

Joint Annual General Meetings of Granite Real Estate Investment Trust and Granite REIT Inc. June 8, 2023

PRESENTATION OF CERTAIN INFORMATION

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- Unless otherwise indicated in this presentation, all information is presented as of December 31, 2022 and all financial information that is identified as current refers to the period ending December 31, 2022. For definitions of certain non-IFRS performance measures and non-IFRS ratios used in this presentation including funds from operations ("FFO"), adjusted funds from operations ("AFFO"), FFO payout ratio, AFFO payout ratio, net operating income calculated on a cash basis ("NOI-cash basis"), constant currency same property NOI, net leverage ratio, earnings before interest, income taxes, depreciation and amortization ("EBITDA"), available liquidity, total debt and net debt, unencumbered asset coverage ratio, indebtedness ratio, and interest coverage ratio, please refer to Appendix A and Appendix B on pages 16 and 17. For reconciliation of these non-IFRS performance measures and non-IFRS ratios, please refer to Granite's website https://granitereit.com/investors/financial-reports-and-filings/).
- This presentation may contain statements that, to the extent they are not recitations of historical fact, constitute "forward-looking statements" or "forward-looking information" within the meaning of applicable securities legislation, including the United States Securities Act of 1933, as amended, the United States Securities Exchange Act of 1934, as amended, and applicable Canadian securities legislation. Forward-looking statements and forward-looking information may include, among others, statements regarding Granite's future plans, goals, strategies, intentions, beliefs, estimates, costs, objectives, capital structure, cost of capital, tenant base, tax consequences, economic performance or expectations, or the assumptions underlying any of the foregoing. Words such as "outlook", "may", "would", "could", "will", "likely", "expect", "anticipate", "believe", "intend", "plan", "forecast", "project", "estimate", "seek" and similar expressions are used to identify forward-looking statements and forward-looking information.
- Forward-looking statements and forward-looking information should not be read as guarantees of future events, performance or results and will not necessarily be accurate indications of whether or the times at or by which such future performance will be achieved. Undue reliance should not be placed on such statements. There can also be no assurance that Granite's expectations regarding various matters, including the following, will be realized in a timely manner, with the expected impact or at all: the effectiveness of measures intended to mitigate such impact, and Granite's exposure to Algona International Inc. or its operating subsidiaries (collectively, "Magna"), and the special purpose properties; Granite's ability to accelerate growth and to grow its net asset value and FFO and AFFO per unit; Granite's ability to find and integrate satisfactory acquisition, joint venture and development opportunities and to strategically redeploy the proceeds from recently sold properties and financing initiatives; Granite's ability to optimize its balance sheet; Granite's ability to accelerate growth and execute its short and long-term business strategies; Granite's ability to renew land leases upon their expiration; Granite's ability to optimize its balance sheet; Granite's ability to accelerate growth and rental growth; the evolopment of three modern distribution facilities in Lebanon, Tennessee, and the yield from the development; the development of a 0.4 million square foot multi-phased business park on the remaining 101.0 acres of land in Houston, Texas and the potential yield from the project; the development of a 0.2 million square foot multi-phased business park on the remaining 70.0 acre parcel of land in Brantford, Ontario and the potential yield from the project; the development of a 1.3 million square foot multi-phased business park on the remaining 70.0 acre parcel of land in Brantford, Ontario and the potential yield from the project; the development of a 0.2 million square foot modern distribution/logistics
- Forward-looking statements and forward-looking information are based on information available at the time and/or management's good faith assumptions and analyses made in light of Granite's perception of historical trends, current conditions and expected future developments, as well as other factors Granite believes are appropriate in the circumstances. Forward-looking statements and forward-looking information are subject to known and unknown risks, uncertainties and other unpredictable factors, many of which are beyond Granite's control, that could cause actual events or results to differ materially from such forward-looking statements and forward-looking information.
- Important factors that could cause such differences include, but are not limited to, the risk of changes to tax or other laws and treaties that may adversely affect Granite REIT's mutual fund trust status under the Income Tax Act (Canada) or the effective tax rate in other jurisdictions in which Granite operates; the risks related to Russia's 2022 invasion of Ukraine that may adversely impact Granite's operations and financial performance; economic, market and competitive conditions and other risks that may adversely affect Granite's ability to expand and diversify its real estate portfolio and dispose of any non-core assets on satisfactory terms; and the risks set forth in the "Risk Factors" section in Granite's AIF for 2022 dated March 8, 2023, filed on SEDAR at www.sedar.com and attached as Exhibit 1 to the Trust's Annual Report on Form 40-F for the year ended December 31, 2022 filed with the SEC and available online on EDGAR at www.sec.gov, all of which investors are strongly advised to review. The "Risk Factors" section also contains information about the material factors or assumptions underlying such forward-looking statements and forward-looking information.
- Forward-looking statements and forward-looking information speak only as of the date the statements and information were made and unless otherwise required by applicable securities laws, Granite expressly disclaims any intention and undertakes no obligation to update or revise any forward-looking statements or forward-looking information contained in this presentation to reflect subsequent information, events or circumstances or otherwise.

