



VORNADO REALTY TRUST

Supplemental Fixed Income Data

For the Quarter Ended June 30, 2023











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Certain statements contained herein constitute forward-looking statements as such term is defined in Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Forward-looking statements are not guarantees of performance. They represent our intentions, plans, expectations and beliefs and are subject to numerous assumptions, risks and uncertainties. Our future results, financial condition and business may differ materially from those expressed in these forward-looking statements. You can find many of these statements by looking for words such as "approximates," "believes," "expects," "anticipates," "estimates," "believes," "expects," "anticipates," "estimates," "believes," "anticipates," "estimates," "or other similar expressions in this supplemental package. We also note the following forward-looking statements: in the case of our development and redevelopment projects, the estimated completion date, estimated project cost, projected incremental cash yield. stabilization date and cost to complete; estimates of future capital expenditures, dividends to common and preferred shareholders and operating partnership distributions, including the form of any 2023 dividend payments, and the amount and form of potential share repurchases and/or asset sales. Many of the factors that will determine the outcome of these and our other forward-looking statements are beyond our ability to control or predict. Currently, some of the factors are the impacts of the increase in interest rates and inflation on our business, financial condition, results of operations, cash flows, operating performance and the effect that these factors have had and may continue to have on our tenants, the global, national, regional and local economies and financial markets and the real estate market in general. For further discussion of factors that could materially affect the outcome of our forward-looking statements, see "Item 1A. Risk Factors" in Part I of our Annual Report on Form 10-K for the year ended December 31, 2022. For these statements, we claim the protection of the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995. You are cautioned not to place undue reliance on our forward-looking statements, which speak only as of the date of this supplemental package. All subsequent written and oral forward-looking statements attributable to us or any person acting on our behalf are expressly qualified in their entirety by the cautionary statements contained or referred to in this section. We do not undertake any obligation to release publicly any revisions to our forward-looking statements to reflect events or circumstances occurring after the date of this supplemental package. This supplemental package includes certain non-GAAP financial measures, which are accompanied by what Vornado Realty Trust and subsidiaries (the "Company") considers the most directly comparable financial measures calculated and presented in accordance with accounting principles generally accepted in the United States of America ("GAAP"). These include Funds From Operations ("FFO"), Funds Available for Distribution ("FAD"), Net Operating Income ("NOI") and Earnings Before Interest, Taxes, Depreciation and Amortization for Real Estate ("EBITDAre"). Quantitative reconciliations of the differences between the most directly comparable GAAP financial measures and the non-GAAP financial measures presented are provided within this supplemental package. Definitions of these non-GAAP financial measures and statements of the reasons why management believes the non-GAAP measures provide useful information to investors about the Company's financial condition and results of operations, and, if applicable, the purposes for which management uses the measures, can be found in the Definitions section of this supplemental package on page i in the Appendix,

This supplemental package should be read in conjunction with the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2023 and the Company's Supplemental Operating and Financial Data package for the quarter ended June 30, 2023, both of which can be accessed at the Company's website www.vno.com.



Second Quarter 2023 Financial Highlights

Net income attributable to common shareholders for the quarter ended June 30, 2023 was \$46,377,000, or \$0.24 per diluted share, compared to \$50,418,000, or \$0.26 per diluted share, for the prior year's quarter. Adjusting for the items that impact period-to-period comparability, net income attributable to common shareholders, as adjusted (non-GAAP) for the quarter ended June 30, 2023 was \$27,454,000, or \$0.14 per diluted share, and \$37,403,000, or \$0.19 per diluted share for the prior year's quarter.

EBITDAre, as adjusted (non-GAAP) for the quarter ended June 30, 2023 was \$288,113,000, compared to \$270,416,000 for the prior year's quarter.

Liquidity

As of June 30, 2023, we have \$3.2 billion of liquidity comprised of \$1.3 billion of cash and cash equivalents and restricted cash and \$1.9 billion available on our \$2.5 billion revolving credit facilities.

PENN District Development

As of June 30, 2023, we have expended \$960 million of cash with an estimated \$340 million remaining to be spent across PENN 1, PENN 2, and PENN districtwide improvements. There can be no assurance that these projects will be completed, completed on schedule or within budget.

2023 Business Developments

Dividends/Share Repurchase Program

On April 26, 2023, Vornado announced the postponement of dividends on its common shares until the end of 2023, at which time, upon finalization of its 2023 taxable income, including the impact of asset sales, it will pay the 2023 dividend in either (i) cash, or (ii) a combination of cash and securities, as determined by its Board of Trustees. Cash retained from dividends or from asset sales will be used to reduce debt and/or to fund the share repurchase program discussed below.

Vornado also announced that its Board of Trustees has authorized the repurchase of up to \$200,000,000 of its outstanding common shares under a newly established share repurchase program.

During the three and six months ended June 30, 2023, we repurchased 1,722,295 common shares for \$23,216,000 at an average price per share of \$13.48.



2023 Business Developments - continued

350 Park Avenue

On January 24, 2023, we and the Rudin family ("Rudin") completed agreements with Citadel Enterprise Americas LLC ("Citadel") and with an affiliate of Kenneth C. Griffin, Citadel's Founder and CEO ("KG"), for a series of transactions relating to 350 Park Avenue and 40 East 52nd Street.

Pursuant to the agreements, Citadel master leases 350 Park Avenue, a 585,000 square foot Manhattan office building, on an "as is" basis for ten years, with an initial annual net rent of \$36,000,000. Per the terms of the lease, no tenant allowance or free rent was provided. Citadel has also master leased Rudin's adjacent property at 40 East 52nd Street (390,000 square feet).

