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Vulcan Materials Annual Report 2024

Form 10-K (NYSE:VMC)

Published: February 22nd, 2024

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Year	Report	Size
2023	Vulcan Materials (VMC) 10-K Annual Report - Feb 24th, 2023	2.5mb
2022	Vulcan Materials (VMC) 10-K Annual Report - Feb 25th, 2022	296kb
2021	Vulcan Materials (VMC) 10-K Annual Report - Feb 25th, 2021	295kb
2020	Vulcan Materials (VMC) 10-K Annual Report - Feb 26th, 2020	341kb
2019	Vulcan Materials (VMC) 10-K Annual Report - Feb 26th, 2019	398kb
2018	Vulcan Materials (VMC) 10-K Annual Report - Feb 27th, 2018	591kb
2017	Vulcan Materials (VMC) 10-K Annual Report - Feb 24th, 2017	2.7mb
2016	Vulcan Materials (VMC) 10-K Annual Report - Feb 25th, 2016	2.1mb
2015	Vulcan Materials (VMC) 10-K Annual Report - Feb 27th, 2015	303kb
2014	Vulcan Materials (VMC) 10-K Annual Report - Feb 26th, 2014	295kb
2013	Vulcan Materials (VMC) 10-K Annual Report - Feb 28th, 2013	880kb
2012	Vulcan Materials (VMC) 10-K Annual Report - Feb 29th, 2012	851kb
2011	Vulcan Materials (VMC) 10-K Annual Report - Feb 28th, 2011	848kb
2010	Vulcan Materials (VMC) 10-K Annual Report - Feb 26th, 2010	786kb
2009	Vulcan Materials (VMC) 10-K Annual Report - Mar 2nd, 2009	824kb
2008	Vulcan Materials (VMC) 10-K Annual Report - Feb 29th, 2008	411kb

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-K

þ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the Fiscal Year Ended **December 31, 2023**
OR

o **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the Transition Period From to

Commission file number: **001-33841**

VULCAN MATERIALS COMPANY
(Exact Name of Registrant as Specified in Its Charter)

New York Stock Exchange

New Jersey
(State or other jurisdiction of incorporation or organization)

20-8579133
(I.R.S. Employer Identification No.)

1200 Urban Center Drive, Birmingham, Alabama
(Address of Principal Executive Offices)

35242
(Zip Code)

(205) 298-3000
(Registrant's telephone number, including area code)

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, $1 par value	**VMC**	**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 þ No o

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

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 þ No o

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 during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).
Yes þ No o

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 þ
Non-accelerated filer o

Accelerated filer o
Smaller reporting company o
Emerging growth company o

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. o

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. þ

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. o

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). o

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act).	Yes o No þ
Aggregate market value of voting and non-voting common stock held by non-affiliates as of June 30, 2023:	$29,892,023,372
Number of shares of common stock, $1.00 par value, outstanding as of February 13, 2024:	132,227,110

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's annual proxy statement for the annual meeting of its shareholders to be held on May 10, 2024 are incorporated by reference into Part III of this Annual Report on Form 10-K.

VULCAN MATERIALS COMPANY

ANNUAL REPORT ON FORM 10-K
FISCAL YEAR ENDED DECEMBER 31, 2023

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Unless otherwise stated or the context otherwise requires, references in this report to "Vulcan," the "Company," "we," "our," or "us" refer to Vulcan Materials Company and its consolidated subsidiaries.

“SAFE HARBOR” STATEMENT UNDER THE PRIVATE SECURITIES LITIGATION REFORM ACT OF 1995

Certain of the matters and statements made herein or incorporated by reference into this report constitute forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934. All such statements are made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. These statements reflect our intent, belief or current expectation. Often, forward-looking statements can be identified by the use of words, such as “anticipate,” “may,” “believe,” “estimate,” “project,” “expect,” “intend” and words of similar import. In addition to the statements included in this report, we may from time to time make other oral or written forward-looking statements in other filings under the Securities Exchange Act of 1934 or in other public disclosures. Forward-looking statements are not guarantees of future performance, and actual results could differ materially from those indicated by the forward-looking statements. All forward-looking statements involve certain assumptions, risks and uncertainties that could cause actual results to differ materially from those included in or contemplated by the statements. These assumptions, risks and uncertainties include, but are not limited to:

- general economic and business conditions
- our dependence on the construction industry, which is subject to economic cycles
- the timing and amount of federal, state and local funding for infrastructure
- changes in the level of spending for private residential and private nonresidential construction
- changes in our effective tax rate
- domestic and global political, economic or diplomatic developments
- the increasing reliance on information technology infrastructure, including the risks that the infrastructure does not work as intended, experiences technical difficulties or is subjected to cyber-attacks
- the impact of the state of the global economy on our businesses and financial condition and access to capital markets
- international business operations and relationships, including recent actions taken by the Mexican government with respect to our property and operations in that country
- the highly competitive nature of the construction industry
- a pandemic, epidemic or other public health emergency
- the impact of future regulatory or legislative actions, including those relating to climate change, biodiversity, land use, wetlands, greenhouse gas emissions, the definition of minerals, tax policy and domestic and international trade
- the outcome of pending legal proceedings
- pricing of our products
- weather and other natural phenomena, including the impact of climate change and availability of water
- availability and cost of trucks, railcars, barges and ships, as well as their licensed operators, for transport of our materials
- energy costs
- costs of hydrocarbon-based raw materials
- healthcare costs
- labor relations, shortages and constraints
- the amount of long-term debt and interest expense we incur
- changes in interest rates
- volatility in pension plan asset values and liabilities, which may require cash contributions to the pension plans
- the impact of environmental cleanup costs and other liabilities relating to existing and/or divested businesses
- our ability to secure and permit aggregates reserves in strategically located areas
- our ability to manage and successfully integrate acquisitions
- the effect of changes in tax laws, guidance and interpretations
- significant downturn in the construction industry may result in the impairment of goodwill or long-lived assets

- changes in technologies, which could disrupt the way we do business and how our products are distributed
- the risks of open pit and underground mining
- expectations relating to environmental, social and governance considerations
- claims that our products do not meet regulatory requirements or contractual specifications
- the risks set forth in Item 1A “Risk Factors,” Item 3 “Legal Proceedings,” Item 7 “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” and Note 12 “Commitments and Contingencies” to the consolidated financial statements in Item 8 “Financial Statements and Supplementary Data,” all as set forth in this report
- other assumptions, risks and uncertainties detailed from time to time in our filings made with the Securities and Exchange Commission

All forward-looking statements are made as of the date of filing or publication. We undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise, except to the extent required by law. Investors are cautioned not to rely unduly on such forward-looking statements when evaluating the information presented in our filings, and are advised to consult any of our future disclosures in filings made with the Securities and Exchange Commission and our press releases with regard to our business and consolidated financial position, results of operations and cash flows.

OUR MISSION

We are the company we are today thanks to the positive actions of our employees. We believe that doing the right thing is good for our business, our environment and our society. That’s our commitment.

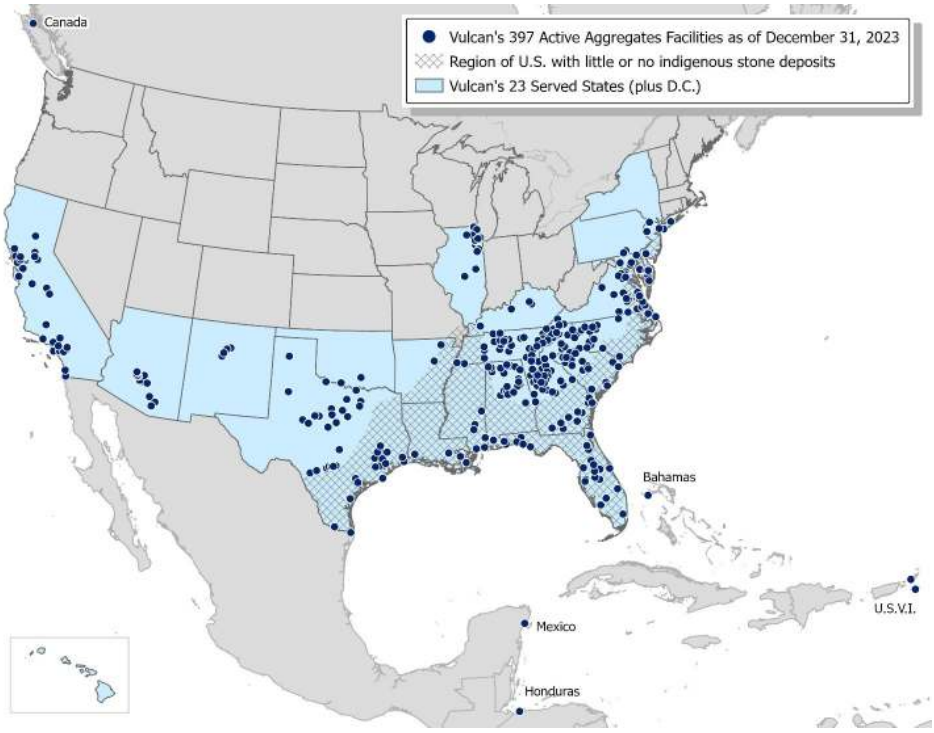
Our Mission

Provide quality products and services that consistently exceed our customers’ expectations. Be responsible stewards with respect to safety and the environmental impact of our operations and products. Drive value and superior returns for our customers, employees, communities and shareholders.

- We maintain the highest degree of respect for people — for their dignity, talents and interests. We believe that empowering, mentoring, training and rewarding our people helps create a highly engaged workforce, happy people and sustainable, long-term value.
- We act fairly and honorably to earn the respect and trust of all parties with whom we interact. We hold ourselves to high ethical standards, including abiding by both the letter and spirit of the laws and regulations related to our business.
- We are committed to excellence in all of our activities. We value innovation. We strive to maintain a position of leadership in all of our businesses.

DOING THE RIGHT THING, THE RIGHT WAY, AT THE RIGHT TIME. IT’S THE VULCAN WAY.

Vulcan Materials Company operates primarily in the U.S. and is the nation's largest supplier of construction aggregates (primarily crushed stone, sand and gravel) and a major producer of aggregates-intensive downstream products such as asphalt mix and ready-mixed concrete. We provide the basic materials for the infrastructure needed to maintain and expand the U.S. economy. Delivered by trucks, ships, barges and trains, our products are the indispensable materials building homes, offices, places of worship, schools, hospitals and factories, as well as vital infrastructure including highways, bridges, roads, ports and harbors, water systems, campuses, dams, airports and rail networks. As of December 31, 2023, we had 397 active aggregates facilities as shown below.



Production and sales are currently halted at our Calica operations in Mexico. For additional information, see Note 12 "Commitments and Contingencies" in Item 8 "Financial Statements and Supplementary Data."

Additionally, we further serve our customers through our 66 asphalt facilities and 63 concrete facilities located in Alabama, Arizona, California, Maryland, New Mexico, Tennessee, Texas, Virginia, the U.S. Virgin Islands and Washington D.C.

Our top ten revenue producing states accounted for 88% of our 2023 revenues while our top five accounted for 65%.

VULCAN'S TOP TEN REVENUE PRODUCING STATES IN 2023

1. Texas
2. California
3. Georgia
4. Tennessee
5. Virginia
6. Florida
7. Arizona
8. Alabama
9. South Carolina
10. North Carolina

BUSINESS STRATEGY

Our strategy and competitive advantage are based on our strength in aggregates which are used in most types of construction and in the production of asphalt mix and ready-mixed concrete. Our strategy for long-term value creation is built on: (1) an aggregates-focused business, (2) an emphasis on durable growth, (3) a holistic approach to land management, and (4) our commitment to safety, health and the environment.

1. AGGREGATES FOCUS

Aggregates are an essential product with high barriers to entry, limited substitutes and very favorable pricing characteristics. Vulcan is uniquely positioned as the largest aggregates supplier in the U.S. and the most aggregates-focused public company.

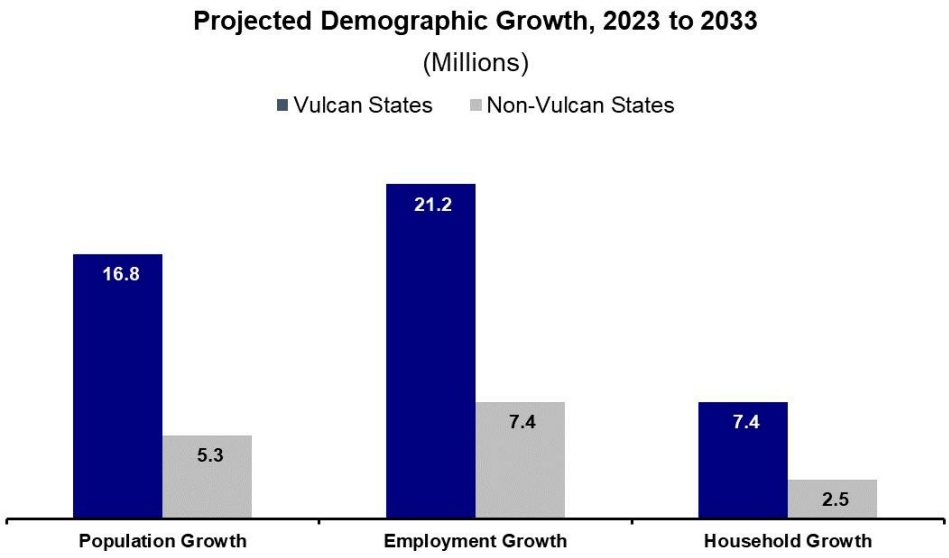
Given our focus on aggregates, we:

TAKE ADVANTAGE OF SIZE AND SCALE: While certain aspects of each aggregates operation are unique, such as its location within a local market and its particular geological characteristics, every operation uses a similar group of assets to produce saleable aggregates and provide customer service. Our 397 active aggregates facilities as of December 31, 2023 provide opportunities to share and scale best practices across our operations and to procure equipment (fixed and mobile), parts, supplies and services in an efficient and cost-effective manner, both regionally and nationally. Additionally, we are able to leverage our size for administrative support, customer service, accounting, procurement, technical support and engineering.

BUILD AND HOLD SUBSTANTIAL RESERVES: Our reserves are critical to our long-term success. We currently have 15.6 billion tons of proven and probable aggregates reserves. They are strategically located to economically serve high-growth areas in the United States that are expected to require large amounts of aggregates to meet future construction demand. Moreover, there are significant barriers to entry in many metropolitan markets due to stringent zoning and permitting regulations. These restrictions curtail expansion in certain areas, but they also increase the value of our reserves at existing locations.

While aggregates is our focus and primary business, we also offer aggregates-intensive downstream asphalt and concrete products in select markets where these products enhance our aggregates-driven returns.

Demand for our products is dependent on construction activity and correlates positively with changes in population, employment and household formations. As such, we have pursued a strategy to increase our presence in U.S. metropolitan areas that are expected to grow the most rapidly and to divest assets that are no longer considered part of our long-term growth strategy. During the next decade (2023 - 2033), Woods & Poole Economics projects that 76% of the U.S. population growth, 75% of household formations and 74% of new jobs will occur in Vulcan-served states. Our coast-to-coast footprint serves 35 of the top 50 highest-growth metropolitan statistical areas in 23 states plus Washington D.C. The close proximity of our aggregates reserves and our production facilities to this projected population growth creates many opportunities to invest capital in high-return projects.



Source: Woods & Poole Economics, Complete Economic and Demographic Data Source (CEDDS) 2023

2. DURABLE GROWTH

Our durable growth comes from organic growth in our existing business as well as inorganic growth through mergers and acquisitions supplemented with greenfield developments. Together, this three-pronged approach enables us to enhance our core and expand our reach. The result is an ability to grow our aggregates unit profitability throughout the cycle.

ENHANCING OUR CORE: We drive organic growth and differentiate ourselves from other aggregates producers through our strategic disciplines, the Vulcan Way of Selling (Commercial Excellence & Logistics Innovation) and the Vulcan Way of Operating (Operational Excellence & Strategic Sourcing). The Vulcan Way of Selling uses technology, innovation and analytics to win work and capture value. Custom, proprietary technology gives us real-time, forward looking insight into all our end markets. Coaching and development of our people, along with clear performance metrics and accountability, drive sales execution. The Vulcan Way of Operating is the combination of tools, processes and approaches used by our teams to drive value in our operations every day. By focusing on consistent execution, production efficiency and controlling costs, we provide the highest quality material and the best service to our customers. Expanding on these strategic disciplines:

Commercial Excellence — We place great emphasis on the unique characteristics of each geographic market, and we interact with our customers accordingly. We leverage our coast-to-coast presence, sharing best practices and real-time, forward-looking metrics with our sales teams to drive high quality discussions, value selling and improved solutions for our customers. We have clearly defined roles and responsibilities which enable our sales teams to spend less time on non-selling activities and more time responding to our customers' needs.

Logistics Innovation — Our industry-leading logistics team manages the shipments of nearly half of our products. Our logistics systems produce real-time information including on-site and mobile visibility to orders, deliveries and digital shipping records. Partnering with our customers (truck drivers and contractors), our bundled logistics solutions enable streamlined scheduling, speed and accuracy of delivery, as well as efficient back-office processes.

Operational Excellence — We strive for continuous and sustainable improvements in our operating disciplines and our industry-leading safety performance. Leveraging our size and diversity, we harness technology and innovation to equip our operators with the tools and information they need to improve our customer service, asset utilization and production efficiencies. We are dedicated to continuous improvement of our safety programs through ongoing internal inspections, regulatory audits and sharing of best practices.

Strategic Sourcing — We focus on value preservation and creation in our sourcing, leveraging our scale to save money across the organization while making sure our employees have the supplies and equipment they need. Deploying best practices and innovation allows us to spend more time in our plants and with our suppliers to deliver the right parts and services at the right time and optimize the total cost of ownership.

As a result of these strategic disciplines, from 2021 to 2023, aggregates gross profit per ton has increased from $5.81 to $7.40 (an increase of 27%), and aggregates cash gross profit per ton has increased from $7.43 to $9.46 (an increase of 27%). Aggregates cash gross profit per ton is a Non-GAAP financial measure. Non-GAAP financial measures are defined and reconciled within Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations" under the caption "Reconciliation of Non-GAAP Financial Measures."

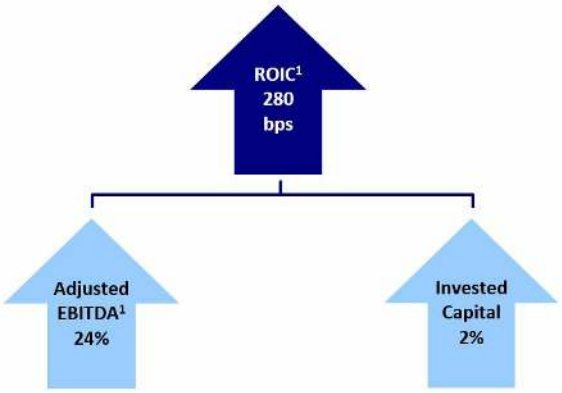
EXPANDING OUR REACH: We also drive growth by expanding our reach through mergers and acquisitions and by pursuing greenfield development in anticipation of future growth. Our disciplined approach focuses on aggregates, aims to achieve a number one or number two position in the markets we serve and strategically pursues downstream asphalt and concrete businesses complementary to our aggregates position in select markets.

Since becoming a public company in 1956, Vulcan has principally grown by mergers and acquisitions. In 1999, we acquired CalMat Co., thereby expanding our aggregates operations into California and Arizona and making us one of the nation's leading producers of asphalt mix. In 2007, we acquired Florida Rock Industries, Inc., expanding our aggregates business in Florida and our aggregates and ready-mixed concrete businesses in other Mid-Atlantic and Southeastern states. In 2017, we acquired Aggregates USA, greatly expanding our ability to serve customers in Florida, Georgia and South Carolina. In 2021, we acquired U.S. Concrete, enhancing and expanding our aggregates-led business in attractive growing metropolitan areas.

While an aggregates-focused business, we selectively make investments in downstream asphalt and concrete products that drive local market profitability. Our downstream businesses use internally-produced aggregates almost exclusively when available in the market from a Vulcan aggregates operation. In 2017, we entered the asphalt market in Tennessee through the acquisition of several asphalt mix operations and a construction paving business. In 2018, we entered the asphalt mix and construction paving markets in Alabama and expanded our asphalt operations and service offerings in Texas through the acquisition of several asphalt mix operations and construction paving businesses. Through our 2021 acquisition of U.S. Concrete, we entered the New Jersey, New York, Pennsylvania and U.S. Virgin Islands concrete markets and expanded our California, Texas and Washington D.C. concrete markets. To optimize our asset portfolio consistent with our aggregates-focused business model, we subsequently exited the New Jersey, New York and Pennsylvania concrete markets in 2022 and exited the Texas concrete market in 2023.

Additionally, throughout our history, we have completed many bolt-on aggregates and downstream acquisitions that have contributed significantly to our growth. From 2021 to 2023, we invested $2,233.1 million in acquisitions as outlined in Note 19 “Acquisitions and Divestitures” in Item 8 “Financial Statements and Supplementary Data.” During the last 10 years, we have completed almost 40 acquisitions, including more than 70 aggregates quarries and sales yards in our top 10 revenue states.

Our annual Return on Invested Capital (ROIC) increased 2.8 percentage points (280 basis points) in 2023 as a result of solid operating earnings growth and disciplined capital management. Adjusted EBITDA increased 24% in 2023 (net earnings attributable to Vulcan increased 62%), while invested capital only increased by 2%.



[1] *ROIC and Adjusted EBITDA are Non-GAAP financial measures. Non-GAAP financial measures are defined and reconciled within Item 7 “Management’s Discussion and Analysis of Financial Condition and Results of Operations” under the caption “Reconciliation of Non-GAAP Financial Measures.”*

3. LAND MANAGEMENT

With approximately 300,000 acres in our land portfolio, a long-term holistic approach to preserving land and water is integral to sustaining our success. From pre-mining to mining to reclamation, we are actively managing the entire life cycle of our land to create maximum value for the business, our shareholders and our communities.

We are putting land to use before we mine by creating opportunities such as agricultural use and timber development. After mining, our land and water assets will be converted to other valuable uses including drinking water reservoirs, aquifer recharge basins, public parks, habitat mitigation banks, wetlands, productive farmland and residential and commercial developments. In 2023, we sold excess real estate in Virginia for net proceeds of $66.1 million resulting in a pretax gain of $65.7 million and real estate associated with a former recycled concrete facility in Illinois for net proceeds of $16.5 million resulting in a pretax gain of $15.2 million. In 2022, we sold excess real estate in Southern California for net proceeds of $23.6 million resulting in a pretax gain of $23.5 million. In 2021, we sold previously mined land in Southern California that we had reclaimed for commercial and retail development for net proceeds of $182.3 million resulting in a pretax net gain of $114.7 million.

Because of the evolving needs of our communities, we listen to and collaborate with our neighbors to prepare the land for its highest and best use. Many of our operations not only meet regulatory requirements for reclamation planning at the end of a quarry's life but they also use a proactive approach to conservation and engagement while the quarries are in operation. For example, we originally purchased land in Polk County, Florida, with the intention of building a quarry. However, after an extensive review of the environmental impacts to sensitive species, our environmental team collaborated with various governmental agencies to identify an alternative beneficial use for the land. The property became the Tiger Creek Conservation Bank. Beginning in 2022, this property now serves as a protected habitat for endangered or sensitive species. Designation as a conservation bank allows us to generate revenue by selling mitigation credits for third party impacts to endangered or sensitive species or to utilize those credits for our impacts. Our engagement with state, regional and local governments to develop solutions like this today will benefit future generations.

4. SAFETY, HEALTH AND THE ENVIRONMENT

A strategy for sustainable, long-term value creation must include doing right by our employees, our neighbors and the environment in which we operate.

Our leadership recognized decades ago the significance and importance of leadership in the Safety, Health and Environmental areas. The Safety, Health and Environmental Affairs Committee of our Board of Directors, along with the full Board, has oversight responsibility for our safety, health and environmental programs and results. Our Safety, Health & Environmental Management Committee, made up of the senior leadership team along with other key senior personnel from cross-functional operations and staff disciplines, has the ongoing management responsibility for all of our safety, health and environmental initiatives. We are a leader in our industry in safety performance by applying the shared experiences, expertise and resources at each of our locally led sites with an emphasis on taking care of one another. In 2023, we experienced an overall Mine Safety and Health Administration (MSHA) safety performance of 1.2 injuries per 200,000 employee hours worked, which is well below the 2022 industry average of 1.8 injuries.

Our community relations programs serve our neighbors while ensuring that we grow and thrive in the communities where we operate. We leverage our charitable foundation and company funds to support food banks, healthcare services, childhood education remote learning programs and other initiatives designed to lessen the difficulties experienced in many of our communities. Our charitable foundation alone has provided nearly $70 million in support over the past 20 years to essential charitable, civic and educational organizations that strengthen and enrich our communities. The actions of our Fort Myers team in Florida are a prime example of our commitment to community relations. In the wake of Hurricane Ian, which struck Florida's west coast in September 2022, among those affected were many of our own employees; yet the same employees set aside their own hardships and reported to the facility just hours after the storm. We produced and delivered more than 145,000 tons of essential construction materials, with the support of more than 60 employees and 100 truck drivers, for the repair of the Sanibel Causeway, which enabled its reopening 10 days ahead of schedule.

Our environmental stewardship commitment is designed to protect plant and animal species and habitats, as well as the air we breathe, the water we use and the planet we all share. In all parts of our company, from local operations to our corporate and regional offices to our international business and ocean-going shipping, we are focused on ensuring that our operations are efficient in ways that are economically and environmentally sustainable. As an example of our commitment to environmental stewardship, we have been a proud national partner of the Wildlife Habitat Council (WHC) since 1990 when our Sanders quarry became the first site in the U.S. to obtain certification by WHC. We currently maintain 39 WHC certified sites containing wildlife enhancement programs. Our solar generation efforts at our San Emidio Quarry in California provide another example of our commitment to environmental stewardship. We converted 10 acres of our quarry into a solar facility which is projected to generate more than four million kilowatt-hours of clean renewable energy annually, enough to provide approximately 70% of the quarry's annual electricity needs. This facility supports our goals to source renewable energy, reducing the carbon intensity of our products and improving energy resiliency.

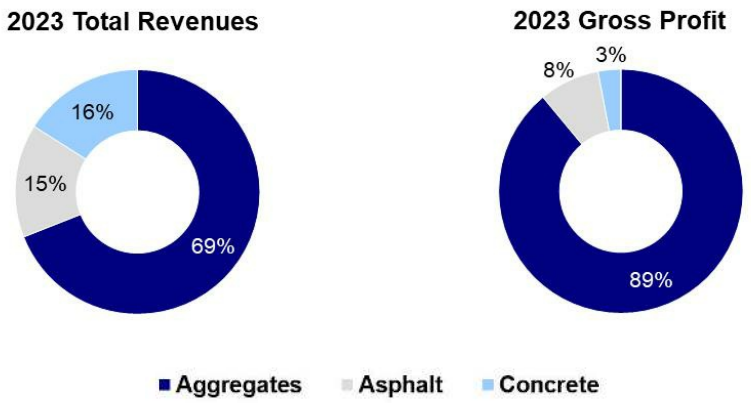
In addition, the recycling of aggregates-containing construction materials including concrete and recycled asphalt pavement (RAP) is an important part of our business. The sources of these materials are highway, infrastructure and other demolition projects where concrete structures or asphalt paving is being removed. During 2023, we reused 2.0 million tons of RAP and recycled 1.9 million tons of concrete. The recycling of these aggregates-containing construction materials reduces carbon emissions that impact climate change while providing a valuable service to our customers and communities, extending the life of our aggregates reserves and helping us manage the cost of production.

For a discussion of our energy management and greenhouse gas emissions initiatives, see the Environmental Stewardship and Climate Change section later within this Item 1 under Other Business-Related Items.

PRODUCT LINES

Our products are used to build the roads, tunnels, bridges, railroads and airports that connect us, and to build the hospitals, schools, shopping centers, factories and places of worship that are essential to our lives, our communities and the economy. We have four operating (and reportable) segments (Aggregates, Asphalt, Concrete and Calcium) organized around our principal product lines. As of December 31, 2023, we had 397 active aggregates facilities, 66 asphalt facilities, 63 concrete facilities and 1 calcium facility.

Our 2023 total revenues and gross profit by segment are illustrated as follows (Calcium revenues and gross profit were less than one percent):



For actual amounts, see Note 15 “Segment Reporting” in Item 8 “Financial Statements and Supplementary Data.”

1. AGGREGATES

Our construction aggregates are used in a number of ways:

- as a base material underneath highways, walkways, airport runways, parking lots and railroads
- to aid in water filtration, purification and erosion control
- as a raw material used in combination with other resources to construct many of the items we rely on to sustain our quality of life, including:
  - houses and apartments
  - roads, bridges and parking lots
  - schools and hospitals
  - commercial buildings and retail space
  - sewer systems
  - power plants
  - airports and runways

AGGREGATES INDUSTRY

Key strengths of the U.S. aggregates industry and our business include:

LOCATION AND TRANSPORTATION OF RESERVES: Aggregates have a high weight-to-price ratio that makes transportation expensive relative to the cost of the material. In most cases, aggregates are produced near where they are used so that the transportation cost does not exceed the product cost. Where practical, we have operations located close to our local markets because the cost of trucking materials long distances is prohibitive. Approximately 82% of our total aggregates shipments are delivered exclusively from the producing location to the customer by truck.

Exceptions to this typical market structure include areas along the U.S. Gulf Coast and the Eastern Seaboard where there are limited supplies of locally available, high-quality aggregates. We serve these markets from quarries that have access to cost-effective long-haul transportation — shipping by barge and rail — and from our quarries in Quintana Roo, Mexico (see the NAFTA Arbitration section in Note 12 “Commitments and Contingencies” in Item 8 “Financial Statements and Supplementary Data”) and Puerto Cortés, Honduras (acquired in 2022) with our fleet of Panamax-class, self-unloading ships. Additionally, we serve markets in California and Hawaii from our quarry in British Columbia, Canada by means of a long-term marine shipping agreement with CSL Americas. Approximately 16% of our total aggregates shipments are delivered by truck to the customer after reaching a sales yard by rail or water. The remaining 2% of aggregates shipments are delivered directly to the customer by rail or water.

LIMITED PRODUCT SUBSTITUTION: There are limited substitutes for quality aggregates. Recycled concrete and asphalt have certain applications as a lower-cost alternative to virgin aggregates. However, many types of construction projects cannot be served by recycled concrete and require the use of virgin aggregates to meet technical specifications and performance-based criteria for durability, strength and other qualities. Likewise, the amount of recycled asphalt included in asphalt mix as a substitute for aggregates is limited due to specifications.

HIGHLY FRAGMENTED INDUSTRY: The U.S. aggregates industry is composed of over 5,000 companies that operated approximately 10,000 facilities during 2023. This fragmented structure provides many opportunities for consolidation. Companies in the industry commonly enter new markets or expand positions in existing markets through the acquisition of existing facilities.

Through strategic acquisitions and investments, we have developed an unmatched coast-to-coast footprint of strategically located permitted reserves concentrated in and serving the nation’s key growth centers. We have over 26,000 customers in 23 states, the U.S. Virgin Islands, Washington D.C., British Columbia (Canada), Freeport (Bahamas), Puerto Cortés (Honduras) and Quintana Roo (Mexico).

FLEXIBLE PRODUCTION CAPABILITIES: The production of aggregates is a mechanical process in which stone is crushed and, through a series of screens, separated into various sizes depending on how it will be used. Direct production costs of aggregates primarily include: a) wages and fringe benefits; b) depreciation, depletion, accretion and amortization of capital (or long-term) assets; c) operating parts and supplies; d) repair and maintenance; e) third-party contracted services and f) energy (primarily electricity and diesel). Production capacity is flexible by adjusting operating hours to meet changing market demand. We are currently operating considerably below full capacity, making us extremely well positioned to further benefit from economies of scale when additional growth materializes.

RAW MATERIAL INPUTS LARGELY CONTROLLED: Unlike typical industrial manufacturing industries, the aggregates industry does not require the input of raw material beyond owned or leased aggregates reserves. Stone, sand and gravel are naturally occurring resources. However, production does require the use of explosives, hydrocarbon fuels and electric power.

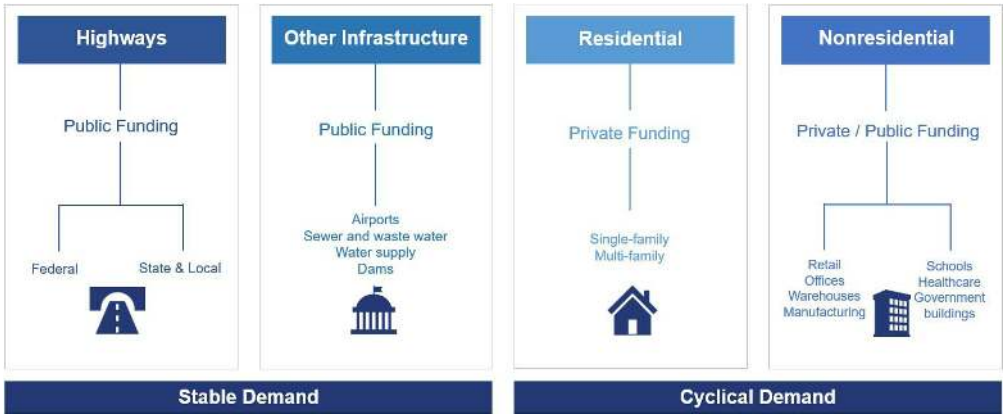
DEMAND CYCLES: Long-term growth in demand for aggregates is largely driven by growth in population, jobs and households. While short-term and medium-term demand for aggregates fluctuates with economic cycles, declines have historically been followed by strong recoveries.

The drivers underpinning long-term demand and sustained pricing growth remain firmly in place in both the public and private sectors of the economy. They include: population growth; gains in total employment and in household income; a continuing increase in household formations; the growing need for additional housing stock; a multi-year federal transportation law in place and continuing increases in transportation funding at state and local levels; stable state tax receipts; and a multi-year federal infrastructure investment law and continued political awareness and focus on the need to invest in infrastructure.

AGGREGATES MARKETS

We focus on the U.S. markets with above-average long-term expected population growth and where construction is expected to expand. We produce and sell aggregates (crushed stone, sand and gravel, sand, and other aggregates) and related products and services in 23 states, the U.S. Virgin Islands, Washington D.C., Freeport (Bahamas), British Columbia (Canada), Puerto Cortés (Honduras) and Quintana Roo (Mexico) — see the NAFTA Arbitration section in Note 12 “Commitments and Contingencies” in Item 8 “Financial Statements and Supplementary Data.” We also ship railroad ballast to 12 additional states. We serve both the public and the private sectors.

Public sector construction activity has historically been more stable and less cyclical than private sector construction, and it generally requires more aggregates per dollar of construction spending. Private sector construction (primarily residential and nonresidential buildings) typically is more affected by general economic cycles than public sector projects (particularly highways, roads and bridges), which tend to receive more consistent levels of funding throughout economic cycles.



PUBLIC SECTOR CONSTRUCTION MARKET

Public sector construction includes spending by federal, state and local governments for highways, bridges, buildings, airports, schools, prisons, sewer and waste disposal systems, water supply systems, dams, reservoirs and other public construction projects. Construction for power plants and other utilities is funded from both public and private sources. In 2023, publicly funded construction accounted for approximately 40% of our total aggregates shipments, and approximately 20% of our aggregates sales by volume were used in highway construction projects.

PUBLIC SECTOR FUNDING: Generally, public sector construction spending is more stable than private sector construction spending; public sector spending is less sensitive to interest rates and has historically been supported by multi-year laws, which provide certainty in funding amounts, program structures, rules and regulations. Federal spending is governed by authorization, budget and appropriations laws. The level of state and local spending on infrastructure varies across the United States and depends on individual state needs and economies.

STATE AND LOCAL TRANSPORTATION FUNDING: Since 2013, 33 states and the District of Columbia have increased or adjusted taxes on motor fuel to increase revenues available for transportation investment, including 14 Vulcan-served states and the District of Columbia. Several states in our footprint have variable-rate fuel taxes linked to measures of inflation, gas prices, population or motor vehicle fuel efficiency standards, including Alabama, California, Florida, Georgia, Illinois, Maryland, North Carolina, Virginia and the District of Columbia.

In addition, we benefit from state and local transportation funding ballot measures. In 2023, voters in 15 states approved 88% of nearly 250 measures which will generate nearly $7 billion in one-time and recurring revenues for transportation investment. This approval rate was in line with the historical average; voters have approved an average of 85% of nearly 3,000 transportation investment ballot measures since 2014. Major transportation funding measures in Vulcan-served areas approved in 2023 are estimated to result in approximately $5.7 billion in revenues and bond proceeds primarily dedicated to roads, streets and bridges.

FEDERAL HIGHWAY FUNDING: In November 2021, President Biden signed a historic, bi-partisan infrastructure bill, the Infrastructure Investment and Jobs Act (IIJA), into law. The IIJA provides the largest increase in federal highway, road and bridge funding in more than six decades with a five-year reauthorization of Federal-Aid Highway Program funding. The total Federal-Aid Highway Program obligation limitation under IIJA starts at $66.9 billion in Fiscal Funding Year (FFY) 2022 and increases to $72.1 billion in FFY 2026, for a cumulative total of nearly $350 billion.

These numbers include one-time additional funding for large road and bridge projects, such as $40 billion for bridge repair, replacement and rehabilitation. Of the bridge funds, approximately $16.2 billion is earmarked for projects in Vulcan-served states. Through September 30, 2023, states have committed highway and bridge formula funds to support over 31,000 new projects. This is in addition to over 29,000 new projects supported in FFY 2022.

In December 2022, President Biden signed the FFY 2023 omnibus spending package, which fully funds the IIJA highway investment levels for FFY 2023. The long-term nature of the highway program reauthorization in the IIJA is important. The Federal-Aid Highway Program is the largest component of the law and has provided, on average, 50% of all state capital investment in roads and bridges over the last 10 years. This multi-year authorization and the associated dedicated funding provides state departments of transportation with the ability to plan and execute long-range, complex highway projects. In states where we operate, we are well positioned to serve the large general contractors who will compete for new freight and other major capacity projects that will move forward with IIJA and policy implementation.

Importantly, building on improvements in the two prior reauthorization laws — The Fixing America's Surface Transportation Act (FAST Act) and Moving Ahead for Progress in the 21st Century Act (MAP-21) — the IIJA further streamlines project delivery and environmental approval advancements.

Project financing remains an important additional component of overall surface transportation spending. The IIJA expands access to private activity bonds for highway and intermodal projects and sets the Transportation Infrastructure Finance & Innovation Act (TIFIA) program authorized at $250 million per year.

ADDITIONAL FEDERAL PUBLIC INFRASTUCTURE INVESTMENTS UNDER THE IIJA: The IIJA allocates a total of approximately $1.2 trillion in federal funds for infrastructure investment, including almost $550 billion in new spending. A little more than half of the new money is dedicated to transportation sector projects. Beyond highway infrastructure, Vulcan will benefit from IIJA-funded, aggregates-intensive infrastructure projects, such as railroads, airports, seaports, and drinking and wastewater systems.

FEDERAL WATER RESOURCES INFRASTRUCTURE: In December 2022, President Biden signed the Water Resources Development Act of 2022 (WRDA 2022) into law, enacting the fifth consecutive biennial authorization for the U.S. Army Corps of Engineers (Army Corps) since 2014. WRDA 2022 reauthorizes needed investment in America's ports, channels, locks, dams, and other infrastructure that supports the maritime and waterways transportation system. WRDA 2022 provides the Army Corps with authorization and funding for flood and coastal storm risk management and ecosystem restoration in support of resilience and sustainability. It also authorizes the Army Corps and United States Environmental Protection Agency's (EPA) programs, which support drinking water, wastewater and storm management projects. Notably, WRDA 2022 includes a policy provision that makes permanent the Inland Waterways Trust Fund (IWTF) cost share for lock and dam construction and major rehabilitation projects, enabling the IWTF to help finance more projects.

PRIVATE SECTOR CONSTRUCTION MARKET

The private sector construction markets include both nonresidential building construction and residential construction and are considerably more cyclical than public construction. In 2023, privately funded construction accounted for approximately 60% of our total aggregates shipments.

NONRESIDENTIAL CONSTRUCTION: Private nonresidential building construction includes a wide array of projects. Such projects generally are more aggregates intensive than residential construction. Overall demand in private nonresidential construction generally is driven by job growth, vacancy rates, private infrastructure needs and demographic trends. The growth of the private workforce creates demand for offices, hotels and restaurants. Likewise, population growth generates demand for stores, shopping centers, warehouses and parking decks as well as hospitals, places of worship and entertainment facilities. Large industrial projects, such as a new manufacturing facility, can increase the need for other manufacturing plants to supply parts and assemblies. Construction activity in this end market is influenced by a firm's ability to finance a project and the cost of such financing. This end market also includes capital investments in public nonresidential facilities to meet the needs of a growing population.

RESIDENTIAL CONSTRUCTION: Household formations in Vulcan-served states continue to outpace household formations in the rest of the United States. The majority of residential construction is for single-family housing with the remainder consisting of multi-family construction (i.e., two family houses, apartment buildings and condominiums). Public housing comprises only a small portion of housing demand. Construction activity in this end market is influenced by the cost and availability of mortgage financing and builders' ability to maintain skilled labor.

U.S. housing starts, as measured by Dodge Data & Analytics, peaked in early 2006 at over 2 million units annually. By the end of 2009, total housing starts had declined to less than 0.6 million units, well below prior historical lows of approximately 1 million units annually. In 2023, total annual housing starts in the U.S. reached 1.5 million units.

ADDITIONAL AGGREGATES PRODUCTS AND MARKETS

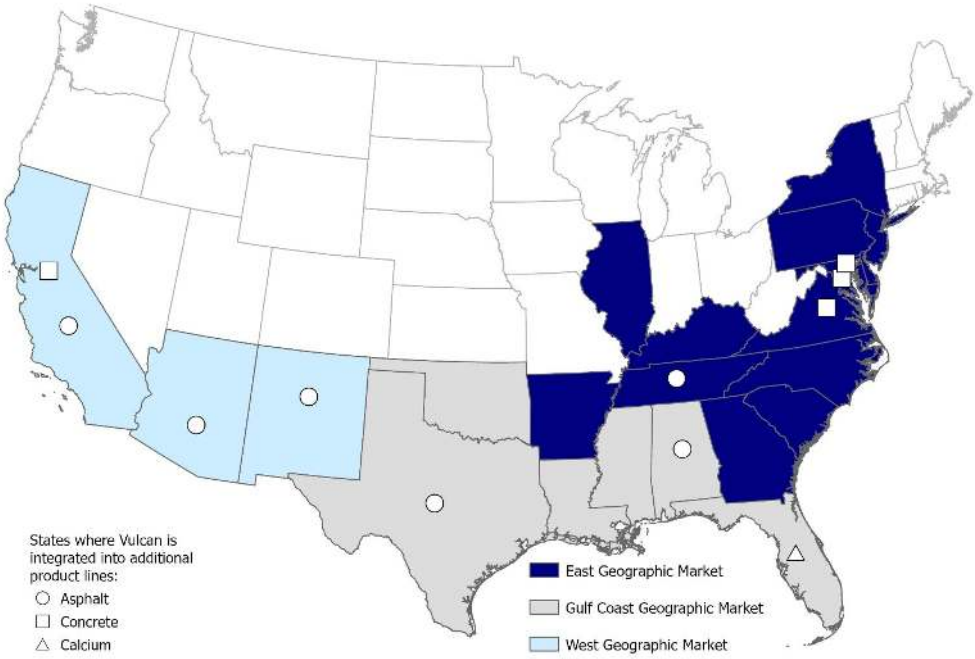
We sell aggregates that are used as ballast for construction and maintenance of railroad tracks. We also sell riprap and jetty stone for erosion control along roads and waterways. In addition, stone can be used as a feedstock for cement and lime plants and for making a variety of adhesives, fillers and extenders. Coal-burning power plants use limestone in scrubbers to reduce harmful emissions. Limestone that is crushed to a fine powder can be sold as agricultural lime.

We sell a relatively small amount of construction aggregates outside of the United States, principally in the areas surrounding our aggregates production facilities located in Quintana Roo, Mexico (see the NAFTA Arbitration section in Note 12 "Commitments and Contingencies" in Item 8 "Financial Statements and Supplementary Data"); British Columbia, Canada; and Puerto Cortés, Honduras. Nondomestic sales and long-lived assets outside the United States are reported in Note 15 "Segment Reporting" in Item 8 "Financial Statements and Supplementary Data."

VERTICAL INTEGRATION

While aggregates is our focus and primary business, we believe vertical integration between aggregates and downstream products, such as asphalt mix and ready-mixed concrete, can be managed effectively in certain markets to generate attractive financial returns and enhance financial returns in our core Aggregates segment. We produce and sell asphalt mix and/or ready-mixed concrete within each of our three geographic markets, as noted below.

Aggregates comprise approximately 95% of asphalt mix by weight and 80% of ready-mixed concrete by weight. In both of these downstream businesses, aggregates are primarily supplied from our operations.



2. ASPHALT

We produce and sell asphalt mix in Alabama, Arizona, California, New Mexico, Tennessee and Texas and provide asphalt construction paving services in Alabama, Tennessee and Texas. In August 2022 and October 2020, we strengthened our asphalt positions in California and Texas, respectively, by acquiring additional asphalt operations. For additional details, see Note 19 “Acquisitions and Divestitures” in Item 8 “Financial Statements and Supplementary Data.”

This segment relies on our reserves of aggregates, functioning essentially as a customer to our aggregates operations. Aggregates are a major component in asphalt mix, comprising approximately 95% by weight of this product. We meet the aggregates requirements for our Asphalt segment primarily through our Aggregates segment. These product transfers are made at local market prices for the particular grade and quality of material required.