GRANITE HIGHLIGHTS (as at December 31, 2022)²

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ORGANIZATIONAL PRINCIPLES

- Long-term total return
 focused
- Conservative and flexible capital structure
- Platform strength & active asset management
- Institutional quality real estate portfolio
- Alignment with unitholders

PORTFOLIO OVERVIEW

- 128 income-producing properties + 12 development properties/land
- 59.4MSF with 99.6% occupancy
- \$8.8B in property value
- High quality & creditworthy tenant base
- 6.7 years of weighted average lease term

FINANCIAL PERFORMANCE

- 77% LTM AFFO POR³
- 32% net leverage ratio³
- GRT.UN on TSX and GRP.U on NYSE
- Market Cap. of \sim \$5.2B & EV of \sim \$8.1B¹
- Investment grade ratings with stable outlook (BBB (high) / Baa2)⁴
- 12 consecutive annual distribution increases

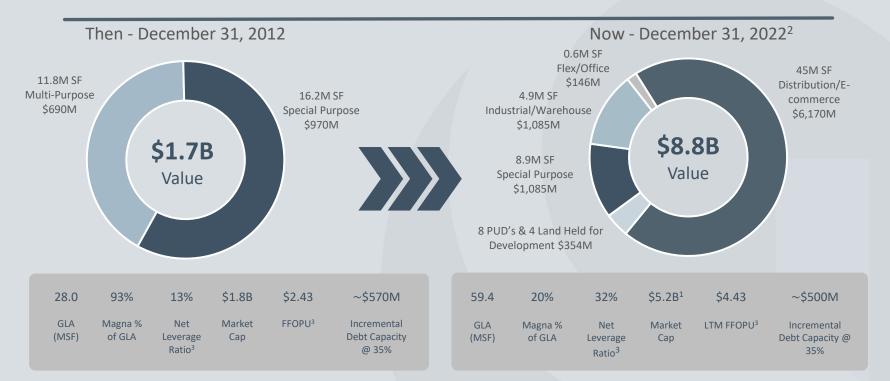
Global Industrial Real Estate Platform

³ For definitions of Granite's non-IFRS performance measures and non-IFRS ratios, refer to Appendix A and B on pages 16 and 17.

¹ Market capitalization and enterprise value are as of March 3, 2023.

² Excludes assets held for sale and reflects adjustments for subsequent events. Refer to the "Subsequent Events" section in Appendix C on page 18.

GRANITE'S EVOLUTION



Transforming the portfolio while creating value + cash flow growth & maintaining financial flexibility

¹ Market capitalization is as at March 3, 2023.

² Excludes assets held for sale and reflects adjustments for subsequent events. Refer to the "Subsequent Events" section in Appendix C on page 18.