In addition, we entered into a joint venture with Rudin (the "Vornado/Rudin JV") which was formed to purchase 39 East 51st Street. Upon formation of the KG joint venture described below, 39 East 51st Street will be combined with 350 Park Avenue and 40 East 52nd Street to create a premier development site (collectively, the "Site"). On June 20, 2023, the Vornado/Rudin JV completed the purchase of 39 East 51st Street for \$40,000,000, which was funded on a 50/50 basis by Vornado and Rudin.

From October 2024 to June 2030, KG will have the option to either:

- acquire a 60% interest in a joint venture with the Vornado/Rudin JV that would value the Site at \$1.2 billion (\$900,000,000 to Vornado and \$300,000,000 to Rudin) and build a new 1,700,000 square foot office tower (the "Project") pursuant to East Midtown Subdistrict zoning with the Vornado/Rudin JV as developer. KG would own 60% of the joint venture and the Vornado/Rudin JV would own 40% (with Vornado owning 36% and Rudin owning 4% of the joint venture along with a \$250,000,000 preferred equity interest in the Vornado/Rudin JV).
 - at the joint venture formation, Citadel or its affiliates will execute a pre-negotiated 15-year anchor lease with renewal options for approximately 850,000 square feet (with expansion and contraction rights) at the Project for its primary office in New York City;
 - the rent for Citadel's space will be determined by a formula based on a percentage return (that adjusts based on the actual cost of capital) on the total Project cost;
 - the master leases will terminate at the scheduled commencement of demolition;
- or, exercise an option to purchase the Site for \$1.4 billion (\$1.085 billion to Vornado and \$315,000,000 to Rudin), in which case the Vornado/Rudin JV would not participate in the new development.

Further, the Vornado/Rudin JV will have the option from October 2024 to September 2030 to put the Site to KG for \$1.2 billion (\$900,000,000 to Vornado and \$300,000,000 to Rudin). For ten years following any put option closing, unless the put option is exercised in response to KG's request to form the joint venture or KG makes a \$200,000,000 termination payment, the Vornado/Rudin JV will have the right to invest in a joint venture with KG on the terms described above if KG proceeds with development of the Site.

Dispositions

Alexander's, Inc. ("Alexanders")

On May 19, 2023, Alexander's completed the sale of the Rego Park III land parcel, located in Queens, New York, for \$71,060,000, inclusive of consideration for Brownfield tax benefits and reimbursement of costs for plans, specifications and improvements to date. As a result of the sale, we recognized our \$16,396,000 share of the net gain and received a \$711,000 sales commission from Alexander's, of which \$250,000 was paid to a third-party broker.

The Armory Show

On July 3, 2023, we completed the sale of The Armory Show, located in New York, for \$24,400,000, subject to certain post-closing adjustments. The financial statement gain, which will be recognized in the third quarter of 2023, will be approximately \$20,000,000.

Manhattan Retail Properties Sale

On July 27, 2023, we entered into an agreement to sell four Manhattan retail properties located at 510 Fifth Avenue, 148–150 Spring Street, 443 Broadway and 692 Broadway for \$100,000,000. We expect to close the sale in the third quarter of 2023 and recognize a financial statement loss of approximately \$500,000. The sale is subject to customary closing conditions.

Please refer to the Appendix for reconciliations of GAAP to non-GAAP measures.



2023 Business Developments - continued

Financing Activity

150 West 34th Street Loan Participation

On January 9, 2023, our \$105,000,000 participation in the \$205,000,000 mortgage loan on 150 West 34th Street was repaid, which reduced "other assets" and "mortgages payable, net" on our consolidated balance sheets by \$105,000,000. The remaining \$100,000,000 mortgage loan balance bears interest at SOFR plus 1.86%, subject to an interest rate cap arrangement with a SOFR strike rate of 4.10%, and matures in May 2024.

697-703 Fifth Avenue (Fifth Avenue and Times Square JV)

On June 14, 2023, the Fifth Avenue and Times Square JV completed a restructuring of the 697-703 Fifth Avenue \$421,000,000 non-recourse mortgage loan, which matured in December 2022. The restructured \$355,000,000 loan, which had its principal reduced through an application of property-level reserves and funds from the partners, was split into (i) a \$325,000,000 senior note, which bears interest at SOFR plus 2.00%, and (ii) a \$30,000,000 junior note, which accrues interest at a fixed rate of 4.00%. The restructured loan matures in March 2028, as fully extended. Any amounts funded for future re-leasing of the property will be senior to the \$30,000,000 junior note.

512 West 22nd Street

On June 28, 2023, a joint venture, in which we have a 55% interest, completed a \$129,250,000 refinancing of 512 West 22nd Street, a 173,000 square foot Manhattan office building. The interest-only loan bears a rate of SOFR plus 2.00% in year one and SOFR plus 2.35% thereafter. The loan matures in June 2025 with a one-year extension option subject to debt service coverage ratio, loan-to-value and debt yield requirements. The loan replaces the previous \$137,124,000 loan that bore interest at LIBOR plus 1.85% and had an initial maturity of June 2023. In addition, the joint venture entered into the interest rate cap arrangement detailed in the table on the following page.