Because asphalt mix hardens rapidly, delivery typically is within close proximity to the producing facility. The asphalt mix production process requires liquid asphalt cement, which we purchase from third-party producers. We do not anticipate any significant difficulties in obtaining the raw materials necessary for this segment to operate. We serve our Asphalt segment customers directly from our local production facilities.

3. CONCRETE

We produce and sell ready-mixed concrete in California, Maryland, Virginia, the U.S. Virgin Islands and Washington D.C. In April and August 2022, we strengthened our concrete positions in Virginia and California by acquiring additional concrete operations. In August 2021, through our acquisition of U.S. Concrete, we entered the New Jersey, New York, Pennsylvania and U.S. Virgin Islands concrete markets and expanded our service of the California, Texas and Washington D.C. concrete markets. Subsequently, we took steps to optimize our asset portfolio consistent with our aggregates-focused business model and in November 2023, we exited the Texas concrete market, and in November 2022, we exited the New Jersey, New York and Pennsylvania concrete markets. The proceeds from these divestitures are available to be redeployed into our aggregates-led franchise. For additional details, see Note 19 “Acquisitions and Divestitures” in Item 8 “Financial Statements and Supplementary Data.”

This segment relies on our reserves of aggregates, functioning essentially as a customer to our aggregates operations. Ready-mixed concrete consists of cement and other cement-related materials (such as fly ash and slag), aggregates (crushed stone and sand), chemical admixtures and water and is measured in cubic yards. Aggregates are a major component in ready-mixed concrete, comprising approximately 80% by weight of this product. We meet the aggregates requirements of our Concrete segment primarily through our Aggregates segment. These product transfers are made at local market prices for the particular grade and quality of material required.

Cement is the binding agent used to bind water, crushed stone and sand in the production of ready-mixed concrete. Other industrial byproducts, such as fly ash from coal burning power plants and slag from the manufacture of iron and silica fume, have cement-related properties that allow them to be used as substitutes for cement depending on the specifications. We purchase cement-related materials from a few suppliers in each of our major geographic markets. Chemical admixtures are generally purchased from suppliers under national purchasing agreements.

With the exception of chemical admixtures, each ready-mix facility typically maintains an inventory level of these raw materials sufficient to satisfy its operating needs for a few days. Inventory levels do not decline significantly or comparatively with declines in revenue during seasonally lower periods. We generally maintain inventory at specified levels to maximize purchasing efficiencies and to be able to respond quickly to customer demand.

Because ready-mixed concrete hardens rapidly, delivery typically is within close proximity to the producing facility. Ready-mixed concrete production also requires cement which we purchase from third-party producers. We do not anticipate any significant difficulties in obtaining the raw materials necessary for this segment to operate. We serve our Concrete segment customers from our local production facilities or by truck.

4. CALCIUM

Our Calcium segment is composed of a single calcium operation in Brooksville, Florida. This facility produces calcium products for the animal feed, plastics and water treatment industries with high-quality calcium carbonate material mined at the Brooksville quarry.

OTHER BUSINESS-RELATED ITEMS

SEASONALITY AND CYCLICAL NATURE OF OUR BUSINESS

Almost all of our products are produced and consumed outdoors. Seasonal changes and other weather-related conditions can affect the production and sales volumes of our products. Therefore, the financial results for any quarter do not necessarily indicate the results expected for the year. Normally, the highest sales and earnings are in the third quarter, and the lowest are in the first quarter. Furthermore, our sales and earnings are sensitive to national, regional and local economic conditions, demographic and population fluctuations, and particularly to cyclical swings in construction spending, primarily in the private sector.

COMPETITORS

We operate in a fragmented industry with a large number of small, privately-held companies. We estimate that the ten largest aggregates producers accounted for approximately 33% of the total U.S. aggregates production in 2023. Despite being the industry leader, Vulcan's total U.S. market share is approximately 10%. Other publicly traded companies among the ten largest U.S. aggregates producers include the following:

Cemex S.A.B. de C.V.
CRH plc
Heidelberg Materials AG
Holcim Ltd.
Knife River Corp.
Martin Marietta Materials, Inc.
Summit Materials, Inc.

Because the U.S. aggregates industry is highly fragmented, many opportunities for consolidation exist. Therefore, companies in the industry tend to grow by acquiring existing facilities to enter new markets or extend their existing market positions.

CUSTOMERS

No material part of our business depends upon any single customer whose loss would have a significant adverse effect on our business. In 2023, our five largest customers accounted for less than 8% of our total revenues, and no single customer accounted for more than 3% of our total revenues. Although approximately 40% to 55% of our aggregates shipments have historically been used in publicly-funded construction, such as highways, airports and government buildings, a relatively small portion of our sales are made directly to federal, state, county or municipal governments/agencies. Therefore, although reductions in state and federal funding can curtail publicly-funded construction, the vast majority of our business is not directly subject to renegotiation of profits or termination of contracts with local, state or federal governments. In addition, our sales to government entities span several hundred entities coast-to-coast, ensuring that negative changes to various government budgets would have a muted impact across such a diversified set of government customers.

ENVIRONMENTAL STEWARDSHIP AND CLIMATE CHANGE

As an industry leader, we are and always have been committed to environmental stewardship which is necessary for our long-term sustainability and growth. Production of construction aggregates requires land, energy and water. Efficient use of these resources and management of the environmental impacts of our operations are embedded in our business planning. Our intentional approach to environmental stewardship also supports increased operational efficiency, cost reduction, new opportunities for growth and effective risk management.

We are committed to doing our part to reduce our greenhouse gas (GHG) emissions and to identifying, planning for, and mitigating physical and transitional climate risks to our business. Carbon dioxide and other GHG emissions from our operations are low: we are aggregates-focused and do not produce cement. Beginning in 2018, we chose to voluntarily report GHG emissions via the Carbon Disclosure Project. In 2022, we established interim goals and targets related to Scope 1 and 2 emissions. In 2023, we concluded the first phase of our Scope 3 GHG emissions inventory project and reported on 5 of 11 Scope 3 categories which represent emissions resulting from activities of assets not owned or controlled by Vulcan but that indirectly impact our value chain. We also enhanced our GHG emissions tracking and reporting capabilities in order to report Scope 1 and 2 emissions on an enterprise-wide basis by line of business and type of energy.

MANAGING ENERGY AND OPERATIONAL EFFICIENCY

Careful management of energy is embedded in our business strategy and our company culture. We routinely conduct energy audits of our operations to identify areas for operational efficiency improvements and energy savings. Some of the opportunities identified during these audits that are being implemented include: replacement of older motors with new ultra-high efficiency motors to power plant processing equipment; improvements in water handling systems to reduce water pumping needed; optimizing process equipment flow to maximize efficiency; reducing idle equipment hours; use of LED lighting; and optimization of air conditioning and lighting control to reduce energy consumption.

We continue to increase the fuel efficiencies of our off-road fleet vehicles. Tier IV machines performed over 62% of the off-road fleet's work in 2023, which positively impacts all air emissions in addition to having an impact on GHG emissions.

Our strategy also includes producing low-embodied emissions products and supporting the construction of climate-resilient infrastructure. For example, our Concrete segment has licensed the CarbonCure technology that provides capture and sequestration of carbon dioxide within ready-mixed concrete. The carbon dioxide becomes chemically bound within the concrete matrix and is not released into the air, even when the concrete is recycled following use. This technology also reduces the demand for cement and other cement-related materials which reduces the supply side carbon footprint. The resulting concrete is also stronger than it would have been without use of the technology.

Scope 1 and Scope 2 GHG reductions will come by means of continuing heavy equipment replacement with higher efficiency models, seeking production efficiencies, and procuring energy from renewable sources. We are confident that there are many more opportunities to reduce the carbon footprint of our operations, distribution and transportation networks, and the projects in which our products are used. An example of an additional opportunity that we are exploring is the installation of battery storage for electricity at multiple locations so that energy can be stored during off peak periods to run the plant equipment, thereby minimizing peak load usage. This has significant implications for the ability of the utility company to meet peak demands and to reduce their use of older power plants that burn coal or oil and emit greater concentrations of GHG emissions.

ENVIRONMENTAL COSTS AND GOVERNMENTAL REGULATION

We are subject to a wide variety of federal, state and local laws and regulations in the communities where we conduct business. Compliance with these laws and regulations often requires the time and effort of our employees, as well as financial resources. The following describes certain significant regulations that may impact our business. For additional information about our risks related to government regulations, see Item 1A "Risk Factors."

Our operations are subject to numerous laws and regulations relating to the protection of the environment and worker health and safety including regulation of facility air emissions and water discharges, waste management, protection of wetlands, listed and threatened species, noise and dust exposure control for workers, and safety regulations under both Mine Safety and Health Administration (MSHA) and Occupational Safety and Health Administration (OSHA). Compliance with these various regulations requires capital investment and ongoing expenditures for the operation and maintenance of systems and implementation of programs. These anticipated investments and expenditures are not material to our earnings or competitive position.

We have received notices from the EPA or similar state or local agencies that we are considered a potentially responsible party (PRP) at a limited number of sites under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA or Superfund) or similar state and local environmental laws. Generally, we share the cost of remediation at these sites with other PRPs or alleged PRPs in accordance with negotiated or prescribed allocations. There is inherent uncertainty in determining the potential cost of remediating a given site and in determining any individual party's share of that cost. As a result, estimates can change substantially as additional information becomes available about the nature or extent of site contamination, remediation methods, other PRPs and their probable level of involvement, and actions by or against governmental agencies or private parties.

Frequently, we are required by state and local regulations or contractual obligations to reclaim our former mining sites. These reclamation liabilities are recorded at fair value in our financial statements at the time the obligation arises. To determine the fair value, we estimate the cost for a third party to perform the legally required reclamation, which is adjusted for inflation and risk and includes a reasonable profit margin. Reclaimed quarries often have potential for use in commercial or residential development or as reservoirs or landfills. However, no projected cash flows from these anticipated uses have been considered to offset or reduce the estimated reclamation liability.

For additional information about environmental matters and reclamation obligations, see Notes 12 and 17, respectively, to the consolidated financial statements in Item 8 “Financial Statements and Supplementary Data.”

HUMAN CAPITAL

As of January 1, 2024, we employed 10,382 people in the United States. Of these employees, 1,140 are represented by labor unions. Also, as of that date, we employed 335 people in Mexico, 163 people in Honduras, 80 people in Canada, and 1 person in the Bahamas. Of these employees, 266 are represented by labor unions. We believe we enjoy a satisfactory relationship with our employees, including our unionized workforce, and we do not anticipate any significant issues with any unions in 2024.

Vulcan’s commitment to our people has played a key role in the ongoing success and growth of our company throughout our long history. We are dedicated to fostering a culture of mutual respect, integrity, teamwork and trust among our workforce. Our people share a competitive drive to be the best they can be and do the right thing, which benefits all our stakeholders.

Our company is built on the foundation of a diversity of backgrounds, lived experiences and thought. We embrace and value the unique racial, ethnic, religious and cultural diversity of our employees. We are committed to creating a more equitable and inclusive work environment through continuous improvement and a dedication to seeking awareness and understanding. Our diversity, equity and inclusion (DE&I) programs are supported by executive leadership and led by the DE&I Council with representatives throughout the company that target opportunities in their local communities. We launched Employee Resource Groups (ERGs) in 2021 to offer employees a place to celebrate, learn from and share their diverse experiences. The DE&I Council meets monthly with our ERGs to align efforts with our broader business strategy. We have also historically supported DE&I related efforts through our community outreach and contributions. We forged a long-term partnership with Historically Black Colleges and Universities (HBCUs) to support our future leaders in our communities and on our team. Beginning in 2020, we added $0.5 million annually to our charitable foundation’s regular budget targeted toward community initiatives supporting women, veterans and underserved communities.

Diversity, equity and inclusion is also part of employee training. All new hires complete DE&I awareness training within their first 90 days, all employees completed anti-bias and diversity training by the end of 2022 and all employees receive additional training every three years.

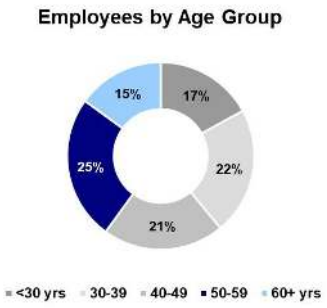
As a result of our commitment to DE&I we have:

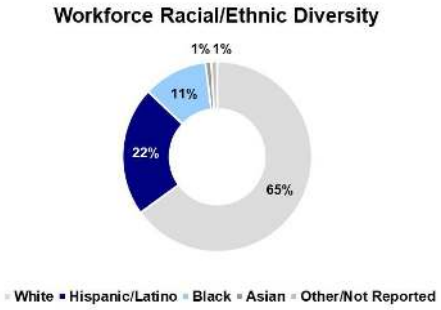
- Cultivated a diverse talent pipeline of next generation leaders through our operations/sales trainee program
- Expanded the diversity of our workforce at middle management and higher levels
- Increased the number of female hires and promotions in senior leadership roles
- Developed a five-year strategy through our DE&I Council
- Built partnerships with HBCUs to recruit talented minority students for internships and management training roles

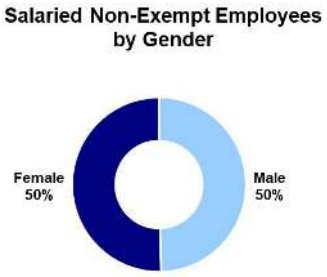
Our Board of Directors is 42% diverse (four board members are women and two are members of a minority group).

We believe that learning is fundamental to every job, and we encourage our people to expand and explore their capabilities for continued growth throughout their careers with Vulcan. Our industry-leading training and development programs encourage collaboration and enable people to innovate and flourish on the job and in the community. These programs:

- Provide our employees with a Tuition Reimbursement Program, which pays up to 100% of tuition costs based on academic performance
- Encourage personal and professional growth through our mentoring program
- Prepare future senior-level leaders through our Leadership Development Program in partnership with the University of North Carolina, Chapel Hill
- Offer mini MBA programs and other continuing education opportunities
- Deliver ongoing Vulcan Way of Operating technical and skills-based training modules
- Provide ongoing management and soft skill training through the Plant Manager Engagement Series







SHAREHOLDER RETURN PERFORMANCE

Below is a graph comparing the performance of our common stock, with dividends reinvested, to that of the Standard & Poor's 500 Stock Index (S&P 500) and the S&P 500 Materials Index (S&P 500 Materials) from December 31, 2018 to December 31, 2023.

	2018	*2019*	*2020*	*2021*	*2022*	***2023***
Comparative Total Return [1]						
Vulcan Materials Company	$ 100.00	$ 147.07	$ 153.24	$ 216.27	$ 184.04	$ 240.55
S&P 500	$ 100.00	$ 131.48	$ 155.67	$ 200.35	$ 164.08	$ 207.24
S&P 500 Materials	$ 100.00	$ 124.60	$ 150.39	$ 191.45	$ 167.90	$ 188.89

1 *Assumes an initial investment at December 31, 2018 of $100 in each stock/index, with quarterly reinvestment of dividends.*

INVESTOR INFORMATION

We make available on our website, *www.vulcanmaterials.com*, free of charge, copies of our:

- Annual Report on Form 10-K
- Quarterly Reports on Form 10-Q
- Current Reports on Form 8-K

Our website also includes amendments to those reports filed with or furnished to the Securities and Exchange Commission (SEC) pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 as well as all Forms 3, 4 and 5 filed with the SEC by our executive officers and directors, as soon as the filings are made publicly available by the SEC on its EDGAR database (*www.sec.gov*).

In addition to accessing copies of our reports online, you may request a copy of our Annual Report on Form 10-K, including financial statements, by writing to Denson N. Franklin III, Senior Vice President, General Counsel and Secretary, Vulcan Materials Company, 1200 Urban Center Drive, Birmingham, Alabama 35242.

We have a:

- Business Conduct Policy applicable to all employees and directors
- Code of Ethics for the CEO and Senior Financial Officers

Copies of the Business Conduct Policy and the Code of Ethics are available on our website under the “Investor Relations” tab (“Governance” section). If we make any amendment to, or waiver of, any provision of the Code of Ethics, we will disclose such information on our website as well as through filings with the SEC.

Our Board of Directors has also adopted:

- Corporate Governance Guidelines
- Charters for our Audit, Compensation, Executive, Finance, Governance and Safety, Health & Environmental Affairs Committees

These documents meet all applicable SEC and New York Stock Exchange (NYSE) regulatory requirements.

The Charters of the Audit, Compensation and Governance Committees are available on our website under the “Investor Relations” tab (“Governance – Committee Composition” section) or you may request a copy of any of these documents by writing to Denson N. Franklin III, Senior Vice President, General Counsel and Secretary, Vulcan Materials Company, 1200 Urban Center Drive, Birmingham, Alabama 35242.

Information included on our website is not incorporated into, or otherwise made a part of, this report.

CERTIFICATIONS AND ASSERTIONS

The certifications of our Chief Executive Officer and Chief Financial Officer made pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 are included as exhibits to this Annual Report on Form 10-K. Additionally, on June 12, 2023 our Chief Executive Officer submitted to the NYSE the annual written affirmation required by the rules of the NYSE certifying that he was not aware of any violations of Vulcan Materials Company of NYSE corporate governance listing standards.

The following risks could materially and adversely affect our business, financial condition and results of operations, and cause the trading price of our common stock to decline. This list does not identify all risks that we face; our operations could also be affected by factors that are not presently known to us or that we currently consider to be immaterial. Due to risks and uncertainties, known and unknown, our past financial results may not be a reliable indicator of future performance, and historical trends should not be used to anticipate results or trends in future periods. You should also refer to the other information set forth in this Annual Report on Form 10-K, including Item 7 “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and Item 8 “Financial Statements and Supplementary Data.”

ECONOMIC/POLITICAL RISKS

Our business is dependent on the construction industry and is subject to economic cycles — Our products are principally sold to the U.S. construction industry. Construction spending is affected by general economic conditions, changes in interest rates, demographic shifts, industry cycles, employment levels, inflation and other business, economic and financial factors, any of which could contribute to a downturn in construction activities or spending in Vulcan-served markets. A downturn in Vulcan-served markets, particularly in our top revenue-generating markets, could have a material adverse effect on our business, financial condition and results of operations.

Our business is dependent on the timing and amount of federal, state and local funding for infrastructure — Our products are used in a variety of public infrastructure projects that are funded and financed by federal, state and local governments. In 2023, voters in local jurisdictions in Arizona, California, Georgia, New Mexico, North Carolina, South Carolina and Texas, among others, approved bond and revenue-raising measures to provide additional resources for transportation projects. In November 2021, the federal Infrastructure Investment and Jobs Act (IIJA), which included a five-year road, bridge and public transportation program reauthorization at record levels, was signed into law. These state and federal highway programs, as well as funding for other aggregates-intensive public infrastructure, will support demand for our products for several years to come. However, given the time to set up new federal programs, varying state and local budgetary situations and the stages of projects, we cannot be entirely assured of the existence, amount and timing of appropriations for future public infrastructure projects.

We are subject to various risks arising from our international business operations and relationships — We are subject to risks associated with potential disruption caused by changes in domestic or global political, economic and diplomatic developments, including war, civil and political unrest, illnesses declared as a public health emergency (including viral pandemics such as COVID-19), terrorism, expropriation and local labor conditions. We are also subject to both the risks of conducting international business and the requirements of the Foreign Corrupt Practices Act of 1977 (the FCPA) associated with our aggregates production facilities including those located in British Columbia, Canada; Puerto Cortés, Honduras; and Quintana Roo, Mexico. These risks have included, and may in the future include, changes in international trade policies, such as the United States - Mexico - Canada Agreement (USMCA), imposition of duties, taxes or government royalties, arbitrary changes to permits, zoning classifications or operating agreements, or overt acts by foreign governments, including expropriations and other forms of takings of property. Recently, the Mexican government has taken actions that adversely affect our property and operations in Mexico, including arbitrary shutdown orders to immediately cease underwater quarrying and extraction operations. We continue to vigorously pursue all lawful avenues available to us in order to protect our rights, under both Mexican and international law.

OPERATIONS, GROWTH AND COMPETITIVE RISKS

Within our local markets, we operate in a highly competitive industry — The construction aggregates industry is highly fragmented with a large number of independent local producers in a number of our markets. Additionally, in most markets, we also compete against large private and public companies, some of which are significantly vertically integrated. This significant competition could lead to lower prices and lower sales volumes.

Certain markets are experiencing the expanded use of aggregates substitutes — Recycled concrete and asphalt are increasingly being used in a number of our markets, particularly urban markets, as a substitute for aggregates. The expanded use of recycled concrete and asphalt could cause a significant reduction in the demand for aggregates.

Our long-term success depends upon securing and permitting aggregates reserves in strategically located areas — Construction aggregates have a high weight-to-price ratio, and transportation costs can quickly exceed the cost of the aggregates. Therefore, except for geographic regions that do not possess commercially viable deposits of aggregates and are served by rail, barge or ship, the markets for our products tend to be localized around our quarry sites and are served by truck. New quarry sites often take years to develop, so our strategic planning and new site development must stay ahead of actual growth. Additionally, in a number of urban and suburban areas in which we operate, it is increasingly difficult to permit new sites or expand existing sites due to community resistance. Therefore, our future success is dependent, in part, on our ability to accurately forecast future areas of high growth in order to locate optimal facility sites and on our ability to secure operating and environmental permits to operate at those sites.

Our future growth depends in part on acquiring and successfully integrating other businesses in our industry — Our ability to acquire and integrate businesses is dependent upon the availability of attractive businesses with owners that are willing to sell at fair market prices, conducting proper due diligence on such available businesses, and developing and executing integration plans for acquired businesses.

Our aggregates operations are subject to the risks of open pit and underground mining — Aggregates mining involves risks such as pit wall failures, pillar or ceiling collapse, flooding, and seismic events related to geologic conditions and our mining activities. Any ground control event could lead to serious injuries, loss of life, equipment damage, production delays or cessation, and increased operating costs.

FINANCIAL/ACCOUNTING RISKS

Our industry is capital intensive, resulting in significant fixed and semi-fixed costs — Due to the high levels of fixed capital required for extracting and producing construction aggregates, our earnings are highly sensitive to changes in product shipments. Therefore, it is important that our capital allocation decisions are properly informed and our capital deployment is well planned and executed.

A deterioration in our credit ratings and/or the state of the capital markets could negatively impact the cost and/or availability of financing — We currently have approximately $3.9 billion of debt with maturities between 2024 and 2048. We expect to finance acquisitions with a combination of cash flows from existing operations, additional debt and/or additional equity. The mix of financing sources for acquisitions will be situationally dependent.

A deterioration in our credit ratings, regardless of the cause, could limit our debt financing options and increase the cost of such debt financing. While we do not anticipate a credit ratings downgrade and plan to manage our capital structure consistent with investment-grade credit metrics, we cannot assure our current credit ratings.

A deterioration in the state of the capital markets, regardless of our credit ratings, could impact our access to and/or cost of new debt or equity capital.

We use estimates in accounting for a number of significant items — As discussed more fully in “Critical Accounting Policies” under Item 7 “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” we use estimates and assumptions that require significant judgment in accounting for the following items:

- goodwill impairment
- impairment of long-lived assets excluding goodwill
- business combinations and purchase price allocation
- pension and other postretirement benefits
- environmental compliance costs
- claims and litigation including self-insurance
- income taxes

Additionally, the calculation of mineral resources and reserves are estimates and depend upon geological interpretation and statistical inferences or assumptions drawn from drilling and sampling analysis. These estimates are subject to uncertainty due to factors that include the inherent variability of the deposit and recoverability of saleable material in the mining process.

These estimates and assumptions could change significantly in the future and could adversely affect our financial position, results of operations or cash flows.

Our effective tax rate is subject to change — Factors that may increase our future effective tax rate include, but are not limited to: governmental authorities increasing statutory income tax rates or eliminating deductions (particularly the depletion deduction) or credits; the mix of jurisdictions in which our earnings are taxed and the mix of earnings from depletable versus non-depletable businesses; changes in the valuation of our deferred tax assets and liabilities; the effect our stock price has with regard to excess tax benefits from share-based compensation; adjustments to estimated taxes upon finalization of various income tax returns; the resolution of issues arising from income tax audits with various tax authorities; and the interpretation of income tax laws and/or administrative practices.

LEGAL/REGULATORY COMPLIANCE RISKS

Our operations are subject to changes in legal requirements and governmental policies — Our operations are affected by numerous federal, state and local laws and regulations, including those related to zoning, land use and environmental matters. In addition, our operations require numerous governmental approvals and permits, which often require us to make significant capital and operating expenditures to comply with the applicable requirements. Stricter laws and regulations, or more stringent interpretations of existing laws or regulations, may impose new liabilities, taxes or tariffs on us; reduce operating hours; require additional investment by us in pollution control equipment; create restrictions on our products; impede our access to reserves or hamper the opening of new, or the expansion of existing, plants or facilities.

We are involved in certain environmental matters and other legal proceedings — We are involved in environmental investigations and cleanups at sites that we own or owned, where we operate or have operated or where we sent materials for recycling or disposal, as well as related offsite investigations and cleanups. We are also involved in several other complex, non-environmental, legal proceedings. As required by GAAP, we establish reserves when a loss is determined to be probable and the amount can be reasonably estimated. Our assessment of probability and loss estimates are based on the facts and circumstances known to us at a particular point in time. Subsequent developments related to these matters may affect our assessment and estimates of loss contingency. For a description of our current significant legal proceedings and environmental matters, see Note 12 “Commitments and Contingencies” in Item 8 “Financial Statements and Supplementary Data.”

Climate change legislation or regulations may adversely impact our business — A number of governmental bodies have introduced or are contemplating legislative and regulatory change in response to the potential impacts of climate change. Such legislation or regulation, if enacted, potentially could include provisions for a “cap and trade” system of allowances and credits or a carbon tax, among other provisions, and adversely impact the availability and/or cost of purchased electricity.

Expectations relating to environmental, social and governance considerations and related reporting obligations expose us to potential liabilities, increased costs, reputational harm and other adverse effects on our business — Many governments, regulators, investors, employees, customers and other stakeholders are increasingly focused on environmental, social and governance considerations relating to businesses, including climate change and greenhouse gas emissions, human and civil rights, and diversity, equity and inclusion. In addition, we make statements about our sustainability goals and initiatives through our sustainability report, our other non-financial reports, information provided on our website, press releases and other communications. Responding to these environmental, social and governance considerations and implementing these goals and initiatives involves risks and uncertainties, requires investments, and depends in part on third-party performance or data that is outside our control. We cannot guarantee that we will achieve our announced sustainability goals and initiatives. In addition, some stakeholders may disagree with our goals and initiatives. Any failure, or perceived failure, by us to achieve our goals, further our initiatives, adhere to our public statements, comply with related federal, state or international laws and regulations, or meet evolving and varied stakeholder expectations and standards could result in legal and regulatory proceedings against us.

We may incur material costs and losses as a result of claims that our products do not meet regulatory requirements or contractual specifications — Our operations involve providing products that must meet building code or other regulatory requirements and contractual specifications for durability, stress-level capacity, weight-bearing capacity and other characteristics. If we fail to provide products meeting these requirements and specifications, product liability claims may arise against us. We have resolved certain claims of this kind, but there are currently open claims, and we expect future claims, some of which may exceed our product liability insurance coverage.

PERSONNEL RISKS

Our future success depends upon attracting and retaining qualified personnel, particularly in sales and operations — Our success in attracting qualified personnel, particularly in the areas of sales and operations, is affected by changing demographics of the available pool of workers with the training and skills necessary to fill the available positions, the impact on the labor supply due to general economic conditions, and our ability to offer competitive compensation and benefit packages.

Disputes with organized labor could disrupt our business operations — Labor unions represent approximately 13% of our workforce. Disputes with our trade unions, or the inability to renew our labor agreements, may lead to strikes or other actions that could disrupt our business operations.

GENERAL RISK FACTORS

We are dependent on information technology systems (our own and those of our service providers such as Amazon Web Services), and these systems contain non-public data about our business, employees, suppliers and customers — The protection of our information technology systems and the data contained therein is critical to us. We have a dedicated information security team that executes our information security program and routinely tests the security of our applications, networks, databases, etc. While we have security measures and technology in place designed to protect proprietary or classified information about our business, employees, suppliers and customers, there can be no assurance that our efforts will prevent all threats to our information technology systems (or those of our service providers). In addition, the rapid evolution and increased adoption of artificial intelligence technologies may intensify our cybersecurity risks. Because the techniques used to obtain unauthorized access or sabotage information technology systems change frequently, become more sophisticated and generally are not identified until they are launched against a target, we may be unable to anticipate these techniques or implement adequate preventative measures. The loss of use of information technology systems (whether ours or our service providers), regardless of the cause, would disrupt our business operations. The failure to keep secure the confidential and sensitive data about our business, employees, suppliers and customers, regardless of the reason for such failure, could expose us, our employees, suppliers and/or our customers to the misuse of such data and could damage our reputation, cause us to incur significant liability and have a material adverse effect on our business, financial condition and results of operations.

Weather can, and climate change may, materially affect our operations — Almost all of our products are consumed outdoors in the public or private construction industry, and our production and distribution facilities are located outdoors. Inclement weather affects both our ability to produce and distribute our products and affects our customers' short-term demand because their work also can be hampered by weather. Potential impacts of climate change include disruption in production and product distribution due to impacts from major storm events, shifts in regional weather patterns and intensities, availability of energy and/or water, and sea level changes. A number of our facilities are located in desert climates, and while we have not experienced any significant shortages of energy or water in the past, we cannot guarantee that we will not in the future. Furthermore, public expectations for addressing climate change could result in increased energy, transportation and raw material costs and may require us to make additional investments in facilities and equipment.

Our product distribution is multi-modal and often dependent upon third-party providers — Our products are distributed either by truck to local markets or by rail, barge or oceangoing vessel to remote markets. The distribution and cost of distribution could be negatively affected by factors such as rail service interruptions or rate increases, tariffs, rising fuel costs, truck/railcar/barge shortages, truck driver and rail crew shortages, capacity constraints and minimum tonnage requirements.

The production of our products is dependent upon the supply chain for several key inputs — In our production and distribution processes, we consume significant amounts of electricity, diesel fuel, liquid asphalt and other petroleum-based resources. Additionally, we operate significant amounts of fixed and mobile equipment that require regular maintenance and replacement of parts. The availability and pricing of these resources are subject to market forces.

ITEM 1B
UNRESOLVED STAFF COMMENTS

We have not received any written comments from the Securities and Exchange Commission staff regarding our periodic or current reports under the Exchange Act of 1934 that remain unresolved.

ITEM 1C
CYBERSECURITY

We have a cross-departmental approach to addressing cybersecurity risk, including input from employees and our Board of Directors (the "Board"). The Board, Audit Committee, senior management and our Risk Management Committee (a taskforce led by senior corporate officers that draws on the subject matter expertise of senior managers from various functional departments and from line operations management) devote significant resources to cybersecurity and risk management processes to adapt to the changing cybersecurity landscape and respond to emerging threats in a timely and effective manner. Our cybersecurity risk management program leverages the National Institute of Standards and Technology (NIST) framework, which organizes cybersecurity risks into five categories: identify, protect, detect, respond and recover. We regularly assess the threat landscape and take a holistic view of cybersecurity risks, with a layered cybersecurity strategy based on prevention, detection and mitigation. Key enterprise-level cybersecurity risks are incorporated into the Risk Management Committee's framework and are assessed throughout the year. In addition, we have a set of Company-wide policies and procedures concerning cybersecurity matters, which include an IT Security Policy and Cyber Incident Response Plan, as well as other policies that directly or indirectly relate to cybersecurity, non-public information and the use of the internet, social media, email, and wireless devices. These policies go through an internal review process and are approved by appropriate members of management.

Our Chief Information Officer is responsible for developing and implementing our information security program and reporting on cybersecurity matters to the Board. Our Chief Information Officer has served in this role since April 2022 and has 28 years of experience in Information Technology. He earned a bachelor's degree in Computer Science and a master's degree in Information Technology. We view cybersecurity as a shared responsibility, and we periodically perform simulations and tabletop exercises at a management level and incorporate external resources and advisors as needed. All employees with computer access are asked to complete cybersecurity training at least once per year and have access to more frequent cybersecurity trainings through online trainings. We also require employees in certain roles to complete additional role-based, specialized cybersecurity trainings.

We have continued to expand investments in IT security, including additional end-user training, using layered defenses, identifying and protecting critical assets, strengthening monitoring and alerting, and engaging experts. We regularly test defenses by performing simulations and drills at both a technical level (including through penetration tests) and by reviewing our operational policies and procedures with third-party experts. At the management level, our IT cybersecurity team regularly monitors cybersecurity threats and alerts and meets to discuss threat levels, trends and remediation. The team regularly collects data on risk areas and conducts an annual risk assessment. Further, we conduct periodic external penetration tests and maturity testing to assess our processes and procedures and the threat landscape. These tests and assessments are useful tools for maintaining a robust cybersecurity program to protect our investors, customers, employees and vendors. In addition to assessing our own cybersecurity preparedness, we also consider and evaluate cybersecurity risks associated with use of third-party service providers. Our Internal Audit team conducts an annual review of critical third-party hosted applications with a specific focus on any sensitive data shared with third parties. User access reviews of critical hosted applications are required at least annually, and System and Organization Controls (SOC) 1 or SOC 2 reports provided by the vendors are reviewed annually. If a third-party vendor is not able to provide a SOC 1 or SOC 2 report, we take additional steps to assess their cybersecurity preparedness and assess our relationship on that basis. Our assessment of risks associated with use of third-party providers is part of our overall cybersecurity risk management framework.

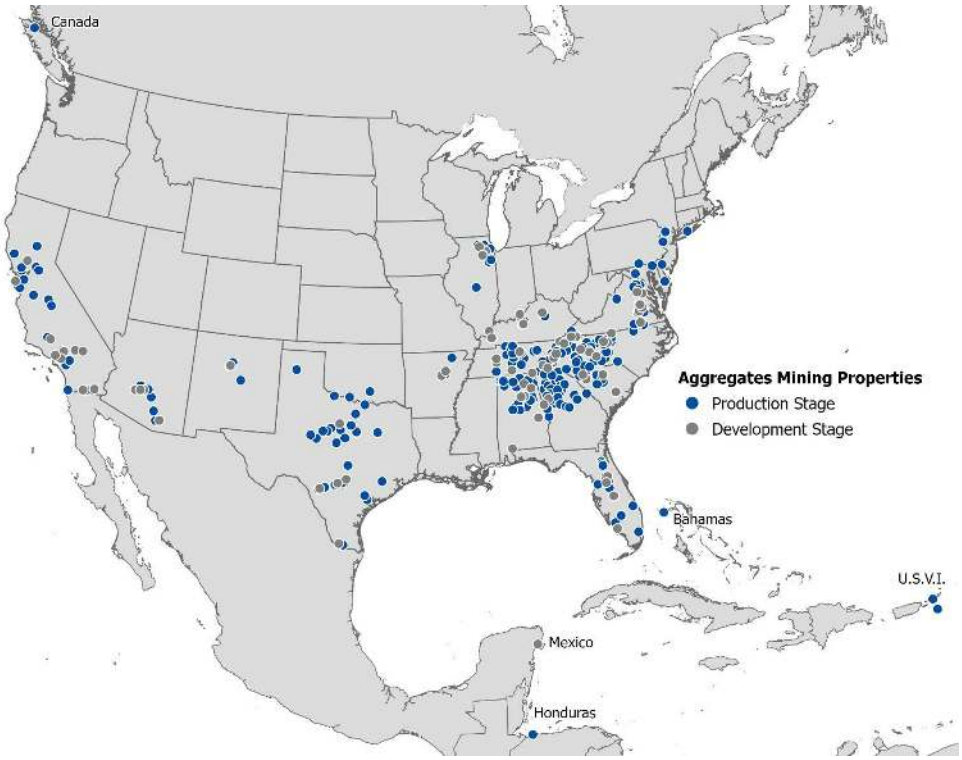
The Audit Committee and the full Board actively participate in discussions with management and among themselves regarding cybersecurity risks. The Audit Committee performs an annual review of our cybersecurity program, which includes discussion of management's actions to identify and detect threats, as well as planned actions in the event of a response or recovery situation. The Audit Committee's annual review also includes review of recent enhancements to the Company's defenses and management's progress on its cybersecurity strategic roadmap. In addition, the Board receives semi-annual updates from the Chief Information Officer. Further, at least annually, the Board receives updates on the Company's Crisis Management Guide, which includes, among other things, the Cybersecurity Incident Response Plan. To aid the Board with its cybersecurity and data privacy oversight responsibilities, the Board periodically hosts experts for presentations on these topics. For example, the Board has hosted an expert to discuss developments in the cybersecurity threat landscape and to review our performance at our most recent tabletop exercise.

We face a number of cybersecurity risks in connection with our business. Although such risks have not materially affected us, our business strategy, results of operations or financial condition, to date, we have, from time to time, experienced threats to and breaches of our data and systems, including malware and computer virus attacks. For more information about the cybersecurity risks we face, see the risk factor entitled "We are dependent on information technology systems (our own and those of our service providers such as Amazon Web Services), and these systems contain non-public data about our business, employees, suppliers and customers" in Item 1A "Risk Factors."

AGGREGATES

As the largest U.S. supplier of construction aggregates, we have mining properties across the U.S. and in the Bahamas, Canada, Honduras, Mexico and the U.S. Virgin Islands. We principally serve markets in 23 states, the U.S. Virgin Islands, Washington D.C., and the local markets surrounding our operations in Freeport, Bahamas; British Columbia, Canada; Puerto Cortés, Honduras and Quintana Roo, Mexico (see the NAFTA Arbitration section in Note 12 "Commitments and Contingencies" in Item 8 "Financial Statements and Supplementary Data"). Our primary focus is serving states and metropolitan markets in the U.S. that are expected to experience the most significant growth in population, households and employment. These three demographic factors are significant drivers of demand for aggregates.

Our mining properties are categorized as follows: (1) Production Stage – properties with reported proven or probable reserves where we are actively mining aggregates, (2) Development Stage – properties with reported proven or probable reserves where we are not actively mining aggregates, and (3) Exploration Stage – properties with no reported reserves. The following map illustrates the location of our 235 aggregates production stage properties and 80 development stage properties. Our 34 aggregates exploration stage properties are excluded from this map.



Production and sales are currently halted at our Calica operations in Mexico. For additional information, see Note 12 "Commitments and Contingencies" in Item 8 "Financial Statements and Supplementary Data."

Production stage properties generally include one or more scale houses, office buildings, maintenance shops and processing plants.

Our aggregates resources and reserves are our foundation and fundamental to our success. However, no individual mining property is individually material to our business. As of December 31, 2023, we directly operated substantially all of our aggregates production facilities.

Our aggregates resources and reserves estimates are calculated in accordance with subpart 1300 of Regulation S-K under the Exchange Act. Our proven and probable aggregates reserves may not be comparable to similar information regarding aggregates reserves disclosed in accordance with the guidance of other countries. We conduct ongoing studies of our deposits to optimize economic values and to manage risk.

We revise our mine plans and estimates of proven and probable aggregates reserves as required and in accordance with the latest available studies. Once mine plans are initially established, the ongoing viability of the plan is reviewed regularly with the benefit of hindsight. Discussions between mine planning, operations, and management determine the need for adjustments, additional resources, drilling information, or other key information. While construction aggregates reserves and resources are relatively consistent, conditions can change with time that require a newly tailored solution. Examples of changes include fluctuations in physical or chemical parameters of the product, sales product shifts, overburden removal or placement management, structural changes, entitlement changes and land additions.

Our estimates of proven and probable aggregates reserves are prepared by and are the responsibility of our employees. The methodology employed takes a systematic approach to collecting sufficient information to estimate the reserves and resources. Each of our reserve and resource bearing properties is evaluated with supporting information to identify its geological, mining and economic viability. The supporting information includes aerial photography, topography, geologic maps, aggregates rock quality information (including core drilling, hand samples, and bulk sample testing, and/or geophysical data), hydrology, archaeology, biology, property boundary information, zoning information, and relevant municipal and environmental permitting information. The information is collected by experienced mining engineers and geologists who determine the extent of a resource using a combination of methods including ordinary planimetric based measurements to computer aided design 3-dimensional models.

The results of the supporting information are reviewed by various levels of management, including our “qualified person” (as defined by subpart 1300). This qualified person then verifies that the information adheres to regulatory mandated quantification methods. The economic viability of our reserves is evaluated taking into account historical performance of relevant operations and sales forecasts, among other factors.

Measurements of our proven and probable aggregates reserves have inherent risks. These risks include the accuracy and completeness of geologic information, the interpretation of the data, operational execution, market shifts, structural events and the uncertainty of uncovered material. Management and the qualified person work together to assess these risks regularly and amend the reserves assessments with new information as appropriate. New information can yield site changes that require capital expenditures or cause production performance changes that have financial impacts.

AGGREGATES RESOURCES

Mineral resources are defined as a concentration or occurrence of material of economic interest in or on the earth's crust in such form, grade or quality, and quantity that there are reasonable prospects for its economic extraction. Mineral resources are classified into three categories, in decreasing level of confidence, as follows:

Measured — based on conclusive geological evidence and sampling, meaning that evidence is sufficient to test and confirm geological and grade or quality continuity. After applying modifying factors (as noted in the Aggregates Reserves section below), measured resources may be converted to either proven or probable reserves

Indicated — based on adequate geological evidence and sampling, meaning that evidence is sufficient to establish geological and grade or quality continuity with reasonable certainty. After applying modifying factors, indicated resources may be converted to probable reserves

Inferred — based on limited geological evidence and sampling, meaning that evidence is only sufficient to establish that geological and grade or quality continuity is more likely than not. Inferred resources may not be converted to reserves

Our reported aggregates resources do not include amounts that have been identified as mineral reserves. Our 2023 measured, indicated and inferred aggregates resources are based on an initial assessment using an average sales price assumption ranging from approximately $12.00 to $23.00 per ton depending on the location/market. The table below presents, by division, details of our aggregates resources as of December 31, 2023.

	(millions of tons)							
	Stone [2]			*Sand & Gravel*				
Division [1]	*Measured (M) Resources*	*Indicated (I) Resources*	*Total (M)+(I) Resources*	*Measured (M) Resources*	*Indicated (I) Resources*	*Total (M)+(I) Resources*	***Total (M)+(I) Resources***	*Inferred Resources*
Central	615.8	1,167.3	1,783.1	8.8	4.6	13.4	**1,796.5**	580.7
East	2,594.4	747.0	3,341.4	0.0	0.0	0.0	**3,341.4**	295.3
International	0.0	61.1	61.1	0.0	0.0	0.0	**61.1**	0.0
Northeast	835.5	15.9	851.4	41.2	0.0	41.2	**892.6**	19.2
South	558.7	526.3	1,085.0	22.2	52.4	74.6	**1,159.6**	384.4
Southern Gulf Coast	635.2	108.3	743.5	42.0	0.0	42.0	**785.5**	218.4
Southwest	478.5	39.0	517.5	93.1	57.5	150.6	**668.1**	500.0
Western	449.8	873.6	1,323.4	220.3	897.6	1,117.9	**2,441.3**	901.0
Total	**6,167.9**	**3,538.5**	**9,706.4**	**427.6**	**1,012.1**	**1,439.7**	**11,146.1**	**2,899.0**

1 The divisions are defined by states/countries as follows:

Central Division — Illinois, Kentucky and Tennessee

East Division — North Carolina, South Carolina and North/Central Georgia

International Division — Puerto Cortés (Honduras) and Quintana Roo (Mexico)

Northeast Division — Delaware, Maryland, New Jersey, New York, Pennsylvania, Virginia and Washington D.C.

South Division — Florida (excluding panhandle), South Georgia, Freeport (Bahamas) and the U.S. Virgin Islands

Southern Gulf Coast Division — Alabama, Arkansas, Florida Panhandle, Louisiana and Mississippi

Southwest Division — Oklahoma and Texas

Western Division — Arizona, California, New Mexico and British Columbia (Canada)

2 Stone: amphibolite, argillite, gneiss, granite, limestone, marble, quartzite and sandstone

AGGREGATES RESERVES

Mineral reserves are defined as the economically mineable part of a measured or indicated mineral resource. Mineral reserves are classified into two categories, in decreasing level of confidence, as follows:

Proven — those reserves for which the quantity is computed from dimensions revealed by drill data, together with other direct and measurable observations, such as outcrops, trenches and quarry faces. The grade and quality of those reserves are computed from the results of detailed sampling, and the sampling and measurement data are spaced so closely and the geologic character is so well defined that size, shape, depth and mineral content of reserves are well established

Probable — those reserves for which quantity, grade and quality are computed partly from specific measurements and partly from projections based on reasonable, though not drilled, geologic evidence. The degree of assurance, although lower than that for proven reserves, is high enough to assume continuity between points of observation

Reported proven and probable reserves include only quantities that are owned in fee or under lease and for which all appropriate zoning and permitting have been obtained through permit, contract or grandfathered status. We apply modifying factors to establish the economic viability of the reserves, as follows:

Contractual and governmental regulations (for example, leases, zoning, permits and reclamation plans) often set limits on the areas, depths and lengths of time allowed for mining, stipulate setbacks and slopes that must be left in place, and designate which areas may be used for surface facilities, berms, and overburden or waste storage, among other requirements and restrictions

Technical and economic factors affect the estimates of reported reserves regardless of what might otherwise be considered proven or probable based on a geologic analysis. For example, excessive overburden or weathered rock, rock quality issues, excessive mining depths, groundwater issues, overlying wetlands, endangered species habitats, and rights of way or easements may effectively limit the quantity of reserves considered proven and probable

Mining and processing waste are also factored in our computations for proven and probable reserves

Our 2023 proven and probable aggregates reserves were estimated by internal experts (i.e. geologists or engineers). The economic viability of our reserves were determined using average aggregates prices ranging from approximately $12.00 to $23.00 per ton depending on the location/market.