³ For definitions of Granite's non-IFRS performance measures and non-IFRS ratios, refer to Appendix A and B on page 16 and 17.

Strategic Allocation of Capital



\$460M invested in modern assets in key e-commerce and distribution markets in the GTA, the U.S., Germany and Netherlands at average stabilized yield of 3.9%



US\$400M of new unsecured term debt, issued for a 3-year term bearing a fixed interest rate of 5.016%



\$13.4M in gross proceeds from ATM equity program issuances, representing 136,100 stapled units issued at an average price of \$98.77



\$155.5M of equity repurchased under Granite's NCIB representing 2,165,600 stapled units at an average stapled unit cost of \$71.81



\$1B of availability on the credit facility, which was amended to extend maturity by two years to March 31, 2028



Net leverage ratio¹ of 32%, providing approximately 0.5B in debt capacity and 1.1B in available liquidity¹ at the end of the year



Korbach, Germany



Etobicoke, ON, Canada



Clayton, IN, USA



Tilburg, Netherlands

Portfolio Enhancement and Tenant Diversification



8 IPP totaling 2.8MSF acquired with an average age of 5.1 years and WALT of 9.3 years in key distribution markets in the GTA, the U.S., Germany and the Netherlands

4 completed development & expansion projects (1.8MSF of GLA) which are fully leased as of December 31, 2022, generating \$14.1M in expected NOI¹ annually at a yield on cost of 6.8%

3

10 on-going active development and expansion projects and 2 forward property commitments having total projected costs of \$489M and remaining commitments of \$158M (3.9MSF of GLA & stabilized yield of 6.0%)



2 non-core properties disposed for gross proceeds of \$66M

Magna concentration reduced from 22% to 20% as a percentage of GLA and from 29% to 26% as a percentage of annualized revenue



Lebanon, TN, USA

Murfreesboro, TN, USA



Whitestown, IN, USA



Houston, TX, USA

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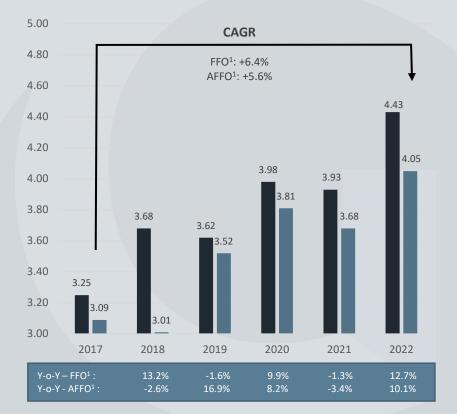
Financial and Operational Performance

FFO¹ and AFFO¹ per unit of \$4.43 and \$4.05, respectively representing a year over year increase of 11% and 8%, respectively

SPNOI - cash basis average year-over-year growth - constant currency basis¹ - of 4.3%

\$220M in net fair value losses taken due to expansion of discount and terminal cap rates across all of Granite's markets, partially offset by fair market rent increases across the portfolio. Negative impact on NAV as a result of the fair value losses was offset by contributions from development stabilization and unrealized foreign currency translation gains of \$338M as a result of the relative weakening of the Canadian dollar against the Euro and U.S. dollar in 2022.

12.7MSF of space renewed or re-leased at an average increase in base rent of 26%



ESG + R Performance

Ranked 3rd out of 10 in the United States of America | Industrial GRESB peer group. Granite's score increased by 12% compared to 2021 improving Granite's overall position from $3rd \rightarrow 2nd$ place out of 9 in the North American Industrial | Listed | Tenant Controlled peer group in 2022. Granite also achieved a score of A in the 2022 GRESB Public Disclosure Report, an increase from 2021's score of B.

