subsequently re-measured to reflect the effect of uneven lease payments. For finance leases, right-of-use assets are amortized on a straight-line basis over the shorter of the lease term or the useful life of the underlying asset. Expenses for finance leases include the amortization of right-of-use assets, which is recorded as depreciation and amortization expense, and interest expense, which reflects interest accrued on the lease liability.

Short-term leases are not recorded on the Consolidated Balance Sheets but are expensed on a straight-line basis over the lease term. The majority of the Company’s short-term leases relate to equipment used on construction projects. Such equipment leases are considered short-term in nature unless it is reasonably certain that the equipment will be leased for a period greater than 12 months.

Refer to Note 16 - Leases of the notes to consolidated financial statements for additional information.

Property, Plant and Equipment

Property, plant and equipment is stated at cost. Depreciation, including amortization of assets under finance leases, is recorded principally using the straight-line method over estimated useful lives of 3 to 10 years for machinery and equipment, 3 to 7 years for vehicles, furniture and fixtures and computer hardware/software, and 25 years for buildings. Leasehold improvements are amortized over the shorter of the remaining lease term or the expected useful life of the improvement.

The carrying values of property, plant and equipment are reviewed for impairment whenever facts and circumstances indicate that the carrying amount may not be fully recoverable. In performing this review for recoverability, property, plant and equipment is assessed for possible impairment by comparing their carrying values to the undiscounted net pre-tax cash flows expected to result from the use of the asset. Impaired assets are written down to their fair values, generally determined based on their estimated future discounted cash flows.

NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Goodwill, Identifiable Intangible Assets, and Other Long-Lived Assets

Goodwill and indefinite-lived intangible assets, such as trade names, are evaluated at least annually for impairment (each October 1, absent any earlier identified impairment indicators) and are written down if impaired. Identifiable intangible assets with finite lives are amortized over their useful lives and are reviewed for impairment whenever facts and circumstances indicate that their carrying values may not be fully recoverable. See Note 8 - Goodwill, Identifiable Intangible Assets, and Other Long-Lived Assets of the notes to consolidated financial statements for additional information.

Insurance Liabilities

We have loss payment deductibles for certain workers' compensation, automobile liability, general liability, and property claims, have self-insured retentions for certain other casualty claims, and are self-insured for employee-related healthcare claims. In addition, we maintain a wholly-owned captive insurance subsidiary to manage certain of our insurance liabilities. Losses are recorded based upon estimates of our liability for claims incurred and for claims incurred but not reported. The liabilities are derived from known facts, historical trends, and industry averages, utilizing the assistance of an independent third-party actuary to determine the best estimate for the majority of these obligations. As of December 31, 2022 and 2021, the estimated current portion of such undiscounted insurance liabilities, included in "Other accrued expenses and liabilities" in the accompanying Consolidated Balance Sheets, were $54.8 million and $61.5 million, respectively. The estimated non-current portion of such undiscounted insurance liabilities included in "Other long-term obligations" as of December 31, 2022 and 2021 were $221.7 million and $242.4 million, respectively. The current portion of anticipated insurance recoveries of $16.0 million and $26.4 million as of December 31, 2022 and 2021, respectively, were included in "Prepaid expenses and other" and the non-current portion of anticipated insurance recoveries of $59.0 million and $99.0 million as of December 31, 2022 and 2021, respectively, were included in "Other assets" in the accompanying Consolidated Balance Sheets. These balances decreased from December 31, 2021 primarily as a result of the payment, by our insurers, of certain claims for which we previously maintained a reserve and corresponding insurance receivable.

Foreign Operations

The financial statements and transactions of our foreign subsidiaries are maintained in their functional currency and translated into U.S. dollars when preparing our consolidated financial statements. Statements of operations, comprehensive income, and cash flows are translated using weighted average monthly exchange rates, while balance sheets are translated at month-end exchange rates. Translation adjustments are recorded as "Accumulated other comprehensive loss," a separate component of "Equity."

Income Taxes

The Company follows the liability method of accounting for income taxes. Under this method, deferred income tax assets and liabilities are recognized for the expected future tax consequences of temporary differences between the financial statement and income tax bases of assets and liabilities as well as for net operating loss and tax credit carryforwards. Deferred income taxes are valued using enacted tax rates expected to be in effect when income taxes are paid or recovered, with the effect of a change in tax laws or rates recognized in the statement of operations in the periods in which such change is enacted. The ultimate realization of deferred income tax assets is dependent upon the generation of future taxable income during the period in which those temporary differences become deductible. Deferred income taxes are recorded net of a valuation allowance when it is more likely than not that all or a portion of a deferred tax asset will not be realized. In making such determination, we consider all available evidence, including projections of future taxable income, tax-planning strategies, and recent results of operations.

Tax benefits associated with uncertain tax positions are recognized only if it is more likely than not that the tax position would be sustained on its technical merits. For positions not meeting the "more likely than not" test, no tax benefit is recognized. To the extent interest and penalties may be assessed related to unrecognized tax benefits, we record accruals for such amounts as a component of the income tax provision. We had no unrecognized income tax benefits as of December 31, 2022 and 2021.

NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Valuation of Share-Based Compensation

Our share-based compensation plans and programs are administered by our Board of Directors or its Compensation and Personnel Committee. See Note 13 - Share-Based Compensation Plans of the notes to consolidated financial statements for additional information regarding these share-based compensation plans and programs.

We recognize all share-based payments issued to acquire goods or services in the statement of operations based on the fair value of such payments. Compensation expense related to share-based awards is generally recognized on a straight-line basis over the requisite service period, which is generally the vesting period. The benefits of tax deductions in excess of recognized compensation expense are recognized in the Consolidated Statements of Operations when the underlying awards vest or are settled.

New Accounting Pronouncements

The Company is currently evaluating the impact of an accounting standards update issued by the Financial Accounting Standards Board (the “FASB”), which provides temporary optional expedients and exceptions to existing U.S. GAAP. This guidance is aimed at easing the financial reporting burdens related to reference rate reform, including the market transition from LIBOR, or other interbank offered rates, to alternative reference rates. Such accounting pronouncement, as amended, allows entities to account for and present certain contract modifications, which occur before December 31, 2024 and result from the transition to an alternative reference rate, as an event that does not require remeasurement at the modification date or reassessment of a previous accounting determination. While we are still evaluating the impact of this pronouncement, we do not anticipate that it will have a material impact on our financial position and/or results of operations, as we are not exposed to any contracts that reference LIBOR, other than our credit agreement dated as of March 2, 2020, which contains provisions that allow for the amendment of such agreement to use alternative reference rates upon the discontinuation of LIBOR.

In October 2021, an accounting pronouncement was issued by the FASB that changes how an entity accounts for revenue contracts it acquires in a business combination. The pronouncement requires entities to apply the revenue recognition guidance within Accounting Standards Codification Topic 606 to recognize and measure contract assets and liabilities from contracts with customers in a business combination, creating an exception to the fair value recognition and measurement principle typically utilized when valuing acquired assets. The guidance is aimed at improving comparability by addressing when an acquirer should recognize a contract asset or contract liability, as well as how such assets and liabilities should be measured, and will generally result in companies recognizing contract assets and contract liabilities at amounts consistent with those recorded by the target entity prior to acquisition. This guidance is effective for public business entities for fiscal years beginning after December 15, 2022, with early adoption permitted. We do not believe that the adoption of this accounting pronouncement will have a material impact on our financial position and/or results of operations.

NOTE 3 - REVENUE FROM CONTRACTS WITH CUSTOMERS

The Company recognizes revenue when it transfers promised goods or services to customers in an amount that reflects the consideration to which we expect to be entitled in exchange for those goods or services by applying the following five step model:

(1) Identify the contract with a customer

A contract with a customer exists when: (a) the parties have approved the contract and are committed to perform their respective obligations, (b) the rights of the parties can be identified, (c) payment terms can be identified, (d) the arrangement has commercial substance, and (e) collectability of consideration is probable. Judgment is required when determining if the contractual criteria are met, specifically in the earlier stages of a project when a formally executed contract may not yet exist. In these situations, the Company evaluates all relevant facts and circumstances, including the existence of other forms of documentation or historical experience with our customers that may indicate a contractual agreement is in place and revenue should be recognized. In determining if the collectability of consideration is probable, the Company considers the customer’s ability and intention to pay such consideration through an evaluation of several factors, including an assessment of the creditworthiness of the customer and our prior collection history with such customer.

NOTE 3 - REVENUE FROM CONTRACTS WITH CUSTOMERS (Continued)

(2) Identify the performance obligations in the contract

At contract inception, the Company assesses the goods or services promised in a contract and identifies, as a separate performance obligation, each distinct promise to transfer goods or services to the customer. The identified performance obligations represent the “unit of account” for purposes of determining revenue recognition. In order to properly identify separate performance obligations, the Company applies judgment in determining whether each good or service provided is: (a) capable of being distinct, whereby the customer can benefit from the good or service either on its own or together with other resources that are readily available to the customer, and (b) distinct within the context of the contract, whereby the transfer of the good or service to the customer is separately identifiable from other promises in the contract.

In addition, when assessing performance obligations within a contract, the Company considers the warranty provisions included within such contract. To the extent the warranty terms provide the customer with an additional service, other than assurance that the promised good or service complies with agreed upon specifications, such warranty is accounted for as a separate performance obligation. In determining whether a warranty provides an additional service, the Company considers each warranty provision in comparison to warranty terms which are standard in the industry.

Our contracts are often modified through change orders to account for changes in the scope and price of the goods or services we are providing. Although the Company evaluates each change order to determine whether such modification creates a separate performance obligation, the majority of our change orders are for goods or services that are not distinct within the context of our original contract and, therefore, are not treated as separate performance obligations.

(3) Determine the transaction price

The transaction price represents the amount of consideration to which the Company expects to be entitled in exchange for transferring promised goods or services to our customers. The consideration promised within a contract may include fixed amounts, variable amounts, or both. To the extent the performance obligation includes variable consideration, including contract bonuses and penalties that can either increase or decrease the transaction price, the Company estimates the amount of variable consideration to be included in the transaction price utilizing one of two prescribed methods, depending on which method better predicts the amount of consideration to which the entity will be entitled. Such methods include: (a) the expected value method, whereby the amount of variable consideration to be recognized represents the sum of probability-weighted amounts in a range of possible consideration amounts, and (b) the most likely amount method, whereby the amount of variable consideration to be recognized represents the single most likely amount in a range of possible consideration amounts. When applying these methods, the Company considers all information that is reasonably available, including historical, current, and estimates of future performance. The expected value method is typically utilized in situations where a contract contains a large number of possible outcomes while the most likely amount method is typically utilized in situations where a contract has only two possible outcomes.

Variable consideration is included in the transaction price only to the extent it is probable, in the Company’s judgment, that a significant future reversal in the amount of cumulative revenue recognized under the contract will not occur when the uncertainty associated with the variable consideration is subsequently resolved. This threshold is referred to as the variable consideration constraint. In assessing whether to apply the variable consideration constraint, the Company considers if factors exist that could increase the likelihood or the magnitude of a potential reversal of revenue, including, but not limited to, whether: (a) the amount of consideration is highly susceptible to factors outside of the Company’s influence, such as the actions of third parties, (b) the uncertainty surrounding the amount of consideration is not expected to be resolved for a long period of time, (c) the Company’s experience with similar types of contracts is limited or that experience has limited predictive value, (d) the Company has a practice of either offering a broad range of price concessions or changing the payment terms and conditions of similar contracts in similar circumstances, and (e) the contract has a large number and broad range of possible consideration amounts.

Pending change orders represent one of the most common forms of variable consideration included within contract value and typically represent contract modifications for which a change in scope has been authorized or acknowledged by our customer but the final adjustment to contract price is yet to be negotiated. In estimating the transaction price for pending change orders, the Company considers all relevant facts, including documented correspondence with the customer regarding acknowledgment of and/or agreement with the modification, as well as historical experience with the customer or similar contractual circumstances. Based upon this assessment, the Company estimates the transaction price, including whether the variable consideration constraint should be applied.

NOTE 3 - REVENUE FROM CONTRACTS WITH CUSTOMERS (Continued)

Contract claims are another form of variable consideration which is common within our industry. Claim amounts represent revenue that has been recognized for contract modifications that are not submitted or are in dispute as to both scope and price. In estimating the transaction price for claims, the Company considers all relevant facts available. However, given the uncertainty surrounding claims, including the potential long-term nature of dispute resolution and the broad range of possible consideration amounts, there is an increased likelihood that any additional contract revenue associated with contract claims is constrained. The resolution of claims involves negotiations and, in certain cases, litigation. In the event litigation costs are incurred by us in connection with claims, such litigation costs are expensed as incurred, although we may seek to recover these costs.

For some transactions, the receipt of consideration does not match the timing of the transfer of goods or services to the customer. For such contracts, the Company evaluates whether this timing difference represents a financing arrangement within the contract. Although rare, if a contract is determined to contain a significant financing component, the Company adjusts the promised amount of consideration for the effects of the time value of money when determining the transaction price of such contract. Although our customers may retain a portion of the contract price until completion of the project and final contract settlement, these retainage amounts are not considered a significant financing component as the intent of the withheld amounts is to provide the customer with assurance that we will complete our obligations under the contract rather than to provide financing to the customer. In addition, although we may be entitled to advanced payments from our customers on certain contracts, these advanced payments generally do not represent a significant financing component as the payments are used to meet working capital demands that can be higher in the early stages of a contract, as well as to protect us from our customer failing to meet its obligations under the contract.

Changes in the estimates of transaction prices are recognized on a cumulative catch-up basis in the period in which the revisions to the estimates are made. Such changes in estimates can result in the recognition of revenue in a current period for performance obligations which were satisfied or partially satisfied in prior periods. Such changes in estimates may also result in the reversal of previously recognized revenue if the ultimate outcome differs from the Company’s previous estimate.

(4) Allocate the transaction price to the performance obligations in the contract

For contracts that contain multiple performance obligations, the Company allocates the transaction price to each performance obligation based on a relative standalone selling price. The Company determines the standalone selling price based on the price at which the performance obligation would have been sold separately in similar circumstances to similar customers. If the standalone selling price is not observable, the Company estimates the standalone selling price taking into account all available information such as market conditions and internal pricing guidelines. In certain circumstances, the standalone selling price is determined using an expected profit margin on anticipated costs related to the performance obligation.

(5) Recognize revenue as performance obligations are satisfied

The Company recognizes revenue at the time the related performance obligation is satisfied by transferring a promised good or service to its customers. A good or service is considered to be transferred when the customer obtains control. The Company can transfer control of a good or service and satisfy its performance obligations either over time or at a point in time. The Company transfers control of a good or service over time and, therefore, satisfies a performance obligation and recognizes revenue over time if one of the following three criteria are met: (a) the customer simultaneously receives and consumes the benefits provided by the Company’s performance as we perform, (b) the Company’s performance creates or enhances an asset that the customer controls as the asset is created or enhanced, or (c) the Company’s performance does not create an asset with an alternative use to us, and we have an enforceable right to payment for performance completed to date.

For our performance obligations satisfied over time, we recognize revenue by measuring the progress toward complete satisfaction of that performance obligation. The selection of the method to measure progress towards completion can be either an input method or an output method and requires judgment based on the nature of the goods or services to be provided.

NOTE 3 - REVENUE FROM CONTRACTS WITH CUSTOMERS (Continued)

For our construction contracts, revenue is generally recognized over time as our performance creates or enhances an asset that the customer controls as it is created or enhanced. Our fixed price construction projects generally use a cost-to-cost input method to measure our progress towards complete satisfaction of the performance obligation as we believe it best depicts the transfer of control to the customer which occurs as we incur costs on our contracts. Under the cost-to-cost measure of progress, the extent of progress towards completion is measured based on the ratio of costs incurred to date to the total estimated costs at completion of the performance obligation. For our unit price construction contracts, progress towards complete satisfaction is measured through an output method, such as the number of units produced or delivered, when our performance does not produce significant amounts of work in process or finished goods prior to complete satisfaction of such performance obligations.

For our services contracts, revenue is also generally recognized over time as the customer simultaneously receives and consumes the benefits of our performance as we perform the service. For our fixed price service contracts with specified service periods, revenue is generally recognized on a straight-line basis over such service period when our inputs are expended evenly and the customer receives and consumes the benefits of our performance throughout the contract term.

The timing of revenue recognition for the manufacturing of new build heat exchangers within our United States industrial services segment depends on the payment terms of the contract, as our performance does not create an asset with an alternative use to us. For those contracts for which we have a right to payment for performance completed to date at all times throughout our performance, inclusive of a cancellation, we recognize revenue over time. For these performance obligations, we use a cost-to-cost input method to measure our progress towards complete satisfaction of the performance obligation as we believe it best depicts the transfer of control to the customer which occurs as we incur costs on our contracts. However, for those contracts for which we do not have a right, at all times, to payment for performance completed to date, we recognize revenue at the point in time when control is transferred to the customer. For bill-and-hold arrangements, revenue is recognized when the customer obtains control of the heat exchanger, which may be prior to shipping if certain recognition criteria are met.