The table below presents, by division, details of our aggregates reserves and production as of December 31, 2023.

	(millions of tons)							
	Stone [3]			*Sand & Gravel*				
Division [1]	*Proven Reserves*	*Probable Reserves*	*Total Reserves*	*Proven Reserves*	*Probable Reserves*	*Total Reserves*	***Total Reserves***	*2023 [2] Production*
Central	1,971.9	1,056.6	3,028.5	7.5	5.0	12.5	**3,041.0**	35.1
East [4]	2,839.6	993.8	3,833.4	0.0	0.0	0.0	**3,833.4**	50.1
International [5]	472.8	0.0	472.8	0.0	0.0	0.0	**472.8**	4.0
Northeast	1,370.8	503.5	1,874.3	60.7	37.2	97.9	**1,972.2**	26.1
South	802.9	389.2	1,192.1	180.0	27.3	207.3	**1,399.4**	29.8
Southern Gulf Coast	1,679.0	58.1	1,737.1	0.0	0.0	0.0	**1,737.1**	26.4
Southwest	1,183.2	105.0	1,288.2	151.9	0.0	151.9	**1,440.1**	31.1
Western	754.7	171.7	926.4	414.9	399.5	814.4	**1,740.8**	33.4
Total	**11,074.9**	**3,277.9**	**14,352.8**	**815.0**	**469.0**	**1,284.0**	**15,636.8**	**236.0**

1 *The divisions are defined geographically in the first table within this Item 2 - Properties.*

2 *Production totals for the two prior years were as follows: 2022 – 235.0 million tons and 2021 – 222.8 million tons.*

3 *Stone: amphibolite, argillite, gneiss, granite, limestone, marble, quartzite and sandstone.*

4 *Includes a maximum of 269.9 million tons of reserves encumbered by volumetric production payments as defined in Note 2 “Revenues” in Item 8 “Financial Statements and Supplementary Data.”*

5 *Includes 407.6 million tons of reserves at our Calica quarry subject to the NAFTA Arbitration disclosed in Note 12 “Commitments and Contingencies” in Item 8 “Financial Statements and Supplementary Data.”*

Our current estimate of 15.6 billion tons of proven and probable aggregates reserves is unchanged from the prior year's estimate. Estimates of reserves are of recoverable stone, sand and gravel of suitable quality for economic extraction, based on drilling and studies by our geologists and engineers, recognizing reasonable economic and operating constraints as to maximum depth of overburden and stone excavation, and subject to permit or other restrictions.

Of the 15.6 billion tons of estimated proven and probable aggregates reserves reported at the end of 2023, 12.9 billion tons or 82% are located on production stage properties, and 2.7 billion tons or 18% are located on development stage properties. We do not report aggregates reserves for exploration stage sites.

Of the 15.6 billion tons of aggregates reserves at December 31, 2023, 9.6 billion tons or 61% are located on owned land and 6.0 billion tons or 39% are located on leased land. Our land portfolio consists of approximately 300,000 acres.

In addition to our aggregates mining properties we operate aggregates sales yards and recycled concrete plants. The table below presents, by division, the count of active aggregates facilities as of December 31, 2023 and the types of facilities operated.

	Count of Active Aggregates Operating Facilities					
	Production Stage Mining Properties [1]			*Sales*	*Recycled*	*Total*
Division [2]	*Stone*	*Sand & Gravel*	*Total*	*Yards*	*Plants*	
Central	46	4	50	4	8	62
East	52	0	52	8	5	65
International	1	0	1	0	0	1
Northeast	17	6	23	24	12	59
South	14	8	22	21	1	44
Southern Gulf Coast	26	0	26	21	2	49
Southwest	16	14	30	25	1	56
Western	13	18	31	5	19	55
Total	**185**	**50**	**235**	**108**	**48**	**391**

1 The facility counts above only include mining properties with production in the current year (for example, excludes mining properties with sales from existing stockpiles with no current year production).

2 The divisions are defined geographically in the first table within this Item 2 - Properties.

ASPHALT, CONCRETE AND CALCIUM

As of December 31, 2023, we operated a number of facilities producing asphalt mix, ready-mixed concrete and calcium in several of our divisions as reflected in the table below:

Division [1]	*Asphalt* [2] *Facilities*	*Concrete Facilities*	*Calcium* [3] *Facilities*
Central	11	0	0
East	0	0	0
International	0	0	0
Northeast	0	36	0
South	0	1	1
Southern Gulf Coast	2	0	0
Southwest	14	0	0
Western	39	26	0
Total	**66**	**63**	**1**

1 *The divisions are defined geographically in the first table within this Item 2 - Properties. Our International Division has no asphalt, concrete or calcium facilities.*
2 *Asphalt facilities for the Central, Southern Gulf Coast and Southwest Divisions are comprised of asphalt mix facilities and construction paving businesses.*
3 *Comprised of a ground calcium plant in Brooksville, Florida.*

The asphalt and concrete facilities are able to meet their needs for raw material inputs with a combination of internally sourced and purchased raw materials.

Our Calcium segment operates a quarry at Brooksville, Florida that provides feedstock for the ground calcium operation. The Brooksville quarry is not individually material to our business. Calcium resources and reserves are outlined in the tables below:

	(millions of tons)			
	Calcium Resources			
Location	*Measured (M)*	*Indicated (I)*	*Total (M) + (I)*	*Inferred*
Brooksville	**0.0**	**0.0**	**0.0**	**0.0**

	(millions of tons)			
	Calcium Reserves			*2023* [1] *Production*
Location	*Proven*	*Probable*	*Total*	
Brooksville	**3.8**	**7.1**	**10.9**	**0.2**

1 *Production totals for the two prior years were as follows: 2022 – 0.2 million tons and 2021 – 0.3 million tons.*

Our production stage, leased Brooksville limestone quarry produces a supplement for end-use products, such as animal feed and plastics. High purity limestone is inert and relatively inexpensive compared to the other components used in these end-use products. The Brooksville limestone quarry has an average calcium carbonate ($CaCO_3$) content of 97%.

HEADQUARTERS

Our headquarters are located in an office complex in Birmingham, Alabama. The office space consists of approximately 184,410 square feet and is leased through December 31, 2038. The annual rental cost for the current term of the lease is approximately $4.3 million.

ITEM 3
LEGAL PROCEEDINGS

We are subject to occasional governmental proceedings and orders pertaining to occupational safety and health or to protection of the environment, such as proceedings or orders relating to noise abatement, air emissions or water discharges. As part of our continuing program of stewardship in safety, health and environmental matters, we have been able to resolve such proceedings and to comply with such orders without any material adverse effects on our business.

We are a defendant in various lawsuits in the ordinary course of business. It is not possible to determine with precision the outcome of, or the amount of liability, if any, under these lawsuits, especially where the cases involve possible jury trials with as yet undetermined jury panels.

We were not subject to any penalties in 2023 for failure to disclose transactions identified by the Internal Revenue Service as abusive under Internal Revenue Code Section 6707A.

See Note 12 “Commitments and Contingencies” in Item 8 “Financial Statements and Supplementary Data” for a discussion of our material legal proceedings.

ITEM 4
MINE SAFETY DISCLOSURES

The 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 is included in Exhibit 95 of this report.

INFORMATION ABOUT OUR EXECUTIVE OFFICERS

The names, positions and ages, as of February 20, 2024, of our executive officers are as follows:

Name	*Position*	*Age*
J. Thomas Hill	Chairman and Chief Executive Officer	64
Thompson S. Baker II	President	65
Mary Andrews Carlisle	Senior Vice President and Chief Financial Officer	43
Stanley G. Bass	Chief Strategy Officer	62
Ronnie A. Pruitt	Chief Operating Officer	53
Denson N. Franklin III	Senior Vice President, General Counsel and Secretary	60
Darren L. Hicks	Senior Vice President and Chief Human Resources Officer	54
David P. Clement	Senior Vice President, Operations Support, Procurement	63
Jerry F. Perkins Jr.	Senior Vice President, Business Development, Commercial Excellence, Land, Logistics	54
Randy L. Pigg	Vice President, Controller and Principal Accounting Officer	51

The principal occupations of the executive officers during the past five years are set forth below:

J. Thomas Hill was elected Chairman of the Board of Directors effective January 1, 2016 and President and Chief Executive Officer in July 2014. He served as President through September 2023. Previously, he served as Executive Vice President and Chief Operating Officer from January 2014 to July 2014, and Senior Vice President of the South Region from December 2011 to December 2013. Prior to that, he served in a number of positions with Vulcan including President, Florida Rock Division from September 2010 to December 2011.

Thompson S. Baker II was elected President effective September 2023 after serving as Chief Operating Officer since May 2019. He previously served as Senior Vice President from March 2017 to April 2019. Prior to that, he served in a number of positions with Vulcan, including President of the Florida Rock Division, before serving as Chief Executive Officer of FRP Holdings, Inc. from October 2010 to March 2017 and President and Chief Executive Officer of Patriot Transportation Holding, Inc. from December 2014 to March 2017.

Mary Andrews Carlisle was appointed Chief Financial Officer effective September 1, 2022. In her prior role as Vice President, Finance, she led a number of key financial, operational and corporate initiatives since March 2020. Ms. Carlisle joined the Company in 2006 and has held roles of increasing responsibility in multiple divisions as well as in corporate finance and business development.

Stanley G. Bass was elected Chief Strategy Officer in March 2021 after serving as Chief Growth Officer since February 2016. He served as Senior Vice President of the Western and Mountain West Divisions from January 2015 to February 2016, and Senior Vice President of the West Region from September 2013 to December 2014. Prior to that, he served as Senior Vice President of the Central and West Regions from February 2013 to September 2013 and Senior Vice President of the Central Region from December 2011 to February 2013. Prior to that, he served in a number of positions with Vulcan including President, Midsouth and Southwest Divisions from September 2010 to December 2011.

Ronnie A. Pruitt was appointed Chief Operating Officer effective September 2023. He previously served as Senior Vice President of the Southwest and Western Divisions. He joined Vulcan as part of Vulcan's August 2021 acquisition of U.S. Concrete, Inc. He held various leadership roles at U.S. Concrete, including President and Chief Executive Officer from April 2020 to August 2021, President and Chief Operating Officer from April 2019 to April 2020, and Senior Vice President and Chief Operating Officer from October 2015 to April 2019. Prior to joining U.S. Concrete in 2015, he served as the Vice President of Cement Sales of Martin Marietta Materials, Inc. and held various positions at Texas Industries, Inc.

Denson N. Franklin III joined the Company in December 2019 as Senior Vice President, General Counsel and Secretary. Prior to that, he was a partner at Bradley Arant Boult Cummings LLP, a law firm based in Birmingham, Alabama. While at Bradley, he served as Vulcan's primary outside counsel for more than 20 years and advised other companies in the construction materials, building and engineering industries.

Darren L. Hicks was appointed Chief Human Resources Officer effective March 1, 2022. He previously served as Vice President, Human Resources, where he focused on talent management, leadership development and diversity, equity and inclusion initiatives. Mr. Hicks joined the Company in 1994 and has held various positions in human resources at both the corporate and division level.

David P. Clement is Senior Vice President of Operations Support and Procurement. He previously served as Senior Vice President of the Central Division since August 2021 and, prior to that role, served as Senior Vice President of the Mountain West and Western Divisions since March 2020. He first joined the organization as an operations management trainee in 1983 and progressed to the position of area production manager in 1993. After spending a few years at Pioneer Mid-Atlantic and working as a consultant, he rejoined Vulcan in 2004 as Vice President and General Manager of the Midwest Division. He has held the positions of Vice President of Operations for the Midwest Division, Vice President and General Manager of the Central Region, Senior Vice President of the Central Region and President of the Central Division.

Jerry F. Perkins Jr. is Senior Vice President of Business Development, Commercial Excellence, Land and Logistics. He previously served as Senior Vice President of the Southern Gulf Coast and Mountain West Divisions since August 2021 and, prior to that role, served as Senior Vice President of the Southern Gulf Coast and Southwest Divisions since March 2020. Prior to that role, he was President of the Southern and Gulf Coast Division. He also served as General Counsel and Corporate Secretary and held various legal leadership roles for Vulcan. Before joining Vulcan in 2002, he worked as a certified public accountant (CPA) at a global accounting firm and was an attorney with Burr & Forman LLP in Birmingham, Alabama.

Randy L. Pigg was elected Vice President, Controller and Principal Accounting Officer in April 2018. He served as Vice President, Accounting since June 2016, and prior to that served as Director, Financial Shared Services since April 2014. Prior to that, he served in a number of positions with Vulcan, including Manager, Financial Research & Reporting and Finance Director of the Central Region.

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

Our common stock is traded on the New York Stock Exchange (ticker symbol VMC). As of February 13, 2024, the number of shareholders of record was 2,058.

ISSUER PURCHASES OF EQUITY SECURITIES

Purchases of our equity securities during the quarter ended December 31, 2023 are summarized below:

Period	*Total Number of Shares Purchased*	*Average Price Paid Per Share*	*Total Number of Shares Purchased As Part of Publicly Announced Plans or Programs*	*Maximum Number of Shares That May Yet Be Purchased Under the Plans or Programs* [1]
2023				
Oct 1 - Oct 31	253,123	$ 197.40	253,123	7,570,365
Nov 1 - Nov 30	483,105	$ 207.11	483,105	7,087,260
Dec 1 - Dec 31	0	$ 0.00	0	7,087,260
Total	736,228	$ 203.77	736,228	

[1] *In February 2017, our Board of Directors authorized us to purchase up to 10,000,000 shares of our common stock. As of December 31, 2023, there were 7,087,260 shares remaining under this authorization. Depending upon market, business, legal and other conditions, we may purchase shares from time to time through the open market (including plans designed to comply with Rule 10b5-1 of the Securities Exchange Act of 1934) and/or through privately negotiated transactions. The authorization has no time limit, does not obligate us to purchase any specific number of shares and may be suspended or discontinued at any time.*

We did not have any unregistered sales of equity securities during the fourth quarter of 2023.

ITEM 6
[RESERVED]

The objective of our management's discussion and analysis is to help investors understand our operations and current business environment from the perspective of our management. The following discussion should be read in conjunction with the consolidated financial statements and the accompanying notes contained in this Annual Report. The following generally includes a comparison of our results of operations and liquidity and capital resources for 2023 and 2022. For the discussion of changes from 2021 to 2022 and other financial information related to 2021, refer to Part II, 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, 2022 filed with the Securities and Exchange Commission on February 24, 2023.

EXECUTIVE SUMMARY

FINANCIAL SUMMARY FOR 2023 (compared to 2022)

- Total revenues increased $466.7 million, or 6%, to $7,781.9 million
- Gross profit increased $390.9 million, or 25%, to $1,948.5 million
- Selling, administrative and general (SAG) expenses increased 5% to $542.8 million, unchanged as a percentage of total revenues
- Operating earnings increased $476.0 million, or 50%, to $1,427.4 million
- Earnings attributable to Vulcan from continuing operations were $7.06 per diluted share, compared to $4.45 per diluted share
- Adjusted earnings attributable to Vulcan from continuing operations were $7.00 per diluted share, compared to $5.11 per diluted share
- Net earnings attributable to Vulcan were $933.2 million, an increase of $357.6 million, or 62%
- Adjusted EBITDA was $2,011.3 million, an increase of $385.7 million, or 24%
- Aggregates segment sales increased $637.1 million, or 12%, to $5,909.9 million
- Aggregates segment freight-adjusted revenues increased $577.1 million, or 15%, to $4,452.3 million
  - Shipments decreased 1%, or 2.0 million tons, to 234.3 million tons
  - Freight-adjusted sales price increased 15.9%, or $2.60 per ton to $19.00
- Aggregates segment gross profit increased $325.1 million, or 23%, to $1,733.6 million
  - Unit profitability (as measured by gross profit per ton) increased 24% to $7.40 per ton
- Asphalt, Concrete and Calcium segment sales decreased $192.9 million, or 7%, to $2,399.0 million, collectively
- Asphalt, Concrete and Calcium segment gross profit increased $65.7 million, or 44%, to $214.9 million, collectively
- Returned capital to shareholders via dividends of $228.4 million at $1.72 per share versus $212.6 million at $1.60 per share
- Returned capital to shareholders via share repurchases of $200.0 million at $204.52 average price per share compared to none in the prior year

2023 was an exceptional year for our company. We generated $933.2 million in net earnings attributable to Vulcan (a 62% increase over the prior year), produced $2,011.3 million in Adjusted EBITDA (a 24% increase over the prior year), expanded EBITDA margin by 360 basis points and generated $1,536.8 million of operating cash flow that can be reinvested in our business. Our industry leading aggregates gross profit per ton was $7.40 for the full year (a 24% improvement), and cash gross profit per ton was $9.46 per ton for the full year (a 21% improvement), with both metrics increasing each quarter on a year-over-year basis. Six consecutive years of unit profitability improvement during a continuously shifting macro backdrop demonstrates the durability of our uniquely positioned aggregates-led business. We carry momentum into 2024, and our focus is the same – compounding unit margins through all parts of the cycle and creating value for our shareholders through improving returns on capital.

At year-end 2023, total debt to Adjusted EBITDA was 1.9x, or 1.5x on a net debt basis, reflecting $949.2 million of cash on hand. Our weighted-average debt maturity was 10 years, and the effective weighted average interest rate was 4.9%.

Return on invested capital improved 280 basis points to 16.3% through a combination of solid operating earnings and disciplined capital management.

Adjusted EBITDA, Aggregates segment freight-adjusted revenues, cash gross profit per ton, debt to Adjusted EBITDA and Return on invested capital are non-GAAP measures. See the definitions and reconciliations within this Item 7 under the caption “Reconciliation of Non-GAAP Financial Measures.”

CAPITAL ALLOCATION

Our balanced approach to capital allocation remains unchanged. Through economic cycles we intend to balance reinvestment in our business, growth through acquisitions and internal growth projects, and return of capital to shareholders while maintaining financial strength and flexibility evidenced by our strong balance sheet and investment-grade credit ratings. Our capital allocation priorities are as follows:

1. Operating Capital (maintain and grow the value of our franchise)
2. Growth Capital (including acquisitions and greenfields)
3. Dividend Growth (with a keen focus on sustainability)
4. Return Excess Cash to Shareholders (primarily via share repurchases)

Our first priority is to maintain and protect our valuable franchise by keeping our operations in good working order to ensure the production of high quality materials and timely delivery of goods and services to our customers. This capital requirement expands and contracts as production and shipment levels change. During 2023, we invested $424.5 million in capital expenditures to replace or improve existing property, plant & equipment.

Our second priority is to grow our franchise through business acquisitions and internal growth projects. For business acquisitions, we tend to look for bolt-on acquisitions which are easier to integrate and will pursue large business combinations that are the right fit and the right price. We use strategic and returns-based criteria to price potential acquisitions and are disciplined in our approach. We evaluate many potential acquisitions and only make offers on a few. We did not complete any business acquisitions in 2023. However, during the last 10 years, we have completed almost 40 acquisitions, including more than 70 aggregates quarries and sales yards in our top 10 revenue states. Internal growth projects have generally been among our highest returning projects. During 2023, we invested $200.8 million in internal growth projects to secure new aggregates reserves, develop new production and/or distribution sites, enhance our distribution capabilities and support the targeted growth of our asphalt and concrete operations. We deployed an additional $203.6 million of capital for opportunistic land purchases of strategic reserves in California, North Carolina and Texas.

Our third priority is growing the dividend with a keen focus on sustainability through the economic cycle. During 2023, we paid a dividend per share of $1.72 and paid total dividends of $228.4 million.

And finally, if there is excess cash after fulfilling the prior capital allocation priorities, we will consider returning cash to shareholders via share repurchases. During 2023, we returned $200.0 million to our shareholders through share repurchases.

For a detailed discussion of our acquisitions and divestitures, see Note 19 “Acquisitions and Divestitures” in Item 8 “Financial Statements and Supplementary Data.”

MARKET DEVELOPMENTS AND OUTLOOK

We are well positioned to deliver another year of earnings growth and strong cash generation in 2024. The pricing environment remains positive, and we expect pricing momentum and operational execution will lead to attractive expansion in aggregates unit profitability, regardless of the macro demand environment.

Our expectations for 2024 include:

- Continued improvement in Aggregates segment cash gross profit per ton ($9.46 in 2023)
  - Total shipments flat to down 4% (234.3 million tons in 2023)
  - Freight-adjusted price improvement of 10% to 12% ($19.00 in 2023)
  - Mid-single digit increase in freight-adjusted unit cash cost (freight-adjusted price less segment cash gross profit per ton; $9.54 in 2023)
- Total Asphalt, Concrete and Calcium segment cash gross profit of approximately $275 million ($323 million in 2023, which included approximately 4 million cubic yards from concrete operations divested in late 2023)
  - Relative contribution of approximately 70% from the Asphalt segment and 30% from the Concrete segment
- Selling, Administrative and General expenses of $550 million to $560 million ($543 million in 2023)
- Interest expense of approximately $155 million
- Depreciation, depletion, accretion and amortization expense of approximately $610 million
- An effective tax rate of 22% to 23%
- Net earnings attributable to Vulcan of $1,070 million to $1,190 million
- Adjusted EBITDA between $2,150 million and $2,300 million

Additionally, we expect to spend $625 million to $675 million on capital expenditures, including growth projects. We will continue to review our plans and will adjust as needed, while being thoughtful about preserving liquidity.

POSITIONED FOR GROWTH AND VALUE CREATION

DURABLE BUSINESS MODEL TO EXTEND THE CYCLE AND SUSTAIN GROWTH

- 27% improvement in Aggregates gross profit per ton since 2021
- 27% improvement in Aggregates cash gross profit per ton since 2021
- Industry-leading commercial, logistics, operational and sourcing capabilities
- End market fundamentals support continued growth outlook
- Poised to benefit from generational investment in infrastructure that could extend and sustain cyclical growth

We have continued to deliver strong financial performance over time and through business cycles. Through our aggregates-led strategy and focus on our strategic disciplines — the Vulcan Way of Selling (Commercial Excellence & Logistics Innovation) and the Vulcan Way of Operating (Operational Excellence & Strategic Sourcing), as outlined in Item 1 “Business” under the “Business Strategy” heading — we have created one of the most profitable public companies in our industry as measured by aggregates gross profit per ton.

In 2019, we set a target of $9 of cash gross profit per ton on volumes of 230 to 240 million tons, which we exceeded in 2023. Our durable growth strategy gives us confidence that we will deliver more value to our shareholders on every ton of aggregates we sell. Our new target: achieve $11 to $12 cash gross profit per ton when we reach 260 to 270 million tons.

Vulcan Aggregates Cash Gross Profit Per Ton Growth

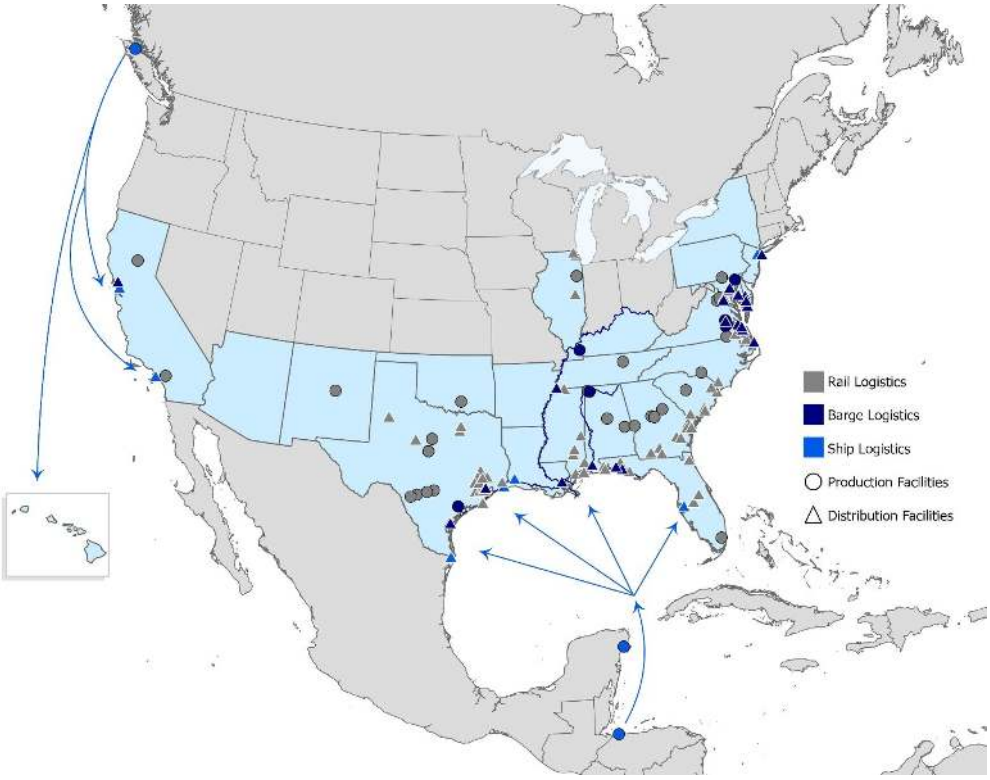
Target	260 - 270 tons of aggregates sold	$11 - $12 cash gross profit per ton
2023	234 M tons of aggregates sold	$9.46 cash gross profit per ton
2019	215 M tons of aggregates sold	$6.74 cash gross profit per ton

8.8% Compound Annual Growth

Cash gross profit per ton is a non-GAAP measure. See the definitions and reconciliations within this Item 7 under the caption Reconciliation of Non-GAAP Financial Measures.

More than an aggregates supplier, we are a business dedicated to customer service and finding creative solutions to meet our customers’ needs. Being a valued partner and trusted supplier means that we are providing the right product, with the right specifications, that is the right quality, delivered the right way — on time and safely. Our *One-Vulcan, Locally Led* approach, in which our employees work together to leverage the size and strengths of Vulcan as a whole, while running their operations with a strong entrepreneurial spirit and sense of ownership, allows us to deliver market-leading services to our customers.

Transportation costs are passed along to our customers, and because aggregates have a very high weight-to-price ratio, those costs can add up quickly when transporting aggregates long distances. Having the most extensive distribution network of any aggregates producer sets us apart. Combining our trucking, rail, barge and ocean vessel shipping logistics capabilities allows us to provide better customer solutions and create a seamless customer experience at a competitive price. As an approximation, a truck has a capacity of 20-25 tons of aggregates; a railcar has a capacity of 4-5 truckloads; a barge has a capacity of 65 truckloads; and our ocean vessels have the capacity of 2,500 truckloads.



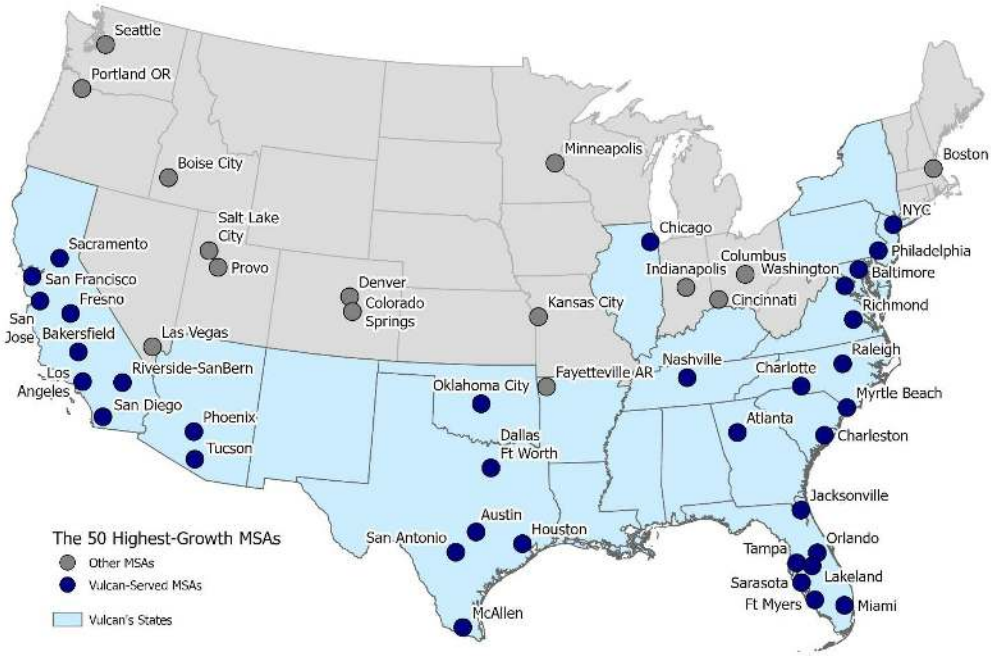
Production and sales are currently halted at our Calica operations in Mexico. For additional information, see Note 12 "Commitments and Contingencies" in Item 8 "Financial Statements and Supplementary Data."

INDUSTRY LEADER WITH CLEAR COMPETITIVE ADVANTAGES

- Largest U.S. aggregates producer with strategic geographic diversity
- #1 or #2 aggregates position in markets accounting for approximately 90% of revenues
- Leading unit profitability margins driven by operational expertise and pricing performance
- 76% of the U.S. population growth over the next decade is projected to occur in Vulcan-served states

Over time, we have strategically and systematically built one of the most valuable aggregates franchises in the U.S. with a footprint that is impossible to replicate. Zoning and permitting regulations have made it increasingly difficult to expand existing quarries or to develop new quarries. Such regulations, while curtailing expansion, also increase the value of our reserves that were zoned and permitted decades ago.

Demand for aggregates correlates positively with changes in population, household formations and employment. We have a coast-to-coast footprint that serves 35 of the top 50 highest-growth metropolitan statistical areas (MSAs). As state and federal spending increases, Vulcan is poised to benefit greatly from growing private and public demand for aggregates, thereby delivering significant long-term value for our shareholders.

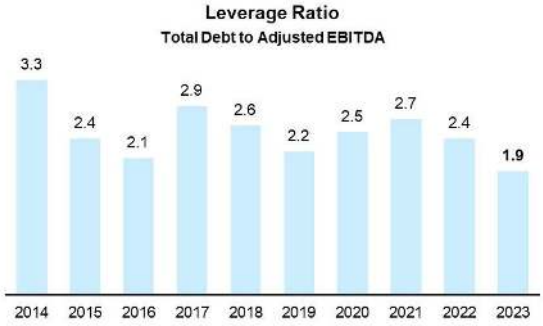


Source: Woods & Poole CEDDS 2023
Based on people added from 2023 to 2033

STRONG CASH FLOW GENERATION AND INVESTMENT-GRADE BALANCE SHEET

- Financial capacity to sustain capital reinvestment in current asset base and to fund growth
- Maintain an investment-grade credit position
- Continue to leverage current capital base to grow earnings and maximize cash generation
- Prudently pursue attractive acquisitions and greenfields
- Return value to shareholders with dividends and stock repurchases

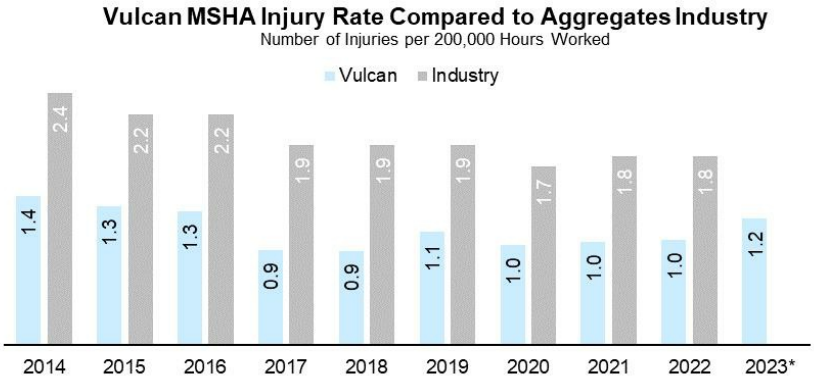
Our financial position is strong as evidenced by our long-term investment-grade credit ratings (Fitch BBB/Moody's Baa2/Standard & Poor's BBB+). At December 31, 2023, our available liquidity was $2,447.9 million, including $931.1 million of unrestricted cash on hand, significantly higher than our liquidity needs. Our leverage ratio, as measured by total debt to Adjusted EBITDA, has improved from 3.3x at December 31, 2014 to 1.9x at December 31, 2023 (our net debt to Adjusted EBITDA at December 31, 2023 was 1.5x), slightly below our stated leverage target of 2.0 to 2.5x.



SAFETY, HEALTH AND ENVIRONMENTAL PERFORMANCE

A strategy for sustainable, long-term value creation must include doing right by our employees, our neighbors and the environment in which we operate. Over our more than six decades as a public company, we have built a strong, resilient and vital business on this foundation of doing things the right way.

We are a leader in our industry in safety, health and environmental performance, with a safety record substantially better than the industry average. We apply the shared experiences, expertise and resources at each of our locally led sites with an emphasis on taking care of one another. The result is a record of safety excellence that consistently outperforms the industry.



Source: Bureau of Labor Statistics records and internal Vulcan data.

* *The aggregates industry MSHA injury rate for 2023 was not available as of the filing of this report.*

We focus on our environmental stewardship programs with the same commitment that we bring to our health and safety initiatives resulting in 97% citation-free inspections out of all 2023 federal and state environmental inspections. As an industry leader, our aim is to meet — and strive to exceed — all federal, state and local environmental regulations.

However, sustainability means looking beyond what is required of a company by governments and regulators. Sustainability is reflected in our business strategy. We lead community relations programs that serve our neighbors while ensuring that we grow and thrive in the communities where we operate. In all parts of our company, from local operations to our corporate and regional offices to our international business and ocean-going shipping, we are focused on ensuring that our operations are efficient in ways that are economically and environmentally sustainable. It's the right thing to do for our business and our stakeholders.

We continue to make progress on reducing our carbon footprint, increasing our energy efficiency, and measuring and reducing our water use. We also manage our land with biodiversity in mind. During 2023, we operated 39 certified wildlife habitat sites, the fifth largest number of sites in the nation, as certified by the Wildlife Habitat Council.

We recognize that the aggregates mining in which we engage is an interim use of the approximately 300,000 acres of land in our portfolio. Our land and water assets will be converted to other valuable uses at the end of mining. Effective management throughout the life cycle of our land — from pre-mining utilization as agriculture and timber development, to post-mining development as water reservoirs or residential and commercial development — not only generates significant additional value for our shareholders but greatly benefits the communities in which we operate.

RESULTS OF OPERATIONS

Total revenues are primarily derived from our product sales of aggregates, asphalt mix and ready-mixed concrete, and include freight & delivery costs that we pass along to our customers to deliver these products. We also generate service revenues from our asphalt construction paving business and services related to our aggregates business. We present separately our discontinued operations, which consists of our former Chemicals business.

The following table highlights significant components of our consolidated operating results including EBITDA and Adjusted EBITDA.

CONSOLIDATED OPERATING RESULTS HIGHLIGHTS

For the years ended December 31 *in millions, except per share and per unit data*	***2023***	*2022*	*2021*
Total revenues	**$ 7,781.9**	$ 7,315.2	$ 5,552.2
Cost of revenues	**(5,833.4)**	(5,757.5)	(4,178.8)
Gross profit	**$ 1,948.5**	$ 1,557.7	$ 1,373.4
Gross profit margin	***25.0%***	*21.3%*	*24.7%*
Selling, administrative and general expenses (SAG)	**$ (542.8)**	$ (515.1)	$ (417.6)
SAG as a percentage of total revenues	***7.0%***	*7.0%*	*7.5%*
Gain on sale of property, plant & equipment and businesses	**$ 76.4**	$ 10.7	$ 120.1
Loss on impairments	**$ (28.3)**	$ (67.9)	$ (4.6)
Operating earnings	**$ 1,427.4**	$ 951.4	$ 1,010.8
Interest expense	**$ (196.1)**	$ (169.2)	$ (149.3)
Earnings from continuing operations before income taxes	**$ 1,245.1**	$ 788.1	$ 873.8
Income tax expense	**$ (299.4)**	$ (193.0)	$ (200.1)
Effective tax rate from continuing operations	***24.0%***	*24.5%*	*22.9%*
Earnings from continuing operations	**$ 945.7**	$ 595.1	$ 673.7
Loss on discontinued operations, net of income taxes	**(10.8)**	(18.6)	(3.3)
(Earnings) loss attributable to noncontrolling interest	**(1.7)**	(0.9)	0.4
Net earnings attributable to Vulcan	**$ 933.2**	$ 575.6	$ 670.8
Diluted earnings (loss) per share attributable to Vulcan			
Continuing operations	**$ 7.06**	$ 4.45	$ 5.05
Discontinued operations	**(0.08)**	(0.14)	(0.03)
Diluted net earnings per share attributable to Vulcan	**$ 6.98**	$ 4.31	$ 5.02
EBITDA [1]	**$ 2,025.4**	$ 1,517.9	$ 1,480.5
Adjusted EBITDA [1]	**$ 2,011.3**	$ 1,625.6	$ 1,451.3
Average Sales Price and Unit Shipments			
Aggregates			
Tons	**234.3**	236.3	222.9
Freight-adjusted sales price	**$ 19.00**	$ 16.40	$ 14.87
Asphalt Mix			
Tons	**13.4**	12.2	11.4
Average sales price	**$ 75.76**	$ 71.29	$ 58.83
Ready-mixed concrete			
Cubic yards	**7.5**	10.5	5.6
Average sales price	**$ 166.95**	$ 150.82	$ 135.79

1 Non-GAAP measures are defined and reconciled within this Item 7 under the caption Reconciliation of Non-GAAP Financial Measures.

Net earnings attributable to Vulcan for 2023 were $933.2 million ($6.98 per diluted share) compared to $575.6 million ($4.31 per diluted share) in 2022. Each year's results were impacted by discrete items, as follows:

Net earnings attributable to Vulcan for 2023 include:

- pretax net gain of $67.1 million related to the sale of excess real estate and businesses
- pretax charges of $28.3 million for long-lived asset impairments related to the sale of businesses
- pretax charges of $7.9 million for divested operations
- pretax charges of $2.1 million associated with non-routine acquisitions
- pretax loss on discontinued operations of $14.7 million
- $12.9 million of tax charges related to a valuation allowance against Calica deferred tax assets, including net operating loss (NOL) carryforwards

Net earnings attributable to Vulcan for 2022 include:

- pretax net gain of $6.1 million related to the sale of excess real estate and businesses
- pretax charges of $67.8 million for goodwill and long-lived asset impairments related to the sale of businesses
- pretax charges of $3.8 million for divested operations
- pretax charges of $17.1 million associated with non-routine acquisitions
- pretax loss on discontinued operations of $25.2 million
- $14.5 million of tax charges related to a Calica NOL carryforward valuation allowance

Adjusted for these discrete items, earnings attributable to Vulcan from continuing operations (Adjusted Diluted EPS) was $7.00 per diluted share for 2023 compared to $5.11 per diluted share for 2022.

EARNINGS FROM CONTINUING OPERATIONS BEFORE INCOME TAXES

Year-over-year changes in earnings from continuing operations before income taxes are summarized below:

in millions				
	2021	$ 873.8	*2022*	$ 788.1
Higher aggregates gross profit		112.8		325.1
Higher asphalt gross profit		36.1		92.3
Higher (lower) concrete gross profit		35.0		(27.2)
Higher calcium gross profit		0.4		0.6
Higher selling, administrative and general expenses		(97.5)		(27.7)
Higher (lower) gain on sale of property, plant & equipment and businesses		(109.4)		65.7
Lower (higher) impairment charges		(63.3)		39.6
Higher interest expense		(19.9)		(26.9)
All other		20.1		15.5
	2022	$ 788.1	***2023***	**$ 1,245.1**

OPERATING RESULTS BY SEGMENT

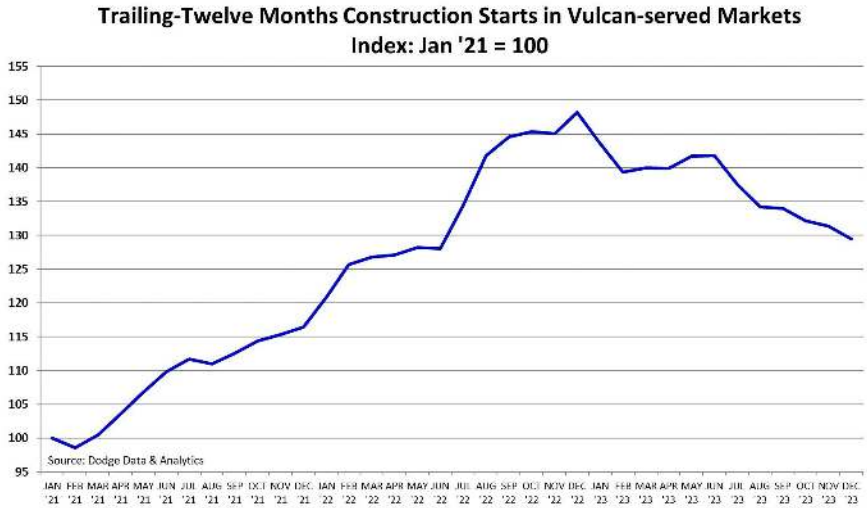
We present our results of operations by segment at the gross profit level. We have four operating (and reportable) segments organized around our principal product lines: (1) Aggregates, (2) Asphalt, (3) Concrete and (4) Calcium. Management reviews earnings for our reporting segments principally at the gross profit level.

1. AGGREGATES

Our year-over-year aggregates shipments:

decreased 1% in 2023
increased 6% in 2022
increased 7% in 2021

Aggregates shipments decreased 1%, reflecting weakness in residential demand partially offset by healthy industrial project activity in certain Southeastern markets.



Our year-over-year freight-adjusted selling price[1] for aggregates:

increased 15.9% in 2023
increased 10.3% in 2022
increased 3.0% in 2021

1 *We routinely arrange the delivery of our aggregates to the customer. Additionally, we incur freight costs to move aggregates from the production site to remote distribution sites. These costs are passed on to our customers in the aggregates price. We remove these pass-through freight & delivery revenues (and any other aggregates-derived segment revenues, such as landfill tipping fees) from the freight-adjusted selling price for aggregates. See the Reconciliation of Non-GAAP Financial Measures within this Item 7 for a reconciliation of freight-adjusted revenues.*

The pricing environment remained positive in 2023 with all markets realizing year-over-year improvement. Freight-adjusted pricing increased 15.9% versus the prior year to $19.00.

AGGREGATES SEGMENT SALES AND FREIGHT-ADJUSTED REVENUES

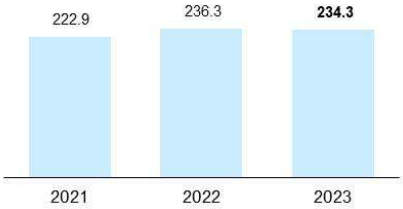
in millions

AGGREGATES GROSS PROFIT AND CASH GROSS PROFIT

in millions

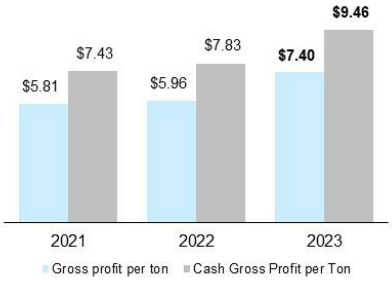
AGGREGATES UNIT SHIPMENTS

in millions



AGGREGATES GROSS PROFIT AND CASH GROSS PROFIT

per ton



Aggregates segment gross profit increased 23% to $1,733.6 million (or $7.40 per ton), and gross profit margin expanded 260 basis points. Cash gross profit per ton increased 21% from the prior year to $9.46, resulting from continued pricing momentum, solid execution and moderating inflationary pressures. Improvements in unit profitability were widespread across our footprint and marked the seventh consecutive quarter of year-over-year growth. We expect pricing momentum and operational execution will lead to attractive expansion in aggregates unit profitability in 2024, regardless of the macro demand environment.

Freight-adjusted unit cash cost of sales increased 11%, or $0.97 per ton. Unit cost benefited from lower diesel prices and moderating inflationary pressures on certain parts and supplies. Shipments in 2023 and 2022 were negatively impacted by the absence of tons available from our Mexico operations which were unexpectedly and arbitrarily shut down by the Mexican government in May of 2022 (for additional information, see Note 12 “Commitments and Contingencies” in Item 8 “Financial Statements and Supplementary Data”).

2. ASPHALT

Our year-over-year asphalt mix shipments:

increased 10% in 2023
increased 7% in 2022
decreased 4% in 2021

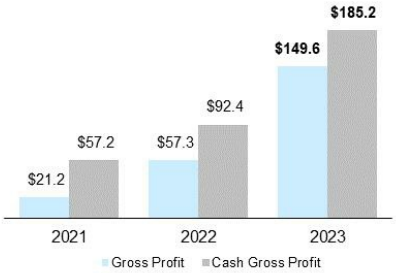
Asphalt segment gross profit was $149.6 million (an increase of $92.3 million), and gross profit margin expanded 730 basis points to 13%. Cash gross profit was $185.2 million, a 100% increase from the prior year. Shipments increased 10%, and pricing increased 6.3%, or $4.47 per ton.