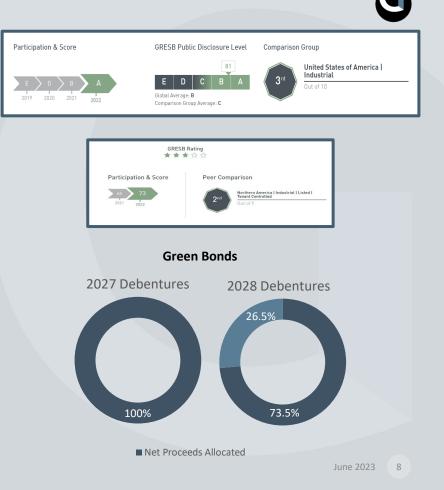
Top-ranked CAD REIT & 4th overall in the 2022 Globe & Mail Board Games

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\$862.3M of green bond net proceeds allocated to date towards Eligible Green Projects, as defined by Granite's Green Bond Framework, representing 100% and 73% of the net proceeds of the 2027 & 2028 Green Bond, respectively

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Reinstated in-person connections with Granite's stakeholders including an establishment of hybrid working model for our staff, property tours, tenant site visits, resumption of an inperson annual general meeting and a company-wide conference in Dallas, Texas



COMMITMENT TO GREEN INVESTMENTS



Development in progress of a Green Building in Brantford, ON, Canada



Completed development of a Green Building in Altbach, Germany



Completed development of two Green Buildings in Houston, TX, USA



Completed Green Building expansion of a property in Mississauga, ON, Canada



Completed development of a Green Building in Murfreesboro, TN, USA

CASE STUDY: TILBURG, NETHERLANDS

- Tilburg is located in the south of the Netherlands, near the Belgium border, with close proximity to major distribution nodes
- The property was acquired as a build-to-suit distribution center for the world's largest sporting goods retailer Decathlon Netherlands B.V.
- Phase 1 and Phase 2 constructed buildings total 494,780 SF on 15.4 acres of land
- The building has 14 m clear heights with front and rear loading docks
- The building is equipped with solar panels which are also under lease to Decathlon
- Other sustainability features include: 10 EV charging stations - LED lighting with motion sensors - airsource heat pump for office areas - building-related energy consumption is 100% CO²-neutral
- The building has achieved BREEAM Excellent certification and was funded with net proceeds from Granite's 2027 Green Bond

¹Based on combined data for Phase 1 and Phase 2 of constructed building ²In comparison with local baseline

³Proportion of energy usage that is generated through rooftop solar PV array

⁴Based on total amount of construction waste generated that was minimized, reused, or recycled



SUSTAINABILITY INDICATORS

Annual energy intensity ¹	34.0 kWh/m ²	Proportion of on-site renewable energy ^{1,3}	73.8%
Annual energy use reduction ^{1,2}	100%	Annual water use reduction ^{1,2}	39.9%
Annual greenhouse gas emission intensity ¹	-0.95 kg CO ₂ eq/m ²	Proportion of construction waste diverted from landfill ^{1,2}	89%
Annual greenhouse gas emissions avoided ^{1,2}	100%	Building area certified as BREEAM Excellent ¹	45,242 m ²

CASE STUDY: FORT WORTH, TEXAS

- Fort Worth is located just outside of Dallas to the West with close proximity to major distribution nodes
- The property was developed on a speculative basis and prior to completion leasing was secured with a leading North American glassware provider as a distribution center
- The building totals 605,489 SF on 35.1 acres of land
- The building has 36' clear heights with 117 docks and 4 drive-in doors
- Other sustainability features include: High Solar Reflectance Index (SRI) roof and walls - LED lighting -EV charging stations - drought-resistant landscaping enhanced insulation - clerestory windows for natural lighting
- The building has achieved Two Green Globes certification and was funded with net proceeds from Granite's 2027 Green Bond



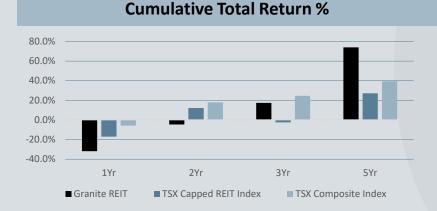
Annual energy intensity	50.07 kWh/m ²	Proportion of on-site renewable energy	n/a
Annual energy use reduction ¹	38%	Annual water use reduction	n/a
Annual greenhouse gas emission intensity	11.69kg CO ₂ eq/m ²	Proportion of construction waste diverted from landfill	n/a
Annual greenhouse gas emissions avoided ²	24% or 209.4 tonnes CO_2 eq	Building area certified as Two Green Globes	56,247m ²