For certain of our revenue streams, such as call-out repair and service work, outage services, refinery turnarounds, and specialty welding services that are performed under time and materials contracts, our progress towards complete satisfaction of such performance obligations is measured using an output method as the customer receives and consumes the benefits of our performance completed to date.

Changes in Estimates

Due to uncertainties inherent in the estimation process, as well as the significant judgment involved in determining variable consideration, it is possible that estimates of costs to complete a performance obligation, and/or our estimates of transaction prices, will be revised in the near term. For those performance obligations for which revenue is recognized using a cost-to-cost input method, changes in total estimated costs, and related progress towards complete satisfaction of the performance obligation, or changes in the estimate of transaction prices, are recognized on a cumulative catch-up basis in the period in which the revisions to the estimates are made. When the current estimate of total costs for a performance obligation indicates a loss, a provision for the entire estimated loss on the unsatisfied performance obligation is made in the period in which the loss becomes evident.

Based on an evaluation of individual projects that had revisions to total estimated costs, or anticipated contract value, which resulted in a reduction of profitability in excess of $1.0 million, our operating results were negatively impacted by approximately $48.5 million during the year ended December 31, 2022. Of this amount, approximately $33.5 million was reported within our United States electrical construction and facilities services segment, approximately $13.7 million was reported within our United States mechanical construction and facilities services segment, and approximately $1.3 million was reported within our United States building services segment. There were no increases in total estimated costs or reductions to anticipated contract value that had a significant impact on our operating results during each of the years ended December 31, 2021 and 2020. Additionally, there were no significant amounts of revenue recognized during the years ended December 31, 2022 or 2021 related to performance obligations satisfied in prior periods. During the year ended December 31, 2020, we recognized revenue of $6.1 million associated with the final settlement of the contract value for two projects within our United States electrical construction and facilities services segment that were completed or substantially completed in prior periods.

NOTE 3 - REVENUE FROM CONTRACTS WITH CUSTOMERS (Continued)

Disaggregation of Revenues

Our revenues are principally derived from contracts to provide construction services relating to electrical and mechanical systems, as well as to provide a number of building services and industrial services to our customers. Our contracts are with many different customers in numerous industries. Refer to Note 18 - Segment Information of the notes to consolidated financial statements for additional information on how we disaggregate our revenues by reportable segment.

The following tables provide further disaggregation of our revenues by categories we use to evaluate our financial performance within each of our reportable segments (in thousands):

	2022	% of Total	2021	% of Total	2020	% of Total
United States electrical construction and facilities services:						
Commercial market sector	$ 1,320,392	54 %	$ 1,063,242	52 %	$ 970,576	53 %
Manufacturing market sector	301,606	12 %	230,894	11 %	241,415	13 %
Healthcare market sector	178,348	7 %	107,442	5 %	79,275	4 %
Institutional market sector	154,077	6 %	178,729	9 %	146,759	8 %
Transportation market sector	166,563	7 %	196,313	10 %	192,656	10 %
Water and wastewater market sector	21,251	1 %	14,962	1 %	6,882	1 %
Hospitality market sector	17,563	1 %	15,346	1 %	23,797	1 %
Short duration projects (1)	211,795	9 %	185,277	9 %	145,370	8 %
Service work	65,709	3 %	40,963	2 %	28,287	2 %
	2,437,304		2,033,168		1,835,017	
Less intersegment revenues	(4,190)		(3,275)		(5,038)	
Total segment revenues	$ 2,433,114		$ 2,029,893		$ 1,829,979	

	2022	% of Total	2021	% of Total	2020	% of Total
United States mechanical construction and facilities services:						
Commercial market sector	$ 1,711,772	39 %	$ 1,524,685	39 %	$ 1,315,973	37 %
Manufacturing market sector	632,332	15 %	579,176	15 %	486,753	14 %
Healthcare market sector	480,954	11 %	488,910	12 %	346,315	10 %
Institutional market sector	353,611	8 %	280,463	7 %	377,738	11 %
Transportation market sector	57,026	1 %	84,503	2 %	70,692	2 %
Water and wastewater market sector	261,500	6 %	213,315	5 %	185,996	5 %
Hospitality market sector	29,511	1 %	38,405	1 %	40,079	1 %
Short duration projects (1)	337,522	8 %	297,673	8 %	335,262	10 %
Service work	473,328	11 %	452,291	11 %	365,067	10 %
	4,337,556		3,959,421		3,523,875	
Less intersegment revenues	(10,882)		(6,835)		(7,086)	
Total segment revenues	$ 4,326,674		$ 3,952,586		$ 3,516,789	

(1) Represents those projects which generally are completed within three months or less.

	2022	% of Total	2021	% of Total	2020	% of Total
United States building services:						
Mobile mechanical services	$ 1,713,989	63 %	$ 1,560,120	64 %	$ 1,323,499	64 %
Commercial site-based services	810,210	30 %	680,351	28 %	587,346	28 %
Government site-based services	196,288	7 %	184,272	8 %	167,990	8 %
Total segment revenues	$ 2,720,487		$ 2,424,743		$ 2,078,835	

NOTE 3 - REVENUE FROM CONTRACTS WITH CUSTOMERS (Continued)

	2022	% of Total	2021	% of Total	2020	% of Total
United States industrial services:						
Field services	$ 972,894	87 %	$ 853,143	86 %	$ 813,872	86 %
Shop services	145,873	13 %	133,264	14 %	127,023	14 %
Total segment revenues	$ 1,118,767		$ 986,407		$ 940,895	
Total United States operations	$ 10,599,042		$ 9,393,629		$ 8,366,498	

	2022	% of Total	2021	% of Total	2020	% of Total
United Kingdom building services:						
Service work	$ 221,123	46 %	$ 261,889	51 %	$ 221,373	51 %
Project work	255,955	54 %	248,062	49 %	209,190	49 %
Total segment revenues	$ 477,078		$ 509,951		$ 430,563	
Total operations	$ 11,076,120		$ 9,903,580		$ 8,797,061	

Contract Assets and Contract Liabilities

The timing of revenue recognition may differ from the timing of invoicing to customers. Contract assets include unbilled amounts from our construction projects when revenues recognized under the cost-to-cost measure of progress exceed the amounts invoiced to our customers, as the amounts are not yet billable under the terms of our contracts. Such amounts are recoverable from our customers based upon various measures of performance, including achievement of certain milestones, completion of specified units, or completion of a contract. In addition, many of our time and materials arrangements, as well as our contracts to perform turnaround services within the United States industrial services segment, are billed in arrears pursuant to contract terms that are standard within the industry, resulting in contract assets and/or unbilled receivables being recorded as revenue is recognized in advance of billings.

Also included in contract assets are amounts we seek or will seek to collect from customers or others for errors or changes in contract specifications or design, contract change orders or modifications in dispute or unapproved as to scope and/or price, or other customer-related causes of unanticipated additional contract costs (claims and unapproved change orders). Our contract assets do not include capitalized costs to obtain and fulfill a contract. Contract assets are generally classified as current within the Consolidated Balance Sheets.

As of December 31, 2022 and 2021, contract assets included unbilled revenues for unapproved change orders of approximately $36.0 million and $24.1 million, respectively. Contract assets as of December 31, 2022 and 2021 additionally included $3.8 million and $2.5 million, respectively, associated with claims. There were no claim amounts included within accounts receivable as of December 31, 2022 or 2021. There were contractually billed amounts and retention related to contracts with unapproved change orders and claims of approximately $131.4 million and $130.7 million as of December 31, 2022 and 2021, respectively. For contracts in claim status, contractually billed amounts will generally not be paid by the customer to us until final resolution of the related claims.

Contract liabilities from our construction contracts arise when amounts invoiced to our customers exceed revenues recognized under the cost-to-cost measure of progress. Contract liabilities additionally include advanced payments from our customers on certain contracts. Contract liabilities decrease as we recognize revenue from the satisfaction of the related performance obligation and are recorded as either current or long-term, depending upon when we expect to recognize such revenue. The long-term portion of contract liabilities is included in “Other long-term obligations” in the Consolidated Balance Sheets.

NOTE 3 - REVENUE FROM CONTRACTS WITH CUSTOMERS (Continued)

Net contract liabilities in the accompanying Consolidated Balance Sheets consisted of the following amounts as of December 31, 2022 and 2021 (in thousands):

	December 31, 2022	December 31, 2021
Contract assets, current	$ 273,176	$ 230,143
Contract assets, non-current	—	—
Contract liabilities, current	(1,098,263)	(788,134)
Contract liabilities, non-current	(2,273)	(2,505)
Net contract liabilities	$ (827,360)	$ (560,496)

Included within net contract liabilities were $763.2 million and $500.3 million of net contract liabilities on uncompleted construction projects as of December 31, 2022 and 2021, respectively, as follows (in thousands):

	December 31, 2022	December 31, 2021
Costs incurred on uncompleted construction contracts	$ 13,231,612	$ 11,034,038
Estimated earnings, thereon	2,025,929	1,731,479
	15,257,541	12,765,517
Less: billings to date	16,020,704	13,265,865
	$ (763,163)	$ (500,348)

Contract assets and contract liabilities increased by approximately $2.1 million and $14.1 million, respectively, as a result of acquisitions made by us in 2022. Excluding the impact of acquisitions, net contract liabilities increased by approximately $254.9 million for the year ended December 31, 2022, due to an increase in net contract liabilities on our uncompleted construction projects, partially as a result of the timing of invoicing to our customers, which included advanced billings on several large projects in the earlier stages of completion, resulting in amounts invoiced exceeding the revenue recognized for such projects. There was no significant impairment of contract assets recognized during the periods presented.

Contract Retentions

As of December 31, 2022 and 2021, accounts receivable included $456.9 million and $375.3 million, respectively, of retainage billed under terms of our contracts. These retainage amounts represent amounts which have been contractually invoiced to customers where payments have been partially withheld pending the achievement of certain milestones, satisfaction of other contractual conditions, or completion of the project. We estimate that approximately 90% of the retainage outstanding as of December 31, 2022 will be collected during 2023.

As of December 31, 2022 and 2021, accounts payable included $82.4 million and $71.1 million, respectively, of retainage withheld under terms of our subcontracts. These retainage amounts represent amounts invoiced to the Company by our subcontractors where payments have been partially withheld pending the achievement of certain milestones, satisfaction of other contractual conditions, or completion of the project. We estimate that approximately 90% of the retainage outstanding as of December 31, 2022 will be paid during 2023.

NOTE 3 - REVENUE FROM CONTRACTS WITH CUSTOMERS (Continued)

Transaction Price Allocated to Remaining Unsatisfied Performance Obligations

The following table presents the transaction price allocated to remaining unsatisfied performance obligations ("remaining performance obligations") for each of our reportable segments and their respective percentages of total remaining performance obligations (in thousands, except for percentages):

	December 31, 2022	% of Total
Remaining performance obligations:		
United States electrical construction and facilities services	$ 2,014,079	27 %
United States mechanical construction and facilities services	4,008,919	54 %
United States building services	1,151,031	15 %
United States industrial services	124,653	2 %
Total United States operations	7,298,682	98 %
United Kingdom building services	160,617	2 %
Total operations	$ 7,459,299	100 %

Our remaining performance obligations at December 31, 2022 were $7.46 billion. Remaining performance obligations increase with awards of new contracts and decrease as we perform work and recognize revenue on existing contracts. We include a project within our remaining performance obligations at such time the project is awarded and agreement on contract terms has been reached. Our remaining performance obligations include amounts related to contracts for which a fixed price contract value is not assigned when a reasonable estimate of the total transaction price can be made.

Remaining performance obligations include unrecognized revenues to be realized from uncompleted construction contracts. Although many of our construction contracts are subject to cancellation at the election of our customers, in accordance with industry practice, we do not limit the amount of unrecognized revenue included within remaining performance obligations for these contracts as the risk of cancellation is very low due to the inherent substantial economic penalty that our customers would incur upon cancellation or termination. We believe our reported remaining performance obligations for our construction contracts are firm and contract cancellations have not had a material adverse effect on us.

Remaining performance obligations also include unrecognized revenues expected to be realized over the remaining term of service contracts. However, to the extent a service contract includes a cancellation clause which allows for the termination of such contract by either party without a substantive penalty, the remaining contract term, and therefore, the amount of unrecognized revenues included within remaining performance obligations, is limited to the notice period required for the termination.

Our remaining performance obligations are comprised of: (a) original contract amounts, (b) change orders for which we have received written confirmations from our customers, (c) pending change orders for which we expect to receive confirmations in the ordinary course of business, (d) claim amounts that we have made against customers for which we have determined we have a legal basis under existing contractual arrangements and as to which the variable consideration constraint does not apply, and (e) other forms of variable consideration to the extent that such variable consideration has been included within the transaction price of our contracts. Such claim and other variable consideration amounts were immaterial for all periods presented.

NOTE 3 - REVENUE FROM CONTRACTS WITH CUSTOMERS (Continued)

Refer to the table below for additional information regarding our remaining performance obligations, including an estimate of when we expect to recognize such remaining performance obligations as revenue (in thousands):

	Within one year	Greater than one year
Remaining performance obligations:		
United States electrical construction and facilities services	$ 1,692,127	$ 321,952
United States mechanical construction and facilities services	3,154,465	854,454
United States building services	1,050,462	100,569
United States industrial services	118,642	6,011
Total United States operations	6,015,696	1,282,986
United Kingdom building services	112,687	47,930
Total operations	$ 6,128,383	$ 1,330,916

NOTE 4 - ACQUISITIONS OF BUSINESSES

Acquisitions are accounted for utilizing the acquisition method of accounting and the prices paid for them are allocated to their respective assets and liabilities based upon the estimated fair value of such assets and liabilities at the dates of their respective acquisition by us.

During 2022, we acquired six companies for total consideration of $100.8 million. Such acquisitions include: (a) a company that provides electrical construction services in the Greater Boston area, the results of operations of which have been included in our United States electrical construction and facilities services segment, and (b) five companies that enhance our presence in geographies where we have existing operations, the results of operations of which were de minimis, consisting of: (i) two companies that provide fire protection services in the Northeastern and Southern regions of the United States, respectively, and that have been included within our United States mechanical construction and facilities services segment, (ii) two companies that specialize in either building automation and controls or mechanical services in the Southwestern and Southern regions of the United States, respectively, and that have been included within our United States building services segment, and (iii) a company that provides electrical construction services in the Midwestern region of the United States and that has been included within our United States electrical construction and facilities services segment. In connection with these acquisitions, we acquired working capital of $7.1 million and other net liabilities of $1.1 million, and have preliminarily ascribed $28.9 million to goodwill and $65.9 million to identifiable intangible assets.

During 2021, we acquired eight companies for total consideration of $131.2 million. Such acquisitions include: (a) two companies, the results of operations of which have been included within our United States mechanical construction and facilities services segment, consisting of: (i) a company that provides mechanical services within the Southern region of the United States and (ii) a company that provides fire protection services in the Midwestern region of the United States, (b) two companies that provide electrical construction services for a broad array of customers in the Midwestern region of the United States, the results of operations of which have been included in our United States electrical construction and facilities services segment, and (c) four companies, the results of operations of which have been included within our United States building services segment, consisting of: (i) a company that provides mobile mechanical services across North Texas and (ii) three companies that enhance our presence in geographies where we have existing operations and provide either mobile mechanical services or building automation and controls solutions. In connection with these acquisitions, we acquired working capital of $22.9 million and other net liabilities of $0.6 million, including certain deferred tax liabilities, and have ascribed $38.3 million to goodwill and $70.6 million to identifiable intangible assets.

During 2020, we acquired three companies for total consideration of $50.3 million. Such acquisitions include: (a) a company that provides building automation and controls solutions within the Northeastern region of the United States, (b) a full service provider of mechanical services in the Washington, D.C. metro area, and (c) a company that provides mobile mechanical services in the Southern region of the United States. The results of operations for all three companies have been included within our United States building services segment. In connection with these acquisitions, we acquired working capital of $3.0 million and other net liabilities of $3.9 million and have ascribed $13.1 million to goodwill and $38.1 million to identifiable intangible assets.

NOTE 4 - ACQUISITIONS OF BUSINESSES (Continued)

We expect that the majority of the goodwill acquired in connection with these acquisitions will be deductible for tax purposes. The purchase price allocations for the businesses acquired in 2022 are preliminary and subject to change during their respective measurement periods. As we finalize such purchase price allocations, adjustments may be recorded relating to finalization of intangible asset valuations, tax matters, or other items. Although not expected to be significant, such adjustments may result in changes in the valuation of assets and liabilities acquired. The purchase price allocations for the businesses acquired in 2021 and 2020 have been finalized during their respective measurement periods with an insignificant impact.