ASPHALT SEGMENT SALES

in millions

ASPHALT GROSS PROFIT AND CASH GROSS PROFIT

in millions



Our year-over-year average sales price[1] for asphalt mix:

increased 6.3% in 2023
increased 21.2% in 2022
increased 1.5% in 2021

[1] *Asphalt mix average sales price is calculated by dividing revenues generated from the shipment of asphalt mix by the total tons shipped. The sales price calculation excludes service revenues generated from our asphalt construction paving business.*

3. CONCRETE

Our year-over-year ready-mixed concrete shipments:

decreased 29% in 2023

increased 88% in 2022 [1]

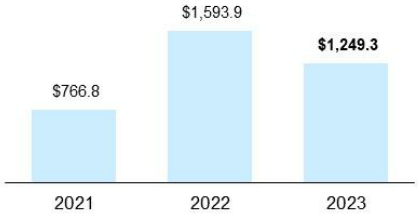
increased 90% in 2021 [1]

1 *Same-store shipments decreased 17% in 2023, were essentially flat in 2022 and decreased 7% in 2021.*

Concrete segment gross profit was $62.1 million in 2023, a decrease of $27.2 million from the prior year which included earnings from our divested operations in New Jersey, New York, Pennsylvania and Texas. Cash gross profit decreased $37.5 million to $134.9 million, while unit cash gross profit improved 11% despite lower volumes. Average selling prices increased 10.7% to $166.95.

CONCRETE SEGMENT SALES

in millions



CONCRETE GROSS PROFIT AND CASH GROSS PROFIT

in millions

Our year-over-year average sales price[1] for ready-mixed concrete:

increased 10.7% in 2023

increased 11.1% in 2022

increased 5.3% in 2021

1 *Ready-mixed concrete average sales price is calculated by dividing revenues generated from the shipment of ready-mixed concrete by the total cubic yards shipped. The sales price calculation excludes immaterial revenues generated from the sale of raw materials.*

4. CALCIUM

Calcium segment gross profit increased $0.6 million from 2022 to $3.2 million.

CALCIUM SEGMENT SALES

in millions

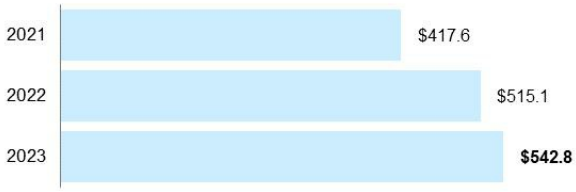
CALCIUM GROSS PROFIT AND CASH GROSS PROFIT

in millions

In total, the 2023 gross profit contribution from our three non-aggregates segments (Asphalt, Concrete and Calcium) was $214.9 million, a $65.7 million or 44% increase from 2022. In addition, the 2023 cash gross profit contribution from these three segments was $323.5 million, a $55.9 million or 21% increase from 2022.

SELLING, ADMINISTRATIVE AND GENERAL (SAG) EXPENSES

in millions



As a percentage of total revenues, SAG expense was:

- 7.0% in 2023 — unchanged from the prior year
- 7.0% in 2022 — decreased 50 basis points
- 7.5% in 2021 — increased 10 basis points

Our comparative total company employment levels at year-end:

- decreased 8% in 2023
- increased 6% in 2022
- increased 26% in 2021

SAG expenses were $542.8 million or 7.0% as a percentage of total revenues, unchanged from 2022.

GAIN ON SALE OF PROPERTY, PLANT & EQUIPMENT AND BUSINESSES

in millions

The 2023 gain on sale of property, plant & equipment and businesses of $76.4 million includes a pretax gain of $65.7 million from the sale of excess real estate in Virginia and a pretax gain of $15.2 million from the sale of real estate associated with a former recycled concrete facility in Illinois, partially offset by a pretax loss of $13.8 million related to the sale of our Texas concrete operations. The 2022 gain on sale of property, plant & equipment and businesses of $10.7 million includes a pretax gain of $23.5 million from the sale of excess real estate in Southern California partially offset by a pretax loss of $17.4 million related to the sale of our concrete operations in New Jersey, New York and Pennsylvania. We remain focused on our efforts to maximize the value of our portfolio of quarry operations as they move through their life-cycle of land management. For additional details, see Note 19 “Acquisitions and Divestitures” in Item 8 “Financial Statements and Supplementary Data.”

LOSS ON IMPAIRMENTS

Loss on impairments was $28.3 million in 2023 which represents a long-lived asset impairment charge related to the Texas concrete operations that were sold during the fourth quarter. Loss on impairments was $67.9 million in 2022 which includes a $50.9 million goodwill impairment charge and a $16.9 million long-lived asset impairment charge related to the divestiture of our New Jersey, New York and Pennsylvania concrete operations.

See Note 18 “Goodwill and Intangible Assets” and Note 19 “Acquisitions and Divestitures” in Item 8 “Financial Statements and Supplementary Data” for additional discussion.

OTHER OPERATING EXPENSE, NET

Other operating income (expense) is composed primarily of idle facilities expense, environmental remediation costs, gain (loss) on settlement of AROs, finance charges collected and rental income (expense). Total other operating expense and significant discrete items included in the total were:

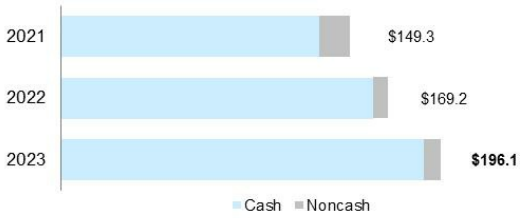
- $26.4 million in 2023 — includes discrete items as follows:
  - $7.9 million of charges associated with divested operations
  - $1.6 million of charges associated with non-routine acquisitions (excludes items included in cost of revenues)
- $34.0 million in 2022 — includes discrete items as follows:
  - $3.8 million of charges associated with divested operations
  - $9.3 million of charges associated with non-routine acquisitions (excludes items included in cost of revenues)

OTHER NONOPERATING INCOME (EXPENSE), NET

Other nonoperating income (expense), net was $2.7 million of expense in 2023 and $5.1 million of income in 2022, and was composed primarily of pension and postretirement benefit costs (excluding service costs), foreign currency transaction gains/losses, Rabbi Trust gains/losses and net earnings/losses of nonconsolidated equity method investments.

INTEREST EXPENSE

in millions



Interest expense was $196.1 million in 2023 compared to $169.2 million in 2022. This increase was primarily due to the increase in market rates underlying our floating rate debt. See Note 6 “Debt” in Item 8 “Financial Statements and Supplementary Data” for additional discussion.

INCOME TAXES

Our income tax expense from continuing operations for the years ended December 31 is shown below:

dollars in millions	***2023***	*2022*	*2021*
Earnings from continuing operations before income taxes	**$ 1,245.1**	$ 788.1	$ 873.8
Income tax expense	**$ 299.4**	$ 193.0	$ 200.1
Effective tax rate	**24.0%**	24.5%	22.9%

The $106.4 million increase in our 2023 income tax expense compared to 2022 was primarily related to an increase in earnings from continuing operations. The $7.1 million decrease in our 2022 income tax expense compared to 2021 was primarily related to a decrease in earnings from continuing operations partially offset by the tax impact from the impairment of non-tax deductible goodwill.

In May 2022, Mexican government officials unexpectedly and arbitrarily shut down our Calica operations in Mexico. As a result, in 2022, Calica generated a NOL deferred tax asset of $14.5 million. Based on the weight of all available positive and negative evidence, we concluded at the time that it was more likely than not that Calica would be unable to realize the NOL deferred tax asset during the ten-year carryforward period resulting in a valuation allowance of $14.5 million. In 2023, Calica continued to generate losses resulting in a $12.9 million increase in deferred tax assets (including NOLs) against which a valuation allowance was recorded. The Calica NOL carryforward would expire between 2032 and 2033 if not utilized. Should the Mexican government lift the shutdown and/or we are successful in our NAFTA claim, we will reevaluate the need for a valuation allowance against the deferred tax assets.

For additional information, see Note 9 “Income Taxes” in Item 8 “Financial Statements and Supplementary Data.”

DISCONTINUED OPERATIONS

Pretax loss from discontinued operations were:

$(14.7) million in 2023
$(25.2) million in 2022
$(4.5) million in 2021

Pretax loss from discontinued operations for 2023 and 2022 resulted primarily from general and product liability costs, including legal defense costs and environmental remediation costs associated with our former Chemicals business. In addition, 2022 includes a $15.3 million charge for a litigation matter (see Note 12 “Commitments and Contingencies” in Item 8 “Financial Statements and Supplementary Data”). For additional information about discontinued operations, see Note 1 “Summary of Significant Accounting Policies” in Item 8 “Financial Statements and Supplementary Data.”

KNOWN TRENDS OR UNCERTAINTIES

Inflationary pressures and labor constraints are factors that impact our operations. Although inflationary pressures can create short-term to medium-term headwinds, the combination of inflation and visibility of demand has created, and may continue to create, a favorable environment for price increases. Additionally, labor constraints have caused delays and inefficiencies in our operations as well as those of our customers. If labor constraints continue and demand remains positive, our operations may proceed at a slower pace, which may effectively extend the recovery while allowing us the opportunity to compound price, control costs and grow earnings.

Further, the Mexican government has taken actions adverse to our property and operations in Mexico. On May 5, 2022, Mexican government officials presented employees at our Calica operations in Quintana Roo, Mexico with arbitrary shutdown orders to immediately cease underwater quarrying and extraction operations. On May 13, 2022, the Mexican government suspended the three-year customs permit granted in March 2022 to Calica and began a proceeding that could result in the revocation of that permit. We strongly believe that the actions taken by Mexico are arbitrary and illegal, and we intend to vigorously pursue all lawful avenues available to us in order to protect our rights, under both Mexican and international law. For additional information regarding our Calica operations, see the NAFTA Arbitration section in Note 12 “Commitments and Contingencies” in Item 8 “Financial Statements and Supplementary Data.”

RECONCILIATION OF NON-GAAP FINANCIAL MEASURES

AGGREGATES SEGMENT FREIGHT-ADJUSTED REVENUES

Aggregates segment freight-adjusted revenues is not a Generally Accepted Accounting Principle (GAAP) measure and should not be considered as an alternative to metrics defined by GAAP. We present this measure as it is consistent with the basis by which we review our operating results. We believe that this presentation is consistent with our competitors and meaningful to our investors as it excludes revenues associated with freight & delivery, which are pass-through activities. It also excludes other revenues related to services, such as landfill tipping fees, that are derived from our aggregates business. Additionally, we use this metric as the basis for calculating the average sales price of our aggregates products. Reconciliation of this metric to its nearest GAAP measure is presented below:

in millions, except per ton data	***2023***	*2022*	*2021*
Aggregates segment			
Segment sales	**$ 5,909.9**	$ 5,272.8	$ 4,345.0
Freight & delivery revenues [1]	**(1,350.2)**	(1,291.3)	(952.1)
Other revenues	**(107.4)**	(106.3)	(79.0)
Freight-adjusted revenues	**$ 4,452.3**	$ 3,875.2	$ 3,313.9
Unit shipments - tons	**234.3**	236.3	222.9
Freight-adjusted sales price	**$ 19.00**	$ 16.40	$ 14.87

[1] *At the segment level, freight & delivery revenues include intersegment freight & delivery (which are eliminated at the consolidated level) and freight to remote distribution sites.*

CASH GROSS PROFIT

GAAP does not define "cash gross profit," and it should not be considered as an alternative to earnings measures defined by GAAP. We and the investment community use this metric to assess the operating performance of our business. Additionally, we present this metric as we believe that it closely correlates to long-term shareholder value. Cash gross profit adds back noncash charges for depreciation, depletion, accretion and amortization to gross profit. Segment cash gross profit per unit is computed by dividing segment cash gross profit by units shipped. Segment cash cost of sales per unit is computed by subtracting segment cash gross profit per unit from segment freight-adjusted sales price. Segment freight-adjusted sales price is calculated by dividing revenues generated from the shipment of product (excluding service revenues generated by the segments) by the total units of the product shipped. Reconciliation of these metrics to their nearest GAAP measures are presented below:

in millions, except per ton data	***2023***	*2022*	*2021*
Aggregates segment			
Gross profit	**$ 1,733.6**	$ 1,408.5	$ 1,295.7
Depreciation, depletion, accretion and amortization	**482.2**	441.1	360.4
Aggregates segment cash gross profit	**$ 2,215.8**	$ 1,849.6	$ 1,656.1
Unit shipments - tons	**234.3**	236.3	222.9
Aggregates segment gross profit per ton	**$ 7.40**	$ 5.96	$ 5.81
Aggregates segment cash gross profit per ton	**$ 9.46**	$ 7.83	$ 7.43
Aggregates segment freight-adjusted sales price	**$ 19.00**	$ 16.40	$ 14.87
Aggregates segment freight-adjusted cash cost of sales per ton	**$ 9.54**	$ 8.57	$ 7.44
Asphalt segment			
Gross profit	**$ 149.6**	$ 57.3	$ 21.2
Depreciation, depletion, accretion and amortization	**35.6**	35.1	36.0
Asphalt segment cash gross profit	**$ 185.2**	$ 92.4	$ 57.2
Unit shipments - tons	**13.4**	12.2	11.4
Asphalt segment gross profit per ton	**$ 11.16**	$ 4.71	$ 1.86
Asphalt segment cash gross profit per ton	**$ 13.81**	$ 7.60	$ 5.02
Asphalt segment average sales price	**$ 75.76**	$ 71.29	$ 58.83
Asphalt segment cash cost of sales per ton	**$ 61.95**	$ 63.69	$ 53.81
Concrete segment			
Gross profit	**$ 62.1**	$ 89.3	$ 54.3
Depreciation, depletion, accretion and amortization	**72.8**	83.1	41.5
Concrete segment cash gross profit	**$ 134.9**	$ 172.4	$ 95.8
Unit shipments - cubic yards	**7.5**	10.5	5.6
Concrete segment gross profit per cubic yard	**$ 8.32**	$ 8.48	$ 9.67
Concrete segment cash gross profit per cubic yard	**$ 18.08**	$ 16.36	$ 17.05
Concrete segment average sales price	**$ 166.95**	$ 150.82	$ 135.79
Concrete segment cash cost of sales per cubic yard	**$ 148.87**	$ 134.46	$ 118.74
Calcium segment			
Gross profit	**$ 3.2**	$ 2.6	$ 2.2
Depreciation, depletion, accretion and amortization	**0.2**	0.2	0.2
Calcium segment cash gross profit	**$ 3.4**	$ 2.8	$ 2.4

EBITDA AND ADJUSTED EBITDA

GAAP does not define "Earnings Before Interest, Taxes, Depreciation and Amortization" (EBITDA), and it should not be considered as an alternative to earnings measures defined by GAAP. We use this metric to assess the operating performance of our business and as a basis for strategic planning and forecasting as we believe that it closely correlates to long-term shareholder value. We do not use this metric as a measure to allocate resources. We adjust EBITDA for certain items to provide a more consistent comparison of earnings performance from period to period. Reconciliation of this metric to its nearest GAAP measure is presented below (numbers may not foot due to rounding):

in millions	***2023***	*2022*	*2021*
Net earnings attributable to Vulcan	**$ 933.2**	$ 575.6	$ 670.8
Income tax expense, including discontinued operations	**295.6**	186.5	199.0
Interest expense, net of interest income	**179.6**	168.4	147.7
Depreciation, depletion, accretion and amortization	**617.0**	587.5	463.0
EBITDA	**$ 2,025.4**	$ 1,517.9	$ 1,480.5
Loss on discontinued operations	**14.7**	25.2	4.5
Gain on sale of real estate and businesses, net	**$ (67.1)**	$ (6.1)	$ (114.7)
Loss on impairments	**28.3**	67.8	4.6
Charges associated with divested operations	**7.9**	3.8	1.5
Acquisition related charges [1]	**2.1**	17.1	49.3
COVID-19 direct incremental costs	**0.0**	0.0	13.4
Pension settlement charge	**0.0**	0.0	12.1
Adjusted EBITDA	**$ 2,011.3**	$ 1,625.6	$ 1,451.3

[1] *Represents charges associated with acquisitions requiring clearance under federal antitrust laws. U.S. Concrete acquisition related costs in 2022 include the cost impact of purchase accounting inventory valuations of $4.1 million and change in control severance and retention charges of $7.2 million. Costs in 2021 include U.S. Concrete acquisition related expenses of $22.0 million, the cost impact of purchase accounting inventory valuations of $10.7 million and change in control severance and retention charges of $12.7 million (see Note 19 for additional information).*

ADJUSTED DILUTED EPS ATTRIBUTABLE TO VULCAN FROM CONTINUING OPERATIONS

Similar to our presentation of Adjusted EBITDA, we present Adjusted diluted earnings per share (EPS) attributable to Vulcan from continuing operations to provide a more consistent comparison of earnings performance from period to period. This metric is not defined by GAAP and should not be considered as an alternative to earnings measures defined by GAAP. Reconciliation of this metric to its nearest GAAP measure is presented below:

	2023	*2022*	*2021*
Diluted Earnings Per Share			
Net earnings attributable to Vulcan	**$ 6.98**	$ 4.31	$ 5.02
Items included in Adjusted EBITDA above, net of tax	**(0.08)**	0.69	(0.13)
Acquisition financing interest costs	**0.00**	0.00	0.05
NOL carryforward valuation allowance	**0.10**	0.11	0.10
Adjusted diluted EPS attributable to Vulcan from continuing operations	**$ 7.00**	$ 5.11	$ 5.04

NET DEBT TO ADJUSTED EBITDA

Net debt to Adjusted EBITDA is not a GAAP measure and should not be considered as an alternative to metrics defined by GAAP. We, the investment community and credit rating agencies use this metric to assess our leverage. Net debt subtracts cash and cash equivalents and restricted cash from total debt. Reconciliation of this metric to its nearest GAAP measure is presented below:

in millions	***2023***	*2022*
Debt		
Current maturities of long-term debt	**$ 0.5**	$ 0.5
Short-term debt	**0.0**	100.0
Long-term debt	**3,877.3**	3,875.2
Total debt	**$ 3,877.8**	$ 3,975.7
Cash and cash equivalents and restricted cash	**(949.2)**	(161.5)
Net debt	**$ 2,928.6**	$ 3,814.2
Adjusted EBITDA	**$ 2,011.3**	$ 1,625.6
Total debt to Adjusted EBITDA	**1.9x**	2.4x
Net debt to Adjusted EBITDA	**1.5x**	2.3x

RETURN ON INVESTED CAPITAL

We define “Return on Invested Capital” (ROIC) as Adjusted EBITDA for the trailing-twelve months divided by average invested capital (as illustrated below) during the trailing-five quarters. Our calculation of ROIC is considered a non-GAAP financial measure because we calculate ROIC using the non-GAAP metric EBITDA. We believe that our ROIC metric is meaningful because it helps investors assess how effectively we are deploying our assets. Although ROIC is a standard financial metric, numerous methods exist for calculating a company’s ROIC. As a result, the method we use to calculate our ROIC may differ from the methods used by other companies. This metric is not defined by GAAP and should not be considered as an alternative to earnings measures defined by GAAP. Reconciliation of this metric to its nearest GAAP measure is presented below (numbers may not foot due to rounding):

dollars in millions	***2023***	*2022*	*2021*
Adjusted EBITDA	**$ 2,011.3**	$ 1,625.6	$ 1,451.3
Average invested capital			
Property, plant & equipment, net	**$ 6,106.3**	$ 5,810.4	$ 4,849.7
Goodwill	**3,626.5**	3,708.5	3,377.6
Other intangible assets	**1,593.4**	1,737.5	1,382.0
Fixed and intangible assets	**$ 11,326.2**	$ 11,256.4	$ 9,609.3
Current assets	**$ 2,192.9**	$ 1,898.8	$ 1,977.1
Cash and cash equivalents	**(352.8)**	(161.3)	(687.1)
Current tax	**(32.7)**	(47.2)	(32.9)
Adjusted current assets	**1,807.4**	1,690.3	1,257.1
Current liabilities	**833.7**	1,002.1	771.8
Current maturities of long-term debt	**(0.5)**	(2.1)	(112.8)
Short-term debt	**(20.0)**	(137.6)	0.0
Adjusted current liabilities	**813.2**	862.4	659.0
Adjusted net working capital	**$ 994.2**	$ 827.9	$ 598.1
Average invested capital	**$ 12,320.4**	$ 12,084.3	$ 10,207.4
Return on invested capital	**16.3%**	13.5%	14.2%

2024 PROJECTED EBITDA

Projected EBITDA is not defined by GAAP and should not be considered as an alternative to earnings measures defined by GAAP. Reconciliation of this metric to its nearest GAAP measure is presented below:

in millions	***2024 Projected Mid-point*** [1]
Net earnings attributable to Vulcan	**$ 1,130**
Income tax expense, including discontinued operations	**330**
Interest expense, net of interest income	**155**
Depreciation, depletion, accretion and amortization	**610**
Projected EBITDA	**$ 2,225**

[1] *See the Market Developments and Outlook section (earlier within this Item 7) for the assumptions used to build this projection.*

Because GAAP financial measures on a forward-looking basis are not accessible, and reconciling information is not available without unreasonable effort, we have not provided reconciliations for forward-looking non-GAAP measures, other than the reconciliation of Projected EBITDA as noted above. For the same reasons, we are unable to address the probable significance of the unavailable information, which could be material to future results.

LIQUIDITY AND FINANCIAL RESOURCES

Our primary sources of liquidity are cash provided by our operating activities, a substantial, committed bank line of credit and our commercial paper program. Additional sources of capital include access to the capital markets, the sale of surplus real estate and dispositions of nonstrategic operating assets. We believe these financial resources are sufficient to fund our business requirements for 2024, including:

- contractual obligations
- capital expenditures
- debt service obligations
- dividend payments
- potential acquisitions
- potential share repurchases

During 2024, we expect to spend between $625 million and $675 million on capital expenditures, including growth projects. Excluding future cash requirements for conditional capital expenditures, our future contractual payments as of December 31, 2023 are summarized in the table below:

in millions	*Note Reference*	*Payments Due by Year*			
		2024	*2025-2028*	*Thereafter*	*Total*
Contractual Obligations					
Bank line of credit					
Principal payments	Note 6	$ 0.0	$ 0.0	$ 0.0	$ 0.0
Interest payments and fees [1]	Note 6	2.7	7.2	0.0	9.9
Commercial paper					
Principal payments	Note 6	0.0	550.0	0.0	550.0
Interest payments [2]	Note 6	30.2	55.4	0.0	85.6
Term debt					
Principal payments	Note 6	0.5	1,350.9	2,040.1	3,391.5
Interest payments	Note 6	143.3	450.5	1,127.8	1,721.6
Operating leases [3]	Note 7	68.4	179.1	193.0	440.5
Finance leases [3]	Note 7	13.0	17.0	0.1	30.1
Mineral royalties	Note 12	28.5	68.7	143.3	240.5
Unconditional purchase obligations					
Capital	Note 12	11.1	0.0	0.0	11.1
Noncapital [4]	Note 12	46.3	105.2	19.2	170.7
Benefit plans [5]	Note 10	14.5	59.2	53.6	127.3
Total contractual obligations [6]		$ 358.5	$ 2,843.2	$ 3,577.1	$ 6,778.8

1 *Includes fees for unused borrowing capacity and fees for standby letters of credit. The figures for all years assume that the amount of unused borrowing capacity and the amount of standby letters of credit do not change from December 31, 2023.*

2 *Borrowing costs reflect a declining SOFR.*

3 *Excludes lease renewal options which are included in the table labeled Maturity of Lease Liabilities in Note 7 "Leases" in Item 8 "Financial Statements and Supplementary Data."*

4 *Noncapital unconditional purchase obligations relate primarily to transportation and electricity contracts.*

5 *Payments in "Thereafter" column for benefit plans are for the years 2029-2033. The future contributions are based on current economic conditions and may vary based on future interest rates, asset performance, participant longevity and other plan experience.*

6 *Excludes discounted asset retirement obligations in the amount of $324.1 million at December 31, 2023, the majority of which have an estimated settlement date beyond 2028 (see Note 17 "Asset Retirement Obligations" in Item 8 "Financial Statements and Supplementary Data").*

Subsequent to year end, in February 2024 we elected to redeem all of the $550.0 million aggregate principal amount of our outstanding 5.80% senior notes due 2026. We expect to complete this redemption in March 2024 using existing cash on hand.

As of December 31, 2023, we were contingently liable for $828.2 million within 427 surety bonds underwritten by various surety companies. These bonds guarantee our performance and are required primarily by states and municipalities and their related agencies. The top five in amount totaled $199.4 million (24%) and were for certain construction contracts and reclamation obligations. We have agreed to indemnify the underwriting companies against any exposure under the surety bonds. No material claims have been made against our surety bonds.

We have no material off-balance sheet arrangements, such as financing or unconsolidated variable interest entities.

Our balanced approach to capital deployment remains unchanged. We intend to balance reinvestment in our business, growth through acquisitions and return of capital to shareholders, while sustaining financial strength and flexibility.

We actively manage our capital structure and resources in order to balance the cost of capital and the risk of financial stress. We seek to meet these objectives by adhering to the following principles:

- maintain substantial bank line of credit borrowing capacity
- proactively manage our debt maturity schedule such that repayment/refinancing risk in any single year is low
- maintain an appropriate balance of fixed-rate and floating-rate debt
- minimize financial and other covenants that limit our operating and financial flexibility

We will continue to assess our liquidity sources and needs in order to take appropriate actions to meet our objectives.

CASH

Included in our December 31, 2023 cash and cash equivalents and restricted cash balances of $949.2 million is $18.1 million of restricted cash (see Note 1 “Summary of Significant Accounting Policies” in Item 8 “Financial Statements and Supplementary Data” under the caption Restricted Cash).

CASH FROM OPERATING ACTIVITIES

in millions

Net cash provided by operating activities is derived primarily from net earnings before noncash deductions for depreciation, depletion, accretion and amortization.

in millions	***2023***	*2022*	*2021*
Net earnings	**$ 934.9**	$ 576.5	$ 670.4
Depreciation, depletion, accretion and amortization (DDA&A)	**617.0**	587.5	463.0
Loss on impairments	**28.3**	67.9	4.6
Noncash operating lease expense	**53.9**	60.3	49.0
Net gain on sale of PP&E and businesses	**(76.4)**	(10.7)	(120.1)
Contributions to pension plans	**(7.4)**	(7.8)	(8.0)
Deferred income taxes, net	**(43.3)**	57.7	66.8
Other operating cash flows, net [1]	**29.8**	(183.2)	(113.8)
Net cash provided by operating activities	**$ 1,536.8**	$ 1,148.2	$ 1,011.9

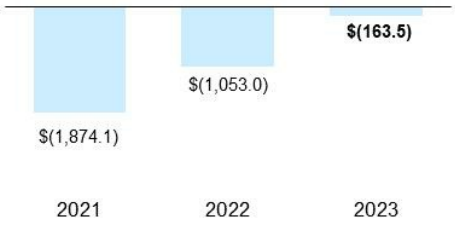
[1] *Primarily reflects changes to working capital balances.*

2023 VERSUS 2022 — Net cash provided by operating activities was $1,536.8 million during 2023, a $388.6 million increase compared to 2022 which primarily resulted from a $358.4 million increase in net earnings and changes in working capital balances.

Days sales outstanding, a measurement of the time it takes to collect receivables, were 46.1 days at December 31, 2023 compared to 50.9 days at December 31, 2022. Additionally, our over 90 day receivables balance of $27.6 million at December 31, 2023 was $41.5 million lower than the December 31, 2022 balance of $69.1 million. All customer accounts are actively managed, and no losses in excess of amounts reserved are currently expected.

CASH FROM INVESTING ACTIVITIES

in millions



2023 VERSUS 2022 — Net cash used for investing activities was $163.5 million during 2023, a $889.5 million decrease compared to 2022. During 2023, we invested $872.6 million in our existing operations (includes changes in accruals for property, plant & equipment), a $260.0 million increase compared to 2022. Of this $872.6 million, $200.8 million was invested in internal growth projects to enhance our distribution capabilities, develop new production sites and enhance existing production facilities and other growth opportunities. An additional $203.6 million was invested in opportunistic land purchases of strategic reserves. Additionally, while there were no business acquisitions in 2023, during 2022 we acquired businesses for $529.2 million of cash consideration. Further, proceeds from the sale of property, plant & equipment and businesses were up $619.5 million in 2023 from 2022, primarily reflecting the 2023 sale of our concrete operations in Texas and excess real estate in Virginia (see Note 19 “Acquisitions and Divestitures” in Item 8 “Financial Statements and Supplementary Data”).

CASH FROM FINANCING ACTIVITIES

in millions

2023 VERSUS 2022 — Net cash used for financing activities in 2023 was $585.6 million, compared to $175.2 million used in 2022. The current year includes a $100.0 million net payment on our line of credit, whereas the prior year includes a $100.0 million net draw on our line of credit. Additionally, we increased the capital returned to our shareholders to $428.3 million via higher dividends of $15.8 million ($1.72 per share compared to $1.60 per share) and higher share repurchases of $200.0 million (977,591 shares repurchased at $204.52 average price per share compared to none in the prior year).

DEBT

Certain debt measures as of December 31 are outlined below:

dollars in millions	***2023***	*2022*
Debt		
Current maturities of long-term debt	**$ 0.5**	$ 0.5
Short-term debt	**0.0**	100.0
Long-term debt	**3,877.3**	3,875.2
Total debt	**$ 3,877.8**	$ 3,975.7
Capital		
Total debt	**$ 3,877.8**	$ 3,975.7
Total equity	**7,507.9**	6,952.2
Total capital	**$ 11,385.7**	$ 10,927.9
Total Debt as a Percentage of Total Capital	**34.1%**	36.4%
Weighted-average Effective Interest Rates		
Line of credit [1]	**1.13%**	1.13%
Commercial paper	**5.64%**	4.79%
Term debt	**4.82%**	4.75%
Fixed versus Floating Interest Rate Debt		
Fixed-rate debt	**72.1%**	70.3%
Floating-rate debt	**27.9%**	29.7%

[1] *Reflects the margin above SOFR for SOFR-based borrowings; we also paid upfront fees that are amortized to interest expense and pay fees for unused borrowing capacity and standby letters of credit.*

At December 31, 2023, total debt to Adjusted EBITDA was 1.9 times or 1.5 times on a net debt basis reflecting $949.2 million of cash on hand. Our weighted-average debt maturity was 9.9 years.

DELAYED DRAW TERM LOAN, LINE OF CREDIT AND COMMERCIAL PAPER PROGRAM

In June 2021, we entered into a $1,600.0 million unsecured delayed draw term loan which was fully drawn in August 2021 upon the acquisition of U.S. Concrete. The delayed draw term loan was paid down to $1,100.0 million in September 2021 with cash on hand, paid down to $550.0 million in August 2022 using the proceeds from the issuance of commercial paper as described below and fully repaid in March 2023 using proceeds from the issuance of 5.80% senior notes as described below.

Our unsecured line of credit was amended in August 2022 to increase the borrowing capacity from $1,000.0 million to $1,600.0 million and extend the maturity date from September 2026 to August 2027. Our line of credit contains covenants customary for an unsecured investment-grade facility. Covenants, borrowings, cost ranges and other details are described in Note 6 “Debt” in Item 8 “Financial Statements and Supplementary Data.” As of December 31, 2023, we were in compliance with the line of credit covenants, the margin for Secured Overnight Financing Rate (SOFR) borrowings was 1.125%, the margin for base rate borrowings was 0.125% and the commitment fee for the unused amount was 0.100%.

In August 2022, we established a $1,600.0 million commercial paper program through which we borrowed $550.0 million that was used to partially repay the delayed draw term loan. Commercial paper borrowings bear interest at rates determined at the time of borrowing and as agreed between us and the commercial paper investors.

As of December 31, 2023, our available borrowing capacity under the line of credit was $1,516.8 million. Utilization of the borrowing capacity was as follows:

None was borrowed
$83.2 million was used to support standby letters of credit

TERM DEBT

All of our $3,941.5 million (face value) of term debt (which includes the $550.0 million commercial paper) is unsecured. All of the covenants in the debt agreements are customary for investment-grade facilities. As of December 31, 2023, we were in compliance with all term debt covenants.

In March 2023, we issued $550.0 million of 5.80% senior notes due 2026. Total proceeds of $546.6 million (net of discounts and transaction costs), together with cash on hand, were used to repay the $550.0 million delayed draw term loan.

For additional information regarding term debt, see Note 6 “Debt” in Item 8 “Financial Statements and Supplementary Data.”

DEBT PAYMENTS AND MATURITIES

Scheduled debt payments during 2023 were $0.5 million in the first quarter. Scheduled debt payments during 2022 were $5.2 million spread throughout the year.

As of December 31, 2023, maturities for the next four quarters and for the next five years are as follows (excluding any borrowings on the line of credit):

in millions	*2024 Debt Maturities*
First quarter	$ 0.5
Second quarter	0.0
Third quarter	0.0
Fourth quarter	0.0

in millions	*Debt Maturities*
2024	$ 0.5
2025	400.5
2026	550.4
2027	950.0
2028	0.0

Subsequent to year end, in February 2024 we elected to redeem all of the $550.0 million aggregate principal amount of our outstanding 5.80% senior notes due 2026. We expect to complete this redemption in March 2024 using existing cash on hand.

For additional information regarding debt payments and maturities, see Note 6 “Debt” in Item 8 “Financial Statements and Supplementary Data.”

DEBT RATINGS

Our debt ratings and outlooks as of December 31, 2023 are as follows:

	Short-term	*Long-term*	*Outlook*
Fitch	F2	BBB	Stable
Moody's	P-2	Baa2	Stable
Standard & Poor's	A-2	BBB+	Stable

EQUITY

The number of our common stock issuances and purchases are as follows:

in millions	***2023***	*2022*	*2021*
Common stock shares at January 1, issued and outstanding	**132.9**	132.7	132.5
Common Stock Issuances			
Share-based compensation plans	**0.2**	0.2	0.2
Common Stock Purchases			
Purchased and retired	**(1.0)**	0.0	0.0
Common stock shares at December 31, issued and outstanding	**132.1**	132.9	132.7

As of December 31, 2023, there were 7,087,260 shares remaining under the February 2017 share purchase authorization by our Board of Directors. Depending upon market, business, legal and other conditions, we may purchase shares from time to time through the open market (including plans designed to comply with Rule 10b5-1 of the Securities Exchange Act of 1934) and/or privately negotiated transactions. The authorization has no time limit, does not obligate us to purchase any specific number of shares and may be suspended or discontinued at any time.

The detail of our common stock purchases (all of which were open market purchases) are as follows:

in millions, except average cost	***2023***	*2022*	*2021*
Shares Purchased and Retired			
Number	**1.0**	0.0	0.0
Total purchase price	**$ 200.0**	$ 0.0	$ 0.0
Average cost per share	**$ 204.52**	$ 0.00	$ 0.00

There were no shares held in treasury as of December 31, 2023, 2022 and 2021.

STANDBY LETTERS OF CREDIT

For a discussion of our standby letters of credit, see Note 6 “Debt” in Item 8 “Financial Statements and Supplementary Data.”

CRITICAL ACCOUNTING POLICIES

We follow certain significant accounting policies when preparing our consolidated financial statements. A summary of these policies is included in Note 1 “Summary of Significant Accounting Policies” in Item 8 “Financial Statements and Supplementary Data.”

We prepare these financial statements to conform with accounting principles generally accepted in the United States of America. These principles require us to make estimates and judgments that affect reported amounts of assets, liabilities, revenues and expenses, and the related disclosures of contingent assets and contingent liabilities at the date of the financial statements. We base our estimates on historical experience, current conditions and various other assumptions we believe reasonable under existing circumstances and evaluate these estimates and judgments on an ongoing basis. The results of these estimates form the basis for our judgments about the carrying values of assets and liabilities as well as identifying and assessing the accounting treatment with respect to commitments and contingencies. Our actual results may materially differ from these estimates.

We believe the following critical accounting policies require the most significant judgments and estimates used in the preparation of our consolidated financial statements:

1. Goodwill impairment
2. Impairment of long-lived assets excluding goodwill
3. Business combinations and purchase price allocation
4. Pension and other postretirement benefits
5. Environmental compliance costs
6. Claims and litigation including self-insurance
7. Income taxes

1. GOODWILL IMPAIRMENT

Goodwill represents the excess of the cost of net assets acquired in business combinations over the fair value of the identifiable tangible and intangible assets acquired and liabilities assumed in a business combination. Goodwill impairment exists when the fair value of a reporting unit is less than its carrying amount. Goodwill is tested for impairment annually, as of November 1, or more frequently whenever events or changes in circumstances would more likely than not reduce the fair value of a reporting unit below its carrying amount. The impairment evaluation is a critical accounting policy because goodwill is material to our total assets (as of December 31, 2023, goodwill represents 24% of total assets), and the evaluation involves the use of significant estimates, assumptions and judgment.

HOW WE TEST GOODWILL FOR IMPAIRMENT

Goodwill is tested for impairment at the reporting unit level, one level below our operating segments. We have identified 16 reporting units (of which 11 carry goodwill) based primarily on geographic location. We have the option of either assessing qualitative factors to determine whether it is more likely than not that the carrying value of our reporting units exceeds their respective fair value or proceeding directly to a quantitative test. We elected to perform the quantitative impairment test for all years presented.

The quantitative impairment test compares the fair value of a reporting unit to its carrying value, including goodwill. If the fair value exceeds its carrying value, the goodwill of the reporting unit is not considered impaired. However, if the carrying value of a reporting unit exceeds its fair value, we recognize an impairment loss equal to that excess.

HOW WE DETERMINE CARRYING VALUE AND FAIR VALUE

We determine the carrying value of each reporting unit by assigning assets and liabilities, including goodwill, to those units as of the measurement date. We estimate the fair values of the reporting units using both an income approach (which involves discounting estimated future cash flows) and a market approach (which involves the application of revenue and EBITDA multiples of comparable companies). We consider market factors when determining the assumptions and estimates used in our valuation models. Finally, to assess the reasonableness of the reporting unit fair values, we compare the total of the reporting unit fair values to our market capitalization.

OUR FAIR VALUE ASSUMPTIONS

We base our fair value estimates on market participant assumptions we believe to be reasonable at the time, but such assumptions are subject to inherent uncertainty and actual results may differ. Changes in key assumptions or management judgment with respect to a reporting unit or its prospects may result from a change in market conditions, market trends, interest rates or other factors outside of our control, or underperformance relative to historical or projected operating results. These conditions could result in a significantly different estimate of the fair value of our reporting units which could result in an impairment charge in the future.

The significant assumptions in our discounted cash flow models include our estimate of future profitability, capital requirements and the discount rate. The profitability estimates used in the models were derived from internal operating budgets and forecasts for long-term demand and pricing in our industry. Estimated capital requirements reflect replacement capital estimated on a per unit basis and, if applicable, acquisition capital necessary to support growth estimated in the models. The discount rate was derived using a capital asset pricing model.

RESULTS OF OUR IMPAIRMENT TESTS

The results of our annual impairment tests for 2021 indicated that the estimated fair values of all reporting units with goodwill substantially exceeded their carrying values. The results of our annual impairment test for 2022 indicated that the estimated fair values of all reporting units with goodwill substantially exceeded their carrying values with the exception of two reporting units that include concrete operations acquired from U.S. Concrete in 2021. Our 2022 annual impairment test indicated that the estimated fair values of those two reporting units exceeded carrying values by less than 15%. One of those Concrete segment reporting units was sold during the fourth quarter of 2023. The results of our annual impairment test for 2023 indicated that the estimated fair value of the other Concrete segment reporting unit narrowly exceeded carrying value by less than 5% (this reporting unit carries $86.6 million of goodwill). Our 2023 annual impairment test indicated that the estimated fair values of all other reporting units with goodwill substantially exceeded their carrying values.

During the third quarter of 2022, we recorded an interim goodwill impairment loss of $50.9 million related to the fourth quarter sale of a reporting unit comprised of concrete operations in New Jersey, New York and Pennsylvania. Refer to Note 19 “Acquisitions and Divestitures” in Item 8 “Financial Statements and Supplementary Data” for further information.

For additional information about goodwill, see Note 18 “Goodwill and Intangible Assets” in Item 8 “Financial Statements and Supplementary Data.”

2. IMPAIRMENT OF LONG-LIVED ASSETS EXCLUDING GOODWILL

We evaluate the carrying value of long-lived assets, including intangible assets subject to amortization, when events and circumstances indicate that the carrying value may not be recoverable. The impairment evaluation is a critical accounting policy because long-lived assets are material to our total assets (as of December 31, 2023, net property, plant & equipment represents 43% of total assets while net other intangible assets represents 10% of total assets), and the evaluation involves the use of significant estimates, assumptions and judgment. The carrying value of long-lived assets is considered impaired when the estimated undiscounted cash flows from such assets are less than their carrying value. In that event, we recognize a loss equal to the amount by which the carrying value exceeds the fair value.

Fair value is estimated primarily by using a discounted cash flow methodology that requires considerable judgment and assumptions. Our estimate of net future cash flows is based on historical experience and assumptions of future trends which may be different from actual results. We periodically review the appropriateness of the estimated useful lives of our long-lived assets.

We test long-lived assets for impairment at the a significantly lower level than the level at which we test goodwill for impairment. In markets where we do not produce downstream products (e.g., asphalt mix and ready-mixed concrete), the lowest level of largely independent identifiable cash flows is at the individual aggregates operation or a group of aggregates operations collectively serving a local market or remote markets through our rail and water distribution networks. Conversely, in vertically integrated markets, the cash flows of our downstream and upstream businesses are not largely independently identifiable as the selling price of the upstream products (aggregates) impacts the profitability of the downstream business.

During the third quarter of 2023, we recognized a long-lived asset impairment loss of $28.3 million for assets classified as held for sale (subsequently sold during the fourth quarter). In addition, during the third quarter of 2022, we recognized a long-lived asset impairment loss of $16.9 million for assets classified as held for sale (subsequently sold during the fourth quarter of 2022). Refer to Note 19 “Acquisitions and Divestitures” in Item 8 “Financial Statements and Supplementary Data” for further information. During 2021, we recorded no significant losses on impairment of long-lived assets.

We maintain certain long-lived assets that are not currently being used in our operations. These assets totaled $534.4 million at December 31, 2023, representing a 4% increase from December 31, 2022. Of the total $534.4 million, approximately 45% relates to real estate held for future development and expansion of our operations. In addition, approximately 15% is comprised of real estate (principally former mining sites) pending development as commercial or residential real estate, reservoirs or landfills. The remaining 40% is composed of aggregates, asphalt and concrete operating assets idled temporarily. We evaluate the useful lives and the recoverability of these assets whenever events or changes in circumstances indicate that carrying amounts may not be recoverable.

For additional information about long-lived assets and intangible assets, see Note 4 “Property, Plant & Equipment” and Note 18 “Goodwill and Intangible Assets” in Item 8 “Financial Statements and Supplementary Data.”

3. BUSINESS COMBINATIONS AND PURCHASE PRICE ALLOCATION

Our strategic long-term plans include potential investments in value-added acquisitions of related or similar businesses. When an acquisition is completed, our consolidated statements of comprehensive income include the operating results of the acquired business starting from the date of acquisition, which is the date that control is obtained.

HOW WE DETERMINE AND ALLOCATE THE PURCHASE PRICE

The purchase price is determined based on the fair value of consideration transferred to and liabilities assumed from the seller as of the date of acquisition. We allocate the purchase price to the fair values of the tangible and identifiable intangible assets acquired and liabilities assumed as of the date of acquisition. Goodwill is recorded for the excess of the purchase price over the net fair value of the identifiable assets acquired and liabilities assumed. The purchase price allocation is a critical accounting policy because the estimation of fair values of acquired assets and assumed liabilities is judgmental and requires various assumptions. Additionally, the amounts assigned to depreciable and amortizable assets compared to amounts assigned to goodwill, which is not amortized, can significantly affect our results of operations.

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction and therefore represents an exit price. A fair value measurement assumes the highest and best use of the asset by market participants. The fair value hierarchy prioritizes the inputs to valuation techniques used to measure fair value into three broad levels as described below:

Level 1: Quoted prices in active markets for identical assets or liabilities

Level 2: Inputs that are derived principally from, or corroborated by, observable market data

Level 3: Inputs that are unobservable and significant to the overall fair value measurement

Level 1 fair values are used to value investments in publicly-traded entities and assumed obligations for publicly-traded long-term debt.

Level 2 fair values are typically used to value acquired machinery and equipment, land, buildings, and assumed liabilities for asset retirement obligations, environmental remediation and compliance obligations. Additionally, Level 2 fair values are typically used to value assumed contracts at other-than-market rates.

Level 3 fair values are used to value acquired mineral reserves as well as leased mineral interests (referred to in our financial statements as contractual rights in place) and other identifiable intangible assets. We determine the fair values of owned mineral reserves and leased mineral interests using a lost profits approach and/or an excess earnings approach. These valuation techniques require management to estimate future cash flows. The estimate of future cash flows is based on available historical information and future expectations and assumptions determined by management but is inherently uncertain. Key assumptions in estimating future cash flows include sales price, shipment volumes, production costs and capital needs. The present value of the projected net cash flows represents the fair value assigned to mineral reserves and mineral interests. The discount rate is a significant assumption used in the valuation model and is based on the required rate of return that a hypothetical market participant would assume if purchasing the acquired business, with an adjustment for the risk of these assets not generating the projected cash flows.

Other identifiable intangible assets may include, but are not limited to, noncompetition agreements. The fair values of these assets are typically determined by an excess earnings method, a replacement cost method or a market approach.

MEASUREMENT PERIOD ADJUSTMENTS

We may adjust the amounts recognized in an acquisition during a measurement period after the acquisition date. Any such adjustments are the result of subsequently obtaining additional information that existed at the acquisition date regarding the assets acquired or the liabilities assumed. Measurement period adjustments are generally recorded as increases or decreases to goodwill, if any, recognized in the transaction. The cumulative impact of measurement period adjustments on depreciation, amortization and other income statement items are recognized in the period the adjustment is determined. The measurement period ends once we have obtained all necessary information that existed as of the acquisition date but does not extend beyond one year from the date of acquisition. Any adjustments to assets acquired or liabilities assumed beyond the measurement period, unless as a result of an error, are recorded through earnings.