Unitholder Return and Increased Distribution

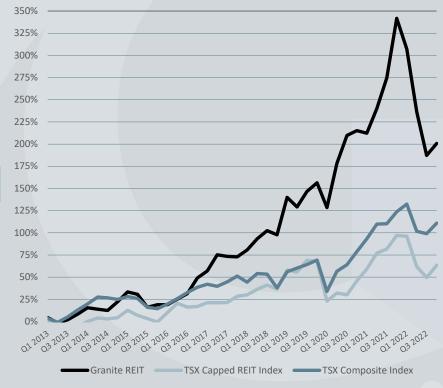
- -31.9% total return for 2022 vs -17.0% for the S&P TSX Capped REIT Index and -5.8% for the S&P/TSX Composite Index
- 2

3.2% year-over-year increase in the annual amount distributed to unitholders to \$3.20 per unit for 2023, marking our eleventh consecutive annual distribution increase

3 Granite's AFFO payout ratio¹ remained conservative at 76.5% for 2022



Cumulative Total Return %



2023 PRIORITIES

PRIORITY

Driving NAV, FFO¹ and AFFO¹ per unit growth while maintaining conservative capital ratios

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Executing on development, redevelopment and expansion projects in the U.S., Europe and the GTA

3 Selectively pursuing strategic land and income-producing property acquisition opportunities in our target markets

Advancing our ESG program and delivering towards our detailed targets for 2023 and beyond

Disposing of select non-core assets

PROGRESS TO DATE

- Q1 2023 FFOPU¹ \$1.25 (+17% YOY and +4% QOQ);
 AFFOPU¹ \$1.18 (+18% YOY and +12% QOQ)
- Q1 2023 Net Debt¹-to-EBITDA 7.8x and Net Leverage¹ 32%
- SPNOI cash basis constant currency¹ expected in 6.5 7.5% range in 2023
- Renewals of 80% of 9.7MSF of 2023 maturities at weighted average increase in rental rate of 20%
- Renewals of 55% of 2024 maturities (primarily due to 10year lease extension at Graz, Austria)
- Forward purchase acquisition completed adding 1.0MSF of GLA in Avon, Indiana (vacant on acquisition)
- 10 of the 12 active development and expansion projects from year end have reached substantial completion, adding 3.4 MSF and with pre-leasing at 57%
- Disposal of one non-core asset in Muncie, USA that was leased to a subsidiary of Magna International, for net proceeds of \$24.7 million

LEADERSHIP TEAM



Kevan Gorrie President and Chief Executive Officer



Teresa Neto Chief Financial Officer



Lorne Kumer Executive Vice President, Head of Global Real Estate



Michael A. Ramparas Executive Vice President, Global Real Estate & Head of Investments



Witsard Schaper Senior Vice President, Head of Europe based in Amsterdam



Lawrence Clarfield

Executive Vice President,

General Counsel and Corporate Secretary



Jon Sorg Senior Vice President, Head of U.S. based in Dallas June 2023 14

THANK YOU

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SY-GRT UN





June 2023

APPENDIX

The following non-IFRS performance measures and non-IFRS ratios are important measures used by management in evaluating the Trust's underlying operating performance and debt management. These non-IFRS performance measures and non-IFRS ratios are not defined by IFRS and do not have standard meanings. The Trust's method of calculating non-IFRS performance measures may differ from other issuers' methods and, accordingly, may not be comparable with similar measures presented by other issuers. All non-IFRS performance measures as well as non-IFRS ratios shown within this presentation have been adjusted for subsequent events. Please refer to section C of this Appendix for details on the Trust's subsequent events.