NOTE 5 - EARNINGS PER SHARE

The following table summarizes our calculation of Basic and Diluted Earnings per Common Share (“EPS”) for the years ended December 31, 2022, 2021, and 2020 (in thousands, except share and per share data):

	2022	2021	2020
Numerator:			
Net income attributable to EMCOR Group, Inc.	$ 406,122	$ 383,532	$ 132,943
Denominator:			
Weighted average shares outstanding used to compute basic earnings per common share	49,931,940	54,068,982	55,196,173
Effect of dilutive securities—Share-based awards	204,322	278,552	225,098
Shares used to compute diluted earnings per common share	50,136,262	54,347,534	55,421,271
Basic earnings per common share	$ 8.13	$ 7.09	$ 2.41
Diluted earnings per common share	$ 8.10	$ 7.06	$ 2.40

The number of outstanding share-based awards excluded from the computation of diluted EPS for the years ended December 31, 2022, 2021, and 2020 because they would be anti-dilutive were 4,926, 9,250, and 24,450, respectively.

NOTE 6 - INVENTORIES

Inventories in the accompanying Consolidated Balance Sheets consisted of the following amounts as of December 31, 2022 and 2021 (in thousands):

	December 31, 2022	December 31, 2021
Raw materials and construction materials	$ 74,014	$ 46,186
Work in process	11,627	7,912
Inventories	$ 85,641	$ 54,098

The increase in inventories as of December 31, 2022, compared to December 31, 2021, was a result of: (a) advanced purchases of materials and equipment for use on specific construction projects, in an effort to mitigate the impact of extended lead times, which have resulted from supply chain disruptions, and (b) an increase in raw materials on hand to support our fabrication facilities given the growth in demand for our fire protection services.

NOTE 7 - PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment in the accompanying Consolidated Balance Sheets consisted of the following amounts as of December 31, 2022 and 2021 (in thousands):

	December 31, 2022	December 31, 2021
Machinery and equipment	$ 206,249	$ 188,022
Vehicles	68,858	65,946
Furniture and fixtures	25,253	23,698
Computer hardware/software	109,166	108,830
Land, buildings and leasehold improvements	130,358	127,736
Construction in progress	6,060	6,125
Finance lease right-of-use assets [1]	6,117	7,666
	552,061	528,023
Accumulated depreciation and amortization	(394,242)	(375,957)
	$ 157,819	$ 152,066

[1] Finance lease right-of-use assets are recorded net of accumulated amortization.

Depreciation and amortization expense related to property, plant and equipment, including finance leases, was $47.3 million, $48.3 million, and $46.7 million for the years ended December 31, 2022, 2021, and 2020, respectively.

NOTE 8 - GOODWILL, IDENTIFIABLE INTANGIBLE ASSETS, AND OTHER LONG-LIVED ASSETS

Goodwill

In connection with our acquisition of businesses, we have recorded goodwill, which represents the excess of the consideration transferred over the fair value of the net tangible and identifiable intangible assets acquired. Our goodwill balance at December 31, 2022 and 2021 was $919.2 million and $890.3 million, respectively, with goodwill attributable to companies acquired in 2022 and 2021 valued at $28.9 million and $38.3 million, respectively. Goodwill is not amortized but instead allocated to its respective reporting unit and evaluated for impairment annually, or more frequently if events or circumstances indicate that the carrying amount of goodwill may be impaired. We have determined that our reporting units are consistent with the reportable segments identified in Note 18 - Segment Information of the notes to consolidated financial statements. As of December 31, 2022, approximately 19.4% of our goodwill related to our United States electrical construction and facilities services segment, approximately 34.3% of our goodwill related to our United States mechanical construction and facilities services segment, approximately 33.9% of our goodwill related to our United States building services segment and approximately 12.4% of our goodwill related to our United States industrial services segment.

Absent any earlier identified impairment indicators, we perform our annual goodwill impairment assessment on October 1 each fiscal year. Qualitative indicators that may trigger the need for interim quantitative impairment testing include, among others, deterioration in macroeconomic conditions, declining financial performance, deterioration in the operational environment, or an expectation of selling or disposing of a portion of a reporting unit. Additionally, an interim impairment test may be triggered by a significant change in business climate, a loss of a significant customer, increased competition, or a sustained decrease in share price. In assessing whether our goodwill is impaired, we compare the fair value of the reporting unit to its carrying amount, including goodwill. If the fair value exceeds the carrying amount, no impairment is recognized. However, if the carrying amount of the reporting unit exceeds the fair value, the goodwill of the reporting unit is impaired and an impairment loss in the amount of the excess is recognized and charged to operations.

We performed our 2022 annual impairment assessment of all reporting units as of October 1, 2022, and determined there was no impairment of goodwill. In completing our annual impairment assessment, we determined the fair value of each of our reporting units using an income approach whereby fair value was calculated utilizing discounted estimated future cash flows, assuming a risk-adjusted industry weighted average cost of capital. The weighted average cost of capital used in our annual impairment testing was 10.3% for our United States construction segments, 10.2% for our United States building services segment, and 11.2% for our United States industrial services segment. These weighted average cost of capital estimates were developed with the assistance of an independent third-party valuation specialist and reflect the overall level of inherent risk within the respective reporting unit and the rate of return a market participant would expect to earn. Our cash flow projections were derived from our most recent internal forecasts of anticipated revenue growth rates and operating margins, with cash flows beyond the discrete forecast period estimated using a terminal value calculation which incorporated historical and forecasted trends, an estimate of long-term growth rates, and assumptions about the future demand for our services. The perpetual growth rate used for our annual testing was 2.5% for all of our reporting units.

NOTE 8 - GOODWILL, IDENTIFIABLE INTANGIBLE ASSETS, AND OTHER LONG-LIVED ASSETS (Continued)

For the year ended December 31, 2021, no impairment of our goodwill was recognized. However, during the second quarter of 2020, we concluded that the carrying amount of our United States industrial services segment exceeded its fair value, resulting in the recognition of a non-cash goodwill impairment charge of $225.5 million which was included within our results of operations for the year ended December 31, 2020. An interim impairment assessment was considered necessary as a result of the significant impact the COVID-19 pandemic and concurrent decline in demand for oil and other refined products had on our revenue and operating margin expectations for such segment. The valuation methodology utilized in this prior year interim impairment test was consistent with the approach described above. We did not identify indicators of impairment related to any other reporting unit that would have required an interim impairment assessment during 2020 and there was no other impairment of goodwill recognized for the year ended December 31, 2020.

Due to the inherent uncertainties involved in making estimates, our assumptions may change in future periods. Estimates and assumptions made for purposes of our goodwill impairment testing may prove to be inaccurate predictions of the future, and other factors used in assessing fair value, such as the weighted average cost of capital, are outside the control of management. Unfavorable changes in certain of these key assumptions may affect future testing results. For example, keeping all other assumptions constant, a 50 basis point increase in the weighted average cost of capital would cause the estimated fair values of our United States electrical construction and facilities services segment, our United States mechanical construction and facilities services segment, our United States building services segment, and our United States industrial services segment to decrease by approximately $90.9 million, $172.1 million, $92.8 million, and $24.1 million, respectively. In addition, keeping all other assumptions constant, a 50 basis point reduction in the perpetual growth rate would cause the estimated fair values of our United States electrical construction and facilities services segment, our United States mechanical construction and facilities services segment, our United States building services segment, and our United States industrial services segment to decrease by approximately $45.0 million, $94.2 million, $48.1 million, and $9.2 million, respectively. Given the amounts by which the fair value exceeds the carrying value for each of our reporting units, the decreases in estimated fair values described above would not have significantly impacted the results of our 2022 impairment tests. Further, for each of our reporting units, other than our United States industrial services segment, a 10% decline in the estimated fair value of such reporting unit, due to other changes in our assumptions, including forecasted future cash flows, would not have significantly impacted the results of our 2022 impairment tests. In the case of our United States industrial services segment, however, such a decrease would cause the estimated fair value of this reporting unit to approximate its carrying value.

The changes in the carrying amount of goodwill by reportable segment during the years ended December 31, 2022 and 2021 were as follows (in thousands):

	United States electrical construction and facilities services segment	United States mechanical construction and facilities services segment	United States building services segment	United States industrial services segment	Total
Balance at December 31, 2020	$ 142,545	$ 299,618	$ 302,132	$ 107,488	$ 851,783
Acquisitions and purchase price adjustments	24,467	4,269	9,749	—	38,485
Intersegment transfers	(7,500)	—	900	6,600	—
Balance at December 31, 2021	159,512	303,887	312,781	114,088	890,268
Acquisitions and purchase price adjustments	17,601	6,942	4,340	—	28,883
Intersegment transfers	900	4,500	(5,400)	—	—
Balance at December 31, 2022	$ 178,013	$ 315,329	$ 311,721	$ 114,088	$ 919,151

The aggregate goodwill balance as of December 31, 2020 included $493.6 million of accumulated impairment charges, which were comprised of $139.5 million within the United States building services segment and $354.1 million within the United States industrial services segment.

NOTE 8 - GOODWILL, IDENTIFIABLE INTANGIBLE ASSETS, AND OTHER LONG-LIVED ASSETS (Continued)

Identifiable Intangible Assets and Other Long-Lived Assets

Our identifiable intangible assets, arising out of the acquisition of businesses, include customer relationships, subsidiary trade names, developed technology/vendor network, and contract backlog, all of which are subject to amortization. In addition, our identifiable intangible assets include certain other subsidiary trade names, which are indefinite-lived and therefore not subject to amortization.

Absent earlier indicators of impairment, we test for impairment of subsidiary trade names that are not subject to amortization on an annual basis (October 1). In performing this test, we calculate the fair value of each trade name using the "relief from royalty payments" methodology. This approach involves two steps: (a) estimating reasonable royalty rates for each trade name and (b) applying these royalty rates to a net revenue stream and discounting the resulting cash flows to determine fair value. This fair value is then compared with the carrying value of each trade name. If the carrying amount of the trade name is greater than the implied fair value of the trade name, an impairment in the amount of the excess is recognized and charged to operations. In addition, we review for impairment of identifiable intangible assets that are being amortized as well as other long-lived assets whenever facts and circumstances indicate that their carrying values may not be fully recoverable. This test compares their carrying values to the undiscounted pre-tax cash flows expected to result from the use of the assets. If the assets are impaired, the assets are written down to their fair values, generally determined based on their discounted estimated future cash flows.

For the years ended December 31, 2022 and 2021, no impairment of our indefinite-lived intangible assets, finite-lived intangible assets, or other long-lived assets was recognized.

However, during the second quarter of 2020, given the external market conditions disclosed above, we evaluated certain of our identifiable intangible assets and other long-lived assets for impairment. Such assets included those associated with the businesses in our United States industrial services segment. As a result of these assessments, we recorded non-cash impairment charges of $7.3 million, which were included within our results of operations for the year ended December 31, 2020.

Identifiable intangible assets as of December 31, 2022 and 2021 consisted of the following (in thousands):

	December 31, 2022			
	Gross Carrying Amount	Accumulated Amortization	Accumulated Impairment Charge	Total
Customer relationships	$ 762,516	$ (427,211)	$ (4,834)	$ 330,471
Trade names (indefinite-lived)	289,121	—	(58,933)	230,188
Developed technology/Vendor network	95,661	(74,238)	—	21,423
Trade names (finite-lived)	33,791	(25,690)	—	8,101
Contract backlog	83,245	(79,453)	—	3,792
Total	$ 1,264,334	$ (606,592)	$ (63,767)	$ 593,975

	December 31, 2021			
	Gross Carrying Amount	Accumulated Amortization	Accumulated Impairment Charge	Total
Customer relationships	$ 717,666	$ (374,764)	$ (4,834)	$ 338,068
Trade names (indefinite-lived)	274,721	—	(58,933)	215,788
Developed technology/Vendor network	95,661	(69,688)	—	25,973
Trade names (finite-lived)	32,366	(24,180)	—	8,186
Contract backlog	77,995	(76,645)	—	1,350
Total	$ 1,198,409	$ (545,277)	$ (63,767)	$ 589,365

NOTE 8 - GOODWILL, IDENTIFIABLE INTANGIBLE ASSETS, AND OTHER LONG-LIVED ASSETS (Continued)

Identifiable intangible assets attributable to businesses acquired in 2022 and 2021 have been valued at $65.9 million and $70.6 million, respectively, and consist of customer relationships, trade names, and contract backlog. See Note 4 - Acquisitions of Businesses of the notes to consolidated financial statements for additional information with respect to acquisitions.

Identifiable intangible assets are amortized in a manner that best approximates the pattern in which the economic benefits of such assets are consumed, which is generally on a straight-line basis. The weighted average amortization periods for the unamortized balances remaining are, in the aggregate, approximately 7.00 years, which are comprised of the following: 7.25 years for customer relationships, 7.00 years for trade names, 4.75 years for developed technology/vendor network, and 1.00 year for contract backlog.

Amortization expense related to identifiable intangible assets with finite lives was $61.3 million, $64.1 million, and $60.0 million for the years ended December 31, 2022, 2021, and 2020, respectively. The following table presents the estimated future amortization expense of identifiable intangible assets in the following years (in thousands):

2023	$ 63,366
2024	59,507
2025	58,002
2026	51,883
2027	38,949
Thereafter	92,080
	$ 363,787

Other Considerations

As referenced above, impairment testing is based upon assumptions and estimates determined by management from a review of our operating results and business plans as well as forecasts of anticipated growth rates and margins, among other considerations. In addition, estimates of weighted average costs of capital are developed with the assistance of an independent third-party valuation specialist. These assumptions and estimates may change in future periods, especially in times of uncertain economic conditions and rising interest rates. Such assumptions and estimates may also be impacted by supply chain, production, and other logistical issues currently impacting our business. Significant adverse changes to external market conditions or our internal forecasts, if any, could result in future impairment charges. It is not possible at this time to determine if any future impairment charge will result or, if it does, whether such a charge would be material to our results of operations.

NOTE 9 - DEBT

Debt in the accompanying Consolidated Balance Sheets consisted of the following amounts as of December 31, 2022 and 2021 (in thousands):

	December 31, 2022	December 31, 2021
Term loan, interest payable at varying amounts through 2025	$ 242,813	$ 256,688
Unamortized debt issuance costs	(2,080)	(3,040)
Finance lease liabilities	6,459	8,037
Total debt	247,192	261,685
Less: current maturities	15,567	16,235
Total long-term debt	$ 231,625	$ 245,450

Credit Agreement

Until March 2, 2020, we had a credit agreement dated August 3, 2016, which provided for a $900.0 million revolving credit facility and a $400.0 million term loan. On March 2, 2020, we amended and restated such agreement to provide for a $1.3 billion revolving credit facility (the “2020 Revolving Credit Facility”) and a $300.0 million term loan (the “2020 Term Loan”) (collectively referred to as the “2020 Credit Agreement”) expiring March 2, 2025. We may increase the 2020 Revolving Credit Facility to $1.9 billion if additional lenders are identified and/or existing lenders are willing to increase their current commitments. We may allocate up to $400.0 million of available capacity under the 2020 Revolving Credit Facility to letters of credit for our account or for the account of any of our subsidiaries.

As of December 31, 2022 and 2021, the balance of the 2020 Term Loan was $242.8 million and $256.7 million, respectively. There were no direct borrowings outstanding under the 2020 Revolving Credit Facility as of December 31, 2022 and 2021. However, outstanding letters of credit reduce the available capacity under such facility, and as of December 31, 2022 and 2021, we had $71.3 million of letters of credit outstanding.

At the Company’s election, borrowings under the 2020 Credit Agreement bear interest at either: (1) a base rate plus a margin of 0.00% to 0.75%, based on certain financial tests, or (2) United States dollar LIBOR (4.73% at December 31, 2022) plus 1.00% to 1.75%, based on certain financial tests. The base rate is determined by the greater of: (a) the prime commercial lending rate announced by Bank of Montreal from time to time (7.50% at December 31, 2022), (b) the federal funds effective rate, plus ½ of 1.00%, (c) the daily one month LIBOR rate, plus 1.00%, or (d) 0.00%. Upon the discontinuation of LIBOR, our 2020 Credit Agreement contains provisions which allow for the use of alternate benchmark rates. The interest rates in effect at December 31, 2022 and 2021 were 5.73% and 1.10%, respectively. A commitment fee is payable on the average daily unused amount of the 2020 Revolving Credit Facility, which ranges from 0.10% to 0.25%, based on certain financial tests. The fee was 0.10% of the unused amount as of December 31, 2022 and 2021. Fees for letters of credit issued under the 2020 Revolving Credit Facility range from 0.75% to 1.75% of the respective face amounts of outstanding letters of credit, depending on the nature of the letter of credit, and are computed based on certain financial tests.

We capitalized an additional $3.1 million of debt issuance costs associated with the 2020 Credit Agreement. Debt issuance costs are amortized over the life of the agreement as part of interest expense.