For additional information about business combinations and purchase price allocations, see Note 19 “Acquisitions and Divestitures” in Item 8 “Financial Statements and Supplementary Data.”

4. PENSION AND OTHER POSTRETIREMENT BENEFITS

Accounting for pension and other postretirement benefits requires that we use assumptions for the valuation of projected benefit obligations (PBO) and the performance of plan assets. The valuation is a critical accounting policy because pension and other postretirement benefit obligations and plan assets are material to our balance sheet. Each year, we review our assumptions for discount rates (used for PBO, service cost and interest cost calculations), expected return on plan assets and the cost of covered healthcare benefits. Due to plan changes made in 2013, annual pay increases do not materially impact plan obligations.

DISCOUNT RATES — We use a high-quality bond full yield curve approach (specific spot rates for each annual expected cash flow) to establish the discount rates at each measurement date.

EXPECTED RETURN ON PLAN ASSETS — Our expected return on plan assets is: (1) a long-term view based on our current asset allocation and (2) a judgment informed by consultation with our retirement plans’ consultant and our pension plans’ actuary.

RATE OF INCREASE IN THE PER CAPITA COST OF COVERED HEALTHCARE BENEFITS — We project the expected increases in the cost of covered healthcare benefits.

See Note 10 “Benefit Plans” in Item 8 “Financial Statements and Supplementary Data” for the discount rates used for PBO, service cost and interest cost calculations; the expected return on plan assets; and the rate of increase in the per capita cost of healthcare benefits.

Changes to the assumptions listed above would have an impact on the PBO and the annual net benefit cost. The following table reflects the favorable and unfavorable outcomes associated with a change in certain assumptions:

	(Favorable) Unfavorable			
	0.5 Percentage Point Increase		*0.5 Percentage Point Decrease*	
in millions	*Inc (Dec) in Benefit Obligation*	*Inc (Dec) in Annual Benefit Cost*	*Inc (Dec) in Benefit Obligation*	*Inc (Dec) in Annual Benefit Cost*
Actuarial Assumptions				
Discount rates				
Pension	$ (32.7)	$ 0.2	$ 35.6	$ 0.5
Other postretirement benefits	(1.5)	(0.1)	1.6	0.1
Expected return on plan assets	not applicable	(3.1)	not applicable	3.1

As of the December 31, 2023 measurement date, the fair value of our pension plan assets increased from $637.8 million for the prior year-end to $647.9 million.

The discount rate is the weighted-average of the spot rates for each cash flow on the yield curve for high-quality bonds as of the measurement date. As of the December 31, 2023 measurement date, the PBO of our pension plans increased from $691.1 million to $693.3 million. This increase was primarily due to the decrease in discount rates for the plans (approximately 0.2 percentage points). The PBO of our postretirement plans increased from $41.8 million to $44.2 million. This increase was primarily due to an increase in medical claims and trends.

During 2024, we expect to recognize net pension expense of $13.3 million and net postretirement expense of $5.2 million compared to expense of $15.9 million and expense of $3.9 million, respectively, in 2023. The expected decrease in pension expense is primarily due to actual asset performance in 2023 that was greater than expected. The increase in postretirement expense is primarily due to an increase in medical claims and trends.

We anticipate that contributions totaling approximately $2.0 million to the funded pension plans will be required during 2024, and we do not anticipate making a discretionary contribution. We currently do not anticipate that the funded status of any of our plans will fall below statutory thresholds requiring accelerated funding or constraints on benefit levels or plan administration.

For additional information about pension and other postretirement benefits, see Note 10 “Benefit Plans” in Item 8 “Financial Statements and Supplementary Data.”

5. ENVIRONMENTAL COMPLIANCE COSTS

Our environmental compliance costs include the cost of ongoing monitoring programs, the cost of remediation efforts and other similar costs. Our accounting policy for environmental compliance costs is a critical accounting policy because it involves the use of significant estimates and assumptions and requires considerable management judgment.

HOW WE ACCOUNT FOR ENVIRONMENTAL COSTS

To account for environmental costs, we:

- expense or capitalize environmental costs consistent with our capitalization policy
- expense costs for an existing condition caused by past operations that do not contribute to future revenues
- accrue costs for environmental assessment and remediation efforts when we determine that a liability is probable and we can reasonably estimate the cost

At the early stages of a remediation effort, environmental remediation liabilities are not easily quantified due to the uncertainties of various factors. The range of an estimated remediation liability is defined and redefined as events in the remediation effort occur, but generally liabilities are recognized no later than completion of the remedial feasibility study. When we can estimate a range of probable loss, we accrue the most likely amount. If no amount in the range of probable loss is considered most likely, the minimum loss in the range is accrued. As of December 31, 2023, the difference between the amount accrued and the maximum loss in the range for all sites for which a range can be reasonably estimated was $6.4 million — this amount does not represent our maximum exposure to loss for all environmental remediation obligations as it excludes those sites for which a range of loss cannot be reasonably estimated at this time. Our environmental remediation obligations are recorded on an undiscounted basis.

Accrual amounts may be based on technical cost estimations or the professional judgment of experienced environmental managers. Our Safety, Health and Environmental Affairs Management Committee routinely reviews cost estimates and key assumptions in response to new information, such as the kinds and quantities of hazardous substances, available technologies and changes to the parties participating in the remediation efforts. However, a number of factors, including adverse agency rulings and unanticipated conditions as remediation efforts progress, may cause actual results to differ materially from accrued costs.

For additional information about environmental compliance costs, see Note 8 “Accrued Environmental Remediation Costs” in Item 8 “Financial Statements and Supplementary Data.”

6. CLAIMS AND LITIGATION INCLUDING SELF-INSURANCE

We are involved with claims and litigation, including items covered under our self-insurance program. We are self-insured for losses related to workers' compensation up to $3.0 million per occurrence and automotive and general/product liability up to $10.0 million per occurrence. We have excess coverage on a per occurrence basis beyond these retention levels.

Under our self-insurance program, we aggregate certain claims and litigation costs that are reasonably predictable based on our historical loss experience and accrue losses, including future legal defense costs, based on actuarial studies. Certain claims and litigation costs, due to their unique nature, are not included in our actuarial studies. For matters not included in our actuarial studies, legal defense costs are accrued when incurred.

Our accounting policy for claims and litigation including self-insurance is a critical accounting policy because it involves the use of significant estimates and assumptions and requires considerable management judgment.

HOW WE ASSESS THE PROBABILITY OF LOSS

We use both internal and outside legal counsel to assess the probability of loss, and we establish an accrual when the claims and litigation represent a probable loss and the cost can be reasonably estimated. Significant judgment is used in determining the timing and amount of the accruals for probable losses, and the actual liability could differ materially from the accrued amounts.

For additional information about claims and litigation including self-insurance, see Note 1 “Summary of Significant Accounting Policies” in Item 8 “Financial Statements and Supplementary Data” under the caption Claims and Litigation Including Self-insurance.

7. INCOME TAXES

VALUATION OF OUR DEFERRED TAX ASSETS

We file federal, state and foreign income tax returns and account for the current and deferred tax effects of such returns using the asset and liability method. We recognize deferred tax assets and liabilities (which reflect our best assessment of the future taxes we will pay) based on the differences between the book basis and tax basis of assets and liabilities. Deferred tax assets represent items to be used as a tax deduction or credit in future tax returns while deferred tax liabilities represent items that will result in additional tax in future tax returns.

Significant judgments and estimates are required in determining our deferred tax assets and liabilities. These estimates are updated throughout the year to consider income tax return filings, our geographic mix of earnings, legislative changes and other relevant items. We are required to account for the effects of changes in income tax rates on deferred tax balances in the period in which the legislation is enacted.

Each quarter we analyze the likelihood that our deferred tax assets will be realized. Realization of the deferred tax assets ultimately depends on the existence of sufficient taxable income of the appropriate character in either the carryback or carryforward period. A valuation allowance is recorded if, based on the weight of all available positive and negative evidence, it is more likely than not (a likelihood of more than 50%) that some portion, or all, of a deferred tax asset will not be realized. A summary of our deferred tax assets is included in Note 9 “Income Taxes” in Item 8 “Financial Statements and Supplementary Data.”

LIABILITY FOR UNRECOGNIZED TAX BENEFITS

We recognize a tax benefit associated with a tax position when we judge it is more likely than not that the position will be sustained based upon the technical merits of the position. For a tax position that meets the more likely than not recognition threshold, we measure the income tax benefit as the largest amount that we judge to have a greater than 50% likelihood of being realized. A liability is established for the unrecognized portion of any tax position. Our liability for unrecognized tax benefits is adjusted periodically due to changing circumstances, such as the progress of tax audits, case law developments and new legislation.

Generally, we are not subject to significant changes in income taxes by any taxing jurisdiction for the years before 2020. While it is often difficult to predict the final outcome or the timing of resolution of any particular tax matter, we believe our liability for unrecognized tax benefits is appropriate.

We consider a tax position to be resolved at the earlier of the issue being “effectively settled,” settlement of an examination, or the expiration of the statute of limitations. Upon resolution of a tax position, any liability for unrecognized tax benefits will be released.

Our liability for unrecognized tax benefits is generally presented as noncurrent. However, if we anticipate paying cash within one year to settle an uncertain tax position, the liability is presented as current. We classify interest and penalties associated with our liability for unrecognized tax benefits as income tax expense.

NEW ACCOUNTING STANDARDS

For a discussion of the accounting standards recently adopted or pending adoption and the effect such accounting changes will have on our results of operations, financial position or liquidity, see Note 1 “Summary of Significant Accounting Policies” in Item 8 “Financial Statements and Supplementary Data” under the caption New Accounting Standards.

During the fourth quarter of 2023, we adopted SEC Release No. 33-11216, “Cybersecurity Risk Management, Strategy, Governance and Incident Disclosure,” which requires disclosure of our cybersecurity risk management, strategy and governance in the annual report on form 10-K. For additional details, see Item 1C “Cybersecurity” in Part I above.

FORWARD-LOOKING STATEMENTS

The foregoing discussion and analysis, as well as certain information contained elsewhere in this Annual Report, contain “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, and are intended to be covered by the safe harbor created thereby. See the discussion in Safe Harbor Statement under the Private Securities Litigation Reform Act of 1995 in Part I above.

MARKET RISK

We are exposed to certain market risks arising from transactions that are entered into in the normal course of business. To manage these market risks, we may use derivative financial instruments. We do not enter into derivative financial instruments for trading or speculative purposes.

As discussed in the Liquidity and Financial Resources section of Item 7 “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” we actively manage our capital structure and resources to balance the cost of capital and risk of financial stress. Such activity includes balancing the cost and risk of interest expense. In addition to floating-rate borrowings, we at times use interest rate swaps to manage the mix of fixed-rate and floating-rate debt.

In March 2023, we issued $550.0 million of 5.80% fixed-rate debt maturing in March 2026. Concurrently, we entered into fixed-to-floating interest rate swap agreements designated as fair value hedges in the amount of $550.0 million. Under these swap agreements, we receive a fixed interest rate of 5.80% (matches the fixed rate we pay on the $550.0 million of debt) and pay daily compound SOFR plus 0.241%. The changes in the fair value of these swaps designated as fair value hedges are recorded in interest expense consistent with the change in fair value of the hedged fixed-rate debt. At December 31, 2023, we recognized a net liability of $0.3 million equal to the fair value of this swap and a corresponding decrease in the fair value of the hedged fixed-rate debt.

At December 31, 2023, the estimated fair value of our long-term debt including current maturities was $3,798.5 million compared to a face value of $3,941.5 million. The estimated fair value was determined by averaging several asking price quotes for the publicly traded notes and assuming par value for the remainder of the debt. The fair value estimate is based on information available as of the balance sheet date. The effect of a decline in interest rates of one percentage point would increase the fair value of our debt by approximately $247.0 million.

We are exposed to certain economic risks related to the costs of our pension and other postretirement benefit plans. These economic risks include changes in the discount rate for high-quality bonds and the expected return on plan assets. The impact of a change in these assumptions on our annual pension and other postretirement benefits costs is discussed in greater detail within the Critical Accounting Policies section of this Annual Report.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholders and the Board of Directors of Vulcan Materials Company:

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Vulcan Materials Company and subsidiaries (the “Company”) as of December 31, 2023 and 2022, the related consolidated statements of comprehensive income, equity, and cash flows, for each of the three years in the period ended December 31, 2023, and the related notes (collectively referred to as the “financial statements”). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2023 and 2022, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2023, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2023, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 22, 2024 expressed an unqualified opinion on the Company's internal control over financial reporting.

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 Matter

The critical audit matter communicated below is a matter arising from the current-period audit of the financial statements that was communicated or required to be communicated to the audit committee and that (1) relates 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 financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Hewitt Landfill Environmental Matter – Refer to Note 12 to the consolidated financial statements

Critical Audit Matter Description

The Company is subject to governmental proceedings and orders pertaining to the protection of the environment. Specific to the Hewitt Landfill Environmental Matter, management is engaged in groundwater testing, certain remedial procedures and ongoing dialogue with the Environmental Protection Agency (EPA), Los Angeles Regional Water Quality Control Board (RWQCB), Los Angeles Department of Water and Power (LADWP), and Honeywell. The testing and dialogue is related to the Company's contribution to soil, soil vapor and/or groundwater contamination in the former Hewitt Landfill in Los Angeles and the potential contribution of the Hewitt Landfill to groundwater contamination in the North Hollywood Operable Unit (NHOU) of the San Fernando Valley Superfund Site.

The groundwater treatment system for the Hewitt Landfill on-site remediation is fully operational, and the anticipated costs have been fully accrued for based on facts and circumstances known to the Company at this time. The Company has disclosed facts and circumstances that led to the accrual and the inherent uncertainty that exists in the timing and recognition of potential incremental responsibility or share of costs for the Hewitt Landfill on-site remediation or the NHOU. Due to these uncertainties, future amounts recorded related to the ultimate resolution of claims and assessments could cause actual losses to differ materially from accrued costs.We identified the Hewitt Landfill and NHOU (collectively the "Hewitt Landfill Environmental Matter" or "the Matter") as a critical audit matter because evaluating the estimate of the liability and the extent and sufficiency of related disclosures is subjective in nature and as such requires an increased extent of effort, involves especially subjective auditing judgments, and requires the involvement of our environmental specialists.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the uncertainty in the timing, recognition and disclosure of the Company's responsibility and potential share of remediation costs, specifically as they relate to the Hewitt Landfill Environmental Matter include the following, among others:

- We tested the operating effectiveness of controls over the identification and evaluation of information available to assess potential responsibility or share of remediation costs for the Hewitt Landfill Environmental Matter, as well as controls over the adequacy of the related financial statement footnote disclosures.
- With the assistance of our environmental specialists, we evaluated the accuracy and completeness of management's recorded liabilities for the Hewitt Landfill Environmental Matter by:
  - Obtaining letters from internal and external counsel as to the Matter's status, probability of an unfavorable outcome, and the amount or range of potential loss should the outcome be unfavorable.
  - Independently obtaining and reading correspondence from the EPA, RWQCB and LADWP regarding the Hewitt Landfill Environmental Matter.
  - Obtaining an understanding of the change in estimate of remediation costs, as applicable, and performing procedures to evaluate the appropriateness and sufficiency of the estimate at year-end.
- We read and compared the Company's footnote disclosure to evidential matter obtained during the audit.

/s/ DELOITTE & TOUCHE LLP
Birmingham, Alabama
February 22, 2024

We have served as the Company's auditor since 1956.

VULCAN MATERIALS COMPANY AND SUBSIDIARY COMPANIES

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

For the years ended December 31 *in millions, except per share data*	***2023***	*2022*	*2021*
Total revenues	**$ 7,781.9**	$ 7,315.2	$ 5,552.2
Cost of revenues	**(5,833.4)**	(5,757.5)	(4,178.8)
Gross profit	**1,948.5**	1,557.7	1,373.4
Selling, administrative and general expenses	**(542.8)**	(515.1)	(417.6)
Gain on sale of property, plant & equipment and businesses	**76.4**	10.7	120.1
Loss on impairments	**(28.3)**	(67.9)	(4.6)
Other operating expense, net	**(26.4)**	(34.0)	(60.5)
Operating earnings	**1,427.4**	951.4	1,010.8
Other nonoperating income (expense), net	**(2.7)**	5.1	10.7
Interest income	**16.5**	0.8	1.6
Interest expense	**(196.1)**	(169.2)	(149.3)
Earnings from continuing operations before income taxes	**1,245.1**	788.1	873.8
Income tax (expense) benefit			
Current	**(343.6)**	(133.4)	(133.5)
Deferred	**44.2**	(59.6)	(66.6)
Total income tax expense	**(299.4)**	(193.0)	(200.1)
Earnings from continuing operations	**945.7**	595.1	673.7
Loss on discontinued operations, net of tax	**(10.8)**	(18.6)	(3.3)
Net earnings	**934.9**	576.5	670.4
(Earnings) loss attributable to noncontrolling interest	**(1.7)**	(0.9)	0.4
Net earnings attributable to Vulcan	**$ 933.2**	$ 575.6	$ 670.8
Other comprehensive income (loss), net of tax			
Amortization of prior cash flow hedge loss	**1.6**	1.5	1.5
Adjustment for funded status of benefit plans	**4.2**	(6.5)	13.4
Amortization of actuarial loss and prior service cost for benefit plans	**5.1**	3.0	13.7
Other comprehensive income (loss)	**10.9**	(2.0)	28.6
Comprehensive income	**945.8**	574.5	699.0
Comprehensive (earnings) loss attributable to noncontrolling interest	**(1.7)**	(0.9)	0.4
Comprehensive income attributable to Vulcan	**$ 944.1**	$ 573.6	$ 699.4
Basic earnings (loss) per share attributable to Vulcan			
Continuing operations	**$ 7.10**	$ 4.47	$ 5.08
Discontinued operations	**(0.08)**	(0.14)	(0.03)
Net earnings	**$ 7.02**	$ 4.33	$ 5.05
Diluted earnings (loss) per share attributable to Vulcan			
Continuing operations	**$ 7.06**	$ 4.45	$ 5.05
Discontinued operations	**(0.08)**	(0.14)	(0.03)
Net earnings	**$ 6.98**	$ 4.31	$ 5.02
Weighted-average common shares outstanding			
Basic	**133.0**	133.0	132.8
Assuming dilution	**133.7**	133.6	133.5

The accompanying Notes to Consolidated Financial Statements are an integral part of these statements.

VULCAN MATERIALS COMPANY AND SUBSIDIARY COMPANIES

CONSOLIDATED BALANCE SHEETS

As of December 31 *in millions*	***2023***	*2022*
Assets		
Cash and cash equivalents	**$ 931.1**	$ 161.4
Restricted cash	**18.1**	0.1
Accounts and notes receivable, net	**889.7**	1,045.3
Inventories	**615.6**	579.3
Other current assets	**70.4**	115.9
Total current assets	**2,524.9**	1,902.0
Investments and long-term receivables	**31.3**	31.8
Property, plant & equipment, net	**6,217.7**	6,051.3
Operating lease right-of-use assets, net	**511.7**	572.6
Goodwill	**3,531.7**	3,689.6
Other intangible assets, net	**1,460.7**	1,702.1
Other noncurrent assets	**267.7**	285.2
Total assets	**$ 14,545.7**	$ 14,234.6
Liabilities		
Current maturities of long-term debt	**0.5**	0.5
Short-term debt	**0.0**	100.0
Trade payables and accruals	**390.4**	454.5
Accrued salaries, wages and management incentives	**135.8**	112.7
Accrued interest	**32.8**	20.0
Other current liabilities	**238.1**	268.9
Total current liabilities	**797.6**	956.6
Long-term debt	**3,877.3**	3,875.2
Deferred income taxes, net	**1,028.9**	1,072.8
Pension and other postretirement benefits	**83.6**	82.2
Asset retirement obligations	**324.1**	311.3
Deferred revenue	**145.3**	159.8
Noncurrent operating lease liabilities	**507.4**	548.4
Other noncurrent liabilities	**273.6**	276.1
Total liabilities	**$ 7,037.8**	$ 7,282.4
Other commitments and contingencies (Note 12)		
Equity		
Common stock, $1 par value, Authorized 480.0 shares, Outstanding 132.1 and 132.9 shares, respectively	**132.1**	132.9
Capital in excess of par value	**2,880.1**	2,839.0
Retained earnings	**4,615.0**	4,111.4
Accumulated other comprehensive loss	**(143.8)**	(154.7)
Total shareholders' equity	**7,483.4**	6,928.6
Noncontrolling interest	**24.5**	23.6
Total equity	**7,507.9**	6,952.2
Total liabilities and equity	**$ 14,545.7**	$ 14,234.6

The accompanying Notes to Consolidated Financial Statements are an integral part of these statements.

VULCAN MATERIALS COMPANY AND SUBSIDIARY COMPANIES

CONSOLIDATED STATEMENTS OF CASH FLOWS

For the years ended December 31 *in millions*	***2023***	*2022*	*2021*
Operating Activities			
Net earnings	**$ 934.9**	$ 576.5	$ 670.4
Adjustments to reconcile net earnings to net cash provided by operating activities			
Depreciation, depletion, accretion and amortization	**617.0**	587.5	463.0
Loss on impairments	**28.3**	67.9	4.6
Noncash operating lease expense	**53.9**	60.3	49.0
Net gain on sale of property, plant & equipment and businesses	**(76.4)**	(10.7)	(120.1)
Contributions to pension plans	**(7.4)**	(7.8)	(8.0)
Share-based compensation expense	**63.2**	41.1	34.7
Deferred income taxes, net	**(43.3)**	57.7	66.8
(Increase) decrease in assets excluding the initial effects of business acquisitions and dispositions			
Accounts and notes receivable	**28.2**	(53.3)	(42.0)
Inventories	**(54.6)**	(49.5)	8.3
Other assets	**27.8**	(92.3)	(44.0)
Increase (decrease) in liabilities excluding the initial effects of business acquisitions and dispositions			
Accrued interest and income taxes	**18.8**	0.4	(0.4)
Trade payables and other accruals	**(25.1)**	(17.4)	(23.3)
Other noncurrent liabilities	**(42.4)**	(36.4)	(78.9)
Other, net	**13.9**	24.2	31.8
Net cash provided by operating activities	**$ 1,536.8**	$ 1,148.2	$ 1,011.9
Investing Activities			
Purchases of property, plant & equipment	**(872.6)**	(612.6)	(451.3)
Proceeds from sale of property, plant & equipment	**94.6**	38.7	216.5
Proceeds from sale of businesses	**613.6**	50.0	0.0
Payment for businesses acquired, net of acquired cash and adjustments	**0.9**	(529.2)	(1,639.4)
Other, net	**0.0**	0.1	0.1
Net cash used for investing activities	**$ (163.5)**	$ (1,053.0)	$ (1,874.1)
Financing Activities			
Proceeds from short-term debt	**166.1**	1,361.0	0.0
Payment of short-term debt	**(266.1)**	(1,261.0)	0.0
Payment of current maturities and long-term debt	**(550.5)**	(557.7)	(1,451.7)
Proceeds from issuance of long-term debt	**550.0**	550.0	1,600.0
Debt issuance and exchange costs	**(3.4)**	(2.8)	(13.3)
Payment of finance leases	**(30.8)**	(33.8)	(13.5)
Purchases of common stock	**(200.0)**	0.0	0.0
Dividends paid	**(228.4)**	(212.6)	(196.4)
Share-based compensation, shares withheld for taxes	**(21.9)**	(18.5)	(19.1)
Distribution to noncontrolling interest	**(0.8)**	0.0	0.0
Other, net	**0.2**	0.2	(0.3)
Net cash used for financing activities	**$ (585.6)**	$ (175.2)	$ (94.3)
Net increase (decrease) in cash and cash equivalents and restricted cash	**787.7**	(80.0)	(956.5)
Cash and cash equivalents and restricted cash at beginning of year	**161.5**	241.5	1,198.0
Cash and cash equivalents and restricted cash at end of year	**$ 949.2**	$ 161.5	$ 241.5

The accompanying Notes to Consolidated Financial Statements are an integral part of these statements.

VULCAN MATERIALS COMPANY AND SUBSIDIARY COMPANIES

CONSOLIDATED STATEMENTS OF EQUITY

in millions	*Common Stock* *Shares*	*Common Stock* *Amount*	*Capital in Excess of Par Value*	*Retained Earnings*	*Accumulated Other Comprehensive Income (Loss)*	*Total Shareholders' Equity*	*Non-controlling Interest*	*Total*
Balances at December 31, 2020	132.5	$ 132.5	$ 2,802.0	$ 3,274.1	$ (181.3)	$ 6,027.3	$ 0.0	$ 6,027.3
Net earnings	0.0	0.0	0.0	670.8	0.0	670.8	(0.4)	670.4
Share-based compensation plans, net of shares withheld for taxes	0.2	0.2	(20.3)	0.0	0.0	(20.1)	0.0	(20.1)
Share-based compensation expense	0.0	0.0	34.7	0.0	0.0	34.7	0.0	34.7
Cash dividends on common stock	0.0	0.0	0.0	(196.4)	0.0	(196.4)	0.0	(196.4)
Other comprehensive income	0.0	0.0	0.0	0.0	28.6	28.6	0.0	28.6
Acquisition of noncontrolling interest	0.0	0.0	0.0	0.0	0.0	0.0	23.1	23.1
Other	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.1
Balances at December 31, 2021	132.7	$ 132.7	$ 2,816.5	$ 3,748.5	$ (152.7)	$ 6,545.0	$ 22.7	$ 6,567.7
Net earnings	0.0	0.0	0.0	575.6	0.0	575.6	0.9	576.5
Share-based compensation plans, net of shares withheld for taxes	0.2	0.2	(18.7)	0.0	0.0	(18.5)	0.0	(18.5)
Share-based compensation expense	0.0	0.0	41.1	0.0	0.0	41.1	0.0	41.1
Cash dividends on common stock	0.0	0.0	0.0	(212.6)	0.0	(212.6)	0.0	(212.6)
Other comprehensive income (loss)	0.0	0.0	0.0	0.0	(2.0)	(2.0)	0.0	(2.0)
Other	0.0	0.0	0.1	(0.1)	0.0	0.0	0.0	0.0
Balances at December 31, 2022	132.9	$ 132.9	$ 2,839.0	$ 4,111.4	$ (154.7)	$ 6,928.6	$ 23.6	$ 6,952.2
Net earnings	0.0	0.0	0.0	933.2	0.0	933.2	1.7	934.9
Share-based compensation plans, net of shares withheld for taxes	0.2	0.2	(22.0)	0.0	0.0	(21.8)	0.0	(21.8)
Purchase and retirement of common stock	(1.0)	(1.0)	0.0	(201.5)	0.0	(202.5)	0.0	(202.5)
Share-based compensation expense	0.0	0.0	63.2	0.0	0.0	63.2	0.0	63.2
Cash dividends on common stock	0.0	0.0	0.0	(228.4)	0.0	(228.4)	0.0	(228.4)
Other comprehensive income (loss)	0.0	0.0	0.0	0.0	10.9	10.9	0.0	10.9
Distribution to noncontrolling interest	0.0	0.0	0.0	0.0	0.0	0.0	(0.8)	(0.8)
Other	0.0	0.0	(0.1)	0.3	0.0	0.2	0.0	0.2
Balances at December 31, 2023	**132.1**	**$ 132.1**	**$ 2,880.1**	**$ 4,615.0**	**$ (143.8)**	**$ 7,483.4**	**$ 24.5**	**$ 7,507.9**

The accompanying Notes to Consolidated Financial Statements are an integral part of these statements.

NOTE 1: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

NATURE OF OPERATIONS

Vulcan Materials Company (the “Company,” “Vulcan,” “we,” “our”), a New Jersey corporation, is the nation's largest supplier of construction aggregates (primarily crushed stone, sand and gravel), a major producer of asphalt mix and ready-mixed concrete, and a supplier of asphalt construction paving services.

We operate primarily in the United States, and our principal product — aggregates — is used in virtually all types of public and private construction projects and in the production of asphalt mix and ready-mixed concrete. We serve aggregates markets in twenty-three states, the U.S. Virgin Islands, Washington D.C., and the local markets surrounding our operations in Freeport, Bahamas; British Columbia, Canada; Puerto Cortés, Honduras; and Quintana Roo, Mexico (see Note 12, NAFTA Arbitration). Our primary focus is serving metropolitan markets in the United States that are expected to experience the most significant growth in population, households and employment. These three demographic factors are significant drivers of demand for aggregates. While aggregates is our focus and primary business, we produce and sell aggregates-intensive asphalt mix and/or ready-mixed concrete products in our Alabama, Arizona, California, Maryland, New Mexico, Tennessee, Texas, Virginia, U.S. Virgin Islands and Washington D.C. markets.

Due to the 2005 sale of our Chemicals business as described below, the results of the Chemicals business are presented as discontinued operations in the accompanying Consolidated Statements of Comprehensive Income.

DISCONTINUED OPERATIONS

In 2005, we sold substantially all the assets of our Chemicals business to Basic Chemicals, a subsidiary of Occidental Chemical Corporation. The financial results of the Chemicals business are classified as discontinued operations in the accompanying Consolidated Statements of Comprehensive Income for all periods presented. Results from discontinued operations are as follows:

in millions	***2023***	*2022*	*2021*
Discontinued Operations			
Pretax loss	**$ (14.7)**	$ (25.2)	$ (4.5)
Income tax benefit	**3.9**	6.6	1.2
Loss on discontinued operations, net of tax	**$ (10.8)**	$ (18.6)	$ (3.3)

Our discontinued operations include charges related to general and product liability costs, including legal defense costs, and environmental remediation costs associated with our former Chemicals business (including certain matters as discussed in Note 12). In addition, 2022 includes a $15.3 million charge for a litigation matter. There were no revenues from discontinued operations for the years presented.

PRINCIPLES OF CONSOLIDATION

The consolidated financial statements include the accounts of Vulcan Materials Company and all our majority or wholly-owned subsidiary companies. Partially-owned affiliates are either consolidated or accounted for at cost or as equity investments depending on the level of ownership interest or our ability to exercise control over the affiliates’ operations. All intercompany transactions and accounts have been eliminated in consolidation.

NONCONTROLLING INTEREST

In connection with our acquisition of U.S. Concrete in 2021, we obtained an 88% controlling interest in the Orca Sand and Gravel Limited Partnership (Orca). Orca was formed to develop the Orca quarry in British Columbia, Canada. The remaining 12% noncontrolling interest is held by the Namgis First Nation (Namgis). This noncontrolling interest consists of the Namgis’ share of the fair value equity in the partnership. Our consolidated financial statements recognize the full fair value of all of the subsidiary’s assets and liabilities offset by the noncontrolling interest in total equity.

USE OF ESTIMATES IN THE PREPARATION OF FINANCIAL STATEMENTS

The preparation of these financial statements in conformity with accounting principles generally accepted (GAAP) in the United States of America requires us to make estimates and judgments that affect reported amounts of assets, liabilities, revenues and expenses, and the related disclosures of contingent assets and contingent liabilities at the date of the financial statements. We evaluate these estimates and judgments on an ongoing basis and base our estimates on historical experience, current conditions and various other assumptions that are believed to be reasonable under the circumstances. The results of these estimates form the basis for our judgments about the carrying values of assets and liabilities as well as identifying and assessing the accounting treatment with respect to commitments and contingencies. Actual results may differ materially from these estimates. The most significant estimates included in the preparation of these financial statements are related to goodwill and long-lived asset impairments, business combinations and purchase price allocation, pension and other postretirement benefits, environmental compliance, claims and litigation including self-insurance, and income taxes. Events that relate to conditions arising after December 31, 2023 will be reflected in management's estimates for future periods.

BUSINESS COMBINATIONS

We account for business combinations under the acquisition method of accounting. The purchase price of an acquisition is allocated to the underlying identifiable assets acquired and liabilities assumed based on their respective fair values. The purchase price is determined based on the fair value of consideration transferred to and liabilities assumed from the seller as of the date of acquisition. We allocate the purchase price to the fair values of the tangible and identifiable intangible assets acquired and liabilities assumed as of the date of acquisition. Goodwill is recorded for the excess of the purchase price over the net fair value of the identifiable assets acquired and liabilities assumed.

Determining the fair values of assets acquired and liabilities assumed requires judgment and often involves the use of significant estimates and assumptions. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction and, therefore, represents an exit price. A fair value measurement assumes the highest and best use of the asset by market participants.

We may adjust the amounts recognized in an acquisition during a measurement period after the acquisition date. Any such adjustments are the result of subsequently obtaining additional information that existed at the acquisition date regarding the assets acquired or the liabilities assumed. Measurement period adjustments are generally recorded as increases or decreases to goodwill, if any, recognized in the transaction. The cumulative impact of measurement period adjustments on depreciation, amortization and other income statement items are recognized in the period the adjustment is determined.

For additional information about business combinations, see Note 19.

FOREIGN CURRENCY TRANSACTIONS

The U.S. dollar is the functional currency for all of our operations, as the primary economic environment in which we transact business is the United States. For our non-U.S. subsidiaries, local currency inventories and long-term assets such as property, plant & equipment and intangibles are remeasured into U.S. dollars at approximate rates prevailing when acquired; all other assets and liabilities are remeasured at year-end exchange rates. Inventories charged to cost of sales and depreciation are remeasured at historical rates; all other income and expense items are remeasured at average exchange rates prevailing during the year. Gains and losses which result from remeasurement are included in other nonoperating income/expense in the accompanying Consolidated Statements of Comprehensive Income and are not material for the years presented.

CASH EQUIVALENTS

We classify as cash equivalents all highly liquid securities with a maturity of three months or less at the time of purchase. The carrying amount of these securities approximates fair value due to their short-term maturities.

RESTRICTED CASH

Restricted cash primarily consists of cash proceeds from the sale of property held in escrow for the acquisition of replacement property under like-kind exchange agreements. The escrow accounts are administered by an intermediary. Cash restricted pursuant to like-kind exchange agreements remains restricted for a maximum of 180 days from the date of the property sale pending the acquisition of replacement property. Restricted cash may also include cash reserved by other contractual agreements (such as asset purchase agreements) for a specified purpose and therefore is not available for use for other purposes. Restricted cash is included with cash and cash equivalents in the accompanying Consolidated Statements of Cash Flows.

ACCOUNTS AND NOTES RECEIVABLE

Accounts and notes receivable from customers result from our extending credit to trade customers for the purchase of our products. The terms generally provide for payment within 15 days of the month following invoice. On occasion, when necessary to conform to regional industry practices, we sell product under extended payment terms, which may result in either secured or unsecured short-term notes; or, on occasion, notes with durations of less than one year are taken in settlement of existing accounts receivable. Other accounts and notes receivable result from short-term transactions (less than one year) other than the sale of our products, such as interest receivable, insurance claims, freight claims, bid deposits or rents receivable.

Allowance for credit losses is based on our assessment of the collectability of customer accounts. We regularly review the allowance by considering factors such as historical experience, credit quality, the age of the accounts receivable balances, and current economic conditions that may affect a customer's ability to pay. Allowances for credit losses were $13.6 million and $10.9 million at December 31, 2023 and 2022, respectively. Bad debt expense (included in selling, administrative and general expense) for the years ended December 31 was as follows: 2023 — $2.1 million, 2022 — $0.7 million and 2021 — $1.3 million.

INVENTORIES

Inventories and supplies are stated at the lower of cost or net realizable value. We use the last-in, first-out (LIFO) method of valuation for most of our inventories because it results in a better matching of costs with revenues. Such costs include fuel, parts and supplies, raw materials, direct labor and production overhead. An actual valuation of inventory under the LIFO method can be made only at the end of each year based on the inventory levels and costs at that time. Accordingly, interim LIFO calculations are based on our estimates of expected year-end inventory levels and costs and are subject to the final year-end LIFO inventory valuation. Substantially all operating supplies inventory is carried at average cost.

For additional information about inventories, see Note 3.

PROPERTY, PLANT & EQUIPMENT

Property, plant & equipment are carried at cost less accumulated depreciation, depletion and amortization.

For assets sold or otherwise disposed of, the cost and related accumulated depreciation are removed, and any related gain or loss is reflected in income.

For additional information about our property, plant & equipment, see Note 4.

REPAIR AND MAINTENANCE

Repair and maintenance costs generally are charged to operating expense as incurred. Renewals and betterments that add materially to the utility or useful lives of property, plant & equipment are capitalized and subsequently depreciated. Actual costs for planned major maintenance activities, related primarily to periodic overhauls on our aircrafts and oceangoing vessels, are capitalized and amortized to the next overhaul.

LEASES

Our nonmineral leases with initial terms in excess of one year are recognized on the balance sheet as right-of-use (ROU) assets and lease liabilities. Mineral leases are exempt from balance sheet recognition.

ROU assets represent our right to use an underlying asset for the lease term, and lease liabilities represent our obligation to make lease payments arising from the leases. ROU assets and lease liabilities are recognized at the lease commencement date based on the present value of lease payments over the lease term. The lease term only includes options to extend or terminate the lease when it is reasonably certain that we will exercise that option. As our leases do not provide an implicit rate, we use our incremental borrowing rate based on the information available at the commencement date in determining the present value of lease payments. ROU assets are adjusted for any prepaid lease payments and lease incentives. Except for equipment with monthly monitoring service where the service component accounts for a majority of the lease cost, the non-lease components of our lease agreements are not separated from the lease components.

For additional information about leases, see Note 7.

DEPRECIATION, DEPLETION, ACCRETION AND AMORTIZATION

Depreciation is generally computed by the straight-line method at rates based on the estimated service lives of the various classes of assets, which include machinery and equipment (3 to 35 years), buildings (7 to 20 years) and land improvements (3 to 20 years). Finance leases are amortized over varying periods not in excess of applicable lease terms or estimated useful lives. Capitalized software costs are included in machinery and equipment and are depreciated on a straight-line basis beginning when the software project is substantially complete.

Cost depletion on depletable land is computed by the unit-of-sales method based on estimated recoverable units.

Accretion reflects the period-to-period increase in the carrying amount of the liability for asset retirement obligations. It is computed using the same credit-adjusted, risk-free rate used to initially measure the liability at fair value.

Leaseholds are amortized over varying periods not in excess of applicable lease terms or estimated useful lives.

Amortization of intangible assets subject to amortization is computed based on the estimated life of the intangible assets. A significant portion of our intangible assets is contractual rights in place associated with zoning, permitting and other rights to access and extract aggregates reserves. Contractual rights in place associated with aggregates reserves are amortized using the unit-of-sales method based on estimated recoverable units. Other intangible assets are amortized principally by the straight-line method.

Depreciation, depletion, accretion and amortization expense for the years ended December 31 is outlined below:

in millions	***2023***	*2022*	*2021*
Depreciation, Depletion, Accretion and Amortization			
Depreciation	**$ 441.1**	$ 409.1	$ 343.4
Depletion	**61.1**	50.2	31.2
Accretion	**13.9**	14.1	13.1
Depreciation of finance leases	**12.8**	16.5	7.1
Amortization of intangibles	**88.1**	97.6	68.2
Total	**$ 617.0**	$ 587.5	$ 463.0

DERIVATIVE INSTRUMENTS

During the normal course of operations, we are exposed to market risks including interest rates, foreign currency exchange rates and commodity prices. From time to time, and consistent with our risk management policies, we use derivative instruments to balance the cost and risk of such expenses. We do not use derivative instruments for trading or other speculative purposes.

The accounting for gains and losses that result from changes in the fair value of derivative instruments depends on whether the derivatives have been designated and qualify as hedging instruments and the type of hedging relationship. Changes in the fair value of interest rate swap fair value hedges are recorded as interest expense consistent with the change in the fair value of the hedged item attributable to the risk being hedged. Changes in the fair value of interest rate swap cash flow hedges are recorded in accumulated other comprehensive income (AOCI) and are reclassified into interest expense in the same period the hedged items affect earnings. We may also enter into contracts that qualify for the normal purchases and normal sales (NPNS) exception. When a contract meets the criteria to qualify as NPNS, we apply such exception. Income recognition and realization related to NPNS contracts generally coincide with the physical delivery of the commodity. For contracts qualifying for the NPNS exception, no recognition of the contract's fair value in the consolidated financial statements is required until settlement of the contract as long as the transaction remains probable of occurring.

For additional information about derivative instruments, see Note 5.

FAIR VALUE MEASUREMENTS

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value hierarchy prioritizes the inputs to valuation techniques used to measure fair value into three broad levels as described below:

Level 1: Quoted prices in active markets for identical assets or liabilities

Level 2: Inputs that are derived principally from or corroborated by observable market data

Level 3: Inputs that are unobservable and significant to the overall fair value measurement

Our assets at December 31 subject to fair value measurement on a recurring basis are summarized below:

	Level 1 Fair Value	
in millions	***2023***	*2022*
Fair Value Recurring		
Rabbi Trust		
Mutual funds	**$ 31.7**	$ 28.6
Total	**$ 31.7**	$ 28.6

	Level 2 Fair Value	
in millions	***2023***	*2022*
Fair Value Recurring		
Interest rate swaps	**$ (0.3)**	$ 0.0
Rabbi Trust		
Money market mutual fund	**0.5**	1.5
Total	**$ 0.2**	$ 1.5

We have two Rabbi Trusts for the purpose of providing a level of security for the employee nonqualified retirement and deferred compensation plans and for the directors' nonqualified deferred compensation plans. The fair values of these investments are estimated using a market approach. The Level 1 investments include mutual funds for which quoted prices in active markets are available. Level 2 investments are stated at estimated fair value based on the underlying investments in the fund (high-quality, short-term, U.S. dollar-denominated money market instruments).

Net gains (losses) of the Rabbi Trusts' investments were $3.0 million, $(4.8) million and $6.1 million for the years ended December 31, 2023, 2022 and 2021, respectively. The portions of the net gains (losses) related to investments still held by the Rabbi Trusts at December 31, 2023, 2022 and 2021 were $3.1 million, $(5.2) million and $5.3 million, respectively.

Interest rate swaps are measured at fair value using quoted market prices or pricing models that use prevailing market interest rates as of the measurement date. These interest rate swaps are more fully described in Note 5.

The carrying values of our cash equivalents, restricted cash, accounts and notes receivable, short-term debt, trade payables and accruals, and all other current liabilities approximate their fair values because of the short-term nature of these instruments. Additional disclosures for derivative instruments and interest-bearing debt are presented in Notes 5 and 6, respectively.

During the third quarter of 2023, net assets held for sale (our concrete operations in Texas) with a carrying value of $513.3 million were written down to their estimated fair value (less cost to sell) of $485.0 million, resulting in an impairment loss of $28.3 million; these net assets were subsequently sold during the fourth quarter resulting in additional loss on sale of $13.8 million. In addition, during the third quarter of 2022, net assets held for sale (our concrete operations in New Jersey, New York and Pennsylvania) with a carrying value of $196.9 million were written down to their estimated fair value (less cost to sell) of $180.0 million, resulting in an impairment loss of $16.9 million; these net assets were subsequently sold during the fourth quarter resulting in an additional loss on sale of $17.4 million. In both years, the estimated fair values (Level 1 fair value measurements) were determined based on the expected proceeds from the probable sales of the disposal groups. See below for a related goodwill impairment charge in 2022 and Note 19 for additional discussion of the disposal of the net assets.

GOODWILL IMPAIRMENT

Goodwill represents the excess of the cost of net assets acquired in business combinations over the fair value of the identifiable tangible and intangible assets acquired and liabilities assumed in a business combination. Goodwill impairment exists when the fair value of a reporting unit is less than its carrying amount. As of December 31, 2023, goodwill totaled $3,531.7 million as compared to $3,689.6 million at December 31, 2022. Goodwill represents 24% of total assets at December 31, 2023 and 26% at December 31, 2022.

Goodwill is tested for impairment annually, as of November 1, or more frequently whenever events or changes in circumstances would more likely than not reduce the fair value of a reporting unit below its carrying amount. Goodwill is tested for impairment at the reporting unit level, one level below our operating segments. We have four operating segments organized around our principal product lines: Aggregates, Asphalt, Concrete and Calcium. Within these four operating segments, we have identified 16 reporting units (of which 11 carry goodwill) based primarily on geographic location. We have the option of either assessing qualitative factors to determine whether it is more likely than not that the carrying value of our reporting units exceeds their respective fair value or proceeding directly to a quantitative test. We elected to perform the quantitative impairment test for all years presented.

The quantitative impairment test compares the fair value of a reporting unit to its carrying value, including goodwill. If the fair value exceeds its carrying value, the goodwill of the reporting unit is not considered impaired. However, if the carrying value of a reporting unit exceeds its fair value, we recognize an impairment loss equal to that excess.

During the third quarter of 2022, we recorded an interim goodwill impairment loss of $50.9 million related to the fourth quarter sale of a reporting unit comprised of concrete operations in New Jersey, New York and Pennsylvania (see Note 19 for additional information). There were no charges for goodwill impairment in the years ended December 31, 2023 or 2021.

We estimate the fair values of the reporting units using both an income approach (which involves discounting estimated future cash flows) and a market approach (which involves the application of revenue and EBITDA multiples of comparable companies). Determining the fair value of our reporting units involves the use of significant estimates and assumptions and considerable management judgment. We base our fair value estimates on assumptions we believe to be reasonable at the time, but such assumptions are subject to inherent uncertainty and actual results may differ. Changes in key assumptions or management judgment with respect to a reporting unit or its prospects, which may result from a change in market conditions, market trends, interest rates or other factors outside of our control, or underperformance relative to historical or projected operating results, could result in a significantly different estimate of the fair value of our reporting units, which could result in an impairment charge in the future.

For additional information about goodwill, see Note 18.