825 Seventh Avenue

On July 24, 2023, a joint venture, in which we have a 50% interest, completed a \$54,000,000 refinancing of the office condominium of 825 Seventh Avenue, a 173,000 square foot Manhattan office and retail building. The interest-only loan bears a rate of SOFR plus 2.75%, with a 30 basis point reduction available upon satisfaction of certain leasing conditions, and matures in January 2026. The loan replaces the previous \$60,000,000 loan that bore interest at LIBOR plus 2.35% and was scheduled to mature in July 2023.



Financing Activity - continued

Interest Rate Swap and Cap Arrangements

We entered into the following interest rate swap and cap arrangements during the six months ended June 30, 2023. See page 11 for further information on our interest rate swap and cap arrangements:

(Amounts in thousands)	Notional Amount at share)	All-In Swapped Rate	Expiration Date	Variable Rate Spread
Interest rate swaps:				
555 California Street (effective 05/24)	\$ 840,000	6.03%	05/26	S+205
Unsecured term loan ⁽¹⁾ (effective 10/23)	150,000	5.12%	07/25	S+129
		Index Strike Rate		
Interest rate caps:				
1290 Avenue of the Americas (70.0% interest) (effective 11/23) ⁽²⁾	\$ 665,000	1.00%	11/25	S+162
One Park Avenue (effective 3/24)	525,000	3.89%	03/25	S+122
731 Lexington Avenue office condominium (32.4% interest) (effective 7/23)	162,000	6.00%	06/24	Prime + 0
640 Fifth Avenue (52.0% interest)	259,925	4.00%	05/24	S+111
512 West 22nd Street (55.0% interest)	71,088	4.50%	06/25	S+200

⁽¹⁾ In addition to the swap disclosed above, the unsecured term loan, which matures in December 2027, is subject to various interest rate swap arrangements that were entered into in prior periods. The table below summarizes the impact of the swap arrangements on the unsecured term loan.

	_	Swapped Balance	All-In Swapped Rate	B (bea	swapped salance rs interest : S+129)
Through 10/23	\$	800,000	4.04%	\$	_
10/23 through 07/25		700,000	4.52%		100,000
07/25 through 10/26		550,000	4.35%		250,000
10/26 through 08/27		50,000	4.03%		750,000

(2) In connection with the arrangement, we made a \$63,100 up-front payment, of which \$18,930 is attributable to noncontrolling interests.



Leasing Activity

The leasing activity and related statistics below are based on leases signed during the period and are not intended to coincide with the commencement of rental revenue in accordance with GAAP. Second generation relet space represents square footage that has not been vacant for more than nine months and tenant improvements and leasing commissions are based on our share of square feet leased during the period.

For the Three Months Ended June 30, 2023

279,000 square feet of New York Office space (224,000 square feet at share) at an initial rent of \$91.57 per square foot and a weighted average lease term of 10.7 years. The changes in the GAAP and cash mark-to-market rent on the 174,000 square feet of second generation space were positive 9.9% and positive 5.7%, respectively. Tenant improvements and leasing commissions were \$10.94 per square foot per annum, or 11.9% of initial rent.

205,000 square feet of New York Retail space (159,000 square feet at share) at an initial rent of \$50.29 per square foot and a weighted average lease term of 5.1 years. The changes in the GAAP and cash mark-to-market rent on the 97,000 square feet of second generation space were positive 20.6% and positive 15.6%, respectively. Tenant improvements and leasing commissions were \$16.17 per square foot per annum, or 32.2% of initial rent.

29,000 square feet at THE MART (all at share) at an initial rent of \$56.85 per square foot and a weighted average lease term of 3.7 years. The changes in the GAAP and cash mark-to-market rent on the 21,000 square feet of second generation space were negative 11.2% and negative 13.4%, respectively. Tenant improvements and leasing commissions were \$4.86 per square foot per annum, or 8.5% of initial rent.

6,000 square feet at 555 California Street (4,000 square feet at share) at an initial rent of \$120.56 per square foot and a weighted average lease term of 5.2 years. The changes in the GAAP and cash mark-to-market rent on the 4,000 square feet of second generation space were positive 12.8% and positive 2.4%, respectively. Tenant improvements and leasing commissions were \$9.12 per square foot per annum, or 7.6% of initial rent.

For the Six Months Ended June 30, 2023

1,056,000 square feet of New York Office space (996,000 square feet at share) at an initial rent of \$98.89 per square foot and a weighted average lease term of 9.8 years. The changes in the GAAP and cash mark-to-market rent on the 851,000 square feet of second generation space were positive 8.7% and positive 2.4%, respectively. Tenant improvements and leasing commissions were \$4.55 per square foot per annum, or 4.6% of initial rent.

230,000 square feet of New York Retail space (179,000 square feet at share) at an initial rent of \$85.76 per square foot and a weighted average lease term of 5.3 years. The changes in the GAAP and cash mark-to-market rent on the 104,000 square feet of second generation space were positive 11.3% and positive 8.6%, respectively. Tenant improvements and leasing commissions were \$17.59 per square foot per annum, or 20.5% of initial rent.

108,000 square feet at THE MART (all at share) at an initial rent of \$56.55 per square foot and a weighted average lease term of 6.0 years. The changes in the GAAP and cash mark-to-market rent on the 72,000 square feet of second generation space were negative 4.3% and negative 9.4%, respectively. Tenant improvements and leasing commissions were \$7.48 per square foot per annum, or 13.2% of initial rent.