Obligations under the 2020 Credit Agreement are guaranteed by most of our direct and indirect subsidiaries and are secured by substantially all of our assets. The 2020 Credit Agreement contains various covenants providing for, among other things, the maintenance of certain financial ratios and certain limitations on the payment of dividends, common stock repurchases, investments, acquisitions, indebtedness, and capital expenditures. We were in compliance with all such covenants as of December 31, 2022 and 2021.

We are required to make annual principal payments on the 2020 Term Loan. Any voluntary prepayments are applied against the outstanding balance of the loan and reduce our future scheduled payments on a ratable basis. Based on our outstanding balance, principal payments of $13.9 million are due on December 31 of each year until maturity, with any remaining unpaid principal and interest due on March 2, 2025.

Finance Lease Liabilities

See Note 16 - Leases of the notes to consolidated financial statements for additional information.

NOTE 10 - FAIR VALUE MEASUREMENTS

For disclosure purposes, we utilize a fair value hierarchy to categorize qualifying assets and liabilities into three broad levels based on the priority of the inputs used to determine their fair values. The hierarchy, which gives the highest priority to unadjusted quoted prices in active markets for identical assets and liabilities and the lowest priority to unobservable inputs, is comprised of the following three levels:

Level 1 – Unadjusted quoted prices in active markets for identical assets and liabilities.

Level 2 – Observable inputs, other than Level 1 inputs, that are directly or indirectly observable for the asset or liability, including quoted prices for similar assets and liabilities in active markets; quoted prices for identical or similar assets or liabilities in markets that are not active; and model-derived valuations whose inputs are observable or whose significant value drivers are observable.

Level 3 – Significant unobservable inputs that reflect the reporting entity’s own assumptions.

Recurring Fair Value Measurements

The following tables summarize the assets and liabilities carried at fair value measured on a recurring basis as of December 31, 2022 and 2021 (in thousands):

	Assets at Fair Value as of December 31, 2022			
Asset Category	**Level 1**	**Level 2**	**Level 3**	**Total**
Cash and cash equivalents (1)	$ 456,439	$ —	$ —	$ 456,439
Restricted cash (2)	629	—	—	629
Deferred compensation plan assets (3)	36,882	—	—	36,882
Total	$ 493,950	$ —	$ —	$ 493,950

	Assets at Fair Value as of December 31, 2021			
Asset Category	**Level 1**	**Level 2**	**Level 3**	**Total**
Cash and cash equivalents (1)	$ 821,345	$ —	$ —	$ 821,345
Restricted cash (2)	1,223	—	—	1,223
Deferred compensation plan assets (3)	42,344	—	—	42,344
Total	$ 864,912	$ —	$ —	$ 864,912

(1) Cash and cash equivalents consist of deposit accounts and money market funds with original maturity dates of three months or less, which are Level 1 assets. At December 31, 2022 and 2021, we had $209.4 million and $336.0 million, respectively, in money market funds.

(2) Restricted cash is classified as “Prepaid expenses and other” in the Consolidated Balance Sheets. Restricted cash primarily represents cash held in account for use on customer contracts.

(3) Deferred compensation plan assets are classified as “Other assets” in the Consolidated Balance Sheets.

Nonrecurring Fair Value Measurements

We have recorded goodwill and identifiable intangible assets in connection with our business acquisitions. Such assets are measured at fair value at the time of acquisition based on valuation techniques that appropriately represent the methods which would be used by other market participants in determining fair value. In addition, goodwill and intangible assets are tested for impairment using similar valuation methodologies to determine the fair value of such assets. Periodically, we engage an independent third-party valuation specialist to assist with the valuation process, including the selection of appropriate methodologies and the development of market-based assumptions. The inputs used for these nonrecurring fair value measurements represent Level 3 inputs.

Fair Value of Financial Instruments

We believe that the carrying values of our financial instruments, which include accounts receivable and other financing commitments, approximate their fair values due primarily to their short-term maturities and low risk of counterparty default. The carrying value of our debt associated with the 2020 Credit Agreement approximates its fair value due to the variable rate on such debt.

NOTE 11 - INCOME TAXES

For the years ended December 31, 2022, 2021, and 2020, our income tax provision was calculated based on income before income taxes as follows (in thousands):

	2022	2021	2020
United States	$ 523,273	$ 497,421	$ 228,181
Foreign	35,477	31,882	24,145
	$ 558,750	$ 529,303	$ 252,326

Foreign income for each of the years ended December 31, 2022, 2021, and 2020 was predominantly earned in the United Kingdom.

The income tax provision for the years ended December 31, 2022, 2021, and 2020 consisted of the following (in thousands):

	2022	2021	2020
Current provision:			
Federal	$ 100,707	$ 95,782	$ 115,633
State and local	36,547	35,883	36,182
Foreign	4,891	4,420	3,922
	142,145	136,085	155,737
Deferred provision (benefit)	10,483	9,517	(36,354)
	$ 152,628	$ 145,602	$ 119,383

For the year ended December 31, 2022, our income tax provision was $152.6 million compared to $145.6 million for the year ended December 31, 2021 and $119.4 million for the year ended December 31, 2020. The increase in the income tax provision year-over-year was primarily due to increased income before income taxes. Additionally, the increase in the income tax provision for 2021, when compared to 2020, was partially attributable to the effect of certain increases in the deferred state tax provision.

The income tax rates on income before income taxes for the years ended December 31, 2022, 2021, and 2020, were 27.3%, 27.5%, and 47.3%, respectively. The slight decrease in the 2022 effective income tax rate, when compared to 2021, was attributable to the favorable impact of certain discrete tax items. The decrease in the 2021 effective income tax rate, when compared to 2020, was predominantly due to the tax effect, in 2020, of the impairment charges recorded during such year, the majority of which were non-deductible for tax purposes. Refer to Note 8 - Goodwill, Identifiable Intangible Assets, and Other Long-Lived Assets of the notes to consolidated financial statements for further discussion regarding such impairment charges.

Items accounting for the differences between income taxes computed at the federal statutory rate and the income tax provision for the years ended December 31, 2022, 2021, and 2020 were as follows (in thousands):

	2022	2021	2020
Federal income taxes at the statutory rate	$ 117,338	$ 111,118	$ 52,989
State and local income taxes, net of federal tax benefits	29,519	31,257	19,290
Permanent differences	5,261	5,316	5,860
Non-deductible impairment charges	—	—	40,165
Foreign income taxes (including UK statutory rate changes)	(155)	(2,241)	(140)
Other	665	152	1,219
	$ 152,628	$ 145,602	$ 119,383

NOTE 11 - INCOME TAXES (Continued)

The net minimum tax on global intangible low-taxed income for certain earnings of our foreign subsidiaries was approximately $0.1 million for each of the years ended December 31, 2022, 2021, and 2020. The Company recognizes such tax as an expense in the period incurred.

As of December 31, 2022, we had undistributed foreign earnings from certain foreign subsidiaries of approximately $145.2 million. Based on our evaluation, and given that a significant portion of such earnings were subject to tax in prior periods, or are indefinitely reinvested, we have concluded that any taxes associated with the repatriation of such foreign earnings would be immaterial. As of December 31, 2022, the amount of cash held by these foreign subsidiaries was approximately $115.8 million which, if repatriated, should not result in any material federal or state income taxes.

We file a consolidated federal income tax return including all of our U.S. subsidiaries with the Internal Revenue Service. We additionally file income tax returns with various state, local, and foreign tax agencies. Our income tax returns are subject to audit by various taxing authorities and are currently under examination for the years 2017 through 2020.

On March 27, 2020, the Coronavirus Aid, Relief, and Economic Security Act (the "CARES Act") was signed into law. The CARES Act provides for various tax relief and tax incentive measures, which did not have a material impact on our results of operations. Certain provisions of the CARES Act, however, did favorably impact our liquidity throughout 2020 as they allowed for the deferral of the employer's portion of Social Security tax payments. Amounts previously deferred were repaid in two installments of approximately $51 million during each of the fourth quarters of 2022 and 2021.

On December 27, 2020, the Consolidated Appropriations Act, 2021, was signed into law. This act provides for tax relief, as well as an omnibus appropriations package that extends various expiring tax provisions and allows for a 100% tax deduction for the cost of business meals in 2021 and 2022. The Consolidated Appropriations Act did not have a material impact on our income tax provision for the years ended December 31, 2022 and 2021.

On March 11, 2021, the American Rescue Plan Act was signed into law. Such act includes certain tax provisions that could have an impact on the Company in future periods, including expanded limits on compensation deductions under Section 162(m) of the Internal Revenue Code for tax years beginning after December 31, 2026. We are currently evaluating the impact that this act may have on our financial position and/or results of operations; however, we anticipate that the expanded provisions of Section 162(m) will result in an increase in our effective income tax rate for years beginning after December 31, 2026.

On August 16, 2022, the Inflation Reduction Act of 2022 (the "Inflation Reduction Act") was signed into law. Among other provisions, such act creates an excise tax of 1% on the fair value of net stock repurchases in excess of share issuances made by publicly traded U.S. corporations, effective for repurchases after December 31, 2022. The impact of this excise tax on our financial position, and/or liquidity, in future periods, will vary based on the level of repurchases made by us in a given year. While we are still evaluating the potential impact of this excise tax on our results of operations, interpretive accounting guidance indicates that this tax can be recorded as a component of treasury stock, as opposed to an expense within the statement of operations, given that it is a direct cost associated with the repurchase of our common stock.

For tax years beginning after December 31, 2022, the Inflation Reduction Act additionally creates a 15% corporate alternative minimum tax on profits of corporations whose average annual adjusted financial statement income exceeds $1.0 billion for any consecutive three-tax-year period preceding the then current tax year. Based on our average annual income for the preceding three years, which has remained below the aforementioned $1.0 billion threshold, as well as the fact that our effective federal income tax rate has historically been in excess of the 15% alternative minimum tax rate, we do not anticipate that this alternative minimum tax will have an impact on our financial position and/or results of operations.

NOTE 11 - INCOME TAXES (Continued)

Deferred income tax assets and liabilities are recognized for the expected future tax consequences of temporary differences between the financial statement and income tax bases of assets and liabilities. The deferred income tax assets and deferred income tax liabilities recorded as of December 31, 2022 and 2021 were as follows (in thousands):

	December 31, 2022	December 31, 2021
Deferred income tax assets:		
Excess of amounts expensed for financial statement purposes over amounts deducted for income tax purposes:		
Insurance liabilities	$ 57,278	$ 50,316
Operating lease liabilities	78,391	76,451
Deferred compensation	40,682	40,080
Accrued federal payroll taxes [1]	—	14,235
Other (including liabilities and reserves)	35,584	31,252
Total deferred income tax assets	211,935	212,334
Valuation allowance for deferred tax assets	(3,580)	(2,465)
Net deferred income tax assets	208,355	209,869
Deferred income tax liabilities:		
Costs capitalized for financial statement purposes and deducted for income tax purposes:		
Goodwill and identifiable intangible assets	(153,767)	(154,382)
Operating lease right-of-use assets	(73,134)	(71,759)
Depreciation of property, plant and equipment	(28,435)	(25,341)
Pension asset	(4,082)	(1,847)
Other	(10,500)	(7,491)
Total deferred income tax liabilities	(269,918)	(260,820)
Net deferred income tax liabilities	$ (61,563)	$ (50,951)

(1) Represents employer Social Security tax payments previously deferred under the CARES Act.

At December 31, 2022 and 2021, our net deferred income tax liabilities of $61.6 million and $51.0 million, respectively, were included in “Other long-term obligations” in the accompanying Consolidated Balance Sheet.

Valuation allowances are established when necessary to reduce deferred income tax assets when it is more likely than not that a tax benefit will not be realized. As of December 31, 2022 and 2021, the total valuation allowance on deferred income tax assets, related to state and local net operating losses, foreign net operating losses, and foreign income tax credit carryovers, was approximately $3.6 million and $2.5 million, respectively. The increase in our valuation allowances at December 31, 2022 was primarily a result of the recognition of additional deferred tax assets related to net operating loss carryovers that we determined we would likely not be able to utilize.

Realization of our deferred income tax assets is dependent on our generating sufficient taxable income in the jurisdictions in which such deferred tax assets will reverse. Although realization is not assured, based on current projections of future taxable income, we believe it is more likely than not that the deferred income tax assets, net of the valuation allowances discussed above, will be realized. However, revisions to our forecasts or declining macroeconomic conditions could result in changes to our assessment of the realization of these deferred income tax assets.

NOTE 12 - COMMON STOCK

As of December 31, 2022 and 2021, there were 47,666,725 and 53,299,738 shares of our common stock outstanding, respectively.

We have paid quarterly dividends since October 25, 2011. We currently pay a regular quarterly dividend of $0.15 per share. Subsequent to December 31, 2022, our Board of Directors (the "Board") announced its intention to increase the regular quarterly dividend to $0.18 per share commencing with the dividend to be paid in April 2023.

In September 2011, the Board authorized a share repurchase program allowing us to begin repurchasing shares of our outstanding common stock. Subsequently, the Board has from time to time increased the amount authorized for repurchases under such program. Since the inception of the repurchase program, the Board has authorized us to repurchase up to $2.15 billion of our outstanding common stock. During the year ended December 31, 2022, we repurchased approximately 5.8 million shares of our common stock for approximately $660.6 million. Since the inception of the repurchase program through December 31, 2022, we have repurchased approximately 25.0 million shares of our common stock for approximately $1.76 billion. As of December 31, 2022, there remained authorization for us to repurchase approximately $389.8 million of our shares. The repurchase program has no expiration date, does not obligate the Company to acquire any particular amount of common stock, and may be suspended, recommenced, or discontinued at any time or from time to time without prior notice. We may repurchase our shares from time to time to the extent permitted by securities laws and other legal requirements, including provisions in our 2020 Credit Agreement placing limitations on such repurchases.

NOTE 13 - SHARE-BASED COMPENSATION PLANS

We have an incentive plan under which stock awards, stock units, and other share-based compensation may be granted to officers, non-employee directors, and key employees of the Company. Such plan, as amended, no longer allows for the grant of stock options. Under the terms of this plan, 3,250,000 shares were authorized, and 792,726 shares remain available for grant or issuance as of December 31, 2022. Any issuances under this plan are valued at the fair market value of our common stock on the grant date. Forfeitures are recognized as they occur.

The following table summarizes activity regarding restricted stock units since December 31, 2019:

	Shares		Weighted Average Price
Balance, December 31, 2019	417,578	$	70.24
Granted	137,771	$	81.56
Forfeited	(984)	$	79.17
Vested	(156,447)	$	72.72
Balance, December 31, 2020	397,918	$	73.16
Granted	129,859	$	96.32
Forfeited	(2,242)	$	78.86
Vested	(121,067)	$	77.86
Balance, December 31, 2021	404,468	$	79.16
Granted	107,621	$	123.52
Forfeited	(4,665)	$	105.88
Vested	(189,830)	$	67.40
Balance, December 31, 2022	317,594	$	100.83

We recognized approximately $12.1 million, $11.1 million, and $11.2 million of compensation expense for stock units awarded to non-employee directors and employees pursuant to our incentive plans for the years ended December 31, 2022, 2021, and 2020, respectively. We have approximately $9.8 million of compensation expense, net of income taxes, which will be recognized over the remaining vesting periods of up to 3 years. In addition, an aggregate of 49,360 restricted stock units granted to current or former non-employee directors vested as of December 31, 2022, but, at the election of such directors, issuance has been deferred for up to 10 years.

NOTE 13 - SHARE-BASED COMPENSATION PLANS (Continued)

There were 20,000 stock options outstanding at December 31, 2019. Such stock options were exercised during 2020 at a weighted average price of $24.48. The total intrinsic value (the amounts by which the stock price exceeded the exercise price on the date of exercise) for these options was approximately $1.2 million. There has been no other activity with respect to stock options since December 31, 2020, and there were no options outstanding at December 31, 2022 and 2021.

The income tax benefit derived in 2022, 2021, and 2020 as a result of share-based compensation was approximately $3.9 million, $2.6 million, and $1.9 million, respectively, of which approximately $1.7 million, $0.8 million, and $0.2 million, respectively, represented excess tax benefits.

We have an employee stock purchase plan. Under the terms of this plan, the maximum number of shares of our common stock that may be purchased is 3,000,000 shares. Generally, our corporate employees and non-union employees of our United States subsidiaries are eligible to participate in this plan. Employees covered by collective bargaining agreements generally are not eligible to participate in this plan.

NOTE 14 - RETIREMENT PLANS

Defined Benefit Plans

The funded status of our defined benefit plans, which represents the difference between the fair value of plan assets and the projected benefit obligations, is recognized in the Consolidated Balance Sheets with a corresponding adjustment to accumulated other comprehensive income (loss). Gains and losses for the differences between actuarial assumptions and actual results are recognized through accumulated other comprehensive income (loss). These amounts will be subsequently recognized as net periodic pension cost (income) within the Consolidated Statement of Operations, as described further below.