IMPAIRMENT OF LONG-LIVED ASSETS EXCLUDING GOODWILL

We evaluate the carrying value of long-lived assets, including intangible assets subject to amortization, when events and circumstances indicate that the carrying value may not be recoverable. The carrying value of long-lived assets is considered impaired when the estimated undiscounted cash flows from such assets are less than their carrying value. In that event, we recognize a loss equal to the amount by which the carrying value exceeds the fair value. Fair value is determined primarily by using a discounted cash flow methodology that requires considerable judgment and assumptions. Our estimate of net future cash flows is based on historical experience and assumptions of future trends, which may be different from actual results. We periodically review the appropriateness of the estimated useful lives of our long-lived assets.

We test long-lived assets for impairment at the a significantly lower level than the level at which we test goodwill for impairment. In markets where we do not produce downstream products (e.g., asphalt mix and ready-mixed concrete), the lowest level of largely independent identifiable cash flows is at the individual aggregates operation or a group of aggregates operations collectively serving a local market or remote markets through our rail and water distribution networks. Conversely, in vertically integrated markets, the cash flows of our downstream and upstream businesses are not largely independently identifiable as the selling price of the upstream products (aggregates) determines the profitability of the downstream business.

As of December 31, 2023, net property, plant & equipment represents 43% of total assets while net other intangible assets represents 10% of total assets. As previously noted, during the third quarter of 2023, we recorded a $28.3 million loss on impairment of long-lived assets related to the fourth quarter sale of concrete operations in Texas. In addition, during the third quarter of 2022, we recorded a $16.9 million loss on impairment of long-lived assets related to the fourth quarter sale of concrete operations in New Jersey, New York and Pennsylvania. See Note 19 for divestiture information and Note 18 for a related goodwill impairment charge in 2022. During 2021, we recorded no significant losses on impairment of long-lived assets.

For additional information about long-lived assets and intangible assets, see Notes 4 and 18, respectively.

REVENUES AND REVENUE RECOGNITION

Total revenues include sales of product and services to customers, net of any discounts and taxes, and freight and delivery revenues billed to customers. Freight and delivery generally represent pass-through transportation we incur (including our administrative costs) and pay to third-party carriers to deliver our products to customers. The cost related to freight and delivery is included in cost of revenues.

Revenues are measured as the amount of consideration we expect to receive in exchange for transferring goods or providing services. Sales tax and other taxes we collect are recorded as liabilities until remitted and thus are excluded from revenues. Costs to obtain and fulfill contracts (primarily asphalt construction paving contracts) are immaterial and are expensed as incurred when the expected amortization period is one year or less.

Revenues for product sales are recognized when control passes to the customer (typically occurs when finished products are shipped/delivered). Construction paving revenues are recognized using the percentage-of-completion method.

Our products typically are sold to private industry and not directly to governmental entities. Although approximately 40% to 55% of our aggregates shipments have historically been used in publicly-funded construction (such as highways, airports and government buildings), relatively insignificant sales are made directly to federal, state, county or municipal governments/agencies. Therefore, although reductions in state and federal funding can curtail publicly-funded construction, the vast majority of our aggregates business is not directly subject to renegotiation of profits or termination of contracts with state or federal governments.

For additional information regarding revenues and revenue recognition, see Note 2.

STRIPPING COSTS

In the mining industry, the costs of removing overburden and waste materials to access mineral deposits are referred to as stripping costs.

Stripping costs incurred during the production phase are considered costs of extracted minerals under our inventory costing system, inventoried, and recognized in cost of sales in the same period as the revenue from the sale of the inventory. The production stage is deemed to begin when the activities, including removal of overburden and waste material that may contain incidental saleable material, required to access the saleable product are complete. Stripping costs considered as production costs and included in the costs of inventory produced were $135.8 million in 2023, $133.1 million in 2022 and $90.7 million in 2021.

Conversely, stripping costs incurred during the development stage of a mine (pre-production stripping) are excluded from our inventory cost. Pre-production stripping costs are capitalized and reported within other noncurrent assets in our accompanying Consolidated Balance Sheets. Capitalized pre-production stripping costs are expensed over the productive life of the mine using the unit-of-sales method. Pre-production stripping costs included in other noncurrent assets were $98.4 million and $100.2 million (net of accumulated amortization of $7.7 million and $6.0 million) as of December 31, 2023 and 2022, respectively.

RECLAMATION COSTS

Reclamation costs resulting from normal use of long-lived assets are recognized over the period the asset is in use when there is a legal obligation to incur these costs upon retirement of the assets. Additionally, reclamation costs resulting from normal use under a mineral lease are recognized over the lease term when there is a legal obligation to incur these costs upon expiration of the lease. The obligation, which cannot be reduced by estimated offsetting cash flows, is recorded at fair value as a liability at the obligating event date and is accreted through charges to operating expenses. This fair value is also capitalized as part of the carrying amount of the underlying asset and depreciated over the estimated useful life of the asset. If the obligation is settled for other than the carrying amount of the liability, a gain or loss is recognized on settlement.

To determine the fair value of the obligation, we estimate the cost (including a reasonable profit margin) for a third party to perform the legally required reclamation tasks. This cost is then increased for both future estimated inflation and an estimated market risk premium related to the estimated years to settlement. Once calculated, this cost is discounted to fair value using present value techniques with a credit-adjusted, risk-free rate commensurate with the estimated years to settlement.

In estimating the settlement date, we evaluate the current facts and conditions to determine the most likely settlement date. If this evaluation identifies alternative estimated settlement dates, we use a weighted-average settlement date considering the probabilities of each alternative.

We review reclamation obligations at least annually for a revision to the cost or a change in the estimated settlement date. Additionally, reclamation obligations are reviewed in the period that a triggering event occurs that would result in either a revision to the cost or a change in the estimated settlement date. Examples of events that would trigger a change in the cost include a new reclamation law or amendment of an existing mineral lease. Examples of events that would trigger a change in the estimated settlement date include the acquisition of additional reserves or the closure of a facility.

The carrying value of these obligations was $324.1 million as of December 31, 2023 and $311.3 million as of December 31, 2022. For additional information about reclamation obligations (referred to in our financial statements as asset retirement obligations), see Note 17.

ENVIRONMENTAL COMPLIANCE

Our environmental compliance costs are undiscounted and include the cost of ongoing monitoring programs, the cost of remediation efforts and other similar costs. We accrue costs for environmental assessment and remediation efforts when we determine that a liability is probable and we can reasonably estimate the cost. At the early stages of a remediation effort, environmental remediation liabilities are not easily quantified due to the uncertainties of various factors. The range of an estimated remediation liability is defined and redefined as events in the remediation effort occur, but generally liabilities are recognized no later than the completion of the remedial feasibility study.

When we can estimate a range of probable loss, we accrue the most likely amount. If no amount in the range of probable loss is considered most likely, the minimum loss in the range is accrued. As of December 31, 2023, the spread between the amount accrued and the maximum loss in the range for all sites for which a range can be reasonably estimated was $6.4 million — this amount does not represent our maximum exposure to loss for all environmental remediation obligations as it excludes those sites for which a range of loss cannot be reasonably estimated at this time. Accrual amounts may be based on technical cost estimations or the professional judgment of experienced environmental managers. Our Safety, Health and Environmental Affairs Management Committee routinely reviews cost estimates and key assumptions in response to new information, such as the kinds and quantities of hazardous substances, available technologies and changes to the parties participating in the remediation efforts. However, a number of factors, including adverse agency rulings and encountering unanticipated conditions as remediation efforts progress, may cause actual results to differ materially from accrued costs.

For additional information about environmental compliance costs, see Note 8.

CLAIMS AND LITIGATION INCLUDING SELF-INSURANCE

We are involved with claims and litigation, including items covered under our self-insurance program. We are self-insured for losses related to workers' compensation up to $3.0 million per occurrence and automotive and general/product liability up to $10.0 million per occurrence. We have excess coverage on a per occurrence basis beyond these retention levels. Under our self-insurance program, we aggregate certain claims and litigation costs that are reasonably predictable based on our historical loss experience and accrue losses, including future legal defense costs, based on actuarial studies. Certain claims and litigation costs, due to their unique nature, are not included in our actuarial studies. We use both internal and outside legal counsel to assess the probability of loss and establish an accrual when the claims and litigation represent a probable loss and the cost can be reasonably estimated. For matters not included in our actuarial studies, legal defense costs are accrued when incurred. The following table outlines our self-insurance program at December 31:

dollars in millions	***2023***	*2022*
Self-insurance Program		
Self-insured liabilities (undiscounted)	**$ 151.7**	$ 146.7
Insured liabilities (undiscounted)	**2.3**	2.3
Discount rate	**4.56%**	4.20%
Amounts Recognized in Consolidated Balance Sheets		
Investments and long-term receivables	**2.3**	2.3
Other current liabilities	**(59.6)**	(51.4)
Other noncurrent liabilities	**(76.1)**	(81.7)
Net insurance liabilities (discounted)	**$ (133.4)**	$ (130.8)

Estimated payments (undiscounted and excluding the impact of related receivables) under our self-insurance program for the five years subsequent to December 31, 2023 are as follows:

in millions	
Estimated Payments under Self-insurance Program	
2024	$ 48.9
2025	32.2
2026	20.8
2027	11.0
2028	5.5

Significant judgment is used in determining the timing and amount of the accruals for probable losses, and the actual liability could differ materially from the accrued amounts.

For additional information about claims and litigation, see Note 12 under the caption Litigation and Environmental Matters.

SHARE-BASED COMPENSATION

All of our share-based compensation awards are classified as equity awards. We measure share-based compensation awards using fair-value-based measurement methods. This results in the recognition of compensation expense for all share-based compensation awards based on their fair value as of the grant date with adjustments for performance, as applicable. Compensation cost is recognized over the requisite service period. Forfeitures are recognized as they occur.

A summary of the estimated future compensation cost (unrecognized compensation expense) as of December 31, 2023 related to share-based awards granted to employees under our long-term incentive plans is presented below:

dollars in millions	*Unrecognized Compensation Expense*	*Expected Weighted-average Recognition (Years)*
Share-based Compensation		
SOSARs [1]	**$ 1.2**	**1.2**
Performance shares	**17.7**	**1.7**
Restricted shares	**13.1**	**1.8**
Total/weighted-average	**$ 32.0**	**1.7**

1 Stock-Only Stock Appreciation Rights (SOSARs)

Pretax compensation expense related to our employee share-based compensation awards and related income tax benefits for the years ended December 31 are summarized below:

in millions	***2023***	*2022*	*2021*
Employee Share-based Compensation Awards			
Pretax compensation expense	**$ 60.6**	$ 38.7	$ 32.5
Income tax benefits	**9.1**	6.9	4.7

We receive an income tax deduction for share-based compensation equal to the excess of the market value of our common stock on the date of exercise or issuance over the exercise price. Excess tax benefits resulting from tax deductions, after considering any deductibility limitations such as IRC section 162(m), in excess of the compensation cost recognized are reflected as discrete income tax benefits in the period of exercise or issuance.

For additional information about share-based compensation, see Note 11 under the caption Share-based Compensation Plans.

PENSION AND OTHER POSTRETIREMENT BENEFITS

Accounting for pension and other postretirement benefits requires that we use assumptions for the valuation of projected benefit obligations (PBO) and the performance of plan assets. Each year, we review our assumptions for discount rates (used for PBO, service cost, and interest cost calculations), expected return on plan assets and the cost of covered healthcare benefits. Due to plan changes made in 2013, annual pay increases do not materially impact plan obligations.

DISCOUNT RATES — We use a high-quality bond full yield curve approach (specific spot rates for each annual expected cash flow) to establish the discount rates at each measurement date.

EXPECTED RETURN ON PLAN ASSETS — Our expected return on plan assets is: (1) a long-term view based on our current asset allocation, and (2) a judgment informed by consultation with our retirement plans' consultant and our pension plans' actuary.

RATE OF INCREASE IN THE PER CAPITA COST OF COVERED HEALTHCARE BENEFITS — We project the expected increases in the cost of covered healthcare benefits.

Accounting standards provide for the delayed recognition of differences between actual results and expected or estimated results. This delayed recognition of actual results allows for a smoothed recognition in earnings of changes in benefit obligations and asset performance. The differences between actual results and expected or estimated results are recognized in full in other comprehensive income. Amounts recognized in other comprehensive income are reclassified to earnings in a systematic manner over the average remaining service period of participants for our active plans or the average remaining lifetime of participants for our inactive plans.

We present the service cost component of net periodic benefit cost in cost of revenues and selling, administrative and general expense consistent with employee compensation costs. The other components of net periodic benefit cost are reported within other nonoperating income in our accompanying Consolidated Statements of Comprehensive Income.

For additional information about pension and other postretirement benefits, see Note 10.

INCOME TAXES

We file federal, state and foreign income tax returns and account for the current and deferred tax effects of such returns using the asset and liability method. We recognize deferred tax assets and liabilities (which reflect our best assessment of the future taxes we will pay) based on the differences between the book basis and tax basis of assets and liabilities. Deferred tax assets represent items to be used as a tax deduction or credit in future tax returns while deferred tax liabilities represent items that will result in additional tax in future tax returns.

Significant judgments and estimates are required in determining our deferred tax assets and liabilities. These estimates are updated throughout the year to consider income tax return filings, our geographic mix of earnings, legislative changes and other relevant items. We are required to account for the effects of changes in income tax rates on deferred tax balances in the period in which the legislation is enacted.

Each quarter we analyze the likelihood that our deferred tax assets will be realized. Realization of the deferred tax assets ultimately depends on the existence of sufficient taxable income of the appropriate character in either the carryback or carryforward period. A valuation allowance is recorded if, based on the weight of all available positive and negative evidence, it is more likely than not (a likelihood of more than 50%) that some portion, or all, of a deferred tax asset will not be realized. A summary of our deferred tax assets is included in Note 9.

We recognize a tax benefit associated with a tax position when, in our judgment, it is more likely than not that the position will be sustained based upon the technical merits of the position. For a tax position that meets the more likely than not recognition threshold, we measure the income tax benefit as the largest amount that we judge to have a greater than 50% likelihood of being realized. A liability is established for the unrecognized portion of any tax position. Our liability for unrecognized tax benefits is adjusted periodically due to changing circumstances, such as the progress of tax audits, case law developments and new legislation.

Generally, we are not subject to significant changes in income taxes by any taxing jurisdiction for the years before 2020. While it is often difficult to predict the final outcome or the timing of resolution of any particular tax matter, we believe our liability for unrecognized tax benefits is appropriate.

We consider a tax position to be resolved at the earlier of the issue being “effectively settled,” settlement of an examination, or the expiration of the statute of limitations. Upon resolution of a tax position, any liability for unrecognized tax benefits will be released.

Our liability for unrecognized tax benefits is generally presented as noncurrent. However, if we anticipate paying cash within one year to settle an uncertain tax position, the liability is presented as current. We classify interest and penalties associated with our liability for unrecognized tax benefits as income tax expense.

Our largest permanent item in computing both our taxable income and effective tax rate is the deduction allowed for statutory depletion. The impact of statutory depletion on the effective tax rate is presented in Note 9. The deduction for statutory depletion does not necessarily change proportionately to changes in pretax earnings.

COMPREHENSIVE INCOME

We report comprehensive income in our Consolidated Statements of Comprehensive Income and Consolidated Statements of Equity. Comprehensive income comprises two subsets: net earnings and other comprehensive income (OCI). OCI includes adjustments to cash flow hedges, as well as actuarial gains or losses and prior service costs related to pension and postretirement benefit plans.

For additional information about comprehensive income, see Note 14.

EARNINGS PER SHARE (EPS)

Earnings per share are computed by dividing net earnings by the weighted-average common shares outstanding (basic EPS) or weighted-average common shares outstanding assuming dilution (diluted EPS), as set forth below:

in millions	***2023***	*2022*	*2021*
Weighted-average common shares outstanding	**133.0**	133.0	132.8
Dilutive effect of			
SOSARs	**0.2**	0.2	0.3
Other stock compensation awards	**0.5**	0.4	0.4
Weighted-average common shares outstanding, assuming dilution	**133.7**	133.6	133.5

All dilutive common stock equivalents are reflected in our earnings per share calculations. In periods of loss, shares that otherwise would have been included in our diluted weighted-average common shares outstanding computation would be excluded.

Antidilutive common stock equivalents are not included in our earnings per share calculations. The number of antidilutive common stock equivalents for which the exercise price exceeds the weighted-average market price for the years ended December 31 is as follows:

in millions	***2023***	*2022*	*2021*
Antidilutive common stock equivalents	**0.0**	0.1	0.0

RECLASSIFICATIONS

Certain items previously reported in specific financial statement captions have been reclassified to conform to the 2023 presentation. Such reclassifications had no impact on our prior results of operations, financial position or cash flows.

NEW ACCOUNTING STANDARDS

ACCOUNTING STANDARDS RECENTLY ADOPTED

None

ACCOUNTING STANDARDS PENDING ADOPTION

In November 2023, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2023-07, “Segment Reporting – Improvements to Reportable Segment Disclosures,” which requires enhanced disclosures related to significant segment expenses and a description of how the chief operating decision maker utilizes segment operating profit or loss to assess segment performance. The new standard is effective for fiscal years beginning after December 15, 2023 and is to be applied retrospectively. We are assessing the effect of this ASU on our consolidated financial statements and related disclosures.

In December 2023, the FASB issued ASU 2023-09, “Income Taxes – Improvements to Income Tax Disclosures,” which requires disclosure of specific categories and disaggregation of information in the rate reconciliation table and expands disclosures related to income taxes paid. The new standard is effective for fiscal years beginning after December 15, 2024 and is to be applied prospectively. We are assessing the effect of this ASU on our consolidated financial statements and related disclosures.

NOTE 2: REVENUES

Total revenues are primarily derived from our product sales of aggregates (crushed stone, sand and gravel, sand and other aggregates), asphalt mix and ready-mixed concrete, and include freight & delivery costs that we pass along to our customers to deliver these products. We also generate service revenues from our asphalt construction paving business and service revenues related to our aggregates business, such as landfill tipping fees. Our total service revenues were as follows: 2023 — $239.6 million (3.1% of total revenues), 2022 — $233.1 million (3.2% of total revenues) and 2021 — $221.4 million (4.0% of total revenues).

Our segment total revenues by geographic market for the years ended December 31, 2023, 2022 and 2021 are disaggregated as follows:

	For the Year Ended December 31, 2023				
in millions	*Aggregates*	*Asphalt*	*Concrete*	*Calcium*	*Total*
Total Revenues by Geographic Market [1]					
East	**$ 1,665.2**	**$ 201.4**	**$ 363.0**	**$ 0.0**	**$ 2,229.6**
Gulf Coast	**3,324.8**	**231.6**	**539.8**	**9.0**	**4,105.2**
West	**919.9**	**707.7**	**346.5**	**0.0**	**1,974.1**
Segment sales	**$ 5,909.9**	**$ 1,140.7**	**$ 1,249.3**	**$ 9.0**	**$ 8,308.9**
Intersegment sales	**(527.0)**	**0.0**	**0.0**	**0.0**	**(527.0)**
Total revenues	**$ 5,382.9**	**$ 1,140.7**	**$ 1,249.3**	**$ 9.0**	**$ 7,781.9**

	For the Year Ended December 31, 2022				
in millions	*Aggregates*	*Asphalt*	*Concrete*	*Calcium*	*Total*
Total Revenues by Geographic Market [1]					
East	$ 1,508.2	$ 177.3	$ 694.2	$ 0.0	$ 2,379.7
Gulf Coast	2,933.0	211.2	551.9	7.8	3,703.9
West	831.6	601.7	347.8	0.0	1,781.1
Segment sales	$ 5,272.8	$ 990.2	$ 1,593.9	$ 7.8	$ 7,864.7
Intersegment sales	(549.5)	0.0	0.0	0.0	(549.5)
Total revenues	$ 4,723.3	$ 990.2	$ 1,593.9	$ 7.8	$ 7,315.2

	For the Year Ended December 31, 2021				
in millions	*Aggregates*	*Asphalt*	*Concrete*	*Calcium*	*Total*
Total Revenues by Geographic Market [1]					
East	$ 1,326.6	$ 142.4	$ 389.9	$ 0.0	$ 1,858.9
Gulf Coast	2,390.7	179.6	243.5	6.9	2,820.7
West	627.7	455.8	133.4	0.0	1,216.9
Segment sales	$ 4,345.0	$ 777.8	$ 766.8	$ 6.9	$ 5,896.5
Intersegment sales	(344.3)	0.0	0.0	0.0	(344.3)
Total revenues	$ 4,000.7	$ 777.8	$ 766.8	$ 6.9	$ 5,552.2

1 *The geographic markets are defined by states/countries as follows:*

East market — Arkansas, Delaware, Illinois, Kentucky, Maryland, New Jersey, New York, North Carolina, Pennsylvania, Tennessee, Virginia, and Washington D.C.

Gulf Coast market — Alabama, Florida, Georgia, Louisiana, Mississippi, Oklahoma, South Carolina, Texas, U.S. Virgin Islands, Freeport (Bahamas), Puerto Cortés (Honduras) and Quintana Roo (Mexico)

West market — Arizona, California, Hawaii, New Mexico and British Columbia (Canada)

PRODUCT REVENUES

Revenue is recognized when obligations under the terms of a contract with our customer are satisfied; generally, this occurs at a point in time when our aggregates, asphalt mix and ready-mixed concrete are shipped/delivered and control passes to the customer. Revenue for our products is recorded at the fixed invoice amount, and payment is due by the 15th day of the following month — we do not offer discounts for early payment.

Freight & delivery generally represents pass-through transportation costs we incur (including our administrative costs) and pay to third-party carriers to deliver our products to customers and are accounted for as a fulfillment activity. Likewise, the costs related to freight & delivery are included in cost of revenues.

Freight & delivery revenues are as follows:

in millions	***2023***	*2022*	*2021*
Freight & Delivery Revenues			
Total revenues	**$ 7,781.9**	$ 7,315.2	$ 5,552.2
Freight & delivery revenues [1]	**(1,003.4)**	(960.3)	(768.3)
Total revenues excluding freight & delivery	**$ 6,778.5**	$ 6,354.9	$ 4,783.9

[1] *Includes freight & delivery to remote distribution sites.*

CONSTRUCTION PAVING SERVICE REVENUES

Revenue from our asphalt construction paving business is recognized over time using the percentage-of-completion method under the cost approach. The percentage of completion is determined by costs incurred to date as a percentage of total costs estimated for the project. Under this approach, recognized contract revenue equals the total estimated contract revenue multiplied by the percentage of completion. Future revenues from unsatisfied performance obligations (including contracts with an expected duration of 1 year or less) at December 31, 2023, 2022 and 2021 were $137.0 million, $112.3 million and $133.8 million, respectively. The remaining period to complete the obligations remaining at December 31, 2023 ranged from 1 month to 44 months.

Our construction contracts are unit priced, and an account receivable is recorded for amounts invoiced based on actual units produced. Contract assets for estimated earnings in excess of billings, contract assets related to retainage provisions and contract liabilities for billings in excess of costs are immaterial. Variable consideration in our construction paving contracts is immaterial and consists of incentives and penalties based on the quality of work performed. Our construction paving contracts may contain warranty provisions covering defects in equipment, materials, design or workmanship that generally run from nine months to one year after project completion. Due to the nature of our construction paving projects, including contract owner inspections of the work during construction and prior to acceptance, we have not experienced material warranty costs for these short-term warranties.

VOLUMETRIC PRODUCTION PAYMENT DEFERRED REVENUES

In 2013 and 2012, we sold a percentage interest in certain future aggregates production for net cash proceeds of $226.9 million. These transactions, structured as volumetric production payments (VPPs):

- relate to eight quarries in Georgia and South Carolina
- provide the purchaser solely with a nonoperating percentage interest in the subject quarries' future aggregates production
- contain no minimum annual or cumulative guarantees by us for production or sales volume, nor minimum sales price
- are both volume and time limited (we expect the transactions will last approximately 20 more years, limited by volume rather than time)

We are the exclusive sales agent for, and transmit quarterly to the purchaser the proceeds from the sale of, the purchaser's share of aggregates production. Our consolidated total revenues exclude the revenue from the sale of the purchaser's share of aggregates.

The proceeds we received from the sale of the percentage interest were recorded as deferred revenue on the balance sheet. We recognize revenue on a unit-of-sales basis (as we sell the purchaser's share of production) relative to the volume limitations of the transactions. Given the nature of the risks and potential rewards assumed by the buyer, the transactions do not reflect financing activities.

Changes in the VPP deferred revenue balances (current and noncurrent) are as follows:

in millions	***2023***	*2022*	*2021*
Deferred Revenue			
Balance at beginning of year	**$ 161.8**	$ 170.1	$ 178.0
Revenue recognized from deferred revenue	**(9.0)**	(8.3)	(7.9)
Balance at end of year	**$ 152.8**	$ 161.8	$ 170.1

Based on expected sales from the specified quarries, we expect to recognize $7.5 million of VPP deferred revenue as income in 2024 (reflected in other current liabilities in our December 31, 2023 Consolidated Balance Sheet).

NOTE 3: INVENTORIES

Inventories at December 31 are as follows:

in millions	***2023***	*2022*
Inventories		
Finished products [1]	**$ 494.4**	$ 439.3
Raw materials	**51.2**	63.4
Products in process	**6.5**	6.0
Operating supplies and other	**63.5**	70.6
Total	**$ 615.6**	$ 579.3

[1] *Includes inventories encumbered by volumetric production payments (see Note 2), as follows: December 31, 2023 — $3.6 million; December 31, 2022 — $3.6 million.*

In addition to the inventory balances presented above, as of December 31, 2023 and December 31, 2022, we had $12.5 million and $8.8 million, respectively, of inventory classified as long-term assets (other noncurrent assets) as we do not expect to sell the inventory within one year of their respective balance sheet dates.

We use the LIFO method of valuation for most of our inventories as it results in a better matching of costs with revenues. Inventories valued under the LIFO method total $356.9 million at December 31, 2023 and $295.1 million at December 31, 2022. During 2023, 2022 and 2021, inventory reductions resulted in liquidations of LIFO inventory layers carried at costs prevailing in prior years as compared to current-year costs. The effect of the LIFO liquidation on our results was as follows:

2023 — decrease cost of revenues by $3.6 million and increase net earnings by $2.7 million
2022 — decrease cost of revenues by $4.8 million and increase net earnings by $3.5 million
2021 — decrease cost of revenues by $0.6 million and increase net earnings by $0.4 million

Estimated current cost exceeded LIFO cost at December 31, 2023 and 2022 by $302.6 million and $264.7 million, respectively. In periods of increasing costs, LIFO generally results in higher cost of revenues than under FIFO. In periods of decreasing costs, the results are generally the opposite. We provide supplemental income disclosures to facilitate comparisons with companies not on LIFO. The supplemental income calculation is derived by tax-affecting the change in the LIFO reserve for the periods presented. If all inventories valued at LIFO cost had been valued under first-in, first-out (FIFO) method, the approximate effect on net earnings would have been an increase of $27.9 million in 2023, an increase of $48.1 million in 2022 and an increase of $5.3 million in 2021.

NOTE 4: PROPERTY, PLANT & EQUIPMENT

Balances of major classes of assets and allowances for depreciation, depletion and amortization at December 31 are as follows:

in millions	***2023***	*2022*
Property, Plant & Equipment		
Land and land improvements [1]	**$ 4,292.6**	$ 3,991.1
Buildings	**204.4**	223.3
Machinery and equipment	**6,785.5**	6,454.2
Finance leases (see Note 7)	**62.3**	93.2
Deferred asset retirement costs	**171.3**	165.9
Construction in progress	**319.4**	378.7
Total, gross	**$ 11,835.5**	$ 11,306.4
Less allowances for depreciation, depletion and amortization	**5,617.8**	5,255.1
Total, net	**$ 6,217.7**	$ 6,051.3

[1] *Includes depletable land as follows: December 31, 2023 — $2,684.4 million and December 31, 2022 — $2,445.6 million.*

Capitalized interest costs with respect to qualifying construction projects and total interest costs incurred before recognition of the capitalized amount for the years ended December 31 are as follows:

in millions	***2023***	*2022*	*2021*
Capitalized interest cost	**$ 3.7**	$ 3.6	$ 4.2
Total interest cost incurred before recognition of the capitalized amount	**199.8**	172.8	153.5

Capitalized software costs of $13.1 million and $10.1 million are reflected in net property, plant & equipment as of December 31, 2023 and 2022, respectively. We capitalized software costs for the years ended December 31 as follows: 2023 — $9.6 million, 2022 — $2.7 million and 2021 — $2.7 million.

NOTE 5: DERIVATIVE INSTRUMENTS

During the normal course of operations, we are exposed to market risks including interest rates, foreign currency exchange rates and commodity prices. From time to time, we use derivative instruments to balance the cost and risk of such expenses. We do not use derivative instruments for trading or other speculative purposes.

In March 2023, we issued $550.0 million of 5.80% fixed-rate debt maturing in March 2026. Concurrently, we entered into fixed-to-floating interest rate swap agreements designated as fair value hedges in the amount of $550.0 million. Under these swap agreements, we receive a fixed interest rate of 5.80% (matches the fixed rate we pay on the $550.0 million of debt) and pay daily compound Secured Overnight Financing Rate (SOFR) plus 0.241%.

The changes in the fair value of these swaps designated as fair value hedges are recorded in interest expense and are perfectly offset by changes in the fair value of the related debt also recorded in interest expense. These swaps are recognized at fair value in the accompanying Consolidated Balance Sheets at December 31 as follows:

		Fair Value [1]	
in millions	*Balance Sheet Location*	***2023***	*2022*
Fair Value Hedges			
Interest rate swaps	Other noncurrent assets	**$ 3.9**	$ 0.0
Interest rate swaps	Other current liabilities	**(4.2)**	0.0
Interest rate swaps net liability		**$ (0.3)**	$ 0.0

[1] *See Note 1 under the caption "Fair Value Measurements" for further discussion of fair value determination.*

In 2007, 2018 and 2020, we entered into interest rate locks of future debt issuances to hedge the risk of higher interest rates. These interest rate locks were designated as cash flow hedges. The gain/loss upon settlement of these cash flow hedges is deferred (recorded in accumulated other comprehensive income (AOCI)) and amortized to interest expense over the term of the related debt.

This amortization was reflected in the accompanying Consolidated Statements of Comprehensive Income for the years ended December 31 as follows:

in millions	*Income Statement Location*	***2023***	*2022*	*2021*
Cash Flow Hedges				
Loss reclassified from AOCI	Interest expense	**$ (2.1)**	$ (2.0)	$ (2.0)

For the twelve-month period ending December 31, 2024, we estimate that $2.2 million of the $19.4 million net of tax loss in AOCI will be reclassified to interest expense.

NOTE 6: DEBT

Debt at December 31 is detailed as follows:

in millions	*Effective Interest Rates*	*2023*	*2022*
Short-term Debt			
Bank line of credit expires 2027 [1]		**$ 0.0**	$ 100.0
Commercial paper expires 2027 [1]		**0.0**	0.0
Total short-term debt		**$ 0.0**	$ 100.0
Long-term Debt			
Bank line of credit expires 2027 [1]		**$ 0.0**	$ 0.0
Commercial paper expires 2027 [1]		**550.0**	550.0
Delayed draw term loan due 2026		**0.0**	550.0
4.50% notes due 2025	*4.65%*	**400.0**	400.0
5.80% notes due 2026 [2]	*6.02%*	**550.0**	0.0
3.90% notes due 2027	*4.00%*	**400.0**	400.0
3.50% notes due 2030	*3.94%*	**750.0**	750.0
7.15% notes due 2037	*8.05%*	**129.2**	129.2
4.50% notes due 2047	*4.59%*	**700.0**	700.0
4.70% notes due 2048	*5.42%*	**460.9**	460.9
Other notes	*0.36%*	**1.4**	1.8
Total long-term debt - face value		**$ 3,941.5**	$ 3,941.9
Unamortized discounts and debt issuance costs		**(63.4)**	(66.2)
Fair value adjustments [3]		**(0.3)**	0.0
Total long-term debt - book value		**$ 3,877.8**	$ 3,875.7
Less current maturities		**(0.5)**	(0.5)
Total long-term debt - reported value		**$ 3,877.3**	$ 3,875.2
Estimated fair value of long-term debt		**$ 3,798.0**	$ 3,671.9

1 *Borrowings on the bank line of credit and commercial paper are classified as short-term if we intend to repay within twelve months and as long-term if we have the intent and ability to extend payment beyond twelve months.*

2 *The effective interest rate excludes the impact of the interest rate swap described in Note 5.*

3 *See Note 5 for additional information on our fair value hedging strategy.*

Discounts and debt issuance costs are amortized using the effective interest method over the terms of the respective notes resulting in $6.2 million and $6.1 million of net interest expense for these items for 2023 and 2022, respectively.

DELAYED DRAW TERM LOAN, LINE OF CREDIT AND COMMERCIAL PAPER PROGRAM

In June 2021, we entered into a $1,600.0 million unsecured delayed draw term loan which was fully drawn in August 2021 upon the acquisition of U.S. Concrete. The delayed draw term loan was paid down to $1,100.0 million in September 2021 with cash on hand, paid down to $550.0 million in August 2022 using the proceeds from the issuance of commercial paper as described below and fully repaid in March 2023 using proceeds from the issuance of 5.80% senior notes as described below.

Our unsecured line of credit was amended in August 2022 to increase the borrowing capacity from $1,000.0 million to $1,600.0 million and extend the maturity date from September 2026 to August 2027. Our line of credit contains covenants customary for an unsecured investment-grade facility. As of December 31, 2023, we were in compliance with the covenants.

Borrowings on the line of credit bear interest, at our option, at either SOFR plus a margin ranging from 1.000% to 1.625% or Truist Bank's base rate (generally, its prime rate) plus a margin ranging from 0.000% to 0.625%. The margins are determined by our credit ratings. Standby letters of credit, which are issued under the line of credit and reduce availability, are charged a fee equal to the margin for SOFR borrowings plus 0.175%. We also pay a commitment fee on the daily average unused amount of the line of credit that ranges from 0.090% to 0.225% determined by our credit ratings. As of December 31, 2023, the margin for SOFR borrowings was 1.125%, the margin for base rate borrowings was 0.125% and the commitment fee for the unused amount was 0.100%.

In August 2022, we established a $1,600.0 million commercial paper program through which we borrowed $550.0 million that was used to partially repay the delayed draw term loan. Commercial paper borrowings bear interest at rates determined at the time of borrowing and as agreed between us and the commercial paper investors.

As of December 31, 2023, our available borrowing capacity under the line of credit was $1,516.8 million. Utilization of the borrowing capacity was as follows:

None was borrowed
$83.2 million was used to support standby letters of credit

TERM DEBT

All of our $3,941.5 million (face value) of term debt (which includes the $550.0 million commercial paper) is unsecured. All of the covenants in the debt agreements are customary for investment-grade facilities. As of December 31, 2023, we were in compliance with all term debt covenants.

In March 2023, we issued $550.0 million of 5.80% senior notes due 2026. Total proceeds of $546.6 million (net of discounts and transaction costs), together with cash on hand, were used to repay the $550.0 million delayed draw term loan.

The total scheduled (principal and interest) debt payments, excluding the line of credit, for the five years subsequent to December 31, 2023 are as follows:

in millions	*Total*	*Principal*	*Interest*
Scheduled Debt Payments (excluding the line of credit)			
2024	$ 174.0	$ 0.5	$ 173.5
2025	569.8	400.5	169.3
2026	690.1	550.4	139.7
2027	1,058.2	950.0	108.2
2028	88.6	0.0	88.6

Subsequent to year end, in February 2024 we elected to redeem all of the $550.0 million aggregate principal amount of our outstanding 5.80% senior notes due 2026. We expect to complete this redemption in March 2024 using existing cash on hand.

STANDBY LETTERS OF CREDIT

We provide, in the normal course of business, certain third-party beneficiaries with standby letters of credit to support our obligations to pay or perform according to the requirements of an underlying agreement. Such letters of credit typically have an initial term of one year, renew automatically and can only be modified or canceled with the approval of the beneficiary. Our standby letters of credit are issued by banks that participate in our $1,600.0 million line of credit and reduce the borrowing capacity thereunder. Our standby letters of credit as of December 31, 2023 are summarized by purpose in the table below:

in millions	
Standby Letters of Credit	
Risk management insurance	**$ 74.5**
Reclamation/restoration requirements	**8.7**
Total	**$ 83.2**

NOTE 7: LEASES

Our portfolio of nonmineral leases is composed of leases for real estate (including office buildings, aggregates sales yards and terminals, and concrete and asphalt sites) and equipment (including railcars and rail track, barges, and office, plant and mobile equipment).

Lease right-of-use (ROU) assets and liabilities reflected on our December 31 balance sheets and the weighted-average lease terms and discount rates are as follows:

dollars in millions	*Classification on the Balance Sheet*	***2023***	*2022*
Assets			
Operating lease ROU assets		**$ 636.1**	$ 665.4
Accumulated amortization		**(124.4)**	(92.8)
Operating leases, net	Operating lease right-of-use assets, net	**511.7**	572.6
Finance lease ROU assets		**62.3**	93.2
Accumulated depreciation		**(20.2)**	(14.9)
Finance leases, net	Property, plant & equipment, net	**42.1**	78.3
Total lease assets		**$ 553.8**	$ 650.9
Liabilities			
Current			
Operating	Other current liabilities	**$ 47.3**	$ 48.1
Finance	Other current liabilities	**12.5**	22.3
Noncurrent			
Operating	Noncurrent operating lease liabilities	**507.4**	548.4
Finance	Other noncurrent liabilities	**16.6**	34.8
Total lease liabilities		**$ 583.8**	$ 653.6
Lease Term and Discount Rate			
Weighted-average remaining lease term (years)			
Operating leases		**19.5**	19.7
Finance leases		**2.5**	3.0
Weighted-average discount rate			
Operating leases		**4.3%**	3.9%
Finance leases		**2.4%**	1.8%

The decreases in total lease assets and liabilities presented above primarily relate to the 2023 sale of concrete operations in Texas (see Note 19 for additional information). Our lease agreements do not contain material residual value guarantees, restrictive covenants or early termination options. In addition to the lease assets and liabilities presented in the table above, we entered into an agreement to lease a terminal in California and expect to have all permits in place associated with all lease commencement options by early 2024.

Our building leases have remaining noncancelable periods of 0 - 15 years and lease terms (including options to extend) of 0 - 23 years. Key factors in determining the certainty of lease renewals include the location of the building, the value of leasehold improvements and the cost to relocate. Rental payments for certain of our building leases are periodically adjusted for inflation, and this variable component is recognized as expense when incurred. Many of our building leases contain common area maintenance charges which we include in the calculation of our lease liability (the lease consideration is not allocated between the lease and non-lease components).

Our aggregates sales yard leases have remaining noncancelable periods of 0 - 25 years and lease terms of 0 - 75 years. The key factor in determining the certainty of lease renewals is the financial impact of extending the lease, including the reserve life of the sourcing aggregates quarry. Certain aggregates sales yard lease agreements include rental payments based on a percentage of sales over contractual levels or the number of shipments received into the sales yard. Variable payments for these sales yards comprise a majority of the overall variable lease cost presented in the table below.

Our concrete and asphalt site leases have remaining noncancelable periods of 0 - 16 years and lease terms of 0 - 75 years. The key factor in determining the certainty of lease renewals is the financial impact of extending the lease, including the reserve life of the sourcing aggregates quarry. Rental payments are generally fixed for our concrete and asphalt sites.

Our rail (car and track) leases have remaining noncancelable periods of 0 - 9 years and lease terms of 0 - 61 years. Key factors in determining the certainty of lease renewals include the market rental rate for comparable assets and, in some cases, the cost incurred to restore the asset. Rental payments are fixed for our rail leases. The majority of our rail leases contain substitution rights that allow the supplier to replace damaged equipment. Because these rights are generally limited to either replacing railcars or moving our placement on rail track for purposes of repair or maintenance, we do not consider these substitution rights to be substantive and have recorded a lease liability and ROU asset for all leased rail.

Our barge leases have remaining noncancelable periods of 4 - 5 years and lease terms of 11 - 19 years. Key factors in determining the certainty of lease renewals include the market rental rate for comparable assets and, in some cases, the cost incurred to restore the asset. Rental payments are fixed. Like our rail leases, our barge leases contain non-substantive substitution rights that are limited to replacing barges in need of repair or maintenance.

Office, plant and mobile equipment leases have remaining noncancelable periods of 0 - 6 years and lease terms of 0 - 6 years. The key factor in determining the certainty of lease renewals is the market rental rate for comparable assets. Rental payments are generally fixed for our equipment leases with terms greater than 1 year. The significant majority of our short-term lease cost presented in the table below is derived from office and plant equipment leases with terms of 1 year or less.

The components of lease expense for the years ended December 31, 2023, 2022 and 2021 are as follows:

in millions	***2023***	*2022*	*2021*
Lease Cost			
Finance lease cost			
Depreciation of right-of-use assets	**$ 12.8**	$ 16.5	$ 7.1
Interest on lease liabilities	**0.9**	1.2	0.6
Operating lease cost	**77.5**	85.6	71.0
Short-term lease cost [1]	**50.4**	46.4	27.3
Variable lease cost	**23.5**	14.4	10.6
Sublease income	**(3.4)**	(2.9)	(3.1)
Total lease cost	**$ 161.7**	$ 161.2	$ 113.5

[1] *Our short-term lease cost includes the cost of leases with an initial term of one year or less (including those with terms of one month or less).*

Cash paid for operating leases was $73.0 million for 2023 and $78.6 million for 2022. Cash paid for finance leases (principal and interest) was $31.6 million for 2023 and $35.0 million for 2022.

Maturity analysis on an undiscounted basis of our lease liabilities (see Note 12 for mineral lease payments) as of December 31, 2023 is as follows:

in millions	***Operating Leases***	***Finance Leases***
Maturity of Lease Liabilities		
2024	**$ 69.8**	**$ 13.1**
2025	**63.9**	**10.0**
2026	**57.3**	**5.5**
2027	**52.8**	**1.2**
2028	**47.4**	**0.4**
Thereafter	**606.5**	**0.0**
Total minimum lease payments	**$ 897.7**	**$ 30.2**
Less: Lease payments representing interest	**343.0**	**1.1**
Present value of future minimum lease payments	**$ 554.7**	**$ 29.1**
Less: Current obligations under leases	**47.3**	**12.5**
Long-term lease obligations	**$ 507.4**	**$ 16.6**

NOTE 8: ACCRUED ENVIRONMENTAL REMEDIATION COSTS

Our Consolidated Balance Sheets as of December 31 include accrued environmental remediation costs (measured on an undiscounted basis) as follows:

in millions	***2023***	*2022*
Accrued Environmental Remediation Costs		
Continuing operations	**$ 32.6**	$ 28.6
Retained from former Chemicals business	**8.3**	8.3
Total	**$ 40.9**	$ 36.9

The long-term portion of the accruals noted above is included in other noncurrent liabilities in the accompanying Consolidated Balance Sheets and amounted to $28.0 million at December 31, 2023 and $14.9 million at December 31, 2022. The short-term portion of these accruals is included in other current liabilities in the accompanying Consolidated Balance Sheets.

The accrued environmental remediation costs in continuing operations relate primarily to the former U.S. Concrete, Florida Rock, Tarmac and CalMat facilities acquired in 2021, 2007, 2000 and 1999, respectively. The balances noted above for the former Chemicals business relate to retained environmental remediation costs from the 2003 sale of the Performance Chemicals business and the 2005 sale of the Chloralkali business. Refer to Note 12 for additional discussion of contingent environmental matters.

NOTE 9: INCOME TAXES

The components of earnings from continuing operations before income taxes are as follows:

in millions	***2023***	*2022*	*2021*
Earnings from Continuing Operations before Income Taxes			
Domestic	**$ 1,251.0**	$ 788.7	$ 871.6
Foreign	**(5.9)**	(0.6)	2.2
Total	**$ 1,245.1**	$ 788.1	$ 873.8

Income tax expense (benefit) from continuing operations consists of the following:

in millions	***2023***	*2022*	*2021*
Income Tax Expense (Benefit) from Continuing Operations			
Current			
Federal	**$ 274.8**	$ 85.2	$ 103.9
State and local	**64.0**	43.6	34.6
Foreign	**4.8**	4.6	(5.0)
Total	**$ 343.6**	$ 133.4	$ 133.5
Deferred			
Federal	**$ (44.1)**	$ 43.4	$ 39.2
State and local	**(4.2)**	3.3	26.5
Foreign	**4.1**	12.9	0.9
Total	**$ (44.2)**	$ 59.6	$ 66.6
Total expense	**$ 299.4**	$ 193.0	$ 200.1

Income tax expense (benefit) differs from the amount computed by applying the federal statutory income tax rate to earnings from continuing operations before income taxes. The sources and tax effects of the differences are as follows:

dollars in millions	***2023***		*2022*		*2021*	
Income tax expense at the federal statutory tax rate	**$ 261.5**	**21.0%**	$ 165.5	21.0%	$ 183.5	21.0%
Expense (Benefit) from Income Tax Differences						
Statutory depletion	**(39.0)**	**-3.1%**	(30.6)	-3.9%	(28.3)	-3.2%
State and local income taxes, net of federal income tax benefit	**48.7**	**3.9%**	37.5	4.8%	34.7	4.0%
Nondeductible goodwill	**16.2**	**1.3%**	10.7	1.4%	0.0	0.0%
Valuation allowance	**10.3**	**0.8%**	14.5	1.8%	13.7	1.6%
Other, net	**1.7**	**0.1%**	(4.6)	-0.6%	(3.5)	-0.5%
Total income tax expense/ Effective tax rate	**$ 299.4**	**24.0%**	$ 193.0	24.5%	$ 200.1	22.9%

Deferred taxes on the balance sheet result from temporary differences between the amount of assets and liabilities recognized for financial reporting and tax purposes. The components of the net deferred income tax liability at December 31 are as follows:

in millions	***2023***	*2022*
Deferred Tax Assets Related to		
Operating lease liabilities	**$ 139.1**	$ 149.7
Asset retirement obligations & other reserves	**87.1**	82.5
State net operating losses	**79.6**	86.3
Incentive compensation	**57.6**	62.1
State bonus depreciation	**54.7**	41.4
Employee benefits	**22.9**	14.2
Other	**82.3**	72.0
Total gross deferred tax assets	**$ 523.3**	$ 508.2
Valuation allowance	**(89.5)**	(76.8)
Total net deferred tax asset	**$ 433.8**	$ 431.4
Deferred Tax Liabilities Related to		
Property, plant & equipment	**$ 907.1**	$ 889.4
Goodwill/other intangible assets	**334.4**	379.2
Operating lease right-of-use assets	**128.2**	143.6
Other	**93.0**	92.0
Total deferred tax liabilities	**$ 1,462.7**	$ 1,504.2
Deferred income tax liability, net	**$ 1,028.9**	$ 1,072.8

In February 2021, the Alabama Business Competitiveness Act (ABC Act) was signed into law. The ABC Act contained a provision requiring most taxpayers to change from a three-factor, double-weighted sales method to a single-sales factor method to apportion income to Alabama. This provision had the effect of significantly reducing our apportionment of income to Alabama, thereby further inhibiting our ability to utilize our Alabama NOL carryforward. As a result, we recorded a charge in the first quarter of 2021 to increase the valuation allowance by $13.7 million.