10,000 square feet at 555 California Street (7,000 square feet at share) at an initial rent of \$134.70 per square foot and a weighted average lease term of 5.9 years. The changes in the GAAP and cash mark-to-market rent on the 4,000 square feet of second generation space were positive 12.8% and positive 2.4%, respectively. Tenant improvements and leasing commissions were \$22.92 per square foot per annum, or 17.0% of initial rent.



UNSECURED NOTES COVENANT RATIOS AND CREDIT RATINGS (unaudited)

	_	As of								
Unsecured Notes Covenant Ratios ⁽¹⁾	Required	June 30, 2023	March 31, 2023	December 31, 2022	September 30, 2022					
Total outstanding debt/total assets ⁽²⁾	Less than 65%	49%	50%	48%	47%					
Secured debt/total assets	Less than 50%	33%	33%	32%	32%					
Interest coverage ratio (annualized combined EBITDA to annualized interest expense)	Greater than 1.50	2.30	2.24	2.29	2.53					
Unencumbered assets/unsecured debt	Greater than 150%	320%	340%	342%	354%					

Consolidated Unencumbered EBITDA ⁽¹⁾ (non-GAAP):	 Q2 2023 Annualized
New York	\$ 274,940
Other	98,740
Total	\$ 373,680

Credit Ratings ⁽³⁾ :	Rating	Outlook
Moody's	Baa3	Negative
S&P	BBB-	Negative
Fitch	BBB-	Negative

⁽¹⁾ Our debt covenant ratios and consolidated unencumbered EBITDA are computed in accordance with the terms of our senior unsecured notes. The methodology used for these computations may differ significantly from similarly titled ratios and amounts of other companies. For additional information regarding the methodology used to compute these ratios and amounts, please see our filings with the SEC of our senior debt indentures and applicable prospectuses and prospectus supplements.

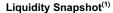
⁽²⁾ Total assets include EBITDA capped at 7.0% per the terms of our senior unsecured notes covenants.

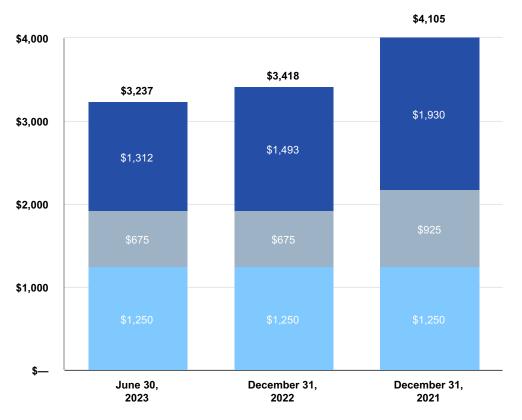
⁽³⁾ Credit ratings are provided for informational purposes only and are not a recommendation to buy or sell our securities.



LIQUIDITY AND CAPITALIZATION (unaudited)

(Amounts in millions, except per share amounts)



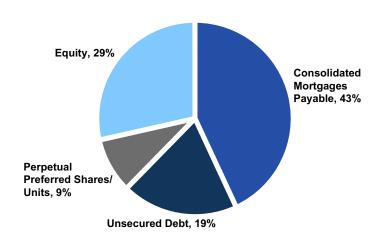


Cash, cash equivalents, restricted cash and investments in U.S. Treasury bills

Balance available on \$1.25 billion revolving credit facility (matures 2027 as fully extended)

Balance available on \$1.25 billion revolving credit facility (matures 2026 as fully extended)

Company Capitalization (excluding our pro rata share of nonconsolidated entities) as of June 30, 2023



Company capitalization ⁽²⁾ :	A	mount	% Total
Consolidated mortgages payable (at 100%)	\$	5,762	43%
Unsecured debt (contractual)		2,575	19%
Perpetual preferred shares/units		1,223	9%
Equity ⁽³⁾		3,815	29%
Total		13,375	100%
Pro rata share of debt of non- consolidated entities		2,658	
Less: Noncontrolling interests' share of consolidated debt		(682)	
Total at share	\$	15,351	

⁽¹⁾ Prior to June 30, 2022, the \$1.25 billion revolving credit facility maturing in 2027, as fully extended, had full capacity of \$1.5 billion.

⁽²⁾ The debt balances presented represent contractual debt balances. See reconciliation on page iv in the *Appendix* of consolidated debt, net as presented on our consolidated balance sheets to consolidated contractual debt as of June 30, 2023.

⁽³⁾ Based on the Vornado Realty Trust (NYSE: VNO) June 30, 2023 guarter end closing common share price of \$18.14.



NET DEBT TO EBITDAre, AS ADJUSTED (unaudited)