Our United Kingdom subsidiary has a defined benefit pension plan covering all eligible employees (the “UK Plan”); however, no individual joining the company after October 31, 2001 may participate in the UK Plan. On May 31, 2010, we curtailed the future accrual of benefits for active employees under such plan.

The change in benefit obligations and assets of the UK Plan for the years ended December 31, 2022 and 2021 consisted of the following components (in thousands):

	2022	2021
Change in pension benefit obligation		
Benefit obligation at beginning of year	$ 349,147	$ 383,142
Interest cost	5,693	5,326
Actuarial gain	(116,372)	(22,071)
Benefits paid	(11,095)	(13,939)
Foreign currency exchange rate changes	(33,417)	(3,311)
Benefit obligation at end of year	193,956	349,147
Change in pension plan assets		
Fair value of plan assets at beginning of year	356,532	347,411
Actual (loss) return on plan assets	(105,544)	21,809
Employer contributions	4,875	4,956
Benefits paid	(11,095)	(13,939)
Foreign currency exchange rate changes	(34,484)	(3,705)
Fair value of plan assets at end of year	210,284	356,532
Funded status at end of year	$ 16,328	$ 7,385

The funded status of the UK Plan of $16.3 million and $7.4 million at December 31, 2022 and 2021, respectively, is included in “Other Assets” in the accompanying Consolidated Balance Sheets. No plan assets are expected to be returned to us during the year ending December 31, 2023.

NOTE 14 - RETIREMENT PLANS (Continued)

The weighted average assumptions used to determine benefit obligations of the UK Plan as of December 31, 2022 and 2021 were as follows:

	2022	2021
Discount rate	5.0 %	1.8 %

The components of net periodic pension cost (income) of the UK Plan for the years ended December 31, 2022, 2021, and 2020 were as follows (in thousands):

	2022	2021	2020
Interest cost	$ 5,693	$ 5,326	$ 6,401
Expected return on plan assets	(12,088)	(12,726)	(12,023)
Amortization of unrecognized loss	2,073	3,642	2,389
Net periodic pension cost (income)	$ (4,322)	$ (3,758)	$ (3,233)

The weighted average assumptions used to determine net periodic pension cost of the UK Plan for the years ended December 31, 2022, 2021, and 2020 were as follows:

	2022	2021	2020
Discount rate	1.8 %	1.4 %	2.1 %
Annual rate of return on plan assets	3.9 %	3.9 %	4.3 %

The annual rate of return on plan assets has been determined by modeling possible returns using the actuary’s portfolio return calculator and the fair value of plan assets. This approach models the long term expected returns of the various asset classes held in the portfolio and takes into account the additional benefits of holding a diversified portfolio. For measurement purposes of the liability, the annual rates of inflation of covered pension benefits assumed for 2022 and 2021 were 2.8% and 2.9%, respectively.

Amounts pertaining to the UK Plan not yet reflected in net periodic pension cost and included in accumulated other comprehensive loss were as follows (in thousands):

	December 31, 2022	December 31, 2021
Unrecognized actuarial losses	$ 79,313	$ 89,572

Actuarial gains and losses are amortized using a corridor approach whereby cumulative gains and losses in excess of the greater of 10% of the pension benefit obligation or the fair value of plan assets are amortized over the average life expectancy of plan participants. The amortization period for 2022 was 24 years.

The reclassification adjustment, net of income taxes, for the UK Plan from accumulated other comprehensive loss into net periodic pension cost was approximately $1.6 million for the year ended December 31, 2022, approximately $2.9 million for the year ended December 31, 2021, and approximately $1.9 million for the year ended December 31, 2020. The estimated unrecognized loss for the UK Plan that will be amortized from accumulated other comprehensive loss into net periodic pension cost over the next year is approximately $1.9 million, net of income taxes.

NOTE 14 - RETIREMENT PLANS (Continued)

UK Plan Assets

The investment policies and strategies for the assets of the UK Plan are established by its trustees (who are independent of the Company) to achieve a reasonable balance between risk, likely return, and administration expense, as well as to maintain funds at a level to meet minimum funding requirements. In order to ensure that an appropriate investment strategy is in place, an analysis of the UK Plan's assets and liabilities is completed periodically. Target allocation percentages vary over time depending on the perceived risk and return potential of various asset classes and market conditions. The weighted average asset allocations and weighted average target allocations at December 31, 2022 and 2021 were as follows:

Asset Category	Target Asset Allocation	Actual December 31, 2022	Actual December 31, 2021
Debt	75.0 %	80.7 %	76.0 %
Cash and cash equivalents	15.0 %	9.4 %	16.5 %
Real estate	10.0 %	9.9 %	7.5 %
Total	100.0 %	100.0 %	100.0 %

Plan assets of our UK Plan are invested through third-party fund managers in various investments with underlying holdings which, as of December 31, 2022 and 2021, consisted of: (a) cash and cash equivalents, primarily held as collateral for other financial instruments, (b) debt securities, which include United Kingdom government debt and United States, United Kingdom, European, and emerging market corporate debt, and (c) real estate assets, which represent trusts which invest directly or indirectly in various properties throughout the United Kingdom.

The following tables set forth the fair value of assets of the UK Plan as of December 31, 2022 and 2021 (in thousands):

	Assets at Fair Value as of December 31, 2022			
Asset Category	Level 1	Level 2	Level 3	Total
Corporate debt funds	$ —	$ 23,998	$ —	$ 23,998
Government bond funds	—	45,619	—	45,619
Cash and cash equivalents	19,829	—	—	19,829
Total plan assets in fair value hierarchy	$ 19,829	$ 69,617	$ —	89,446
Plan assets measured using NAV as a practical expedient: (1)				
Debt funds				99,990
Real estate funds				20,848
Total plan assets at fair value				$ 210,284

	Assets at Fair Value as of December 31, 2021			
Asset Category	Level 1	Level 2	Level 3	Total
Corporate debt funds	$ —	$ 67,226	$ —	$ 67,226
Government bond funds	—	91,899	—	91,899
Cash and cash equivalents	58,772	—	—	58,772
Total plan assets in fair value hierarchy	$ 58,772	$ 159,125	$ —	217,897
Plan assets measured using NAV as a practical expedient: (1)				
Debt funds				111,971
Real estate funds				26,664
Total plan assets at fair value				$ 356,532

(1) Certain investments measured using net asset value ("NAV") as a practical expedient have not been classified in the fair value hierarchy. The fair value amounts presented in the table are intended to permit reconciliation of the fair value hierarchy to the total fair value of plan assets.

NOTE 14 - RETIREMENT PLANS (Continued)

Assets of the UK Plan are allocated within the fair value hierarchy discussed in Note 10 - Fair Value Measurements, based on the nature of the investment. Level 1 assets represent cash and cash equivalents. Level 2 assets consist of corporate debt funds and government bond funds whose underlying investments are valued using observable marketplace inputs. The fair value of the Level 2 assets are generally determined under a market approach using valuation models that incorporate observable inputs such as interest rates, bond yields, and quoted prices.

Investments valued using NAV as a practical expedient are excluded from the fair value hierarchy. These investments include: (a) funds which invest predominantly in senior secured debt instruments, targeting diversity across regions and sectors, as well as funds which invest in diversified credit vehicles that seek higher returns than traditional fixed income investments, primarily through U.S. corporate debt, global credit, and structured debt instruments, and (b) funds which aim to provide long-term income through investment in UK property assets. These investments are redeemable at NAV on a monthly or quarterly basis and have redemption notice periods of up to 90 days. In addition, certain of these investments are subject to a lockup period of up to 24 months.

The methods described above may produce fair values that may not be indicative of net realizable value or reflective of future fair values. Furthermore, while the Company believes the valuation methodologies are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

Contributions

Our United Kingdom subsidiary expects to contribute approximately $1.3 million to the UK Plan in 2023.

Estimated Future Benefit Payments

The following estimated benefit payments are expected to be made from the UK Plan in the following years (in thousands):

	Pension Benefit Payments
2023	$ 9,884
2024	$ 10,201
2025	$ 10,627
2026	$ 11,106
2027	$ 11,476
Succeeding five years	$ 63,182

We also sponsor three domestic retirement plans in which participation by new individuals is frozen. The aggregate benefit obligation associated with these plans as of December 31, 2022 and 2021 was approximately $6.7 million and $8.5 million, respectively. The estimated fair value of the plan assets as of December 31, 2022 and 2021 was approximately $4.9 million and $6.3 million, respectively. The plan assets are considered Level 1 assets within the fair value hierarchy and are predominantly invested in cash, equities, and equity and bond funds. The liability balances as of December 31, 2022 and 2021 are classified as “Other long-term obligations” in the accompanying Consolidated Balance Sheets. The measurement date for these plans is December 31 of each year. The major assumptions used in the actuarial valuations to determine benefit obligations as of December 31, 2022 and 2021 included discount rates of approximately 4.80% for 2022 and 2.40% to 2.50% for 2021. Also included was an expected rate of return of 7.00% for both 2022 and 2021. The net periodic pension cost associated with the domestic plans, as well as the reclassification adjustment from accumulated other comprehensive loss to net periodic pension cost, were insignificant for all periods presented. The future estimated benefit payments expected to be made from the plans for the next ten years is approximately $0.5 million per year.

NOTE 14 - RETIREMENT PLANS (Continued)

Defined Contribution Plans

We have defined contribution retirement and savings plans that cover eligible employees in the United States. Contributions to these plans are based on a percentage of the employee's base compensation. The expenses recognized for employer contributions to these plans were approximately $35.0 million for the year ended December 31, 2022, $33.0 million for the year ended December 31, 2021, and $32.4 million for the year ended December 31, 2020. At our discretion and subject to applicable plan documents, we may make additional supplemental matching contributions to one of our defined contribution retirement and savings plans. The expenses recognized related to additional supplemental matching contributions for the years ended December 31, 2022, 2021, and 2020 were approximately $9.2 million, $7.7 million, and $9.1 million, respectively.

Our United Kingdom subsidiary also has defined contribution retirement plans. The expenses recognized related to employer matching contributions for the years ended December 31, 2022, 2021, and 2020 were approximately $7.3 million, $8.3 million, and $7.4 million, respectively.

Multiemployer Plans

We participate in approximately 200 multiemployer pension plans ("MEPPs") that provide retirement benefits to certain union employees in accordance with various collective bargaining agreements ("CBAs"). As one of many participating employers in an MEPP, we are potentially liable with the other participating employers for any plan underfunding, either through an increase in our required contributions or, in the case of our withdrawal from the plan, a payment based upon our proportionate share of the plan's unfunded benefits, in each case, as described below. Our contributions to a particular MEPP are established by the applicable CBAs; however, our required contributions may increase based on the funded status of an MEPP and legal requirements of the Pension Protection Act of 2006 (the "PPA"), which requires substantially underfunded MEPPs to implement a funding improvement plan ("FIP") or a rehabilitation plan ("RP") to improve their funded status. Factors that could impact the funded status of an MEPP include, without limitation, investment performance, changes in the participant demographics, decline in the number of contributing employers, changes in actuarial assumptions, and the utilization of extended amortization provisions.

An FIP or RP requires a particular MEPP to adopt measures to correct its underfunding status. These measures may include, but are not limited to: (a) an increase in our contribution rate as a signatory to the applicable CBA, (b) a reallocation of the contributions already being made by participating employers for various benefits to individuals participating in the MEPP, and/or (c) a reduction in the benefits to be paid to future and/or current retirees. In addition, the PPA requires that a 5% surcharge be levied on employer contributions for the first year commencing after the date the employer receives notice that the MEPP is in critical status and a 10% surcharge on each succeeding year until a CBA is in place with terms and conditions consistent with the RP.

We could also be obligated to make payments to MEPPs if we either cease to have an obligation to contribute to the MEPP or significantly reduce our contributions to the MEPP because we reduce our number of employees who are covered by the relevant MEPP for various reasons, including, but not limited to, layoffs or closure of a subsidiary assuming the MEPP has unfunded vested benefits. The amount of such payments (known as a complete or partial withdrawal liability) would equal our proportionate share of the MEPPs' unfunded vested benefits. We believe that certain of the MEPPs in which we participate may have unfunded vested benefits. Due to uncertainty regarding future factors that could trigger withdrawal liability, as well as the absence of specific information regarding the MEPP's current financial situation, we are unable to determine: (a) the amount and timing of a future withdrawal liability, if any, and (b) whether our participation in these MEPPs could have a material adverse impact on our financial position, results of operations, or liquidity. We did not record any material withdrawal liabilities for the years ended December 31, 2022, 2021, and 2020.

NOTE 14 - RETIREMENT PLANS (Continued)

The following table lists all MEPPs to which our contributions exceeded $2.0 million in 2022. This table also lists all MEPPs to which we contributed in 2022 in excess of $0.5 million for MEPPs in the critical status, “red zone,” and $1.0 million for MEPPs in the endangered status, “orange or yellow zones,” as defined by the PPA (in thousands):

Pension Fund	EIN/Pension Plan Number		PPA Zone Status (1)		FIP/RP Status	Contributions			Contributions greater than 5% of total plan contributions (2)	Expiration date or range of expiration dates of CBA(s)
			2022	2021		2022	2021	2020		
National Automatic Sprinkler Industry Pension Fund	52-6054620	001	Green	Green	NA	$ 21,583	$ 20,987	$ 17,504	Yes	May 2023 to July 2027
United Association National Pension Fund (Formerly Plumbers & Pipefitters National Pension Fund)	52-6152779	001	Green	Green	NA	15,288	14,723	14,095	No	February 2023 to July 2027
National Electrical Benefit Fund	53-0181657	001	Green	Green	NA	15,192	12,310	11,573	No	May 2023 to May 2027
Sheet Metal Workers National Pension Fund	52-6112463	001	Green	Yellow	NA	9,505	10,307	11,621	No	May 2023 to June 2026
Pension, Hospitalization & Benefit Plan of the Electrical Industry-Pension Trust Account	13-6123601	001	Green	Green	NA	8,122	7,355	6,750	No	April 2023 to April 2025
Electrical Workers Local No. 26 Pension Trust Fund	52-6117919	001	Green	Green	NA	7,844	9,346	7,086	Yes	May 2023 to August 2024
Plumbers Pipefitters & Mechanical Equipment Service Local Union 392 Pension Plan	31-0655223	001	Red	Red	Implemented	7,674	7,110	5,667	Yes	May 2025
Central Pension Fund of the IUOE & Participating Employers	36-6052390	001	Green	Green	NA	7,651	6,627	6,115	No	March 2023 to December 2026
Boilermaker-Blacksmith National Pension Trust	48-6168020	001	Green	Yellow	NA	6,434	3,479	1,574	No	September 2023 to April 2025
Sheet Metal Workers Pension Plan of Northern California	51-6115939	001	Red	Red	Implemented	6,074	7,850	6,605	No	June 2023 to June 2026
Edison Pension Plan	93-6061681	001	Green	Green	NA	5,325	4,229	3,864	Yes	December 2023
Pipefitters Union Local 537 Pension Fund	51-6030859	001	Green	Green	NA	5,039	5,922	4,275	Yes	August 2025
Southern California Pipe Trades Retirement Fund	51-6108443	001	Green	Green	NA	4,650	6,272	4,043	No	August 2023 to August 2026
Heating, Piping & Refrigeration Pension Fund	52-1058013	001	Green	Green	NA	4,625	5,591	3,349	Yes	July 2023 to July 2025
Southern California IBEW-NECA Pension Trust Fund	95-6392774	001	Yellow	Yellow	Implemented	4,287	4,876	5,719	No	June 2023 to May 2026
San Diego Electrical Pension Plan	95-6101801	001	Green	Green	NA	4,258	4,068	4,383	Yes	May 2024
IBEW 332 Pension Fund - Part A	94-2688032	004	Green	Green	NA	4,177	2,339	1,211	No	May 2023 to May 2024
U.A. Local 393 Pension Trust Fund Defined Benefit	94-6359772	002	Green	Green	NA	3,517	3,507	3,168	Yes	June 2023 to July 2027
Electrical Contractors Association of the City of Chicago Local Union 134, IBEW Joint Pension Trust of Chicago Pension Plan 2	51-6030753	002	Green	Green	NA	3,516	4,225	3,004	No	June 2023
Eighth District Electrical Pension Fund	84-6100393	001	Green	Green	NA	3,339	3,298	3,242	Yes	May 2023 to August 2024
Northern California Pipe Trades Pension Plan	94-3190386	001	Green	Green	NA	3,238	2,663	2,463	No	June 2023 to June 2024

NOTE 14 - RETIREMENT PLANS (Continued)

Pension Fund	EIN/Pension Plan Number		PPA Zone Status (1) 2022	PPA Zone Status (1) 2021	FIP/RP Status	Contributions 2022	Contributions 2021	Contributions 2020	Contributions greater than 5% of total plan contributions (2)	Expiration date or range of expiration dates of CBA(s)
NECA-IBEW Pension Trust Fund	51-6029903	001	Green	Green	NA	3,034	2,491	2,369	No	May 2023 to December 2023
Arizona Pipe Trades Pension Trust Fund	86-6025734	001	Green	Green	NA	2,940	2,020	2,301	Yes	June 2023 to June 2024
Sheet Metal Workers Pension Plan of Southern California, Arizona & Nevada	95-6052257	001	Green	Yellow	NA	2,921	3,322	2,706	No	June 2023 to June 2026
Electrical Workers Pension Plan Local 103 IBEW	04-6063734	001	Green	Green	NA	2,900	—	—	Yes	August 2023
IBEW Local 701 Pension Fund	36-6455509	001	Green	Green	NA	2,625	1,276	1,197	Yes	May 2023 to September 2023
IBEW Local No. 82 Pension Plan	31-6127268	001	Green	Green	NA	2,549	956	18	Yes	December 2023 to October 2025
Local No. 697 IBEW and Electrical Industry Pension Fund	51-6133048	001	Green	Green	NA	2,287	1,753	1,583	Yes	May 2023
U.A. Local 38 Defined Benefit Pension Fund	94-1285319	001	Green	Green	NA	2,010	1,903	2,874	No	June 2023
Plumbing & Pipe Fitting Local 219 Pension Fund	34-6682376	001	Red	Red	Implemented	1,172	1,167	1,680	Yes	May 2023
Plumbers & Pipefitters Local 162 Pension Fund	31-6125999	001	Yellow	Yellow	Implemented	1,132	1,034	969	Yes	May 2023
Steamfitters Local Union No. 420 Pension Plan	23-2004424	001	Red	Red	Implemented	1,018	677	553	No	May 2023 to April 2024
Carpenters Pension Trust Fund for Northern California	94-6050970	001	Red	Red	Implemented	532	568	385	No	June 2023
Other Multiemployer Pension Plans						59,707	56,830	53,780		Various
Total Contributions						$ 236,165	$ 221,081	$ 197,726		

(1) The zone status represents the most recent available information for the respective MEPP, which may be 2021 or earlier for the 2022 year and 2020 or earlier for the 2021 year. In general, plans with a “green” zone status have a funding ratio of at least 80%, plans with an “orange” or “yellow” zone status have a funding ratio of between 65% and less than 80%, and plans with a “red” zone status are less than 65% funded.