As discussed in Note 12, in May 2022, Mexican government officials unexpectedly and arbitrarily shut down our Calica operations in Mexico. In 2023, Calica had deferred tax assets (including NOLs) of $27.4 million. As a result of the continued shutdown, we recorded a charge to increase the valuation allowance by $12.9 million to $27.4 million in 2023. The Calica NOL deferred tax asset carryforward of $24.6 million would expire between 2032 and 2033 if not utilized. Should the Mexican government lift the shutdown and/or if we are successful in our North American Free Trade Agreement (NAFTA) claim, we will reevaluate the need for a valuation allowance against the deferred tax assets.

At December 31, 2023, we have Alabama state NOL carryforward deferred tax assets of $76.1 million, against which we have a valuation allowance of $54.3 million. Almost all of the Alabama NOL carryforward would expire between 2024 and 2029 if not utilized.

In August 2022, the Inflation Reduction Act (IRA) was signed into law. The IRA introduces a corporate alternative minimum tax (CAMT) of 15% applicable to corporations with adjusted financial statement income in excess of $1 billion, as well as certain climate-related tax provisions. The CAMT provision is effective for tax years beginning on or after January 1, 2023. We were not subject to CAMT in 2023.

The Organization for Economic Co-operation and Development (OECD) has developed a framework to enact a two-pillar solution to address the challenges arising from the digitization of a global economy. Pillar Two introduces a global minimum effective tax rate where multinational groups with consolidated revenue over €750.0 million are subject to a minimum effective tax rate of 15% on income arising in low-tax jurisdictions. Pillar Two legislation has been enacted in a certain jurisdiction in which we operate, and it will be effective beginning January 1, 2024. Most jurisdictions in which we operate have tax rates in excess of 15%. However, we believe there may be one jurisdiction in which we operate where transitional safe harbor relief may not apply. Although we are still performing an assessment of our potential exposure to Pillar Two income taxes, we do not expect a material exposure to result, and we would reflect such income taxes, if any, in our financial results beginning in 2024.

We consider the undistributed earnings, if any, related to the investment in our Canadian and Honduran subsidiaries and Canadian investment in its U.S. subsidiary to be indefinitely reinvested; accordingly, no foreign withholding or other income taxes have been provided thereon. Due to complexities in the tax laws, it is not practicable to estimate the amount of deferred income taxes not recorded that are associated with these earnings. We have not, nor do we currently anticipate in the foreseeable future, the need to repatriate funds (other than for the repayment of intercompany loan obligations) to satisfy domestic liquidity needs arising in the ordinary course of business.

Changes in our liability for unrecognized tax benefits for the years ended December 31 are as follows:

in millions	***2023***	*2022*	*2021*
Unrecognized tax benefits as of January 1	**$ 18.7**	$ 10.8	$ 6.8
Increases for tax positions related to			
Prior years	**0.3**	4.6	0.5
Current year	**4.8**	6.6	3.9
Decreases for tax positions related to			
Prior years	**(0.5)**	(0.2)	0.0
Expiration of applicable statute of limitations	**(2.3)**	(3.1)	(0.4)
Unrecognized tax benefits as of December 31	**$ 21.0**	$ 18.7	$ 10.8

We classify interest and penalties recognized on the liability for unrecognized tax benefits as income tax expense. Interest and penalties recognized as income tax expense were $1.5 million in 2023, $0.8 million in 2022 and $0.2 million in 2021. The balance of accrued interest and penalties included in our liability for unrecognized tax benefits as of December 31 was $3.3 million in 2023, $1.8 million in 2022 and $0.8 million in 2021. Our liability for unrecognized tax benefits at December 31 in the table above includes $19.8 million in 2023, $17.6 million in 2022 and $10.3 million in 2021 that would affect the effective tax rate if recognized. We anticipate no single tax position generating a significant increase or decrease in our liability for unrecognized tax benefits within 12 months of this reporting date.

We file income tax returns in U.S. federal, various state and foreign jurisdictions. With the exception of certain states, we are no longer subject to U.S. federal, state or foreign exams by tax authorities for years prior to 2020.

As of December 31, 2023, income tax receivables of $1.3 million and $0.2 million are included in other accounts and notes receivable and other current assets, respectively, in the accompanying Consolidated Balance Sheet. There were similar receivables of $1.3 million and $0.4 million recorded in other accounts and notes receivable and other current assets, respectively, as of December 31, 2022.

NOTE 10: BENEFIT PLANS

PENSION PLANS

We sponsor two qualified, noncontributory defined benefit pension plans, the Vulcan Materials Company Pension Plan (VMC Pension Plan) and the CMG Hourly Pension Plan (CMG Pension Plan). The VMC Pension Plan has been closed to new entrants since 2007, and benefit accruals ceased in 2005 for hourly participants and 2013 for salaried participants. The CMG Pension Plan is closed to new entrants other than through one small union, and benefits continue to accrue equal to a flat dollar amount for each year of service. In addition to these qualified plans, we sponsor three unfunded, nonqualified pension plans. The projected benefit obligation (PBO) presented in the table below includes $39.7 million and $44.4 million related to these unfunded, nonqualified pension plans for 2023 and 2022, respectively.

During October 2021, we purchased (using pension plan assets) an irrevocable group annuity contract (pension lift-out) from an insurance company for $87.2 million, representing approximately 10% of the total PBO as of the purchase date. As a result of this transaction, we incurred a settlement charge of $12.1 million.

The following table sets forth the combined funded status of the plans and their reconciliation with the related amounts recognized in our consolidated financial statements at December 31:

in millions	***2023***	*2022*
Change in Benefit Obligation		
Projected benefit obligation at beginning of year	**$ 691.1**	$ 915.4
Service cost	**2.5**	4.0
Interest cost	**34.0**	21.1
Actuarial (gain) loss	**12.4**	(200.7)
Benefits paid	**(46.7)**	(48.7)
Projected benefit obligation at end of year	**$ 693.3**	$ 691.1
Change in Fair Value of Plan Assets		
Fair value of assets at beginning of year	**$ 637.8**	$ 860.5
Actual return on plan assets	**49.4**	(181.8)
Employer contribution	**7.4**	7.8
Benefits paid	**(46.7)**	(48.7)
Fair value of assets at end of year	**$ 647.9**	$ 637.8
Funded status	**(45.4)**	(53.3)
Net amount recognized	**$ (45.4)**	$ (53.3)
Amounts Recognized in the Consolidated Balance Sheets		
Noncurrent assets	**$ 6.5**	$ 0.0
Current liabilities	**(7.3)**	(7.8)
Noncurrent liabilities	**(44.6)**	(45.5)
Net amount recognized	**$ (45.4)**	$ (53.3)
Amounts Recognized in Accumulated Other Comprehensive Income		
Net actuarial loss	**$ 168.4**	$ 183.4
Prior service cost	**1.0**	2.4
Total amount recognized	**$ 169.4**	$ 185.8

The increase in actuarial gain as of December 31, 2022 was primarily attributable to the increase in discount rates for the plans compared with the prior year.

The following table sets forth the pension plans for which their accumulated benefit obligation (ABO) or projected benefit obligation (PBO) exceeds the fair value of their respective plan assets at December 31:

in millions	***2023***	*2022*
Pension plans with ABO in excess of plan assets		
Accumulated benefit obligation	**$ 182.7**	$ 690.9
Fair value of assets	**140.3**	637.8
Pension plans with PBO in excess of plan assets		
Projected benefit obligation	**$ 192.2**	$ 691.1
Fair value of assets	**140.3**	637.8

The following table sets forth the components of net periodic benefit cost, amounts recognized in other comprehensive income and weighted-average assumptions of the plans at December 31:

dollars in millions	***2023***	*2022*	*2021*
Components of Net Periodic Pension Benefit Cost			
Service cost	**$ 2.5**	$ 4.0	$ 4.8
Interest cost	**34.0**	21.1	19.7
Expected return on plan assets	**(27.6)**	(30.1)	(42.8)
Settlement charge	**0.0**	0.0	12.1
Amortization of prior service cost	**1.4**	1.4	1.3
Amortization of actuarial loss	**5.6**	4.2	8.0
Net periodic pension benefit cost	**$ 15.9**	$ 0.6	$ 3.1
Changes in Plan Assets and Benefit Obligations Recognized in Other Comprehensive Income			
Net actuarial loss (gain)	**$ (9.4)**	$ 11.2	$ (34.0)
Reclassification of prior service cost	**(1.4)**	(1.4)	(1.3)
Reclassification of actuarial loss	**(5.6)**	(4.2)	(20.1)
Amount recognized in other comprehensive income	**$ (16.4)**	$ 5.6	$ (55.4)
Amount recognized in net periodic pension benefit cost and other comprehensive income	**$ (0.5)**	$ 6.2	$ (52.3)
Assumptions			
Weighted-average assumptions used to determine net periodic benefit cost for years ended December 31			
Discount rate — PBO	**5.19%**	2.92%	2.63%
Discount rate — service cost [1]	**5.29%**	3.17%	2.94% / 3.21%
Discount rate — interest cost	**5.09%**	2.37%	1.90%
Expected return on plan assets [2]	**4.85%**	4.00%	5.25% / 3.75%
Weighted-average assumptions used to determine benefit obligation at December 31			
Discount rate	**5.00%**	5.19%	2.91%

1 As a result of remeasurements, the 2021 service cost discount rates were revised from 2.94% at 12/31/2020 to 3.21% at 10/31/2021.

2 As a result of remeasurements, the 2021 expected return on plan assets was revised from 5.25% at 12/31/2020 to 3.75% at 10/31/2021.

Plan assets are primarily invested in liability hedging assets which include money market securities, inflation linked debt securities, public corporate debt securities and government debt securities that are actively managed to match the duration of the plans' liabilities.

At each measurement date, we estimate the net asset values and fair values of our pension assets using various valuation techniques. For certain investments, we use the net asset value (NAV) as a practical expedient to estimating fair value. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. The fair value hierarchy prioritizes the inputs to valuation techniques used to measure fair value into three broad levels as described below:

Level 1: Quoted prices in active markets for identical assets or liabilities

Level 2: Inputs that are derived principally from or corroborated by observable market data

Level 3: Inputs that are unobservable and significant to the overall fair value measurement

The fair values and net asset values of our pension plan assets at December 31, 2023 and 2022 are in the tables below. The assets in the common/collective trusts and in the private partnerships consist of both return seeking and liability hedging investments.

FAIR VALUE MEASUREMENTS AT DECEMBER 31, 2023

in millions	*Level 1*	*Level 2*	*Level 3*	*Total*
Asset Category				
Debt funds	$ 0.0	$ 634.9	$ 0.0	$ 634.9
Investments in the fair value hierarchy	$ 0.0	$ 634.9	$ 0.0	**$ 634.9**
Interest in common/collective trusts (at NAV)				9.3
Private partnerships (at NAV)				3.7
Total pension plan assets				**$ 647.9**

FAIR VALUE MEASUREMENTS AT DECEMBER 31, 2022

in millions	*Level 1*	*Level 2*	*Level 3*	*Total*
Asset Category				
Debt funds	$ 0.0	$ 628.6	$ 0.0	$ 628.6
Investments in the fair value hierarchy	$ 0.0	$ 628.6	$ 0.0	$ 628.6
Interest in common/collective trusts (at NAV)				5.6
Private partnerships (at NAV)				3.6
Total pension plan assets				$ 637.8

The following describes the types of investments included in each asset category listed in the tables above and the valuation techniques we used to determine the fair values or net asset values as of December 31, 2023 and 2022.

The debt funds category consists of U.S. federal, state and local government debt securities, corporate debt securities, foreign government debt securities, asset-backed securities and derivatives. The fair values of U.S. government and corporate debt securities are based on current market rates and credit spreads for debt securities with similar maturities. The fair values of debt securities issued by foreign governments are based on prices obtained from broker/dealers and international indices. The fair values of asset-backed securities are priced using prepayment speed and spread inputs that are sourced from the new issue market. Derivatives are valued using pricing models based on the prevailing forward exchange rate of the underlying currencies taking into account the creditworthiness of the counterparties.

Common/collective trust fund investments consist of an index fund investing primarily in domestic equities and a short-term investment fund for highly liquid, short-term debt securities. Investments are valued at the NAV of units of a bank collective trust. The NAV is based on the fair value of the underlying investments held by the fund less its liabilities. This practical expedient is not used when it is determined to be probable that the fund will sell the investment for an amount different than the reported NAV.

The private partnerships category consists primarily of secondary private equity funds and mezzanine debt funds. The NAV of these investments has been estimated based on methods employed by the general partners, including reference to third-party transactions and valuations of comparable companies.

Total employer contributions to the pension plans are presented below:

in millions	*Pension*
Employer Contributions	
2021	$ 8.0
2022	7.8
2023	7.4
2024 (estimated)	9.4

For our qualified pension plans, we made no contributions during 2023, 2022 and 2021. We anticipate that contributions totaling approximately $2.0 million to the funded pension plans will be required during 2024, and we do not anticipate making any discretionary contributions. For our nonqualified pension plans, we contributed $7.4 million, $7.8 million and $8.0 million during 2023, 2022 and 2021, respectively, and expect to contribute $7.4 million during 2024.

The following benefit payments, which reflect expected future service, as appropriate, are expected to be paid:

in millions	*Pension*
Estimated Future Benefit Payments	
2024	$ 50.2
2025	48.1
2026	48.6
2027	49.5
2028	49.5
2029-2033	247.1

We contribute to a number of multiemployer defined benefit pension plans under the terms of collective-bargaining agreements for union-represented employees. The risks of participating in multiemployer plans differ from single employer plans as follows:

- assets contributed to a multiemployer plan by one employer may be used to provide benefits to employees of other participating employers
- if a participating employer stops contributing to the plan, the unfunded obligations of the plan may be borne by the remaining participating employers
- if we cease to have an obligation to contribute to one or more of the multiemployer plans to which we contribute, we may be required to pay those plans an amount based on the underfunded status of the plan, referred to as a withdrawal liability

None of the multiemployer pension plans that we participate in are individually significant. Our contributions to individual multiemployer pension plans did not exceed 5% of the plans' total contributions in the three years ended December 31, 2023, 2022 and 2021. Total contributions to multiemployer pension plans were $36.6 million in 2023, $48.6 million in 2022 and $16.9 million in 2021. The 2023 decrease was primarily attributable to the 2022 sale of our concrete operations in New Jersey, New York and Pennsylvania.

As of December 31, 2023, a total of 12.8% of our domestic hourly labor force was covered by collective-bargaining agreements. Of such employees covered by collective-bargaining agreements, 45.1% were covered by agreements that expire in 2024. We also employed 266 union employees in Mexico who are covered by a collective-bargaining agreement that will expire in 2024. None of our union employees in Mexico participate in multiemployer pension plans.

In addition to the pension plans noted above, we had one unfunded supplemental retirement plan as of December 31, 2023 and 2022. The accrued costs for the supplemental retirement plan were $0.4 million at December 31, 2023 and $1.0 million at December 31, 2022.

POSTRETIREMENT PLANS

In addition to pension benefits, we provide certain healthcare and life insurance benefits for some retired employees. In 2021, we amended our postretirement healthcare plan to increase our employer contribution rate from the previously capped level to a higher level effective 2022. This served as a cost reduction for retirees in 2022 and beyond as we use this new benchmark for future employer contributions. Previously (in 2012), we amended our postretirement healthcare plan to cap our employer portion of the medical coverage cost at the 2015 level.

Substantially all our salaried employees and, where applicable, certain of our hourly employees may become eligible for these benefits if they reach a qualifying age and meet certain service requirements. Generally, Company-provided healthcare benefits end when covered individuals become eligible for Medicare benefits, become eligible for other group insurance coverage or reach age 65, whichever occurs first.

The following table sets forth the combined funded status of the plans and their reconciliation with the related amounts recognized in our consolidated financial statements at December 31:

in millions	***2023***	*2022*
Change in Benefit Obligation		
Projected benefit obligation at beginning of year	**$ 41.8**	$ 46.0
Service cost	**2.0**	2.3
Interest cost	**2.0**	0.9
Actuarial (gain) loss	**3.6**	(2.5)
Benefits paid	**(5.2)**	(4.9)
Projected benefit obligation at end of year	**$ 44.2**	$ 41.8
Change in Fair Value of Plan Assets		
Fair value of assets at beginning of year	**$ 0.0**	$ 0.0
Actual return on plan assets	**0.0**	0.0
Fair value of assets at end of year	**$ 0.0**	$ 0.0
Funded status	**$ (44.2)**	$ (41.8)
Net amount recognized	**$ (44.2)**	$ (41.8)
Amounts Recognized in the Consolidated Balance Sheets		
Current liabilities	**$ (5.2)**	$ (5.1)
Noncurrent liabilities	**(39.0)**	(36.7)
Net amount recognized	**$ (44.2)**	$ (41.8)
Amounts Recognized in Accumulated Other Comprehensive Income		
Net actuarial gain	**$ (12.7)**	$ (17.9)
Prior service cost	**11.7**	13.1
Total amount recognized	**$ (1.0)**	$ (4.8)

The decrease in actuarial gain as of December 31, 2023 was primarily attributable to an increase in medical claims and trends compared with the prior year.

The following table sets forth the components of net periodic benefit cost, amounts recognized in other comprehensive income, weighted-average assumptions and assumed trend rates of the plans at December 31:

dollars in millions	***2023***	*2022*	*2021*
Components of Net Periodic Postretirement Benefit Cost			
Service cost	**$ 2.0**	$ 2.2	$ 1.2
Interest cost	**2.0**	0.9	0.5
Amortization of prior service cost (credit)	**1.4**	(0.3)	(1.5)
Amortization of actuarial gain	**(1.5)**	(1.3)	(1.4)
Net periodic postretirement benefit cost (credit)	**$ 3.9**	$ 1.5	$ (1.2)
Changes in Plan Assets and Benefit Obligations Recognized in Other Comprehensive Income			
Net actuarial (gain) loss	**$ 3.6**	$ (2.4)	$ 0.9
Prior service cost	**0.0**	0.0	14.9
Reclassification of prior service (cost) credit	**(1.4)**	0.3	1.5
Reclassification of actuarial gain	**1.5**	1.3	1.4
Amount recognized in other comprehensive income	**$ 3.7**	$ (0.8)	$ 18.7
Amount recognized in net periodic postretirement benefit cost and other comprehensive income	**$ 7.6**	$ 0.7	$ 17.5
Assumptions			
Assumed Healthcare Cost Trend Rates at December 31			
Healthcare cost trend rate assumed for next year (Pre-65/Post-65)	**10.20% / n/a**	7.04% / n/a	6.60% / 6.50%
Rate to which the cost trend rate gradually declines	**4.50%**	4.50%	4.50%
Year that the rate reaches the rate it is assumed to maintain	**2031**	2030	2028
Weighted-average assumptions used to determine net periodic benefit cost for years ended December 31			
Discount rate — PBO	**5.09%**	2.59%	2.19%
Discount rate — service cost [1]	**5.15%**	2.89%	2.45% / 2.84%
Discount rate — interest cost	**5.03%**	2.06%	1.60%
Weighted-average assumptions used to determine benefit obligation at December 31			
Discount rate	**4.90%**	5.08%	2.59%

[1] *As a result of remeasurements, the 2021 service cost discount rates were revised from 2.45% at 12/31/2020 to 2.84% at 9/30/2021.*

Total employer contributions to the postretirement plans are presented below:

in millions	*Postretirement*
Employer Contributions	
2021	$ 5.5
2022	4.9
2023	5.2
2024 (estimated)	5.1

The employer contributions shown above are equal to the cost of benefits during the year. The plans are not funded and are not subject to any regulatory funding requirements.

The following benefit payments, which reflect expected future service, as appropriate, are expected to be paid:

in millions	*Postretirement*
Estimated Future Benefit Payments	
2024	$ 5.1
2025	5.1
2026	5.0
2027	5.2
2028	5.0
2029–2033	22.0

Contributions by participants to the postretirement benefit plans for the years ended December 31 are as follows:

in millions	*Postretirement*
Participants Contributions	
2021	$ 2.3
2022	2.0
2023	1.5

PENSION AND OTHER POSTRETIREMENT BENEFITS ASSUMPTIONS

Each year, we review our assumptions for discount rates (used for PBO, service cost, and interest cost calculations), the per capita cost of healthcare benefits and the expected return on plan assets. Due to plan changes made in 2013, annual pay increases do not materially impact plan obligations.

We use a high-quality bond full yield curve approach (specific spot rates for each annual expected cash flow) to establish the discount rates at each measurement date. At December 31, 2023, the discount rates used were as follows:

PBO for various plans – ranged from 4.77% to 5.05% (December 31, 2022 ranged from 4.97% to 5.25%)
Service cost – weighted average of 5.29% and 5.15%, respectively, for our pension plans and our other postretirement plans (2022 figures were 3.17% and 2.89%, respectively)
Interest cost – weighted average of 5.09% and 5.03%, respectively, for our pension plans and our other postretirement plans (2022 figures were 2.37% and 2.06%, respectively)

In selecting the rate of increase in the per capita cost of covered healthcare benefits, we consider past performance and forecast of future healthcare cost trends. At December 31, 2023, our assumed rate of increase in the per capita cost of covered healthcare benefits was 10.20% for pre-65 coverage, with rates decreasing each year until reaching 4.50% in 2031 and remaining level thereafter.

Our expected return on plan assets is: (1) a long-term view based on our current asset allocation, and (2) a judgment informed by consultation with our retirement plans' consultant and our pension plans' actuary. As a result of remeasurements, the 2021 expected return on plan assets was revised from 5.25% at 12/31/2020 to 3.75% at 10/31/2021. For 2023 and 2022, the expected return on plan assets used to measure plan benefit costs was set at 4.85% and 4.00%, respectively. For 2024, the preliminary expected return on plan assets is 4.85%.

DEFINED CONTRIBUTION PLANS

In addition to our pension and postretirement plans, we sponsor four defined contribution plans. Substantially all salaried and nonunion hourly employees are eligible to be covered by one of these plans. Under these plans, we match employees' eligible contributions at established rates. Expense recognized in connection with these matching obligations totaled $79.2 million in 2023, $68.2 million in 2022 and $67.5 million in 2021.

NOTE 11: INCENTIVE PLANS

SHARE-BASED COMPENSATION PLANS

Our 2016 Omnibus Long-term Incentive Plan (Plan) authorizes the granting of performance shares, restricted shares, Stock-Only Stock Appreciation Rights (SOSARs) and other types of share-based awards to key salaried employees and nonemployee directors. The maximum number of shares that may be issued under the Plan is 8,000,000, of which 4,895,307 shares remain under this authorization as of December 31, 2023.

PERFORMANCE SHARES — Each performance share unit is equal to and paid in one share of our common stock but carries no voting rights. The number of units ultimately paid for performance share awards may range from 0% to 200% of the number of units awarded on the date of grant. Payment is based upon the outcome of performance and/or market conditions. Awards vest on December 31 of the third year after date of grant. Vesting is accelerated upon death, disability, or change of control and the awards become non-forfeitable upon reaching retirement age — all as defined in the award agreement. Nonvested units are forfeited upon termination for any other reason. Expense provisions referable to performance share awards amounted to $40.1 million in 2023, $23.2 million in 2022 and $18.2 million in 2021.

The fair value of performance shares is estimated as of the date of grant using a Monte Carlo simulation model. The following table summarizes the activity for nonvested performance share units during the year ended December 31, 2023:

	Target Number of Shares	*Weighted-average Grant Date Fair Value*
Performance Shares		
Nonvested at January 1, 2023	219,901	$ 160.48
Granted	126,010	175.46
Vested	(105,606)	164.41
Canceled/forfeited	(12,833)	179.09
Nonvested at December 31, 2023	**227,472**	**$ 180.13**

During 2022 and 2021, the weighted-average grant date fair value of performance shares granted was $185.31 and $164.38, respectively.

The aggregate values for distributed performance share awards are based on the closing price of our common stock as of the distribution date. The aggregate values of distributed performance shares for the years ended December 31 are as follows:

in millions	***2023***	*2022*	*2021*
Aggregate value of distributed performance shares	**$ 24.8**	$ 33.4	$ 19.6

RESTRICTED SHARES — Each restricted share unit is equal to and paid in one share of our common stock but carries no voting rights. Awards vest on the third anniversary of the grant date. Vesting is accelerated upon reaching retirement age, death, disability, or change of control, all as defined in the award agreement. Nonvested units are forfeited upon termination for any other reason. Expense provisions referable to restricted share awards amounted to $16.5 million in 2023, $11.6 million in 2022 and $10.4 million in 2021.

The fair value of restricted shares is estimated as of the date of grant based on the stock price adjusted for dividends foregone (for restricted share units that do not accrue dividends). The following table summarizes the activity for nonvested restricted share units during the year ended December 31, 2023:

	Number of Shares	*Weighted-average Grant Date Fair Value*
Restricted Stock Units		
Nonvested at January 1, 2023	185,488	$ 162.40
Granted	133,902	175.46
Vested	(63,722)	137.56
Canceled/forfeited	(18,995)	177.28
Nonvested at December 31, 2023	**236,673**	**$ 175.29**

During 2022 and 2021, the weighted-average grant date fair value of restricted shares granted was $184.49 and $164.38, respectively.

The aggregate values for distributed restricted share awards are based on the closing price of our common stock as of the distribution date. The aggregate values of distributed restricted shares for the years ended December 31 are as follows:

in millions	***2023***	*2022*	*2021*
Aggregate value of distributed restricted shares	**$ 11.1**	$ 15.7	$ 9.0

STOCK-ONLY STOCK APPRECIATION RIGHTS (SOSARs) — SOSARs granted have an exercise price equal to the market value of our underlying common stock on the date of grant. The SOSARs vest ratably over 3 years and expire 10 years subsequent to the date of grant. Vesting is accelerated upon reaching retirement age, death, disability, or change of control, all as defined in the award agreement. Nonvested awards are forfeited upon termination for any other reason.

The fair value of SOSARs is estimated as of the date of grant using the Black-Scholes option pricing model. Compensation cost for SOSARs is based on this grant date fair value and is recognized for awards that ultimately vest. The following table presents the weighted-average fair value and the weighted-average assumptions used in estimating the fair value of grants during the years ended December 31:

	2023	*2022*	*2021*
SOSARs			
Fair value	**$ 72.39**	$ 60.57	$ 52.19
Risk-free interest rate	**3.90%**	2.02%	1.18%
Dividend yield	**0.79%**	0.77%	0.62%
Volatility	**28.88%**	26.68%	27.33%
Expected term (years)	**9.0**	9.0	9.0

The risk-free interest rate is based on the yield at the date of grant of a U.S. Treasury security with a maturity period approximating the SOSARs expected term. The dividend yield assumption is based on our historical dividend payouts adjusted for current expectations of future payouts. The volatility assumption is based on the historical volatility and expectations about future volatility of our common stock over a period equal to the SOSARs expected term. The expected term is based on historical experience and expectations about future exercises and represents the period of time that SOSARs granted are expected to be outstanding.

A summary of our SOSAR activity as of December 31, 2023 and changes during the year are presented below:

	Number of Shares	*Weighted-average Exercise Price*	*Weighted-average Remaining Contractual Life (Years)*	*Aggregate Intrinsic Value (in millions)*
SOSARs				
Outstanding at January 1, 2023	674,369	$ 114.46		
Granted	61,960	180.52		
Exercised	(197,756)	79.83		
Forfeited or expired	(5,116)	179.47		
Outstanding at December 31, 2023	**533,457**	**$ 134.35**	**5.27**	**$ 49.0**
Exercisable at December 31, 2023	**408,300**	**$ 120.53**	**4.30**	**$ 43.2**

The aggregate intrinsic values in the table above represent the total pretax intrinsic value (the difference between our stock price on the last trading day of 2023 and the exercise price, multiplied by the number of in-the-money SOSARs) that would have been received by the option holders had all SOSARs been exercised on December 31, 2023. These values change based on the fair market value of our common stock. The aggregate intrinsic values of SOSARs exercised for the years ended December 31 are as follows:

in millions	***2023***	*2022*	*2021*
Aggregate intrinsic value of SOSARs exercised	**$ 25.1**	$ 1.9	$ 24.9

The following table presents cash received and tax benefit realized from SOSAR exercises and compensation cost recorded referable to SOSARs for the years ended December 31:

in millions	***2023***	*2022*	*2021*
SOSARs			
Cash received from exercises	**$ 0.0**	$ 0.0	$ 0.0
Tax benefit from exercises	**6.0**	0.4	6.3
Compensation cost	**4.0**	4.0	3.9

NONEMPLOYEE DIRECTOR AWARDS — In addition to the share-based compensation plans for employees discussed above, we issue a limited number of stock units to our nonemployee directors annually. Expense provisions referable to nonemployee director stock units amounted to $2.6 million in 2023, $2.4 million in 2022 and $2.2 million in 2021.

CASH-BASED COMPENSATION PLANS

We have incentive plans under which cash awards may be made annually. Expense provisions under these plans referable to awards to officers and certain employees amounted to $77.3 million in 2023, $42.8 million in 2022 and $42.2 million in 2021.

NOTE 12: COMMITMENTS AND CONTINGENCIES

We have commitments in the form of unconditional purchase obligations as of December 31, 2023. These include commitments for the purchase of property, plant & equipment of $11.1 million and commitments for noncapital purchases of $170.7 million. These commitments are due as follows:

in millions	*Unconditional Purchase Obligations*	
Property, Plant & Equipment		
2024	$	11.1
Thereafter		0.0
Total	$	11.1
Noncapital (primarily transportation and electricity contracts)		
2024	$	46.3
2025–2026		53.4
2027–2028		51.8
Thereafter		19.2
Total	$	170.7

Expenditures for noncapital purchases totaled $120.8 million in 2023, $96.7 million in 2022 and $53.4 million in 2021.

We have commitments in the form of minimum royalties under mineral leases as of December 31, 2023 in the amount of $240.5 million, due as follows:

in millions	*Mineral Leases*	
Minimum Royalties		
2024	$	28.5
2025–2026		39.6
2027–2028		29.1
Thereafter		143.3
Total	$	240.5

Expenditures for royalties under mineral leases totaled $113.6 million in 2023, $109.1 million in 2022 and $90.4 million in 2021.

Certain of our aggregates reserves are burdened by volumetric production payments (nonoperating interest) as described in Note 2. As the holder of the working interest, we have responsibility to bear the cost of mining and producing the reserves attributable to this nonoperating interest.

As described in Note 1 under the caption Claims and Litigation Including Self-Insurance, our net liabilities for our self-insurance program totaled $133.4 million as of December 31, 2023.

As summarized by purpose in Note 6, our standby letters of credit totaled $83.2 million as of December 31, 2023.

As outlined in Note 7, our present value of future minimum (nonmineral) lease payments totaled $583.8 million as of December 31, 2023.

As described in Note 9, our liability for unrecognized tax benefits is $21.0 million as of December 31, 2023.

As described in Note 17, our asset retirement obligations totaled $324.1 million as of December 31, 2023.

LITIGATION AND ENVIRONMENTAL MATTERS

We are subject to occasional governmental proceedings and orders pertaining to occupational safety and health or to protection of the environment, such as proceedings or orders relating to noise abatement, air emissions or water discharges. As part of our continuing program of stewardship in safety, health and environmental matters, we have been able to resolve such proceedings and to comply with such orders without any material adverse effects on our business.

We have received notices from the United States Environmental Protection Agency (EPA) or similar state or local agencies that we are considered a potentially responsible party (PRP) at a limited number of sites under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA or Superfund) or similar state and local environmental laws. Generally, we share the cost of remediation at these sites with other PRPs or alleged PRPs in accordance with negotiated or prescribed allocations. There is inherent uncertainty in determining the potential cost of remediating a given site and in determining any individual party's share in that cost. As a result, estimates can change substantially as additional information becomes available regarding the nature or extent of site contamination, remediation methods, other PRPs and their probable level of involvement, and actions by or against governmental agencies or private parties.

We have reviewed the nature and extent of our involvement at each Superfund site as well as potential obligations arising under other federal, state and local environmental laws. While ultimate resolution and financial liability is uncertain at a number of the sites, in our opinion, based on information currently available, the ultimate resolution of claims and assessments related to these sites will not have a material effect on our consolidated results of operations, financial position or cash flows, although amounts recorded in a given period could be material to our results of operations or cash flows for that period. Amounts accrued for environmental matters are presented in Note 8.

We are a defendant in various lawsuits in the ordinary course of business. It is not possible to determine with precision the outcome, or the amount of liability, if any, under these lawsuits, especially where the cases involve possible jury trials with as yet undetermined jury panels.

In addition to these lawsuits in which we are involved in the ordinary course of business, certain other material legal proceedings are specifically described below.

- LOWER PASSAIC RIVER STUDY AREA (DISCONTINUED OPERATIONS and SUPERFUND SITE) — The Lower Passaic River Study Area is part of the Diamond Shamrock Superfund Site in New Jersey. Vulcan and approximately 70 other companies are parties (collectively the Cooperating Parties Group, CPG) to a May 2007 Administrative Order on Consent (AOC) with the EPA to perform a Remedial Investigation/Feasibility Study (draft RI/FS) of the lower 17 miles of the Passaic River (River). The draft RI/FS was submitted recommending a targeted hot spot remedy; however, the EPA issued a record of decision (ROD) in March 2016 that calls for a bank-to-bank dredging remedy for the lower 8 miles of the River. The EPA estimates that the cost of implementing this proposal is $1.38 billion. In September 2016, the EPA entered into an Administrative Settlement Agreement and Order on Consent with Occidental Chemical Corporation (Occidental) in which Occidental agreed to undertake the remedial design for this bank-to-bank dredging remedy and to reimburse the United States for certain response costs.

  Efforts to investigate and remediate the River have been underway for many years and have involved hundreds of entities that have had operations on or near the River at some point during the past several decades. We formerly owned a chemicals operation near the mouth of the River, which was sold in 1974. The major risk drivers in the River have been identified to include dioxins, PCBs, DDx and mercury. We did not manufacture any of these risk drivers and have no evidence that any of these were discharged into the River by Vulcan.

  In August 2017, the EPA informed certain members of the CPG, including Vulcan and others, that it planned to use the services of a third-party allocator with the expectation of offering cash-out settlements to some parties in connection with the bank-to-bank remedy identified in the ROD. This voluntary allocation process established an impartial third-party expert recommendation for use by the government and the participants as the basis of possible settlements, including settlements related to future remediation actions. The final allocation recommendations, which are subject to confidentiality provisions, were submitted to the EPA for its review and consideration in late December 2020. Certain PRPs, including Vulcan, thereafter received a joint confidential settlement demand from the EPA/Department of Justice (DOJ). Vulcan and certain of the other PRPs that received the joint confidential settlement demand (the Settling Defendants) reached an agreement to settle with the EPA/DOJ and negotiated a Consent Decree. The Consent Decree has been lodged with the court. Vulcan’s portion of the settlement is within the immaterial loss recorded for this matter in 2015.

In July 2018, Vulcan, along with more than 100 other defendants, was sued by Occidental in United States District Court for the District of New Jersey, Newark Vicinage. Occidental is seeking cost recovery and contribution under CERCLA for costs related to the River. This lawsuit is currently stayed pending adjudication of the Consent Decree. In another related proceeding, Occidental filed a lawsuit in March 2023 against Vulcan and 39 other defendants in United States District Court for the District of New Jersey, Newark Vicinage seeking cost recovery and contribution under CERCLA for costs related to the upper 9 miles of the River. It is unknown at this time how the settlement and approval of the Consent Decree with the EPA/DOJ would affect the Occidental lawsuits.

- TEXAS BRINE MATTER (DISCONTINUED OPERATIONS) — During operation of its former Chemicals Division, Vulcan leased the right to mine salt out of an underground salt dome formation in Assumption Parish, Louisiana from 1976 - 2005. Throughout that period, Texas Brine Company (Texas Brine) was the operator contracted by Vulcan to mine and deliver the salt as brine. We sold our Chemicals Division in 2005 and transferred our rights and interests related to the salt and mining operations to the purchaser, a subsidiary of Occidental Chemical Company (Occidental), and we have had no association with the leased premises or Texas Brine since that time. In August 2012, a sinkhole developed in the vicinity of the Texas Brine mining operations. Numerous lawsuits were filed thereafter in state court in Assumption Parish, Louisiana. Other lawsuits, including class action litigation, were filed in the United States District Court for the Eastern District of Louisiana in New Orleans.

  In these lawsuits, the main plaintiffs sued numerous defendants, including Texas Brine, Occidental and Vulcan, alleging various damages including, but not limited to, property damages; a claim by the State of Louisiana for response costs and civil penalties; physical damages to oil and gas pipelines and storage facilities (pipelines); and business interruption losses. All such claims have been settled except for the claims by the State of Louisiana. Our insurers to date have funded these settlements in excess of our self-insured retention amount.

  Additionally, Texas Brine, Occidental and Vulcan sued each other in various state and federal court forums. Vulcan and Occidental have since dismissed all of their claims against one another; Texas Brine's and Occidental's claims against each other are pending in arbitration; and Texas Brine's and Vulcan's claims against each other are pending in state and federal court. In general, Texas Brine alleges that the sinkhole was caused, in whole or in part, by our negligent or fraudulent actions or failure to act; that we breached the salt lease with Occidental, as well as an operating agreement and related contracts with Texas Brine; that we were strictly liable for certain property damages in our capacity as a former lessee of the salt lease; and that we violated the agreement under which we sold our Chemicals Division to Occidental. Texas Brine's claims against Vulcan include claims for past and future response costs, lost profits and investment costs, indemnity payments, attorneys' fees, other litigation costs, and judicial interests. Texas Brine also recently filed a lawsuit against Vulcan seeking indemnity for potential exposure Texas Brine may have to Occidental in the related arbitration, the State of Louisiana, and for ongoing and future Louisiana regulatory matters. In August 2022, we removed the lawsuit to federal court.

  The state court held a joint bench trial (judge only) in 2017 in three cases brought by pipeline companies claiming damages to their facilities as a result of the sinkhole. This "Phase 1" trial was limited in scope to comparative fault and liability for causing the sinkhole. In December 2017, the trial court issued a ruling allocating fault as follows: Occidental 50%, Texas Brine (and its wholly-owned subsidiary) 35% and Vulcan 15%. In December 2020, the Louisiana Court of Appeal, First Circuit reversed the judgment in part in one of the three jointly tried cases, allocating 55% of the fault to Texas Brine (and its wholly-owned subsidiary); 30% to Occidental; and affirming the 15% fault allocation to Vulcan. In May 2021 and April 2022, the Court of Appeal issued judgments in the other two pipeline cases, adopting the same fault allocation. The Louisiana Supreme Court has declined to review the judgments, resulting in final judgments regarding fault allocations in those matters.

  In the second quarter of 2022, we recorded an immaterial loss related to the claims brought by Texas Brine. In August 2022, Vulcan and Texas Brine commenced a joint "Phase 2" bench trial in the same three pipeline cases where fault was allocated. Prior to trial, the trial court granted various motions by Vulcan seeking dismissal of Texas Brine's contract-based claims and hundreds of millions of dollars in alleged damages. Thus, the Phase 2 trial addressed the claims that remained pending between Texas Brine and Vulcan after that motion practice. During the Phase 2 trial, Texas Brine and Vulcan reached a negotiated joint stipulation as to the amount of Texas Brine's damages for its surviving tort claims at issue in the trial. After applying Vulcan's 15% fault allocation, Vulcan's stipulated financial responsibility for the damages at issue in the trial is within the immaterial loss recorded during the second quarter of 2022. In December 2022, the trial court entered a judgment in the pipeline cases reflecting this stipulation. Texas Brine has moved to assess all trial costs against Vulcan.

The December 2022 Phase 2 judgment did not address numerous of Texas Brine's claims seeking hundreds of millions of dollars in damages that were dismissed prior to trial. Texas Brine has appealed those judgments. We cannot at this time reasonably estimate the range of liability, if any, that could result if an appellate court reverses any of the trial court's decisions. At this time, we also cannot reasonably estimate a range of liability pertaining to the claims brought by the State of Louisiana.

- NEW YORK WATER DISTRICT CASES AND NEW JERSEY NATURAL RESOURCE DAMAGES CASE (DISCONTINUED OPERATIONS) — During the operation of our former Chemicals Division, which was divested to Occidental in 2005, Vulcan manufactured a chlorinated solvent known as 1,1,1-trichloroethane (TCA). We are a defendant in 29 cases allegedly involving TCA. We are a defendant in 28 cases brought by New York water providers, and in one case brought by the State of New Jersey, all involving TCA stabilized with 1,4-dioxane. The cases in New York are filed in the United States District Court for the Eastern District of New York. According to the various complaints, the plaintiff-water providers serve customers in a number of New York counties (Nassau, Suffolk, Orange, Putnam, Sullivan, Ulster, Washington and Westchester) and seek unspecified compensatory damages associated with the remediation of water wells allegedly contaminated with 1,4-dioxane. They are also seeking punitive damages. The New Jersey case, filed in state court in Mercer County (Trenton) in March 2023, seeks recovery for the entire State of New Jersey based on alleged damages to surface water, ground water and other natural resources. In the New Jersey case, the plaintiff seeks unspecified compensatory damages to restore the allegedly contaminated natural resources to a condition with zero 1,4-dioxane. The plaintiff also seeks disgorgement of profits from the sale of TCA in New Jersey, as well as penalties and attorneys' fees under various New Jersey statutes. We will vigorously defend these cases on substantive and procedural grounds. At this time, we cannot determine the likelihood of loss, or reasonably estimate a range of loss, if any, pertaining to the above-referenced cases.

- HEWITT LANDFILL MATTER (SUPERFUND SITE) — In September 2015, the Los Angeles Regional Water Quality Control Board (RWQCB) issued a Cleanup and Abatement Order directing Calmat Co., a Vulcan subsidiary (hereinafter "Vulcan"), to assess, monitor, cleanup, and abate wastes that have been discharged to soil, soil vapor, and/or groundwater at the former Hewitt Landfill in Los Angeles.

  Following an onsite and offsite investigation and pilot scale testing, the RWQCB approved a corrective action that includes leachate recovery, storm water capture and conveyance improvements, and a groundwater pump, treat and reinjection system. Certain on-site source control measures have been implemented, and the new treatment system is fully operational. Currently-anticipated costs of these on-site source control activities have been fully accrued.

  We are also engaged in an ongoing dialogue with the EPA, Honeywell, and the Los Angeles Department of Water and Power (LADWP) regarding the potential contribution of the Hewitt Landfill to groundwater contamination in the North Hollywood Operable Unit (NHOU) of the San Fernando Valley Superfund Site.

  The EPA and Vulcan entered into an AOC and Statement of Work having an effective date of September 2017 for the design of two extraction wells south of the Hewitt Landfill to protect the North Hollywood West (NHW) well field located within the NHOU. In November 2017, we submitted a Pre-Design Investigation (PDI) Work Plan to the EPA, which sets forth the activities and schedule for collection of data in support of our evaluation of the need for an offsite remedy. In addition, this evaluation was expanded as part of the PDI to include the evaluation of a remedy in light of LADWP's Rinaldi-Toluca (RT) wellfield project. PDI investigative activities were completed between the first and third quarters of 2018, and in December 2018 we submitted a Draft PDI Evaluation Report to the EPA. The Draft PDI Evaluation Report summarizes data collection activities conducted pursuant to the Draft PDI Work Plan and provides model updates and evaluation of remediation alternatives for offsite areas. The EPA provided a final set of comments to the Draft PDI Evaluation Report in October 2020. The final set of comments included a request that Vulcan revise and develop a final PDI Evaluation Report. The final comments further provided a proposal for an alternative approach for offsite remediation (as opposed to installation of offsite extraction wells) and development of a Supplemental PDI Evaluation Report (Supplemental Report) that would require the EPA to modify the remedy in the 2009 ROD as it relates to the Hewitt Landfill. In December 2020, we submitted the Final PDI Evaluation Report, which included responses to the EPA's comments.

At the EPA's request, we submitted a Supplemental Report in March 2023 and an Alternative Design Work Plan (ADWP) in May 2023. Similar to the PDI Evaluation Report, the Supplemental Report and ADWP identified expansion of the onsite Hewitt remedy in conjunction with the offsite treatment being performed by LADWP as the preferred option for addressing contamination in offsite areas, instead of the two wells proposed by the EPA. In conjunction with its review of the Supplemental Report, the EPA held an initial meeting with stakeholders, including LADWP, in November 2023 and has requested additional meetings to determine a path forward.