(Amounts in millions)									
	Trai	As of and For the iling Twelve Months Ended June 30,	As of and	For t	he Year Ended Decen	Year Ended December 3			
		2023	2022		2021		2020		
Secured debt	\$	5,762	\$ 5,878	\$	6,099	\$	5,608		
Unsecured debt		2,575	2,575		2,575		1,825		
Pro rata share of debt of non-consolidated entities		2,658	2,697		2,700		2,873		
Less: Noncontrolling interests' share of consolidated debt		(682)	 (682)		(682)		(483)		
Company's pro rata share of total debt	\$	10,313	\$ 10,468	\$	10,692	\$	9,823		
% Unsecured debt		25%	25%		24%		19%		
Company's pro rata share of total debt	\$	10,313	\$ 10,468	\$	10,692	\$	9,823		
Less: Cash and cash equivalents and investments in U.S. Treasury bills		(1,134)	(1,362)		(1,760)		(1,624)		
Less: Escrowed cash included within restricted cash on our balance sheet		(121)	(94)		(131)		(77)		
Less: Pro rata share of unconsolidated partially owned entities' cash and cash equivalents and escrowed cash		(277)	(316)		(291)		(283)		
Plus: Noncontrolling interests' share of cash and cash equivalents, escrowed cash and investments in U.S. Treasury bills		107	94		110		51		
Less: Participation in 150 West 34th Street mortgage loan		_	(105)		(105)		(105)		
Less: Projected cash proceeds from 220 Central Park South		(80)	(90)		(148)		(275)		
Net debt	\$	8,808	\$ 8,595	\$	8,367	\$	7,510		
EBITDAre, as adjusted (non-GAAP)	\$	1,108	\$ 1,091	\$	949	\$	910		
Net debt / EBITDAre, as adjusted (non-GAAP)		7.9 x	7.9 x		8.8 x		8.3 x		
			 <u> </u>						

See page ii in the Appendix for definitions of EBITDAre and net debt to EBITDAre, as adjusted. See reconciliation of net income (loss) to EBITDAre on page v in the Appendix and reconciliation of EBITDAre, as adjusted on page vi in the Appendix.

DEBT SNAPSHOT (unaudited)

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	As of June 30, 2023														
		To	otal		Var	iable		Fi	ed						
(Contractual debt balances)	Weighted Average Amount Interest Rate			Amount	Weighted Average Interest Rate	Amount		Weighted Average Interest Rate							
Consolidated debt	\$	8,337	4.18%	\$	2,193	5.83%	\$	6,144	3.59%						
Pro rata share of debt of non-consolidated entities		2,658	5.01%		1,457	5.95%		1,201	3.87%						
Total		10,995	4.38%		3,650	5.87%		7,345	3.63%						
Less: Noncontrolling interests' share of consolidated debt (primarily 1290 Avenue of the Americas and 555 California Street)		(682)			(682)			_							
Company's pro rata share of total debt	\$	10,313	4.24%	\$	2,968	5.75%	\$	7,345	3.63%						

As of June 30, 2023, \$2,595 of variable rate debt (at share) is subject to interest rate cap arrangements, the \$372 of variable rate debt not subject to interest rate cap arrangements represents 4% of our total pro rata share of debt. See the following page for details.

See reconciliation on page iv in the Appendix of consolidated debt, net as presented on our consolidated balance sheets to consolidated contractual debt as of June 30, 2023.



HEDGING INSTRUMENTS AS OF JUNE 30, 2023 (unaudited)

(Amounts in thousands)	D	ebt Information			Swap / Cap Information								
	Balance Matur <u>it</u> y		Variable Rate Spread		Notional Amount at Share	Expiration Date	All-In Swapped Rate	<u>on</u>					
Interest Rate Swaps:													
Consolidated:													
555 California Street mortgage loan													
In-place swap	\$ 840,000	05/28	S+205	\$	840,000	05/24	2.29%						
Forward swap (effective 05/24)						05/26	6.03%						
770 Broadway mortgage loan	700,000	07/27	S+225		700,000	07/27	4.98%						
PENN 11 mortgage loan	500,000	10/25	S+206		500,000	03/24	2.22%						
Unsecured revolving credit facility	575,000	12/27	S+114		575,000	08/27	3.87%						
Unsecured term loan	800,000	12/27	S+129		800,000 (2)	10/23	4.04%						
100 West 33rd Street mortgage loan	480,000	06/27	S+165		480,000	06/27	5.06%						
888 Seventh Avenue mortgage loan	267,000	12/25	S+180		200,000	09/27	4.76%						
4 Union Square South mortgage loan	120,000	08/25	S+150		99,100	01/25	3.74%						
Unconsolidated:													
731 Lexington Avenue - retail condominium mortgage loan	97,200	08/25	S+151		97,200	05/25	1.76%						
50-70 West 93rd Street mortgage loan	41,667	12/24	L+153 ⁽³⁾		41,168	06/24	3.14%						
	\$ 4,420,867				4,332,468								
Interest Rate Caps:					_			Cash	Effective				
•							Index Strike Rate	Interest Rate ⁽⁴⁾	Interest Rate ⁽⁵⁾				
Consolidated:							Strike Rate	Kate ¹⁷	Rate				
1290 Avenue of the Americas mortgage loan							/						
In-place cap	\$ 665,000	11/28	S+162		665,000	11/23	3.89%	5.51%	5.56%				
Forward cap (effective 11/23) ⁽⁶⁾					E3E 000 ⁽⁷⁾	11/25	1.00%	2.62%	5.94%				
One Park Avenue mortgage loan	525,000	03/26	S+122		323,000	03/25	3.89%	5.11%	6.09%				
150 West 34th Street mortgage loan	100,000	05/24	S+186		100,000	05/24	4.10%	5.96%	6.72%				
606 Broadway mortgage loan	37,060	09/24	S+191		37,060	09/24	4.00%	5.91%	5.95%				
Unconsolidated:			(3)										
280 Park Avenue mortgage loan	600,000	09/24	L+173 ⁽³⁾		600,000	09/23	4.08%	5.81%	6.09%				
640 Fifth Avenue mortgage loan	259,925	05/24	S+111		259,925	05/24 (8)	4.00%	5.11%	6.03%				
731 Lexington Avenue - office condominium mortgage loan	162,000	06/24	Ligo		162,000	06/24	6.00%	6.09%	6.09%				
61 Ninth Avenue mortgage loan	75,543	01/26	S+146		75,543	02/24	4.39%	5.85%	6.02%				
512 West 22nd Street mortgage loan	71,088	06/25	S+200		71,088	06/25	4.50%	6.50%	7.16%				
Rego Park II mortgage loan	65,624	12/25	S+145		65,624	11/24	4.15%	5.60%	6.28%				
Fashion Centre Mall/Washington Tower mortgage loan	34,125 \$ 2,595,365	05/26	L+294 (3)		34,125 2,595,365 (10)	05/24	4.00%	6.94%	6.98%				
	Ţ <u> </u>												
Fixed rate debt per loan agreements					3,012,582								
Variable rate debt not subject to interest rate swaps or caps					372,252 (10)								
Total debt at share				¢.	10,312,667								