A) NON-IFRS PERFORMANCE MEASURES AND RATIOS

Funds from operations

FFO is a non-IFRS performance measure that is widely used by the real estate industry in evaluating the operating performance of real estate entities. Granite calculates FFO as net income attributable to stapled unitholders excluding fair value gains (losses) on investment properties and financial instruments, gains (losses) on sale of investment properties including the associated current income tax, deferred income taxes and certain other items, net of non-controlling interests in such items. The Trust's determination of FFO follows the definition prescribed by the Real Estate Property Association of Canada ("REALPAC") guidelines on Funds From Operations & Adjusted Funds From Operations for IFRS dated January 2022 ("REALPAC Guidelines"). Granite considers FFO to be a meaningful supplemental measure that can be used to determine the Trust's ability to service debt, fund capital expenditures and provide distributions to stapled unitholders. FFO is reconciled to net income, which is the most directly comparable IFRS measure. FFO should not be construed as an alternative to net income or cash flow generated from operating activities determined in accordance with IFRS.

Adjusted funds from operations

AFFO is a non-IFRS performance measure that is widely used by the real estate industry in evaluating the recurring economic earnings performance of real estate entities after considering certain costs associated with sustaining such earnings. Granite calculates AFFO as net income attributable to stapled unitholders including all adjustments used to calculate FFO and further adjusts for actual maintenance capital expenditures that are required to sustain Granite's productive capacity, leasing costs such as leasing commissions and tenant allowances incurred and non-cash straight-line rent and tenant incentive amortization, net of non-controlling interests in such items. The Trust's determination of AFFO follows the definition prescribed by REALPAC's Guidelines. Granite considers AFFO to be a meaningful supplemental measure that can be used to determine the Trust's ability to service debt, fund expansion capital expenditures, fund property development and provide distributions to stapled unitholders after considering costs associated with sustaining operating earnings. AFFO is also reconciled to net income, which is the most directly comparable IFRS measure. AFFO should not be construed as an alternative to net income or cash flow generated from operating activities determined in accordance with IFRS.

Net operating income - cash basis

Granite uses NOI on a cash basis, which adjusts NOI to exclude lease termination and close-out fees, and the non-cash impact from straight-line rent and tenant incentive amortization recognized during the period. NOI - cash basis is a commonly used measure by the real estate industry and Granite believes it is a useful supplementary measure of the income generated by and operating performance of income-producing properties in addition to the most comparable IFRS measure, which Granite believes is NOI. NOI - cash basis is also a key input in Granite's determination of the fair value of its investment property portfolio.

Same property net operating income - cash basis

Same property NOI - cash basis refers to the NOI - cash basis for those properties owned by Granite throughout the entire current and prior year periods under comparison. Same property NOI - cash basis excludes properties that were acquired, disposed of, classified as properties under or held for development or assets held for sale during the periods under comparison. Granite believes that same property NOI - cash basis is a useful supplementary measure in understanding period-over-period organic changes in NOI - cash basis from the same stock of properties owned.

Constant currency same property NOI

Constant currency same property NOI is a non-GAAP measure used by management in evaluating the performance of properties owned by Granite throughout the entire current and prior year periods on a constant currency basis. It is calculated by taking same property NOI as defined above and excluding the impact of foreign currency translation by converting the same property NOI denominated in foreign currency in the respective periods at the current period average exchange rates.

Adjusted earnings before interest, income taxes, depreciation and amortization ("Adjusted EBITDA")

Adjusted EBITDA is calculated as net income before lease termination and close-out fees, interest expense, interest income, income tax expense, depreciation and amortization expense, fair value gains (losses) on investment properties and financial instruments, other expense relating to real estate transfer tax and loss on the sale of investment properties. Adjusted EBITDA, calculated on a 12-month trailing basis ("trailing 12-month adjusted EBITDA"), represents an operating cash flow measure that Granite uses in calculating the interest coverage ratio and indebtedness ratio noted below. Adjusted EBITDA is also defined in Granite's debt agreements and used in calculating the Trust's debt covenants.