(2) This information was obtained from the respective plan’s Form 5500 (“Forms”) for the most current available filing. These dates may not correspond with our fiscal year contributions. The percentages of contributions are based upon disclosures contained in the plans’ Forms. Those Forms, among other things, disclose the names of individual participating employers whose annual contributions account for more than 5% of the aggregate annual amount contributed by all participating employers for a plan year. Accordingly, if the annual contribution of two or more of our subsidiaries each accounted for less than 5% of such contributions, but in the aggregate accounted for in excess of 5% of such contributions, that greater percentage is not available and therefore is not disclosed.

The nature and diversity of our operations may result in volatility in the amount of our contributions to a particular MEPP for any given period. That is because, in any given market, a change in the mix, volume of, or size of our projects could result in a change in our direct labor force and a corresponding change in our contributions to the MEPP(s) dictated by the applicable CBA. Additionally, the amount of contributions to a particular MEPP could also be affected by the terms of the CBA, which could require at a particular time, an increase in the contribution rate and/or surcharges. Acquisitions made by us since 2020 have resulted in incremental contributions to various MEPPs of approximately $8.8 million.

Additionally, we contribute to certain multiemployer plans that provide post retirement benefits such as health and welfare benefits and/or defined contribution/annuity plans, among others. Our contributions to these plans were approximately $213.7 million, $178.4 million, and $162.7 million for the years ended December 31, 2022, 2021, and 2020, respectively. Acquisitions made by use since 2020 have resulted in incremental contributions to such other post retirement benefit plans of approximately $18.7 million. The amount of contributions to these plans is also subject, for the most part, to the factors discussed above in conjunction with the MEPPs.

NOTE 15 - COMMITMENTS AND CONTINGENCIES

Severance Agreements

We have agreements with our executive officers and certain other key management personnel providing for severance benefits for such employees upon termination of their employment under certain circumstances.

Guarantees

In the ordinary course of business, we, at times, guarantee obligations of our subsidiaries under certain contracts. Generally, we are liable under such an arrangement only if our subsidiary fails to perform its obligations under the contract. Historically, we have not incurred any substantial liabilities as a consequence of these guarantees.

Surety Bonds

The terms of our construction contracts frequently require that we obtain from surety companies, and provide to our customers, surety bonds as a condition to the award of such contracts. These surety bonds are issued in return for premiums, which vary depending on the size and type of the bond, and secure our payment and performance obligations under such contracts. We have agreed to indemnify the surety companies for amounts, if any, paid by them in respect of surety bonds issued on our behalf. As of December 31, 2022, based on the percentage-of-completion of our projects covered by surety bonds, our aggregate estimated exposure, assuming defaults on all our then existing contractual obligations, was approximately $1.5 billion, which represents approximately 20% of our total remaining performance obligations.

Surety bonds are sometimes provided to secure obligations for wages and benefits payable to or for certain of our employees, at the request of labor unions representing such employees. In addition, surety bonds may be issued as collateral for certain insurance obligations. As of December 31, 2022, we satisfied approximately $48.1 million of the collateral requirements of our insurance programs by utilizing surety bonds.

We are not aware of any losses in connection with surety bonds that have been posted on our behalf, and we do not expect to incur significant losses in the foreseeable future.

Hazardous Materials

We are subject to regulation with respect to the handling or disposal of certain materials used in the performance of our services, which are classified as hazardous or toxic by federal, state, and local agencies. Our practice is to avoid participation in projects principally involving the remediation or removal of such materials. However, when remediation is required as part of our contract performance, we believe we comply with all applicable regulations governing the discharge of hazardous materials into the environment or otherwise relating to the protection of the environment.

Collective Bargaining Agreements

At December 31, 2022, we employed approximately 35,500 people, approximately 60% of whom are represented by various unions pursuant to approximately 450 collective bargaining agreements between our individual subsidiaries or trade associations and local unions, as well as two collective bargaining agreements that are national or regional in scope. We believe that our relations with our labor unions are generally positive.

Government Contracts

As a government contractor, we are subject to U.S. government audits and investigations relating to our operations, which such audits may result in fines, penalties and compensatory and treble damages, and possible suspension or debarment from doing business with the government. Based on currently available information, we believe the outcome of ongoing government disputes and investigations will not have a material impact on our financial position, results of operations, or liquidity.

Legal Proceedings

We are involved in several legal proceedings in which damages and claims have been asserted against us. We believe that we have a number of valid defenses to such proceedings and claims and intend to vigorously defend ourselves. We do not believe that any such matters will have a material adverse effect on our financial position, results of operations, or liquidity. We record a loss contingency if the potential loss from a proceeding or claim is considered probable and the amount can be reasonably estimated or a range of loss can be determined. We provide disclosure when it is reasonably possible that a loss will be incurred in excess of any recorded provision. Significant judgment is required in these determinations. As additional information becomes available, we reassess prior determinations and may change our estimates. Additional claims may be asserted against us in the future. Litigation is subject to many uncertainties, and the outcome of litigation is not predictable with assurance. It is possible that a litigation matter for which liabilities have not been recorded could be decided unfavorably to us, and that any such unfavorable decision could have a material adverse effect on our financial position, results of operations, or liquidity.

NOTE 16 - LEASES

We lease real estate, vehicles, and equipment under various arrangements which are classified as either operating or finance leases. A lease exists when a contract or part of a contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. In determining whether a lease exists, we consider whether a contract provides us with both: (a) the right to obtain substantially all of the economic benefits from the use of the identified asset and (b) the right to direct the use of the identified asset.

Many of our leases include base rental periods coupled with options to renew or terminate the lease, generally at our discretion. Certain leases additionally include options to purchase the leased asset. In evaluating the lease term, we consider whether we are reasonably certain to exercise such options. To the extent a significant economic incentive exists to exercise an option, that option is included within the lease term. However, based on the nature of our lease arrangements, options generally do not provide us with a significant economic incentive and are therefore excluded from the lease term for the majority of our arrangements.

Our leases typically include a combination of fixed and variable payments. Fixed payments are generally included when measuring the right-of-use asset and lease liability. Variable payments, which primarily represent payments based on usage of the underlying asset, are generally excluded from such measurement and expensed as incurred. In addition, certain of our lease arrangements may contain a lease coupled with an arrangement to provide other services, such as maintenance, or may require us to make other payments on behalf of the lessor related to the leased asset, such as payments for taxes or insurance. We account for these non-lease components together with the associated lease component for each of our asset classes.

The measurement of right-of-use assets and lease liabilities requires us to estimate appropriate discount rates. To the extent the rate implicit in the lease is readily determinable, such rate is utilized. However, based on information available at lease commencement for the majority of our leases, the rate implicit in the lease is not known. In these instances, we utilize an incremental borrowing rate, which represents the rate of interest that we would pay to borrow on a collateralized basis, over a similar term, an amount equal to the lease payments.

Our lease arrangements generally do not contain significant restrictions or covenants; however, certain of our vehicle and equipment leases include residual value guarantees, whereby we provide a guarantee to the lessor that the value of the underlying asset will be at least a specified amount at the end of the lease. Amounts probable of being owed under these guarantees are included within the measurement of the right-of-use asset and lease liability.

Lease Position

The following table presents our lease-related assets and liabilities as of December 31, 2022 and 2021 (in thousands):

	Classification on the Consolidated Balance Sheet	December 31, 2022	December 31, 2021
Assets			
Operating lease assets	Operating lease right-of-use assets	$ 268,063	$ 260,778
Finance lease assets	Property, plant and equipment, net	6,117	7,666
Total lease assets		$ 274,180	$ 268,444
Liabilities			
Current			
Operating	Operating lease liabilities, current	$ 67,218	$ 57,814
Finance	Current maturities of long-term debt and finance lease liabilities	2,652	3,320
Noncurrent			
Operating	Operating lease liabilities, long-term	220,764	220,836
Finance	Long-term debt and finance lease liabilities	3,807	4,717
Total lease liabilities		$ 294,441	$ 286,687

NOTE 16 - LEASES (Continued)

Lease Costs

The following table presents information related to our lease expense for the years ended December 31, 2022, 2021, and 2020 (in thousands):

	2022	2021	2020
Finance lease expense:			
Amortization expense	$ 3,550	$ 4,255	$ 4,562
Interest expense	178	255	355
Operating lease expense	77,143	70,928	69,208
Short-term lease expense [1]	185,061	150,500	139,706
Variable lease expense	6,782	5,421	5,441
Total lease expense	$ 272,714	$ 231,359	$ 219,272

(1) Short-term lease expense includes both leases and rentals with initial terms of one year or less and predominantly represents equipment used on construction projects.

Sublease rental income was approximately $3.8 million, $0.2 million, and $0.5 million for the years ended December 31, 2022, 2021, and 2020, respectively.

Lease Term and Discount Rate

The following table presents certain information related to the lease terms and discount rates for our leases as of December 31, 2022 and 2021:

	December 31, 2022	December 31, 2021
Weighted-average remaining lease term:		
Operating leases	5.9 years	6.4 years
Finance leases	2.9 years	2.9 years
Weighted-average discount rate:		
Operating leases	3.45 %	3.20 %
Finance leases	2.85 %	2.61 %

Other Information

The following table presents supplemental cash flow information related to our leases for the years ended December 31, 2022, 2021, and 2020 (in thousands):

	2022	2021	2020
Cash paid for amounts included in the measurement of lease liabilities:			
Operating cash flows used for operating leases	$ 74,927	$ 69,797	$ 65,016
Operating cash flows used for finance leases	$ 178	$ 255	$ 355
Financing cash flows used for finance leases	$ 3,551	$ 4,189	$ 4,470
Right-of-use assets obtained in exchange for new operating lease liabilities	$ 75,027	$ 80,661	$ 55,895
Right-of-use assets obtained in exchange for new finance lease liabilities	$ 2,209	$ 2,301	$ 4,558

NOTE 16 - LEASES (Continued)

Maturity of Lease Liabilities

The following table reconciles our future minimum lease payments on an undiscounted cash flow basis to our lease liabilities reported in the Consolidated Balance Sheet as of December 31, 2022 (in thousands):

	Operating Leases	Finance Leases
2023	$ 75,479	$ 2,790
2024	58,013	2,145
2025	48,529	1,080
2026	40,055	441
2027	29,132	148
Thereafter	67,803	128
Total minimum lease payments	319,011	6,732
Less: Amount of lease payments representing interest	(31,029)	(273)
Present value of future minimum lease payments	$ 287,982	$ 6,459
Current portion of lease liabilities	$ 67,218	$ 2,652
Noncurrent portion of lease liabilities	220,764	3,807
Present value of future minimum lease payments	$ 287,982	$ 6,459

NOTE 17 - ADDITIONAL CASH FLOW INFORMATION

The following table presents information about cash paid for interest and income taxes for the years ended December 31, 2022, 2021, and 2020 (in thousands):

	2022	2021	2020
Cash paid during the year for:			
Interest	$ 11,653	$ 5,259	$ 8,289
Income taxes	$ 168,732	$ 130,811	$ 145,386

NOTE 18 - SEGMENT INFORMATION

We are one of the largest specialty contractors in the United States and a leading provider of electrical and mechanical construction and facilities services, building services, and industrial services. Our services are provided to a broad range of commercial, industrial, healthcare, utility, and institutional customers through approximately 100 operating subsidiaries. Such operating subsidiaries are organized into the following reportable segments:

- United States electrical construction and facilities services;
- United States mechanical construction and facilities services;
- United States building services;
- United States industrial services; and
- United Kingdom building services.

We refer to our United States electrical construction and facilities services segment and our United States mechanical construction and facilities services segment together as our United States construction segments.

Our reportable segments and related disclosures reflect certain reclassifications of prior year amounts from our United States mechanical construction and facilities services segment to our United States building services segment, and from our United States building services segment to our United States construction segments, due to changes in our internal reporting structure aimed at realigning our service offerings.

NOTE 18 - SEGMENT INFORMATION (Continued)

The following tables present financial information for each of our reportable segments for the years ended December 31, 2022, 2021, and 2020 (in thousands):

	2022	2021	2020
Revenues from unrelated entities:			
United States electrical construction and facilities services	$ 2,433,114	$ 2,029,893	$ 1,829,979
United States mechanical construction and facilities services	4,326,674	3,952,586	3,516,789
United States building services	2,720,487	2,424,743	2,078,835
United States industrial services	1,118,767	986,407	940,895
Total United States operations	10,599,042	9,393,629	8,366,498
United Kingdom building services	477,078	509,951	430,563
Total operations	$ 11,076,120	$ 9,903,580	$ 8,797,061

	2022	2021	2020
Total revenues:			
United States electrical construction and facilities services	$ 2,438,916	$ 2,033,863	$ 1,836,370
United States mechanical construction and facilities services	4,373,050	3,966,123	3,529,880
United States building services	2,821,649	2,523,180	2,161,487
United States industrial services	1,175,469	1,021,217	956,373
Less intersegment revenues	(210,042)	(150,754)	(117,612)
Total United States operations	10,599,042	9,393,629	8,366,498
United Kingdom building services	477,078	509,951	430,563
Total operations	$ 11,076,120	$ 9,903,580	$ 8,797,061

	2022	2021	2020
Operating income (loss):			
United States electrical construction and facilities services	$ 148,728	$ 169,355	$ 162,538
United States mechanical construction and facilities services	332,294	314,420	290,444
United States building services	144,670	122,724	115,523
United States industrial services	19,787	(1,666)	1,175
Total United States operations	645,479	604,833	569,680
United Kingdom building services	29,838	27,998	20,660
Corporate administration	(110,440)	(102,031)	(98,542)
Restructuring expenses	—	—	(2,214)
Impairment loss on goodwill, identifiable intangible assets, and other long-lived assets	—	—	(232,750)
Total operations	564,877	530,800	256,834
Other items:			
Net periodic pension (cost) income	4,311	3,625	2,980
Interest expense	(13,199)	(6,071)	(9,009)
Interest income	2,761	949	1,521
Income before income taxes	$ 558,750	$ 529,303	$ 252,326

NOTE 18 - SEGMENT INFORMATION (Continued)

	2022	2021	2020
Capital expenditures:			
United States electrical construction and facilities services	$ 11,228	$ 4,985	$ 8,679
United States mechanical construction and facilities services	12,004	10,182	11,347
United States building services	13,229	11,465	10,259
United States industrial services	9,905	6,159	9,595
Total United States operations	46,366	32,791	39,880
United Kingdom building services	2,816	3,015	3,693
Corporate administration	107	386	4,396
Total operations	$ 49,289	$ 36,192	$ 47,969