⁽¹⁾ Assumes the exercise of as-of-right extension options.

⁽²⁾ The unsecured term loan is subject to various interest rate swap arrangements during its term. See page 6 for details.

⁽³⁾ As of June 30, 2023, all of our LIBOR-indexed debt and derivatives have been transitioned. However, certain of these instruments had a LIBOR-indexed rate in effect at quarter end due to the June 2023 contractual reset date occurring before the reference rate transition date.

⁽⁴⁾ Equals the sum of (i) the index rate in effect as of the most recent contractual reset date, adjusted for hedging instruments, and (ii) the contractual spread.

⁽⁵⁾ Equals the sum of (i) the cash interest rate and (ii) the effect of amortization of the interest rate cap premium over the term.

⁽⁶⁾ Entered into in June 2023, see page 6 for details.

⁽⁷⁾ In March 2023, we entered into a forward cap for the One Park Avenue mortgage loan. See page 6 for details.

In May 2023, the Fifth Avenue and Times Square JV entered into an interest rate cap arrangement for the 640 Fifth Avenue mortgage loan. See page 6 for details.

⁽⁹⁾ The interest rate converts to Prime in July 2023 and will be capped at a Prime rate of 6.00% through June 2024. Alexander's made an \$11,258 up-front payment (\$3,648 at our 32.4% share) for the Prime cap resulting in an 8.46% effective interest rate. See page 6 for details.

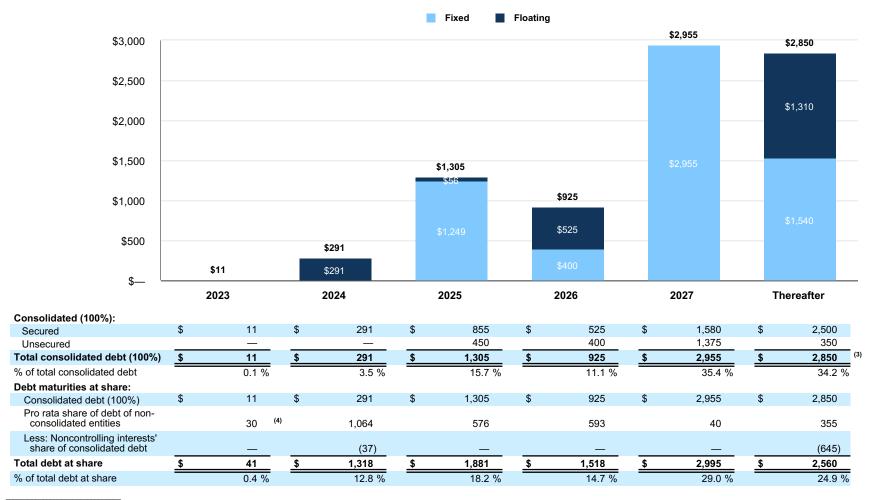
⁽¹⁰⁾ Our exposure to SOFR index increases is partially mitigated by an increase in interest income on our cash, cash equivalents and restricted cash.



CONSOLIDATED DEBT MATURITIES (CONTRACTUAL BALANCES) (unaudited)

(Amounts in millions)

Consolidated Debt Maturity Schedule⁽¹⁾ as of June 30, 2023 (Excludes pro rata share of JV debt)⁽²⁾



Assumes the exercise of as-of-right extension options. Debt classified as fixed rate includes the effect of interest rate swap arrangements which may expire prior to debt maturity. See the previous page for information on interest rate swap arrangements entered into as of June 30, 2023.

Vornado Realty L.P. guarantees \$800 of JV partnership debt comprised of the \$300 mortgage loan on 7 West 34th Street and the \$500 mortgage loan on 640 Fifth Avenue included in the Fifth Avenue and Times Square JV. This \$800 is excluded from the schedule presented above.

Of the \$1,310 floating rate debt expiring after 2027, \$645 is attributable to noncontrolling interests.

Represents our share of the \$60 mortgage loan on the office condominium of 825 Seventh Avenue. On July 24, 2023, we completed a \$54 (\$27 at share) refinancing of 825 Seventh Avenue. See page 5 for details.