Available Liquidity

Available liquidity is a non-IFRS performance measure defined as the sum of cash and cash equivalents and the unused portion of the Credit Facility. Granite believes that available liquidity is a useful measure to investors in determining the Trust's resources available as at period-end to meet its ongoing obligations and future commitments.

Total Debt and Net Debt

Total debt is a non-IFRS performance measure calculated as the sum of all current and non-current debt, the net mark to market fair value of derivatives and lease obligations as per the consolidated financial statements. Net debt subtracts cash and cash equivalents from total debt. Granite believes that it is useful to include the derivatives and lease obligations for the purposes of monitoring the Trust's debt levels.

B) NON-IFRS RATIOS

FFO and AFFO payout ratios

The FFO and AFFO payout ratios are calculated as monthly distributions, which exclude special distributions, declared to unitholders divided by FFO and AFFO (non-IFRS performance measures), respectively, in a period. FFO payout ratio and AFFO payout ratio may exclude revenue or expenses incurred during a period that can be a source of variance between periods. The FFO payout ratio and AFFO payout ratio are supplemental measures widely used by analysts and investors in evaluating the sustainability of the Trust's monthly distributions to stapled unitholders. June 2023

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Interest coverage ratio

The interest coverage ratio is calculated on a 12-month trailing basis using Adjusted EBITDA (a non-IFRS performance measure) divided by net interest expense. Granite believes the interest coverage ratio is useful in evaluating the Trust's ability to meet its interest expense.

Indebtedness ratio

The indebtedness ratio is calculated as total debt (a non-IFRS performance measure) divided by Adjusted EBITDA (a non-IFRS performance measure) and Granite believes it is useful in evaluating the Trust's ability to repay outstanding debt using its operating cash flows.

Leverage and net leverage ratios

The leverage ratio is calculated as the carrying value of total debt (a non-IFRS performance measure) divided by the fair value of investment properties (excluding assets held for sale) while the net leverage ratio subtracts cash and cash equivalents from total debt. The leverage ratio and net leverage ratio are supplemental measures that Granite believes are useful in evaluating the Trust's degree of financial leverage, borrowing capacity and the relative strength of its balance sheet.

Unencumbered asset coverage ratio

The unencumbered asset coverage ratio is calculated as the carrying value of investment properties (excluding assets held for sale) that are not encumbered by secured debt divided by the carrying value of total unsecured debt and is a supplemental measure that Granite believes is useful in evaluating the Trust's degree of asset coverage provided by its unencumbered investment properties to total unsecured debt.

C) SUBSEQUENT EVENTS APPLICABLE TO DEC 31, 2022

- On February 1, 2023, the leases at Granite's properties in Graz, Austria (the "Graz Facilities"), comprising approximately 5.0 million square feet, were contractually extended for ten years to January 31, 2034. On February 1, 2024 the annual rent for the Graz Facilities for the initial five years of the extension will escalate by the increase in the consumer price index for the 60 month period preceding that date, to a maximum of ten percent.
- On March 3, 2023, Granite amended its existing unsecured revolving credit facility (the "Credit Facility") agreement to extend the maturity date for a new five-year term to March 31, 2028.

D) SUBSEQUENT EVENTS APPLICABLE TO MARCH 31, 2023

- On April 6, 2023, Granite reached substantial completion of three properties totaling 509,250 square feet in Lebanon Tennessee. These state-of-the-art facilities have modern features including 32' clear height, LED lighting and other sustainable design features. The properties have direct access to Highway 109 and are located 19 miles from Nashville International Airport and 24 miles from downtown Nashville. The properties are currently vacant and leasing activity is underway.
- On April 12, 2023, Granite reached substantial completion of its 220,620 square foot development in Bolingbrook, Illinois. The building is 100% leased to La-Z-Boy Manufacturing June 2023 18 for an initial term of 12.4 years.