	2022	2021	2020
Depreciation and amortization of property, plant and equipment:			
United States electrical construction and facilities services	$ 7,543	$ 7,229	$ 6,734
United States mechanical construction and facilities services	11,556	11,403	10,964
United States building services	12,900	12,041	12,003
United States industrial services	10,888	11,723	12,405
Total United States operations	42,887	42,396	42,106
United Kingdom building services	2,752	3,938	3,046
Corporate administration	1,657	2,013	1,569
Total operations	$ 47,296	$ 48,347	$ 46,721

	December 31, 2022	December 31, 2021	December 31, 2020
Contract assets:			
United States electrical construction and facilities services	$ 75,603	$ 48,382	$ 30,986
United States mechanical construction and facilities services	100,109	89,538	67,443
United States building services	56,217	42,382	31,661
United States industrial services	10,727	18,992	11,311
Total United States operations	242,656	199,294	141,401
United Kingdom building services	30,520	30,849	30,555
Total operations	$ 273,176	$ 230,143	$ 171,956

	December 31, 2022	December 31, 2021	December 31, 2020
Contract liabilities:			
United States electrical construction and facilities services	$ 271,161	$ 200,966	$ 183,499
United States mechanical construction and facilities services	597,001	388,039	373,957
United States building services	182,273	148,812	117,643
United States industrial services	17,746	16,481	17,304
Total United States operations	1,068,181	754,298	692,403
United Kingdom building services	30,082	33,836	29,849
Total operations	$ 1,098,263	$ 788,134	$ 722,252

NOTE 18 - SEGMENT INFORMATION (Continued)

	December 31, 2022	December 31, 2021	December 31, 2020
Long-lived assets:			
United States electrical construction and facilities services	$ 302,448	$ 237,766	$ 177,692
United States mechanical construction and facilities services	519,335	515,741	522,800
United States building services	496,206	498,692	481,733
United States industrial services	341,646	365,563	394,505
Total United States operations	1,659,635	1,617,762	1,576,730
United Kingdom building services	10,320	11,402	12,017
Corporate administration	990	2,535	4,356
Total operations	$ 1,670,945	$ 1,631,699	$ 1,593,103

	December 31, 2022	December 31, 2021	December 31, 2020
Total assets:			
United States electrical construction and facilities services	$ 1,078,405	$ 855,417	$ 680,060
United States mechanical construction and facilities services	1,845,518	1,672,546	1,552,567
United States building services	1,196,001	1,089,844	1,022,290
United States industrial services	552,545	589,017	550,513
Total United States operations	4,672,469	4,206,824	3,805,430
United Kingdom building services	255,547	241,740	227,894
Corporate administration	596,591	992,882	1,030,516
Total operations	$ 5,524,607	$ 5,441,446	$ 5,063,840

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors of EMCOR Group, Inc. and subsidiaries:

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of EMCOR Group, Inc. and subsidiaries (the Company) as of December 31, 2022 and 2021, the related consolidated statements of operations, comprehensive income, equity, and cash flows for each of the three years in the period ended December 31, 2022, and the related notes and financial statement schedule listed in the Index at Item 15(a)(2) (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2022, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated February 23, 2023 expressed an unqualified opinion thereon.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

	Revenue Recognition from Construction Contracts
Description of the Matter	As described in Note 3 to the consolidated financial statements, the Company generally recognizes revenue from construction contracts over time using a cost-to-cost input method in which the extent of progress is measured based on the ratio of costs incurred to date to the total estimated costs at completion. In addition, the revenue recognition process requires the Company to determine the transaction price that represents the amount of consideration to which the Company expects to be entitled. A significant portion of the Company's revenues for the year ended December 31, 2022 were derived from construction contracts. The determination of revenue recognized from construction contracts commonly requires the Company to estimate variable consideration that arises from pending change orders, contract claims, contract bonuses, and penalties, as well as to prepare estimates of the costs to complete contracts. Factors inherent in the estimation processes include, among others, historical experience with customers, the potential long-term nature of dispute resolutions, actions of third parties as well as the Company's experience with similar types of contracts. Due to uncertainties attributed to such factors, auditing revenue recognized from construction contracts involved especially challenging, subjective, and complex judgments.
How We Addressed the Matter in Our Audit	We obtained an understanding, evaluated the design, and tested the operating effectiveness of the Company's controls related to revenue recognition from construction contracts. For example, we tested controls over the Company's determination and review of estimates of variable consideration, costs to complete, and the completeness and accuracy of data utilized in conjunction with such estimation processes. To test the amount of revenue recognized from construction contracts in the current period, we selected a sample of contracts and performed procedures to test the project revenue and cost forecasts. For example, we obtained and inspected the related contract agreements, amendments, and change orders to test the existence of customer arrangements and understand the scope and pricing of the related projects; performed inquiries of management and project personnel regarding facts and circumstances relevant to the accounting for such contracts; tested key components of the estimated costs to complete, including materials, labor, and subcontractors costs; agreed actual costs incurred to supporting documentation; and recalculated revenues recognized based on the project's percentage of completion and management's estimate of transaction price. In addition, we performed certain retrospective review procedures to assess management's historical ability to accurately estimate the transaction price and costs to complete contracts as well as to identify any significant or unusual changes in project revenue and cost forecasts during the period.

	Valuation of Goodwill and Indefinite-Lived Intangible Assets
Description of the Matter	At December 31, 2022, the Company’s goodwill and indefinite-lived trade name intangible assets were approximately $919.2 million and $230.2 million, respectively. As discussed in Note 8 to the consolidated financial statements, goodwill and trade names with indefinite lives are tested for impairment at least annually. Auditing management’s annual impairment tests was especially complex and subjective due to the significant estimation required in determining the fair value of the reporting units for goodwill and the fair value of trade name intangible assets. In particular, the fair value estimates for goodwill were sensitive to significant assumptions inherent in the Company’s discounted estimated future cash flows such as the weighted average cost of capital, revenue growth rates, and operating margins. The fair value estimates for trade name intangible assets were sensitive to significant assumptions inherent in the Company’s discounted estimated future cash flows such as the royalty rate, discount rate, and revenue growth rates. The fair value estimates for goodwill and trade name intangible assets are affected by expectations about future market or economic conditions relevant to each of the markets in which the Company operates.
How We Addressed the Matter in Our Audit	We obtained an understanding, evaluated the design, and tested the operating effectiveness of controls over the Company’s impairment review processes for goodwill and trade name intangible assets. For example, we tested management’s review controls over the valuation models and significant assumptions described above, including those developed by the Company's third-party valuation specialists. To test the estimated fair value of the Company’s reporting units and trade name intangible assets, with the support of a valuation specialist, we performed audit procedures that included, among others, assessing methodologies and testing the significant assumptions and completeness and accuracy of the underlying data used by the Company in its analyses. For example, we compared the significant assumptions used by management to the historical financial results of the Company’s reporting units and to current industry and economic trends. We assessed the historical accuracy of management’s estimates by comparing past projections to actual performance and performed sensitivity analyses of significant assumptions to evaluate the changes in fair value that would result from changes in the assumptions. In addition, we reviewed the reconciliation of the aggregate fair value of the Company’s reporting units to the market capitalization of the Company.

/s/ Ernst & Young LLP

We have served as the Company’s auditor since 2002.

Stamford, Connecticut
February 23, 2023

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors of EMCOR Group, Inc. and subsidiaries:

Opinion on Internal Control Over Financial Reporting

We have audited EMCOR Group, Inc. and subsidiaries' internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, EMCOR Group, Inc. and subsidiaries (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the 2022 consolidated financial statements of the Company and our report dated February 23, 2023 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

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

Definition and Limitations of Internal Control Over Financial Reporting

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

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

/s/ Ernst & Young LLP

Stamford, Connecticut
February 23, 2023

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

Not applicable.

ITEM 9A. CONTROLS AND PROCEDURES

Based on an evaluation of our disclosure controls and procedures (as required by Rules 13a-15(b) of the Securities Exchange Act of 1934), our Chairman, President and Chief Executive Officer, Anthony J. Guzzi, and our Executive Vice President and Chief Financial Officer, Mark A. Pompa, have concluded that our disclosure controls and procedures (as defined in Rule 13a-15(e) of the Securities Exchange Act of 1934) are effective as of the end of the period covered by this report.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934). Our internal control over financial reporting is a process designed with the participation of our principal executive officer and principal financial officer or persons performing similar functions to provide reasonable assurance regarding the reliability of financial reporting and the preparation of our financial statements for external reporting purposes in accordance with U.S. generally accepted accounting principles.

Our internal control over financial reporting includes policies and procedures that: (a) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect our transactions and dispositions of assets, (b) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with U.S. generally accepted accounting principles, and that our receipts and expenditures are being made only in accordance with authorizations of our management and Board of Directors, and (c) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of our assets that could have a material effect on our financial statements.

Because of its inherent limitations, our disclosure controls and procedures may not prevent or detect misstatements. A control system, no matter how well conceived and operated, can only provide reasonable, not absolute, assurance that the objectives of the control system are met. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, have been detected. 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.

As of December 31, 2022, our management conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework established in *Internal Control-Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this evaluation, management has determined that EMCOR's internal control over financial reporting was effective as of December 31, 2022.

The effectiveness of our internal control over financial reporting as of December 31, 2022 has been audited by Ernst & Young LLP, an independent registered public accounting firm, as stated in its report appearing in Item 8 of this Form 10-K, which such report expressed an unqualified opinion on the effectiveness of our internal control over financial reporting as of December 31, 2022.

Changes in Internal Control over Financial Reporting

In addition, our management with the participation of our principal executive officer and principal financial officer or persons performing similar functions has determined that no change in our internal control over financial reporting (as that term is defined in Rules 13(a)-15(f) and 15(d)-15(f) of the Securities Exchange Act of 1934) occurred during the fourth quarter of our fiscal year ended December 31, 2022 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

Not applicable.

ITEM 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

Not applicable.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information required by this Item 10 with respect to directors is incorporated herein by reference to the section of our definitive Proxy Statement for the 2023 Annual Meeting of Stockholders entitled "Election of Directors," which Proxy Statement is to be filed with the Securities and Exchange Commission pursuant to Regulation 14A not later than 120 days after the end of the fiscal year to which this Form 10-K relates (the "Proxy Statement"). The information, if any, required by this Item 10 concerning compliance with Section 16(a) of the Securities Exchange Act of 1934 is incorporated herein by reference to the section of the Proxy Statement entitled "Delinquent Section 16(a) Reports." The information required by this Item 10 concerning the Audit Committee of our Board of Directors and Audit Committee financial experts is incorporated by reference to the section of the Proxy Statement entitled "Meetings and Committees of the Board of Directors" and "Corporate Governance." The information required by this Item 10 regarding stockholder recommendations for director candidates is incorporated by reference to the section of the Proxy Statement entitled "Recommendations for Director Candidates." Information regarding our executive officers is contained in Part I of this Form 10-K following Item 4 under the heading "Executive Officers of the Registrant." We have adopted a Code of Ethics that applies to our Chief Executive Officer and our Senior Financial Officers, which is listed on the Exhibit Index.

ITEM 11. EXECUTIVE COMPENSATION

The information required by this Item 11 is incorporated herein by reference to the sections of the Proxy Statement entitled "Compensation Discussion and Analysis," "Executive Compensation and Related Information," "Potential Post Employment Payments," "Director Compensation," "Compensation Committee Interlocks and Insider Participation" and "Compensation Committee Report."

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information required by this Item 12 (other than the information required by Section 201(d) of Regulation S-K, which is set forth below) is incorporated herein by reference to the sections of the Proxy Statement entitled "Security Ownership of Certain Beneficial Owners" and "Security Ownership of Management."

Securities Authorized for Issuance Under Equity Compensation Plans. The following table summarizes, as of December 31, 2022, certain information regarding equity compensation plans that were approved by stockholders and equity compensation plans that were not approved by stockholders.

	Equity Compensation Plan Information		
	A	B	C
Plan Category	Number of Securities to be Issued upon Exercise of Outstanding Options, Warrants and Rights	Weighted Average Exercise Price of Outstanding Options, Warrants and Rights	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	366,954	$ —	792,726 (1)
Equity Compensation Plans Not Approved by Security Holders	—	—	—
Total	366,954	$ —	792,726 (1)

(1) Represents shares of our common stock available for future issuance under our 2010 Incentive Plan, which may be issued pursuant to the award of restricted stock, unrestricted stock and/or awards that are valued in whole or in part by reference to, or are otherwise based on the fair market value of, our common stock.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE

The information required by this Item 13 is incorporated herein by reference to the sections of the Proxy Statement entitled "Compensation Committee Interlocks and Insider Participation" and "Corporate Governance."

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information required by this Item 14 is incorporated herein by reference to the section of the Proxy Statement entitled "Ratification of Appointment of Independent Auditors."

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a)(1) The following consolidated financial statements of EMCOR Group, Inc. and Subsidiaries are filed as part of this report under Part II, Item 8. Financial Statements and Supplementary Data:

Financial Statements:

Consolidated Balance Sheets - December 31, 2022 and 2021

Consolidated Statements of Operations - Years Ended December 31, 2022, 2021, and 2020

Consolidated Statements Comprehensive Income - Years Ended December 31, 2022, 2021, and 2020

Consolidated Statements of Cash Flows - Years Ended December 31, 2022, 2021, and 2020

Consolidated Statements of Equity - Years Ended December 31, 2022, 2021, and 2020

Notes to Consolidated Financial Statements

Reports of Independent Registered Public Accounting Firm (PCAOB ID: 42)

(a)(2) The following financial statement schedule is included in this Form 10-K: Schedule II - Valuation and Qualifying Accounts

All other schedules are omitted because they are not required, are inapplicable, or the information is otherwise shown in the consolidated financial statements or notes thereto.

(a)(3) The exhibits filed in response to Item 601 of Regulation S-K are listed in the Exhibit Index.

(b) Exhibit Index

EXHIBIT INDEX

Exhibit No.	Description	Incorporated By Reference to or Filed Herewith, as Indicated Below
3(a-1)	Restated Certificate of Incorporation of EMCOR filed December 15, 1994	Exhibit 3(a-5) to EMCOR's Registration Statement on Form 10 as originally filed March 17, 1995 ("Form 10")
3(a-2)	Amendment dated November 28, 1995 to the Restated Certificate of Incorporation of EMCOR	Exhibit 3(a-2) to EMCOR's Annual Report on Form 10-K for the year ended December 31, 1995 ("1995 Form 10-K")
3(a-3)	Amendment dated February 12, 1998 to the Restated Certificate of Incorporation of EMCOR	Exhibit 3(a-3) to EMCOR's Annual Report on Form 10-K for the year ended December 31, 1997 ("1997 Form 10-K")
3(a-4)	Amendment dated January 27, 2006 to the Restated Certificate of Incorporation of EMCOR	Exhibit 3(a-4) to EMCOR's Annual Report on Form 10-K for the year ended December 31, 2005 ("2005 Form 10-K")
3(a-5)	Amendment dated September 18, 2007 to the Restated Certificate of Incorporation of EMCOR	Exhibit A to EMCOR's Proxy Statement dated August 17, 2007 for Special Meeting of Stockholders held September 18, 2007
3(b)	Second Amended and Restated By-Laws of EMCOR	Exhibit 3.1 to EMCOR's Report on Form 8-K (Date of Report October 25, 2022)
4(a)	Sixth Amended and Restated Credit Agreement dated as of March 2, 2020 by and among EMCOR and a subsidiary and Bank of Montreal, as Agent and the lenders listed on the signature pages thereof	Exhibit 4(a) to EMCOR's Quarterly Report on Form 10-Q for the quarter ended March 31, 2020 ("March 2020 Form 10-Q")
4(b)	Sixth Amended and Restated Security Agreement dated as of March 2, 2020 among EMCOR, certain of its U.S. subsidiaries, and Bank of Montreal, as Agent	Exhibit 4(b) to the March 2020 Form 10-Q
4(c)	Sixth Amended and Restated Pledge Agreement dated as of March 2, 2020 among EMCOR, certain of its U.S. subsidiaries, and Bank of Montreal, as Agent	Exhibit 4(c) to the March 2020 Form 10-Q
4(d)	Fifth Amended and Restated Guaranty Agreement dated as of March 2, 2020 by certain of EMCOR's U.S. subsidiaries in favor of Bank of Montreal, as Agent	Exhibit 4(d) to the March 2020 Form 10-Q
4(e)	Description of Registrant's Securities	Exhibit 4(e) to EMCOR's Annual Report on Form 10-K for the year ended December 31, 2020 ("2020 Form 10-K")
4(f)	LIBOR Cessation Letter Agreement	Exhibit 4(f) to EMCOR's Annual Report on Form 10-K for the year ended December 31, 2021 ("2021 Form 10-K")
10(a)	Form of Severance Agreement ("Severance Agreement") between EMCOR and each of R. Kevin Matz and Mark A. Pompa	Exhibit 10.1 to EMCOR's Report on Form 8-K (Date of Report April 25, 2005)
10(b)	Form of Amendment to Severance Agreement between EMCOR and each of R. Kevin Matz and Mark A. Pompa	Exhibit 10(c) to EMCOR's Quarterly Report on Form 10-Q for the quarter ended March 31, 2007 ("March 2007 Form 10-Q")
10(c)	Letter Agreement dated October 12, 2004 between Anthony Guzzi and EMCOR (the "Guzzi Letter Agreement")	Exhibit 10.1 to EMCOR's Report on Form 8-K (Date of Report October 12, 2004)
10(d)	Form of Confidentiality Agreement between Anthony Guzzi and EMCOR	Exhibit C to the Guzzi Letter Agreement
10(e)	Form of Indemnification Agreement between EMCOR and each of its officers and directors	Exhibit F to the Guzzi Letter Agreement