CONSOLIDATED DEBT MATURITIES AT 100% (CONTRACTUAL BALANCES) (unaudited)

(Amounts in thousands)																
Property	Maturity Date (1)	Spread over SOFR	Interest Rate(2)		2023		2024	2025		2026	2	027	Т	hereafter		Total
Secured Debt:																
435 Seventh Avenue	02/24	S+141	6.59%	\$	· —	\$	95,696	\$ _	\$	_	\$	_	\$	_	\$	95,696
150 West 34th Street	05/24	S+186	5.96%		_		100,000	_		_		_		_		100,000
606 Broadway (50.0% interest)	09/24	S+191	5.91%		_		74,119	_		_		_		_		74,119
4 Union Square South	08/25		4.25%		_		_	120,000		_		_		_		120,000
PENN 11	10/25		2.22%		_		_	500,000		_		_		_		500,000
888 Seventh Avenue	12/25		5.31%		10,800		21,600	234,600		_		_		_		267,000
One Park Avenue	03/26	S+122	5.11%		_		_	_		525,000		_		_		525,000
350 Park Avenue	01/27		3.92%		_		_	_		_	40	00,000		_		400,000
100 West 33rd Street	06/27		5.06%		_		_	_		_	48	30,000		_		480,000
770 Broadway	07/27		4.98%		_		_	_		_	70	00,000		_		700,000
555 California Street (70.0% interest)	05/28		3.76%		_		_	_		_		_	1	1,200,000	1	,200,000
1290 Avenue of the Americas (70.0% interest)	11/28	S+162	5.51%		_		_	_		_		_		950,000		950,000
909 Third Avenue	04/31		3.23%		_		_	 _			lant.	_		350,000		350,000
Total Secured Debt				_	10,800		291,415	 854,600		525,000	1,58	30,000	2	2,500,000	5	,761,815
Unsecured Debt:																
Senior unsecured notes due 2025	01/25	(0)	3.50%		_		_	450,000		_		_		_		450,000
\$1.25 Billion unsecured revolving credit facility	04/26	S+119 ⁽³⁾	0.00%		_		_	_		_		_		_		_
Senior unsecured notes due 2026	06/26		2.15%	(4)	_		_	_		400,000		_		_		400,000
\$1.25 Billion unsecured revolving credit facility	12/27		3.87%	(3)	_		_	_		_		75,000		_		575,000
\$800 Million unsecured term loan	12/27		4.04%	(3)	_		_	_		_	80	00,000		_		800,000
Senior unsecured notes due 2031	06/31		3.40%	_				 						350,000		350,000
Total Unsecured Debt				_				 450,000	_	400,000		75,000		350,000	_	2,575,000
Total Debt				\$		\$	291,415	\$ 1,304,600	\$	925,000		55,000	\$2	2,850,000	\$ 8	,336,815
Weighted average rate				_	6.96%	. —	6.23%	 3.36%	. —	3.83%		4.38%		4.23%	_	4.18%
Fixed rate debt ⁽⁴⁾				\$	-	\$	_	\$ 1,249,100	\$	400,000	\$ 2,9	55,000	\$1	1,540,000	\$ 6	5,144,100
Fixed weighted average rate expiring					0.00%		0.00%	3.21%		2.15%		4.38%		2.76%		3.59%
Floating rate debt				\$,	\$	291,415	\$ 55,500	\$	525,000	\$	_	\$1	1,310,000	\$ 2	2,192,715
Floating weighted average rate expiring					6.96%		6.23%	6.85%		5.11%		0.00%		5.97%		5.83%

⁽¹⁾ Assumes the exercise of as-of-right extension options.

⁽²⁾ Represents the interest rate in effect as of period end based on the appropriate reference rate as of the contractual reset date plus contractual spread, adjusted for hedging instruments, as applicable. See the previous page for information on interest rate swap and interest rate cap arrangements entered into as of June 30, 2023.

⁽³⁾ Reflects a 0.01% interest rate reduction that we qualified for by achieving certain sustainability key performance indicator (KPI) metrics. We must achieve the KPI metrics annually in order to receive the interest rate reduction.

⁽⁴⁾ Debt classified as fixed rate includes the effect of interest rate swap arrangements which may expire prior to debt maturity. See the previous page for information on interest rate swap arrangements entered into as of June 30, 2023.



TOP 15 TENANTS (unaudited)

(Amounts in thousands, except square feet)

Tenants	Square Footage At Share	Annualized Escalated Rents At Share ⁽¹⁾	% of Total Annualized Escalated Rents At Share
Meta Platforms, Inc.	1,451,153	\$ 162,158	8.9 %
IPG and affiliates	967,552	64,495	3.6 %
Citadel	585,460	62,498	3.5 %
New York University	685,290	48,785	2.7 %
Google/Motorola Mobility (guaranteed by Google)	759,446	41,129	2.2 %
Bloomberg L.P.	306,768	40,685	2.2 %
Equitable Financial Life Insurance Company	335,356	36,383	2.0 %
Amazon (including its Whole Foods subsidiary)	312,694	30,516	1.7 %
Swatch Group USA	11,957	28,560	1.6 %
Neuberger Berman Group LLC	306,612	28,220	1.5 %
Madison Square Garden & Affiliates	411,923	27,494	1.5 %
AMC Networks, Inc.	326,717	26,261	1.4 %
LVMH Brands	65,060	25,152	1.4 %
Bank of America	247,459	24,795	1.3 %
Apple Inc.	412,434	24,077	1.3 %
			36.8 %