In December 2019, Honeywell agreed with LADWP to build a water treatment system (often referred to as the Cooperative Containment Concept or CCC or the second interim remedy) that will provide treated groundwater in the NHOU to LADWP for public water supply purposes. Honeywell contends that some of the contamination to be remediated by the treatment system it is building originated from the Hewitt Landfill and that Vulcan should fund some portion of the costs that Honeywell has incurred and will incur in developing and implementing the second interim remedy. During the fourth quarter of 2021, we completed a partial settlement with Honeywell related to certain of the costs that Honeywell has incurred for an immaterial amount. In March 2023, Honeywell filed a lawsuit against Vulcan and a third party alleging that Honeywell has incurred more than $11 million in costs to resolve its liability to the EPA and that it estimates that it will spend in excess of $100 million to construct and operate its water treatment system. Honeywell seeks an "equitable share of necessary response costs" from the defendants. Discussions are ongoing with Honeywell regarding the reasonable costs Honeywell has incurred. We are also gathering and analyzing data and developing technical information to determine the extent of possible contribution by the Hewitt Landfill to the groundwater contamination in the area. Based on this technical information, we have accrued an immaterial amount for our contribution of costs anticipated to be incurred by Honeywell. This work is also intended to assist in identification of other PRPs that may have contributed to groundwater contamination in the area.

Further, LADWP is constructing two new production and treatment facilities at city wellfields located near the Hewitt Landfill — the NHW wellfield and the RT wellfield (also referred to as the NHW treatment system and North Hollywood Central (NHC) treatment system, respectively). LADWP has alleged that the Hewitt Landfill is one of the primary sources of contamination at the NHW treatment system and one of the sources of contamination at the NHC treatment system. According to information available on the California State Water Resources Control Board (SWRCB) website, the capital cost of the NHW treatment system is estimated at $92 million, and the capital cost of the NHC treatment system is estimated at $245 million. Both systems are expected to commence operations in 2024 and will thereafter incur costs for operation and maintenance. LADWP has applied for and received substantial funding to contribute to both treatment systems from grants of Proposition 1 bond funding from the SWRCB. According to information available on the SWRCB website, the bond money obtained for the NHW treatment system is $46 million, and the bond money obtained for the NHC treatment system is $95 million.

We anticipate continued discussions with LADWP regarding its potential claims. In conjunction with those discussions, we are engaging in further efforts to gather and analyze records and data in order to assess the extent of possible contribution by the Hewitt Landfill to the groundwater contamination in the area, consistent with the parallel request by the EPA, and the reasonableness of LADWP's remediation efforts. This work is also intended to assist in identification of other PRPs that may have contributed to groundwater contamination in the area of the NHW and RT wellfields. Together, these efforts will allow us to analyze our anticipated equitable contribution to LADWP's remediation efforts. Among other factors, we anticipate that any equitable contribution should take into account the on-site source control and other measures implemented by Vulcan at the former Hewitt Landfill, the relative contribution and duration of any contaminants originating from the Hewitt Landfill to the LADWP systems, and the cost effectiveness of the LADWP systems. At this time, we cannot reasonably estimate a range of a loss to Vulcan pertaining to LADWP's potential contribution claim.

- NAFTA ARBITRATION — In September 2018, our subsidiary Legacy Vulcan, LLC (Legacy Vulcan), on its own behalf, and on behalf of our Mexican subsidiary Calizas Industriales del Carmen, S.A. de C.V. (Calica), served the United Mexican States (Mexico) a Notice of Intent to Submit a Claim to Arbitration under Chapter 11 of the North American Free Trade Agreement (NAFTA). This NAFTA claim relates to the treatment of a portion of our quarrying operations in Quintana Roo, Mexico arising from, among other measures, Mexico's failure to comply with a legally binding zoning agreement and relates to other unfair, arbitrary and capricious actions by Mexico's environmental enforcement agency. We assert that these actions are in breach of Mexico's international obligations under NAFTA and international law.

As required by Article 1118 of NAFTA, we sought to settle this dispute with Mexico through consultations. Notwithstanding our good faith efforts to resolve the dispute amicably, we were unable to do so and filed a Request for Arbitration with the International Centre for Settlement of Investment Disputes (ICSID) in December 2018. In January 2019, ICSID registered our Request for Arbitration.

A hearing on the merits took place in July 2021. While we awaited the final resolution from the tribunal, we continued to engage with government officials to pursue an amicable resolution of the dispute. On May 5, 2022, Mexican government officials unexpectedly and arbitrarily shut down Calica's remaining operations in Mexico. On May 8, 2022, Legacy Vulcan filed an application in the NAFTA arbitration seeking provisional measures and leave to file an ancillary claim in connection with this latest shutdown (see Part I, Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations – Known Trends or Uncertainties). In July 2022, the NAFTA arbitration tribunal granted Legacy Vulcan's application and ordered Mexico not to take any action that might further aggravate the dispute between the parties or render the resolution of the dispute potentially more difficult. A hearing on the merits of the ancillary claim took place in August 2023. We expect that the NAFTA arbitration tribunal will issue a decision on the claim and ancillary claim during 2024.

At this time, there can be no assurance whether we will be successful in our NAFTA claim and ancillary claim, and we cannot quantify the amount we may recover, if any, under this arbitration proceeding if we are successful.

It is not possible to predict the ultimate outcome of these and other legal proceedings in which we are involved, and a number of factors, including developments in ongoing discovery or adverse rulings, or the verdict of a particular jury, could cause actual losses to differ materially from accrued costs. No liability was recorded for claims and litigation for which a loss was determined to be only reasonably possible or for which a loss could not be reasonably estimated. Legal costs incurred in defense of lawsuits are expensed as incurred. In addition, losses on certain claims and litigation described above may be subject to limitations on a per occurrence basis by excess insurance, as described in Note 1 under the caption Claims and Litigation Including Self-Insurance.

NOTE 13: EQUITY

Our capital stock consists solely of common stock, par value $1.00 per share, of which 480,000,000 shares may be issued. Holders of our common stock are entitled to one vote per share. We may also issue 5,000,000 shares of preferred stock, but no shares have been issued. The terms and provisions of such shares will be determined by our Board of Directors upon any issuance of preferred shares in accordance with our Certificate of Incorporation.

There were no shares held in treasury as of December 31, 2023, 2022 and 2021.

Our common stock purchases (all of which were open market purchases) and subsequent retirements for the years ended December 31 are summarized below:

in millions, except average cost	***2023***	*2022*	*2021*
Shares Purchased and Retired			
Number	**1.0**	0.0	0.0
Total purchase price [1]	**$ 200.0**	$ 0.0	$ 0.0
Average cost per share	**$ 204.52**	$ 0.00	$ 0.00

[1] *The amount paid to purchase shares in excess of the par value and related excise taxes are recorded in retained earnings.*

As of December 31, 2023, 7,087,260 shares may be purchased under the current authorization of our Board of Directors.

Dividends for the years ended December 31 were as follows:

in millions, except per share data	***2023***	*2022*	*2021*
Dividends			
Cash dividends	**$ 228.4**	$ 212.6	$ 196.4
Cash dividends per share	**$ 1.72**	$ 1.60	$ 1.48

Total equity as presented in the consolidated financial statements for the year ended December 31, 2023 includes a noncontrolling interest of $24.5 million, representing the unowned portion of a subsidiary. See Note 1 under the heading “Noncontrolling Interest” for additional discussion.

NOTE 14: OTHER COMPREHENSIVE INCOME

Comprehensive income comprises two subsets: net earnings and other comprehensive income (OCI). The components of OCI are presented in the accompanying Consolidated Statements of Comprehensive Income and Consolidated Statements of Equity, net of applicable taxes.

Amounts in accumulated other comprehensive income (loss) (AOCI), net of tax, at December 31, are as follows:

in millions	***2023***	*2022*	*2021*
AOCI			
Cash flow hedges	**$ (19.4)**	$ (21.0)	$ (22.5)
Pension and postretirement plans	**(124.4)**	(133.7)	(130.2)
Total	**$ (143.8)**	$ (154.7)	$ (152.7)

Changes in AOCI, net of tax, for the three years ended December 31, 2023 are as follows:

in millions	*Cash Flow Hedges*	*Pension and Postretirement Benefit Plans*	*Total*
AOCI			
Balances at December 31, 2020	$ (24.0)	$ (157.3)	$ (181.3)
Other comprehensive income (loss) before reclassifications	0.0	13.4	13.4
Amounts reclassified from AOCI	1.5	13.7	15.2
Net OCI changes	1.5	27.1	28.6
Balances at December 31, 2021	$ (22.5)	$ (130.2)	$ (152.7)
Other comprehensive income (loss) before reclassifications	0.0	(6.5)	(6.5)
Amounts reclassified from AOCI	1.5	3.0	4.5
Net OCI changes	1.5	(3.5)	(2.0)
Balances at December 31, 2022	$ (21.0)	$ (133.7)	$ (154.7)
Other comprehensive income (loss) before reclassifications	0.0	4.2	4.2
Amounts reclassified from AOCI	1.6	5.1	6.7
Net OCI changes	1.6	9.3	10.9
Balances at December 31, 2023	**$ (19.4)**	**$ (124.4)**	**$ (143.8)**

Amounts reclassified from AOCI to earnings are as follows:

in millions	***2023***	*2022*	*2021*
Amortization of Cash Flow Hedge Losses			
Interest expense	**$ 2.1**	$ 2.0	$ 2.0
Benefit from income taxes	**(0.5)**	(0.5)	(0.5)
Total	**$ 1.6**	$ 1.5	$ 1.5
Amortization of Pension and Postretirement Plan Actuarial Loss and Prior Service Cost			
Other nonoperating expense	**$ 6.9**	$ 4.0	$ 18.5
Benefit from income taxes	**(1.8)**	(1.0)	(4.8)
Total	**$ 5.1**	$ 3.0	$ 13.7
Total reclassifications from AOCI to earnings	**$ 6.7**	$ 4.5	$ 15.2

NOTE 15: SEGMENT REPORTING

We have four operating (and reportable) segments organized around our principal product lines: Aggregates, Asphalt, Concrete and Calcium. Management reviews earnings from these reporting segments principally at the gross profit level.

The Aggregates segment produces and sells aggregates (crushed stone, sand and gravel, sand, and other aggregates) and related products and services. During 2023, the Aggregates segment principally served markets in twenty-three states, the U.S. Virgin Islands, Washington D.C., Freeport (Bahamas), British Columbia (Canada), Puerto Cortés (Honduras) and Quintana Roo (Mexico) — see Note 12, NAFTA Arbitration — with a full line of aggregates. We serve twelve additional states with railroad ballast. The 2021 acquisition of U.S. Concrete expanded our full line aggregates markets by two states (New Jersey and New York), the U.S. Virgin Islands, British Columbia (Canada), and direct shipments to Hawaii. Aggregates are used primarily in the construction and maintenance of highways, streets and other public works and in the construction of housing and commercial, industrial and other nonresidential facilities. Customers are served by truck, rail and water distribution networks from our production facilities and sales yards. Due to the high weight-to-price ratio of aggregates, markets generally are local in nature. Quarries located on waterways and rail lines allow us to serve remote markets where local aggregates reserves may not be available.

The Asphalt segment produces and sells asphalt mix in six states (Alabama, Arizona, California, New Mexico, Tennessee and Texas) and provides asphalt construction paving services in three states (Alabama, Tennessee and Texas).

The Concrete segment produces and sells ready-mixed concrete in three states (California, Maryland and Virginia) in addition to the U.S. Virgin Islands and Washington D.C. In 2021, through our acquisition of U.S. Concrete, we entered the New Jersey, New York, Pennsylvania and U.S. Virgin Islands concrete markets and expanded our existing markets in California, Texas and Washington D.C. In November 2023, we exited the Texas concrete market through a divestiture. In November 2022, we exited the New Jersey, New York and Pennsylvania concrete markets through a divestiture. See Note 19 for additional information.

The Calcium segment consists of a Florida facility that mines, produces and sells calcium products.

Aggregates comprise approximately 95% of asphalt mix by weight and 80% of ready-mixed concrete by weight. Our Asphalt and Concrete segments are primarily supplied with their aggregates requirements from our Aggregates segment. These intersegment sales are made at local market prices for the particular grade and quality of product used in the production of asphalt mix and ready-mixed concrete and are excluded from total revenues. Customers for our Asphalt and Concrete segments are generally served locally at our production facilities or by truck. Because asphalt mix and ready-mixed concrete harden rapidly, delivery is time constrained and generally confined to a radius of approximately 20 to 25 miles from the producing facility.

The vast majority of our activities are domestic. We sell a relatively small amount of construction aggregates outside the United States. Total domestic revenues were $7,769.7 million in 2023, $7,263.9 million in 2022 and $5,532.0 million in 2021. Nondomestic Aggregates segment revenues were $12.2 million in 2023, $51.3 million in 2022 and $20.2 million in 2021; there were no significant nondomestic revenues in our Asphalt, Concrete or Calcium segments. Long-lived assets outside the United States, which consist primarily of property, plant & equipment, were $524.1 million in 2023, $534.2 million in 2022 and $459.5 million in 2021. Equity method investments of $26.6 million in 2023, $26.5 million in 2022 and $26.5 million in 2021 are included in the identifiable assets for the Aggregates segment and in investments and long-term receivables on the accompanying Consolidated Balance Sheets.

SEGMENT FINANCIAL DISCLOSURE

in millions	***2023***	*2022*	*2021*
Total Revenues			
Aggregates [1]	**$ 5,909.9**	$ 5,272.8	$ 4,345.0
Asphalt [2]	**1,140.7**	990.2	777.8
Concrete	**1,249.3**	1,593.9	766.8
Calcium	**9.0**	7.8	6.9
Segment sales	**$ 8,308.9**	$ 7,864.7	$ 5,896.5
Aggregates intersegment sales	**(527.0)**	(549.5)	(344.3)
Total revenues	**$ 7,781.9**	$ 7,315.2	$ 5,552.2
Gross Profit			
Aggregates	**$ 1,733.6**	$ 1,408.5	$ 1,295.7
Asphalt	**149.6**	57.3	21.2
Concrete	**62.1**	89.3	54.3
Calcium	**3.2**	2.6	2.2
Total	**$ 1,948.5**	$ 1,557.7	$ 1,373.4
Depreciation, Depletion, Accretion & Amortization (DDA&A)			
Aggregates	**$ 482.2**	$ 441.1	$ 360.4
Asphalt	**35.6**	35.1	36.0
Concrete	**72.8**	83.1	41.5
Calcium	**0.2**	0.2	0.2
Other	**26.2**	28.0	24.9
Total	**$ 617.0**	$ 587.5	$ 463.0
Capital Expenditures [3]			
Aggregates	**$ 764.9**	$ 540.3	$ 423.1
Asphalt	**46.9**	23.3	9.3
Concrete	**15.8**	50.4	18.1
Calcium	**0.0**	0.1	0.0
Corporate	**0.9**	30.0	0.0
Total	**$ 828.5**	$ 644.1	$ 450.5
Identifiable Assets [4, 5]			
Aggregates	**$ 11,749.6**	$ 11,575.2	$ 10,917.8
Asphalt	**613.4**	597.6	602.0
Concrete	**962.3**	1,436.2	1,680.2
Calcium	**3.6**	3.8	4.0
Total identifiable assets	**$ 13,328.9**	$ 13,612.8	$ 13,204.0
General corporate	**267.6**	460.3	237.1
Cash and cash equivalents and restricted cash	**949.2**	161.5	241.5
Total assets	**$ 14,545.7**	$ 14,234.6	$ 13,682.6

1 *Includes product sales, as well as freight & delivery costs that we pass along to our customers, and service revenues (see Note 2) related to aggregates.*

2 *Includes product sales, as well as service revenues (see Note 2) from our asphalt construction paving business.*

3 *Capital expenditures include changes in accruals for purchases of property, plant & equipment. Capital expenditures exclude property, plant & equipment obtained by business acquisitions.*

4 *Certain temporarily idled assets are included within a segment's Identifiable Assets, but the associated DDA&A is shown within Other in the DDA&A section above as the related DDA&A is excluded from segment gross profit.*

5 *The decreases in Concrete Identifiable Assets are primarily due to the 2022 divestiture of concrete operations in New Jersey, New York, and Pennsylvania and the 2023 divestiture of concrete operations in Texas (see Note 19).*

NOTE 16: SUPPLEMENTAL CASH FLOW INFORMATION

Supplemental information referable to the Consolidated Statements of Cash Flows is summarized below:

in millions	***2023***	*2022*	*2021*
Cash Payments			
Interest (exclusive of amount capitalized)	**$ 178.7**	$ 164.3	$ 138.0
Income taxes	**291.7**	143.5	127.9
Noncash Investing and Financing Activities			
Accruals for purchases of property, plant & equipment	**$ 64.6**	$ 108.7	$ 71.4
Note received from sale of business	**0.0**	130.0	0.0
Recognition of new and revised lease obligations for			
Operating lease right-of-use assets	**4.0**	44.8	106.9
Finance lease right-of-use assets	**2.9**	3.8	13.3
Consideration payable to seller in business acquisitions	**0.0**	65.4	0.0

NOTE 17: ASSET RETIREMENT OBLIGATIONS

Asset retirement obligations (AROs) are legal obligations associated with the retirement of long-lived assets resulting from the acquisition, construction, development and/or normal use of the underlying assets, including legal obligations for land reclamation. Recognition of a liability for an ARO is required in the period in which it is incurred at its estimated fair value. The associated asset retirement costs are capitalized as part of the carrying amount of the underlying asset and depreciated over the estimated useful life of the asset. The liability is accreted through charges to operating expenses. If the ARO is settled for a value other than the carrying amount of the liability, we recognize a gain or loss on settlement.

For the years ended December 31, ARO operating costs related to accretion of the liabilities and depreciation of the assets are as follows:

in millions	***2023***	*2022*	*2021*
ARO Operating Costs			
Accretion	**$ 13.9**	$ 14.1	$ 13.1
Depreciation	**9.0**	9.4	10.6
Total	**$ 22.9**	$ 23.5	$ 23.7

ARO operating costs are reported in cost of revenues. AROs are reported within other noncurrent liabilities in our accompanying Consolidated Balance Sheets.

Reconciliations of the carrying amounts of our AROs for the years ended December 31 are as follows:

in millions	***2023***	*2022*
Asset Retirement Obligations		
Balance at beginning of year	**$ 311.3**	$ 315.2
Liabilities incurred	**0.0**	8.2
Liabilities settled	**(9.9)**	(8.8)
Accretion expense	**13.9**	14.1
Revisions, net	**8.8**	(17.4)
Balance at end of year	**$ 324.1**	$ 311.3

NOTE 18: GOODWILL AND INTANGIBLE ASSETS

Acquired identifiable intangible assets are classified into three categories: (1) goodwill, (2) intangible assets with finite lives subject to amortization and (3) intangible assets with indefinite lives. Goodwill and intangible assets with indefinite lives are not amortized; rather, they are reviewed for impairment at least annually.

GOODWILL

Goodwill is recognized when the consideration paid for a business exceeds the fair value of the tangible and identifiable intangible assets acquired. Goodwill is allocated to reporting units for purposes of testing goodwill for impairment.

During the third quarter of 2022, we recorded an interim goodwill impairment loss of $50.9 million related to the fourth quarter sale of a reporting unit comprised of concrete operations in New Jersey, New York and Pennsylvania. There were no charges for goodwill impairment in the years ended December 31, 2023 and 2021. Accumulated goodwill impairment losses amount to $303.6 million ($252.7 million in our former Cement segment and $50.9 in our Concrete segment).

We have four reportable segments organized around our principal product lines: Aggregates, Asphalt, Concrete and Calcium. Changes in the carrying amount of goodwill by reportable segment for the three years ended December 31, 2023 are shown below:

in millions	*Aggregates*	*Asphalt*	*Concrete*	*Calcium*	*Total*
Goodwill					
Totals at December 31, 2021	$ 3,316.6	$ 91.6	$ 288.5	$ 0.0	$ 3,696.7
Goodwill of acquired businesses [1]	13.7	0.0	30.1	0.0	43.8
Goodwill impairment	0.0	0.0	(50.9)	0.0	(50.9)
Totals at December 31, 2022	$ 3,330.3	$ 91.6	$ 267.7	$ 0.0	$ 3,689.6
Goodwill of acquired businesses [1]	(0.1)	0.0	0.0	0.0	(0.1)
Goodwill of divested businesses [1]	0.0	0.0	(157.8)	0.0	(157.8)
Totals at December 31, 2023	**$ 3,330.2**	**$ 91.6**	**$ 109.9**	**$ 0.0**	**$ 3,531.7**

[1] *See Note 19 for acquisitions and divestitures.*

We test goodwill for impairment on an annual basis or more frequently if events or circumstances change in a manner that would more likely than not reduce the fair value of a reporting unit below its carrying value. A decrease in the estimated fair value of one or more of our reporting units could result in the recognition of a material, noncash write-down of goodwill.

INTANGIBLE ASSETS

Intangible assets consist of contractual rights in place (primarily permitting and zoning rights), noncompetition agreements, customer relationships and trade names and trademarks. Intangible assets acquired in business combinations are stated at their fair value determined as of the date of acquisition. Intangible assets acquired individually or otherwise obtained outside a business combination consist primarily of permitting, permitting compliance and zoning rights and are stated at their historical cost less accumulated amortization. Costs incurred to renew or extend the life of existing intangible assets are capitalized. These capitalized renewal/extension costs were immaterial for the years presented.

See Note 19 for the details of the intangible assets acquired in business acquisitions. Amortization of finite-lived intangible assets is computed based on the estimated life of the intangible assets. Contractual rights in place associated with aggregates reserves are amortized using the unit-of-sales method based on estimated recoverable units. Other intangible assets are amortized principally by the straight-line method. Intangible assets are reviewed for impairment when events or circumstances indicate that the carrying amount may not be recoverable. There were no material charges for impairment of intangible assets in 2023, 2022 and 2021.

The gross carrying amount and accumulated amortization by major intangible asset class for the years ended December 31 are summarized below:

in millions	***2023***	*2022*
Gross Carrying Amount		
Contractual rights in place	**$ 1,592.7**	$ 1,771.5
Permitting, permitting compliance and zoning rights	**206.8**	191.1
Other [1]	**90.4**	116.5
Total gross carrying amount	**$ 1,889.9**	$ 2,079.1
Accumulated Amortization		
Contractual rights in place	**$ (344.5)**	$ (302.9)
Permitting, permitting compliance and zoning rights	**(59.5)**	(49.0)
Other [1]	**(25.2)**	(25.1)
Total accumulated amortization	**$ (429.2)**	$ (377.0)
Total Intangible Assets Subject to Amortization, net	**$ 1,460.7**	$ 1,702.1
Intangible Assets with Indefinite Lives	**0.0**	0.0
Total Intangible Assets, net	**1,460.7**	1,702.1
Amortization Expense for the Year	**$ 88.1**	$ 97.6

[1] *Includes noncompetition agreements, patents, customer relationships, tradenames and trademarks.*

The decrease in total intangible assets presented above primarily relates to the 2023 sale of concrete operations in Texas (see Note 19 for additional information).

Estimated amortization expense for the five years subsequent to December 31, 2023 is as follows:

in millions	
Estimated Amortization Expense for Five Subsequent Years [1]	
2024	$ 79.7
2025	78.4
2026	73.9
2027	72.6
2028	71.0

[1] *Includes amortization of quarry development assets (including pre-production stripping costs) reported within other noncurrent assets in our accompanying Consolidated Balance Sheets.*

NOTE 19: ACQUISITIONS AND DIVESTITURES

BUSINESS ACQUISITIONS

2023 BUSINESS ACQUISITIONS — During 2023, we completed no business acquisitions.

2022 BUSINESS ACQUISITIONS — For the full year 2022, including adjustments made in 2023, we purchased the following operations for total consideration of $593.7 million ($528.3 million cash and $65.4 million noncash):

California — eight aggregates, four asphalt mix and seven ready-mixed concrete operations
Texas — five aggregates operations
Virginia — four ready-mixed concrete operations and two idle ready-mixed concrete sites
Honduras — an aggregates operation serving limited markets along the Gulf Coast

The 2022 acquisitions listed above are reported in our consolidated financial statements as of their respective acquisition dates. None of these acquisitions were material to our results of operations either individually or collectively, and acquisition related expenses were immaterial. The fair value of consideration transferred for these 2022 acquisitions and the amounts of assets acquired and liabilities assumed are summarized below:

in millions	***December 31 2023***
Fair Value of Purchase Consideration	
Cash	**$ 528.3**
Payable to seller	**65.4**
Total fair value of purchase consideration	**$ 593.7**
Identifiable Assets Acquired and Liabilities Assumed	
Accounts and notes receivable, net	**$ 30.5**
Inventories	**15.3**
Other current assets	**2.1**
Property, plant & equipment	**504.5**
Intangible assets	
Contractual rights in place	**61.4**
Deferred income taxes, net	**(12.4)**
Other liabilities assumed	**(20.1)**
Net identifiable assets acquired	**$ 581.3**
Goodwill	**$ 12.4**

As a result of the 2022 acquisitions, we recognized $61.4 million of amortizable intangible assets and $12.4 million of goodwill. The amortizable intangible assets will be amortized against earnings over a weighted-average of 15 years and will be deductible for income tax purposes over 15 years. The $12.4 million of goodwill recognized represents deferred tax liabilities generated from carrying over the seller's tax basis in the assets acquired. None of the goodwill recognized will be deductible for income tax purposes.

2021 BUSINESS ACQUISITIONS — On August 26, 2021, we purchased the following operations in connection with the acquisition of U.S. Concrete, Inc. for total consideration of $1,634.5 million, net of cash acquired:

British Columbia, Canada — aggregates and aggregates blue-water transportation operations
California — aggregates distribution terminals and concrete operations
New Jersey — aggregates and concrete operations
New York — aggregates and concrete operations
Oklahoma — aggregates operations
Pennsylvania — concrete operations
Texas — aggregates and concrete operations
U.S. Virgin Islands — aggregates and concrete operations
Washington, D.C. — concrete operations

The amounts of total revenues and net earnings attributable to Vulcan from the U.S. Concrete acquisition are included in our Consolidated Statement of Comprehensive Income for the year ended December 31, 2021 as follows:

in millions	*2021*
Actual Results	
Total revenues	$ 466.3
Net loss attributable to Vulcan	(19.7)

The unaudited pro forma financial information in the table below summarizes the results of operations for Vulcan and U.S. Concrete as if they were combined as of January 1, 2020. The pro forma financial information does not reflect any cost savings, operating efficiencies or synergies as a result of this combination. Consistent with the assumed acquisition date of January 1, 2020, the pro forma information excludes transactions between Vulcan and U.S. Concrete. The following pro forma information also includes: 1) charges directly attributable to the acquisition, 2) cost of sales related to the sale of acquired inventory marked up to fair value, 3) depreciation, depletion, amortization & accretion expense related to the mark up to fair value of acquired assets, and 4) interest expense and debt retirement costs reflecting the new debt structure:

in millions	*2021*
Supplemental Pro Forma Results	
Total revenues	$ 6,361.5
Net earnings attributable to Vulcan	688.6

The unaudited pro forma results above may not be indicative of the results that would have been obtained had this acquisition occurred at the beginning of 2020, nor does it intend to be a projection of future results.

Additionally, during 2021 we purchased concrete operations in California for total consideration of $4.9 million.

DIVESTITURES AND PENDING DIVESTITURES

In 2023, we sold:

Fourth quarter — concrete operations in Texas resulting in a third quarter impairment charge of $28.3 million and a fourth quarter loss on sale of $13.8 million (the assets were written down to fair value less cost to sell in the third quarter)
Fourth quarter — excess real estate in Virginia resulting in a pretax gain of $65.7 million
Second quarter — real estate associated with a former recycled concrete facility in Illinois resulting in a pretax gain of $15.2 million

In 2022, we sold:

Fourth quarter — concrete operations in New Jersey, New York and Pennsylvania resulting in a third quarter impairment charge of $67.8 million and a fourth quarter loss on sale of $17.4 million (the assets were written down to fair value less cost to sell in the third quarter)
Third quarter — excess real estate in Southern California resulting in a pretax gain of $23.5 million

In 2021, we sold:

First quarter — a reclaimed quarry in Southern California resulting in a pretax gain of $114.7 million (net of a $12.9 million contingency and other directly related obligations)

No material assets met the criteria for held for sale at December 31, 2023, 2022 or 2021.

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

None.

ITEM 9A
CONTROLS AND PROCEDURES

DISCLOSURE CONTROLS AND PROCEDURES

We maintain a system of controls and procedures designed to ensure that information required to be disclosed in reports we file with the SEC is recorded, processed, summarized and reported within the time periods specified by the SEC's rules and forms. These disclosure controls and procedures (as defined in the Securities Exchange Act of 1934 Rules 13a - 15(e) or 15d - 15(e)), include, without limitation, controls and procedures designed to ensure that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, to allow timely decisions regarding required disclosure. Our Chief Executive Officer and Chief Financial Officer, with the participation of other management officials, evaluated the effectiveness of the design and operation of the disclosure controls and procedures as of December 31, 2023. Based upon that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of December 31, 2023.

We completed the implementation of our quote to invoice software system for our ready-mixed concrete operations in the fourth quarter of 2023. In addition, we are in the process of replacing our quote to invoice system for our aggregates and asphalt operations and expect the full implementation of this system to be completed by the fourth quarter of 2024.

No other changes were made during the fourth quarter of 2023 to our internal controls over financial reporting, nor have there been other factors that materially affect these controls.

MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Our management is responsible for establishing and maintaining an adequate system of internal control over financial reporting as required by the Sarbanes-Oxley Act of 2002 and as defined in Securities Exchange Act Rule 13a-15(f).

Under management's supervision, an evaluation of the design and effectiveness of our internal control over financial reporting was conducted based on the framework in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this evaluation, management concluded that our internal control over financial reporting was effective as of December 31, 2023.

Deloitte & Touche LLP, an independent registered public accounting firm, as auditors of our consolidated financial statements, has issued an attestation report on the effectiveness of our internal control over financial reporting as of December 31, 2023. Deloitte & Touche LLP's report, which expresses an unqualified opinion on the effectiveness of our internal control over financial reporting, follows this report.

INHERENT LIMITATIONS ON EFFECTIVENESS OF CONTROLS

Management does not expect that our disclosure controls and procedures or our internal controls over financial reporting will prevent or detect all errors and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system’s objectives will be met. The design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Further, because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud, if any, have been detected.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM – INTERNAL CONTROL OVER FINANCIAL REPORTING

To the shareholders and the Board of Directors of Vulcan Materials Company:

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Vulcan Materials Company and subsidiaries (the "Company") as of December 31, 2023, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2023, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2023, of the Company and our report dated February 22, 2024, expressed an unqualified opinion on those financial statements.

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 the effectiveness to future periods are subject to the risk that the controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ DELOITTE & TOUCHE LLP
Birmingham, Alabama
February 22, 2024

ITEM 9B
OTHER INFORMATION

SECURITIES TRADING PLANS OF SECTION 16 OFFICERS AND DIRECTORS

During the three months ended December 31, 2023, certain of our Section 16 officers and directors listed below adopted trading arrangements for the sale of shares of our common stock as follows:

Name and Title	*Action*	*Trading Arrangement*		*Date*	*Expiration of Plan*	*Number of Shares to be Sold* [3]
		Rule 10b5-1 [1]	*Non-Rule 10b5-1* [2]			
Denson N. Franklin III, Senior Vice President, General Counsel and Secretary	Adoption	X		December 13, 2023	Earlier of when all shares under plan are sold and December 31, 2024	3,200

[1] *Intended to satisfy the affirmative defense conditions of Rule 10b5-1(c).*
[2] *Not intended to satisfy the affirmative defense conditions of Rule 10b5-1(c).*
[3] *The actual number of shares of our common stock to be sold may vary as a result of shares withheld for payment of taxes.*

ITEM 9C
DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

Not applicable.

PART III

ITEM 10
DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

On or about March 25, 2024, we expect to file a definitive proxy statement with the Securities and Exchange Commission pursuant to Regulation 14A (our “2024 Proxy Statement”). The information under the headings “Proposal 1 - Election of Directors,” “Corporate Governance – Policies,” “Corporate Governance – Director Nomination Process,” “Corporate Governance – Committees of the Board of Directors” and “Delinquent Section 16(a) Reports” (to the extent reported therein) included in our 2024 Proxy Statement is incorporated herein by reference. See also the information about our executive officers and governance policies set forth above in Part I of this report.

ITEM 11
EXECUTIVE COMPENSATION

The information under the headings “Compensation Discussion and Analysis,” “Director Compensation,” “Executive Compensation,” “Corporate Governance – Compensation Committee Interlocks and Insider Participation,” and “Compensation Committee Report” included in our 2024 Proxy Statement is incorporated herein by reference.

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

The information under the headings “Security Ownership of Certain Beneficial Owners and Management,” and “Equity Compensation Plans” included in our 2024 Proxy Statement is incorporated herein by reference.

ITEM 13
CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information under the headings “Corporate Governance – Director Independence,” and “Corporate Governance – Transactions with Related Persons” included in our 2024 Proxy Statement is incorporated herein by reference.

ITEM 14
PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information under the heading “Independent Registered Public Accounting Firm” included in our 2024 Proxy Statement is incorporated herein by reference.

ITEM 15
EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) (1) Financial statements

The following financial statements are included herein on the pages shown below:

	Page in Report
Report of Independent Registered Public Accounting Firm (PCAOB ID 34)	74 – 75
Consolidated Statements of Comprehensive Income	76
Consolidated Balance Sheets	77
Consolidated Statements of Cash Flows	78
Consolidated Statements of Equity	79
Notes to Consolidated Financial Statements	80 – 128

(a) (2) Financial statement schedules

Financial statement schedules are omitted because of the absence of conditions under which they are required or because the required information is provided in the financial statements or notes thereto.

Financial statements (and summarized financial information) of 50% or less owned entities accounted for by the equity method have been omitted because they do not, considered individually or in the aggregate, constitute a significant subsidiary.

(a) (3) Exhibits

Exhibit 3(a)	Certificate of Incorporation (Restated 2007) of the Company (formerly known as Virginia Holdco, Inc.), filed as Exhibit 3.1 to the Company's Current Report on Form 8-K on November 16, 2007 [1]
Exhibit 3(b)	Amended and Restated By-Laws of the Company (as amended through December 9, 2022) filed as Exhibit 3.1 to the Company's Current Report on Form 8-K filed on December 12, 2022 [1]
Exhibit 4(a)	Senior Debt Indenture, dated as of December 11, 2007, between the Company and Wilmington Trust Company, as Trustee, filed as Exhibit 4.1 to the Company's Current Report on Form 8-K on December 11, 2007 [1]
Exhibit 4(b)	First Supplemental Indenture, dated as of December 11, 2007, between Vulcan Materials Company and Wilmington Trust Company, as Trustee, to that certain Senior Debt Indenture, dated as of December 11, 2007, between the Company and Wilmington Trust Company, as Trustee, filed as Exhibit 4.2 to the Company's Current Report on Form 8-K on December 11, 2007 [1]
Exhibit 4(c)	Second Supplemental Indenture, dated June 20, 2008 between the Company and Wilmington Trust Company, as Trustee, to that certain Senior Debt Indenture dated as of December 11, 2007, filed as Exhibit 4.1 to the Company's Current Report on Form 8-K filed on June 20, 2008 [1]
Exhibit 4(d)	Third Supplemental Indenture, dated February 3, 2009, between the Company and Wilmington Trust Company, as Trustee, to that certain Senior Debt Indenture dated as of December 11, 2007 filed as Exhibit 10(f) to the Company's Annual Report on Form 10-K filed on March 2, 2009 [1]
Exhibit 4(e)	Fourth Supplemental Indenture, dated June 14, 2011, between the Company and Wilmington Trust Company, as Trustee, filed as Exhibit 4.1 to the Company's Current Report on Form 8-K filed on June 15, 2011 [1]

Exhibit 4(f)	Fifth Supplemental Indenture, dated March 30, 2015, between the Company and Regions Bank, as Trustee, filed as Exhibit 4.1 to the Company's Current Report on Form 8-K filed on March 30, 2015 [1]
Exhibit 4(g)	Sixth Supplemental Indenture, dated March 14, 2017, between the Company and Regions Bank, as Trustee, filed as Exhibit 4.1 to the Company's Current Report on Form 8-K filed on March 14, 2017 [1]
Exhibit 4(h)	Seventh Supplemental Indenture, dated as of June 15, 2017, between Vulcan Materials Company and Regions Bank, as Trustee, filed as Exhibit 4.1 to the Company's Current Report on Form 8-K filed on June 15, 2017 [1]
Exhibit 4(i)	Eighth Supplemental Indenture, dated as of February 23, 2018, between Vulcan Materials Company and Regions Bank, as Trustee, filed as Exhibit 4.1 to the Company's Current Report on Form 8-K filed on February 23, 2018 [1]
Exhibit 4(j)	Ninth Supplemental Indenture, dated as of May 18, 2020, between Vulcan Materials Company and Regions Bank as Trustee, filed as Exhibit 4.1 to the Company's Current Report on Form 8-K filed on May 18, 2020 [1]
Exhibit 4(k)	Tenth Supplemental Indenture, dated as of March 3, 2023, between Vulcan Materials Company and Regions Bank as Trustee, filed as Exhibit 4.1 to the Company's Current Report on Form 8-K filed on March 3, 2023 [1]
Exhibit 4(l)	Indenture, dated as of May 1, 1991, by and between Legacy Vulcan Corp. (formerly Vulcan Materials Company) and First Trust of New York (as successor trustee to Morgan Guaranty Trust Company of New York) filed as Exhibit 4 to the Form S-3 on May 2, 1991 (Registration No. 33-40284) [1]
Exhibit 4(m)	Supplemental Indenture No. 1, dated as of November 16, 2007, among the Company, Legacy Vulcan Corp. and The Bank of New York, as Trustee, filed as Exhibit 4.1 to the Company's Current Report on Form 8-K filed on November 21, 2007 [1]
Exhibit 4(n)	Supplemental Indenture No. 2, dated as of June 30, 2015, between Legacy Vulcan, LLC and The Bank of New York Mellon Trust Company, N.A., as Trustee, filed as Exhibit 4(a) to the Company's Quarterly Report on Form 10-Q filed on August 5, 2015 [1]
Exhibit 4(o)	Indenture, dated as of February 23, 2018, between Vulcan Materials Company and Regions Bank, as Trustee, filed as Exhibit 4.1 to the Company's Current Report on Form 8-K filed on February 26, 2018 [1]
Exhibit 4(p)	Description of Securities, filed as Exhibit 4(o) to the Company's Annual Report on Form 10-K filed on February 24, 2023 [1]
Exhibit 10(a)	Credit Agreement, dated as of September 10, 2020, among Vulcan Materials Company, Truist Bank, as Administrative Agent, and the Lenders and other parties named therein, filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed on September 11, 2020 [1]
Exhibit 10(b)	First Amendment to Credit Agreement, dated June 30, 2021, among Vulcan Materials Company, Truist Bank, as Administrative Agent, and the Lenders and other parties named therein, filed as Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q filed on August 5, 2021 [1]
Exhibit 10(c)	Second Amendment to Credit Agreement, dated August 16, 2021, by and between Vulcan Materials Company and Truist Bank, as Administrative Agent, filed as Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q filed on November 5, 2021 [1]
Exhibit 10(d)	Third Amendment to Credit Agreement, dated March 18, 2022, by and between Vulcan Materials Company and Truist Bank, as Administrative Agent, filed as Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q filed on May 5, 2022 [1]

Exhibit 10(e)	Fourth Amendment to Credit Agreement, dated as of August 8, 2022, among Vulcan Materials Company, Truist Bank, as Administrative Agent, and the Lenders and other parties named therein, filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed on August 9, 2022 [1]
Exhibit 10(f)	Unfunded Supplemental Benefit Plan for Salaried Employees, as amended, filed as Exhibit 10.4 to the Company's Current Report on Form 8-K filed on December 17, 2008 [1,2]
Exhibit 10(g)	Amendment No. 1 to the Unfunded Supplemental Benefit Plan for Salaried Employees filed as Exhibit 10.1 to the Company's Current Report on Form 8-K on January 7, 2014 [1,2]
Exhibit 10(h)	Deferred Compensation Plan for Directors Who Are Not Employees of the Company, as amended, filed as Exhibit 10.5 to the Company's Current Report on Form 8-K filed on December 17, 2008 [1,2]
Exhibit 10(i)	Executive Deferred Compensation Plan, as amended, filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed on December 17, 2008 [1,2]
Exhibit 10(j)	Form of Change of Control Employment Agreement dated January 1, 2016, filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed on January 7, 2016 [1,2]
Exhibit 10(k)	Vulcan Materials Company Change of Control Severance Plan for Senior Officers, effective January 1, 2016, filed as Exhibit 10(m) to the Company's Annual Report on Form 10-K filed on February 25, 2016 [1,2]
Exhibit 10(l)	Executive Incentive Plan of the Company, as amended, filed as Exhibit 10.2 to the Company's Current Report on Form 8-K filed on December 17, 2008 [1,2]
Exhibit 10(m)	Vulcan Materials Company 2016 Omnibus Long-Term Incentive Plan, filed as Exhibit 99 to the Company's Registration Statement on Form S-8 (File No. 333-211349) filed on May 13, 2016 [1,2]
Exhibit 10(n)	Form of Non-Employee Director Deferred Stock Unit Agreement under the Vulcan Materials Company 2016 Omnibus Long-Term Incentive Plan, filed as Exhibit 10(y) to the Company's Quarterly Report on Form 10-Q filed on August 3, 2016 [1,2]
Exhibit 10(o)	Form of Stock-Only Stock Appreciation Rights Award Agreement under the Vulcan Materials Company 2016 Omnibus Long-Term Incentive Plan, filed as Exhibit 10(z) to the Company's Quarterly Report on Form 10-Q filed on August 3, 2016 [1,2]
Exhibit 10(p)	Form of Restricted Stock Unit Award Agreement under the Vulcan Materials Company 2016 Omnibus Long-Term Incentive Plan, filed as Exhibit 10(aa) to the Company's Quarterly Report on Form 10-Q filed on August 3, 2016 [1,2]
Exhibit 10(q)	Form of Performance Share Unit Award Agreement under the Vulcan Materials Company 2016 Omnibus Long-Term Incentive Plan, filed as Exhibit 10(bb) to the Company's Quarterly Report on Form 10-Q filed on August 3, 2016 [1,2]
Exhibit 10(r)	Form of Performance Share Unit Award Agreement (2019) under the Vulcan Materials Company 2016 Omnibus Long-Term Incentive Plan, filed as Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q filed on May 3, 2019 [1,2]
Exhibit 10(s)	Form of Performance Share Unit Award Agreement (2020) under the Vulcan Materials Company 2016 Omnibus Long-Term Incentive Plan, filed as Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q filed on May 6, 2020 [1,2]
Exhibit 10(t)	Form of Stock-Only Appreciation Rights Award Agreement (2020) under the Vulcan Materials Company 2016 Omnibus Long-Term Incentive Plan, filed as Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q filed on May 6, 2020 [1,2]
Exhibit 10(u)	Form of Restricted Stock Unit Award Agreement (2020) under the Vulcan Materials Company 2016 Omnibus Long-Term Incentive Plan, filed as Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q filed on May 6, 2020 [1,2]

Exhibit 10(v)	Form of Non-Employee Director Restricted Stock Unit Award Agreement under the Vulcan Materials Company 2016 Omnibus Long-Term Incentive Plan filed as Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q filed on August 5, 2020 [1,2]
Exhibit 21	List of the Company's material subsidiaries as of December 31, 2023
Exhibit 23	Consent of Deloitte & Touche LLP, Independent Registered Public Accounting Firm
Exhibit 24	Powers of Attorney
Exhibit 31(a)	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
Exhibit 31(b)	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
Exhibit 32(a)	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
Exhibit 32(b)	Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
Exhibit 95	MSHA Citations and Litigation
Exhibit 97	Clawback Policy
Exhibit 101	The following financial information from this Annual Report on Form 10-K for the year ended December 31, 2023 are formatted in iXBRL (Inline eXtensible Business Reporting Language): (i) the Consolidated Statements of Comprehensive Income, (ii) the Consolidated Balance Sheets, (iii) the Consolidated Statements of Cash Flows, (iv) the Consolidated Statements of Equity and (v) the Notes to Consolidated Financial Statements.
Exhibit 104	Cover Page Interactive Data File – the cover page from this Annual Report on Form 10-K for the year ended December 31, 2023 is formatted in iXBRL (contained in Exhibit 101).

[1] *Incorporated by reference.*

[2] *Management contract or compensatory plan.*

Our SEC file number for documents filed with the SEC pursuant to the Securities Exchange Act of 1934, as amended, is 001-33841.

ITEM 16
FORM 10-K SUMMARY

We have chosen not to include an optional summary of the information required by this Form 10-K.

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 on February 22, 2024.

VULCAN MATERIALS COMPANY

J. Thomas Hill
Chairman 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 and on the dates indicated.

Signature	Title	Date
J. Thomas Hill	Chairman and Chief Executive Officer (Principal Executive Officer)	February 22, 2024
Mary Andrews Carlisle	Senior Vice President and Chief Financial Officer (Principal Financial Officer)	February 22, 2024
Randy L. Pigg	Vice President, Controller (Principal Accounting Officer)	February 22, 2024

The following directors:

Melissa H. Anderson	Director
Thomas A. Fanning	Director
O. B. Grayson Hall, Jr.	Director
Cynthia L. Hostetler	Director
Lydia H. Kennard	Director
Richard T. O'Brien	Director
James T. Prokopanko	Director
Kathleen L. Quirk	Director
David P. Steiner	Director
Lee J. Styslinger, III	Director
George Willis	Director

February 22, 2024

Denson N. Franklin III
Attorney-in-Fact