EXHIBIT INDEX

Exhibit No.	Description	Incorporated By Reference to or Filed Herewith, as Indicated Below
10(f-1)	Severance Agreement ("Guzzi Severance Agreement") dated October 25, 2004 between Anthony Guzzi and EMCOR	Exhibit D to the Guzzi Letter Agreement
10(f-2)	Amendment to Guzzi Severance Agreement	Exhibit 10(g-2) to the March 2007 Form 10-Q
10(g-1)	Continuity Agreement dated as of June 22, 1998 between R. Kevin Matz and EMCOR ("Matz Continuity Agreement")	Exhibit 10(f) to EMCOR's Quarterly Report on Form 10-Q for the quarter ended June 30, 1998 ("June 1998 Form 10-Q")
10(g-2)	Amendment dated as of May 4, 1999 to Matz Continuity Agreement	Exhibit 10(m) to EMCOR's Quarterly Report on Form 10-Q for the quarter ended June 30, 1999 ("June 1999 Form 10-Q")
10(g-3)	Amendment dated as of January 1, 2002 to Matz Continuity Agreement	Exhibit 10(o-3) to EMCOR's Quarterly Report on Form 10-Q for the quarter ended March 31, 2002 ("March 2002 Form 10-Q")
10(g-4)	Amendment dated as of March 1, 2007 to Matz Continuity Agreement	Exhibit 10(n-4) to the March 2007 Form 10-Q
10(h-1)	Continuity Agreement dated as of June 22, 1998 between Mark A. Pompa and EMCOR ("Pompa Continuity Agreement")	Exhibit 10(g) to the June 1998 Form 10-Q
10(h-2)	Amendment dated as of May 4, 1999 to Pompa Continuity Agreement	Exhibit 10(n) to the June 1999 Form 10-Q
10(h-3)	Amendment dated as of January 1, 2002 to Pompa Continuity Agreement	Exhibit 10(p-3) to the March 2002 Form 10-Q
10(h-4)	Amendment dated as of March 1, 2007 to Pompa Continuity Agreement	Exhibit 10(o-4) to the March 2007 Form 10-Q
10(i-1)	Change of Control Agreement dated as of October 25, 2004 between Anthony Guzzi ("Guzzi") and EMCOR ("Guzzi Continuity Agreement")	Exhibit E to the Guzzi Letter Agreement
10(i-2)	Amendment dated as of March 1, 2007 to Guzzi Continuity Agreement	Exhibit 10(p-2) to the March 2007 Form 10-Q
10(i-3)	Amendment to Continuity Agreements and Severance Agreements with Anthony J. Guzzi, R. Kevin Matz and Mark A. Pompa	Exhibit 10(Q) to EMCOR's Annual Report on Form 10-K for the year ended December 31, 2008 ("2008 Form 10-K")
10(j)	Amendment dated as of March 29, 2010 to Severance Agreement with Anthony J. Guzzi, R. Kevin Matz and Mark A. Pompa	Exhibit 10.1 to Form 8-K (Date of Report March 29, 2010) ("March 2010 Form 8-K")
10(k-1)	Severance Agreement dated as of October 26, 2016 between EMCOR and Maxine L. Mauricio	Exhibit 10(l-1) to EMCOR's Quarterly Report on Form 10-Q for the quarter ended September 30, 2016 ("September 2016 Form 10-Q")
10(k-2)	Continuity Agreement dated as of October 26, 2016 between EMCOR and Maxine L. Mauricio ("Mauricio Continuity Agreement")	Exhibit 10(l-2) to the September 2016 Form 10-Q
10(k-3)	Amendment dated April 10, 2017 to Mauricio Continuity Agreement	Exhibit 10(l-3) to EMCOR's Quarterly Report on Form 10-Q for the quarter ended March 31, 2017
10(l-1)	EMCOR Group, Inc. Long-Term Incentive Plan ("LTIP")	Exhibit 10 to Form 8-K (Date of Report December 15, 2005)
10(l-2)	First Amendment to LTIP and updated Schedule A to LTIP	Exhibit 10(S-2) to 2008 Form 10-K
10(l-3)	Second Amendment to LTIP	Exhibit 10.2 to March 2010 Form 8-K
10(l-4)	Third Amendment to LTIP	Exhibit 10(q-4) to EMCOR's Quarterly Report on Form 10-Q for the quarter ended March 31, 2012 ("March 2012 Form 10-Q")

EXHIBIT INDEX

Exhibit No.	Description	Incorporated By Reference to or Filed Herewith, as Indicated Below
10(l-5)	Fourth Amendment to LTIP	Exhibit 10(l-5) to EMCOR's Quarterly Report on Form 10-Q for the quarter ended June 30, 2013
10(l-6)	Form of Certificate Representing Stock Units issued under LTIP	Exhibit 10(T-2) to EMCOR's Annual Report on Form 10-K for the year ended December 31, 2007 ("2007 Form 10-K")
10(l-7)	Fifth Amendment to LTIP	Exhibit 10(l-7) to EMCOR's Annual Report on Form 10-K for the year ended December 31, 2015 ("2015 Form 10-K")
10(l-8)	Sixth Amendment to LTIP	Exhibit 10(l-8) to 2015 Form 10-K
10(l-9)	Seventh Amendment to LTIP	Exhibit 10(l-9) to 2021 Form 10-K
10(m)	Key Executive Incentive Bonus Plan, as amended and restated	Exhibit B to EMCOR's Proxy Statement for its Annual Meeting held June 13, 2013
10(n)	Amended and Restated 2010 Incentive Plan	Exhibit 10.1 to Form 8-K (Date of Report June 11, 2020)
10(o)	EMCOR Group, Inc. Employee Stock Purchase Plan	Exhibit C to EMCOR's Proxy Statement for its Annual Meeting held June 18, 2008
10(p)	Director Award Program Adopted May 13, 2011, as amended and restated December 14, 2011	Exhibit 10(n)(n) to EMCOR's Annual Report on Form 10-K for the year ended December 31, 2011
10(q)	Form of Non-LTIP Stock Unit Certificate	Exhibit 10(p)(p) to the March 31, 2012 Form 10-Q
10(r)	Form of Director Restricted Stock Unit Agreement	Exhibit 10(k)(k) to EMCOR's Quarterly Report on Form 10-Q for the quarter ended June 30, 2012 ("June 2012 Form 10-Q")
10(s)	Director Award Program, as Amended and Restated December 16, 2014	Exhibit 10(z) to EMCOR's Annual Report on Form 10-K for the year ended December 31, 2014
10(t)	EMCOR Group, Inc. Voluntary Deferral Plan	Exhibit 10(E)(E) to EMCOR's Annual Report on Form 10-K for the year ended December 31, 2012 ("2012 Form 10-K")
10(u)	First Amendment to EMCOR Group, Inc. Voluntary Deferral Plan	Exhibit 10(e)(e) to EMCOR's Annual Report on Form 10-K for the year ended December 31, 2013
10(v)	Form of Executive Restricted Stock Unit Agreement	Exhibit 10(F)(F) to 2012 Form 10-K
10(w)	Executive Compensation Recoupment Policy	Exhibit 10(h)(h) to EMCOR's Annual Report on Form 10-K for the year ended December 31, 2015
14	Code of Ethics of EMCOR for Chief Executive Officer and Senior Financial Officers	Exhibit 14 to EMCOR's Annual Report on Form 10-K for the year ended December 31, 2003
21	List of Significant Subsidiaries	Filed herewith
23.1	Consent of Ernst & Young LLP	Filed herewith
31.1	Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 by Anthony J. Guzzi, the Chairman, President and Chief Executive Officer	Filed herewith
31.2	Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 by Mark A. Pompa, the Executive Vice President and Chief Financial Officer	Filed herewith
32.1	Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 by the Chairman, President and Chief Executive Officer	Furnished
32.2	Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 by the Executive Vice President and Chief Financial Officer	Furnished
95.1	Information concerning mine safety violations or other regulatory matters	Filed herewith

EXHIBIT INDEX

Exhibit No.	Description	Incorporated By Reference to or Filed Herewith, as Indicated Below
101	The following materials from EMCOR Group, Inc.’s Annual Report on Form 10-K for the year ended December 31, 2022, formatted in iXBRL (Inline eXtensible Business Reporting Language): (i) the Consolidated Balance Sheets, (ii) the Consolidated Statements of Operations, (iii) the Consolidated Statements of Comprehensive Income, (iv) the Consolidated Statements of Cash Flows, (v) the Consolidated Statements of Equity and (vi) the Notes to Consolidated Financial Statements.	Filed
104	Cover Page Interactive Data File (formatted in Inline XBRL and contained in Exhibit 101)	Filed

Pursuant to Item 601(b)(4)(iii) of Regulation S-K, upon request of the Securities and Exchange Commission, the Registrant hereby undertakes to furnish a copy of any unfiled instrument which defines the rights of holders of long-term debt of the Registrant’s subsidiaries.

ITEM 16. FORM 10-K SUMMARY

None.

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.

Date: February 23, 2023

EMCOR GROUP, INC.
(Registrant)

BY: /s/ ANTHONY J. GUZZI
Anthony J. Guzzi
Chairman, President and Chief Executive 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 indicated on February 23, 2023.

/s/ ANTHONY J. GUZZI **Anthony J. Guzzi**	Chairman, President and Chief Executive Officer (Principal Executive Officer)
/s/ MARK A. POMPA **Mark A. Pompa**	Executive Vice President and Chief Financial Officer (Principal Financial Officer)
/s/ JASON R. NALBANDIAN **Jason R. Nalbandian**	Senior Vice President and Chief Accounting Officer (Principal Accounting Officer)
/s/ JOHN W. ALTMEYER **John W. Altmeyer**	Director
/s/ RONALD L. JOHNSON **Ronald L. Johnson**	Director
/s/ DAVID H. LAIDLEY **David H. Laidley**	Director
/s/ CAROL P. LOWE **Carol P. Lowe**	Director
/s/ M. KEVIN MCEVOY **M. Kevin McEvoy**	Director
/s/ WILLIAM P. REID **William P. Reid**	Director
/s/ STEVEN B. SCHWARZWAELDER **Steven B. Schwarzwaelder**	Director
/s/ ROBIN WALKER-LEE **Robin Walker-Lee**	Director
/s/ REBECCA A. WEYENBERG **Rebecca A. Weyenberg**	Director

SCHEDULE II - VALUATION AND QUALIFYING ACCOUNTS
(In thousands)

Description	Balance at Beginning of Year	Costs and Expenses	Cumulative Effect Adjustment (1)	Deductions (2)	Balance at End of Year
Allowance for credit losses					
Year Ended December 31, 2022	$ 23,534	5,166	—	(6,318)	$ 22,382
Year Ended December 31, 2021	$ 18,031	8,041	—	(2,538)	$ 23,534
Year Ended December 31, 2020	$ 14,466	3,269	3,150	(2,854)	$ 18,031

(1) Represents the adjustment to our allowance for credit losses, which was recorded to retained earnings upon the adoption of Accounting Standards Codification Topic 326.

(2) Deductions primarily represent uncollectible balances of accounts receivable written off, net of recoveries.

EXHIBIT 21

<u>**LIST OF SIGNIFICANT SUBSIDIARIES**</u>	<u>**JURISDICTION OF INCORPORATION**</u>
Dynalectric Company	Delaware
Dyn Specialty Contracting, Inc.	Virginia
EMCOR Building Services, Inc.	Delaware
EMCOR Construction Services, Inc.	Delaware
EMCOR-CSI Holding Co.	Delaware
EMCOR Mechanical Services, Inc.	Delaware
MES Holdings Corporation	Delaware
Shambaugh & Son, L.P.	Texas

EXHIBIT 23.1

Consent of Independent Registered Public Accounting Firm

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

(1) Registration Statement (Form S-8 No. 333-168503) pertaining to the 2010 Incentive Plan of EMCOR Group, Inc.,

(2) Registration Statement (Form S-8 No. 333-152764) pertaining to the EMCOR Group, Inc. Employee Stock Purchase Plan,

(3) Registration Statement (Form S-8 No. 333-147015) pertaining to the 2007 Incentive Plan of EMCOR Group, Inc.,

(4) Registration Statement (Form S-8 No. 333-112940) pertaining to the EMCOR Group, Inc. Stock Option Agreements dated as of January 4, 1999, May 5, 1999, January 3, 2000, January 2, 2001, December 14, 2001, January 2, 2002, June 19, 2002, October 25, 2002, January 2, 2003, February 27, 2003, and January 2, 2004, the EMCOR Group, Inc. 2003 Non-Employee Directors' Stock Option Plan and the EMCOR Group, Inc. 2003 Management Stock Incentive Plan, and

(5) Registration Statement (Form S-8 No. 333-186926) pertaining to the EMCOR Group, Inc. Voluntary Deferral Plan;

of our reports dated February 23, 2023, with respect to the consolidated financial statements of EMCOR Group, Inc. and subsidiaries, and the effectiveness of internal control over financial reporting of EMCOR Group, Inc. and subsidiaries, included in this Annual Report (Form 10-K) of EMCOR Group, Inc. for the year ended December 31, 2022.

/s/ Ernst & Young LLP

Stamford, Connecticut
February 23, 2023

EXHIBIT 31.1

CERTIFICATION

I, Anthony J. Guzzi, certify that:

1. I have reviewed this annual report on Form 10-K of EMCOR Group, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant’s other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)), and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
    a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
    b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
    c) Evaluated the effectiveness of the registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
    d) Disclosed in this report any change in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and
5. The registrant’s other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the audit committee of the registrant’s board of directors (or persons performing the equivalent functions):
    a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant’s ability to record, process, summarize and report financial information; and
    b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant’s internal control over financial reporting.

Date: February 23, 2023

/s/ ANTHONY J. GUZZI

Anthony J. Guzzi
Chairman, President and
Chief Executive Officer

EXHIBIT 31.2

CERTIFICATION

I, Mark A. Pompa, certify that:

1. I have reviewed this annual report on Form 10-K of EMCOR Group, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant’s other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)), and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
   c) Evaluated the effectiveness of the registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
   d) Disclosed in this report any change in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and
5. The registrant’s other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the audit committee of the registrant’s board of directors (or persons performing the equivalent functions):
   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant’s ability to record, process, summarize and report financial information; and
   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant’s internal control over financial reporting.

Date: February 23, 2023

/s/ MARK A. POMPA

Mark A. Pompa
Executive Vice President and
Chief Financial Officer

EXHIBIT 32.1

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of EMCOR Group, Inc. (the “Company”) on Form 10-K for the period ended December 31, 2022 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Anthony J. Guzzi, Chairman, President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date:	February 23, 2023	/s/ ANTHONY J. GUZZI
		Anthony J. Guzzi Chairman, President and Chief Executive Officer

EXHIBIT 32.2

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of EMCOR Group, Inc. (the “Company”) on Form 10-K for the period ended December 31, 2022 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Mark A. Pompa, Executive Vice President and Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: February 23, 2023

/s/ MARK A. POMPA

Mark A. Pompa
Executive Vice President and
Chief Financial Officer

EXHIBIT 95.1

MINE SAFETY DISCLOSURES

During the reporting period covered by this report:

1. Our subsidiary, MOR PPM Inc. (“MOR PPM”), was issued two significant and substantial citations by the U.S. Mine Safety and Health Administration (“MSHA”) related to work MOR PPM performed at the K-T Feldspar Plant and Mine operated by The Quartz Corp USA in Mitchell, North Carolina. MSHA also assessed civil penalties totaling $1,384 for citations related to work performed by MOR PPM at the K-T Feldspar Plant and Mine. MOR PPM has no other disclosures to report under section 1503 for its work at this mine.

2. MSHA assessed a civil penalty in the amount of $133 for a citation MSHA issued to MOR PPM related to work MOR PPM performed at the Oregon Plant operated by Covia Solutions Inc. in Ogle, Illinois. MOR PPM has no other disclosures to report under section 1503 for its work at this mine.

3. MSHA assessed a civil penalty in the amount of $133 for a citation MSHA issued to MOR PPM related to work MOR PPM performed at the Crane Plant operated by Covia Energy LLC in Crane, Texas. MOR PPM has no other disclosures to report under section 1503 for its work at this mine.