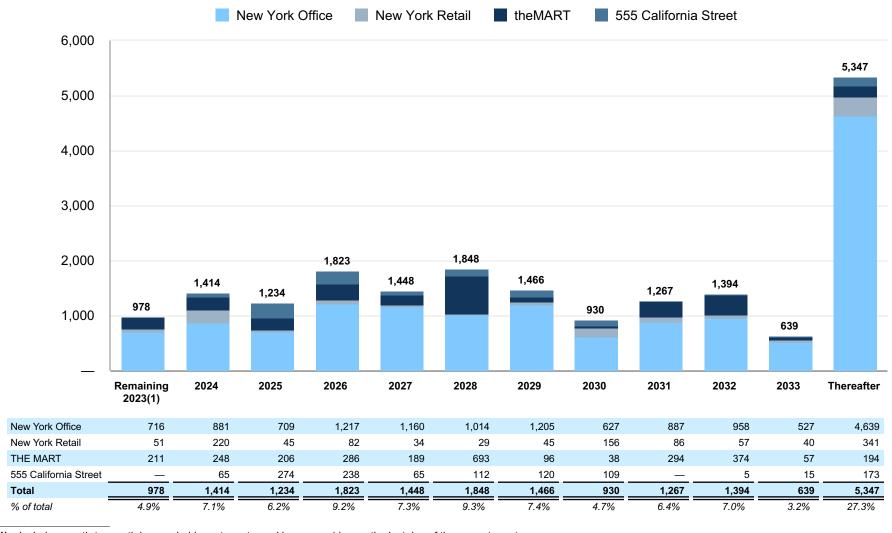
⁽¹⁾ Represents monthly contractual base rent before free rent plus tenant reimbursements multiplied by 12. Annualized escalated rents at share include leases signed but not yet commenced in place of current tenants or vacancy in the same space.



LEASE EXPIRATIONS (unaudited)

(Amounts in thousands)

Our Share of Square Feet of Expiring Leases As of June 30, 2023



⁽¹⁾ Includes month-to-month leases, holdover tenants, and leases expiring on the last day of the current quarter.



PENN DISTRICT ACTIVE DEVELOPMENT/REDEVELOPMENT SUMMARY - AS OF JUNE 30, 2023 (unaudited)

(Amounts in thousands of dollars, except square feet)

Active PENN District Projects	Segment	Property Rentable Sq. Ft.	Budget ⁽¹⁾	Cash Amount Expended	Remaining Expenditures	Stabilization Year	Projected Incremental Cash Yield
PENN 2 - as expanded	New York	1,795,000	750,000	515,417	234,583	2025	9.5%
PENN 1 (including LIRR Concourse Retail) ⁽²⁾	New York	2,559,000	450,000	401,262	48,738	N/A	13.2% (2)(3)
Districtwide Improvements	New York	N/A	100,000	43,713	56,287	N/A	N/A
Total Active PENN District Projects			1,300,000	960,392	339,608		10.1%

⁽¹⁾ Excluding debt and equity carry.

There can be no assurance that the above projects will be completed, completed on schedule or within budget. In addition, there can be no assurance that the Company will be successful in leasing the properties on the expected schedule or at the assumed rental rates.

⁽²⁾ Property is ground leased through 2098, as fully extended. Fair market value resets occur in 2023, 2048 and 2073. The 13.2% projected return is before the ground rent reset in June 2023, which has yet to be determined and may be material.

⁽³⁾ Projected to be achieved as pre-redevelopment leases roll, which have an approximate average remaining term of 3.2 years.



APPENDIX

DEFINITIONS AND NON-GAAP RECONCILIATIONS



FIXED INCOME SUPPLEMENTAL DEFINITIONS

The fixed income supplement includes various non-GAAP financial measures. Descriptions of these non-GAAP measures are provided below. Reconciliations of these non-GAAP measures to the most directly comparable GAAP measures are provided within this supplemental package.

EBITDAre - EBITDAre (i.e., EBITDA for real estate companies) is a non-GAAP financial measure established by the National Association of Real Estate Investment Trusts ("NAREIT"), which may not be comparable to EBITDA reported by other REITs that do not compute EBITDAre in accordance with the NAREIT definition. NAREIT defines EBITDAre as GAAP net income or loss, plus interest expense, plus income tax expense, plus depreciation and amortization, plus (minus) losses and gains on the disposition of depreciated property including losses and gains on change of control, plus impairment write-downs of depreciated property and of investments in unconsolidated entities caused by a decrease in value of depreciated property in the joint venture, plus adjustments to reflect the entity's share of EBITDA of unconsolidated entities. The Company has included EBITDAre because it is a performance measure used by other REITs and therefore may provide useful information to investors in comparing Vornado's performance to that of other REITs.

Net Debt to EBITDAre, as adjusted - Net debt to EBITDAre, as adjusted represents the ratio of net debt to annualized EBITDAre, as adjusted. Net debt is calculated as (i) the Company's consolidated debt less noncontrolling interests' share of consolidated debt plus the Company's pro rata share of debt of unconsolidated entities less (ii) the Company's consolidated cash and cash equivalents, cash held in escrow and investments in U.S. Treasury bills less noncontrolling interests' share of these amounts plus the Company's pro rata share of these amounts for unconsolidated entities. Cash held in escrow represents cash escrowed under loan agreements including for debt service, real estate taxes, property insurance, and capital improvements, and the Company is not able to direct the use of this cash. The availability of cash and cash equivalents for use in debt reduction cannot be assumed, as the Company may use its cash and cash equivalents for other purposes. Further, the Company may not be able to direct the use of its pro rata share of cash and cash equivalents of unconsolidated entities. The Company discloses net debt to EBITDAre, as adjusted because management believes it is useful to investors as a supplemental measure in evaluating the Company's balance sheet leverage. Net debt to EBITDAre, as adjusted may not be comparable to similarly titled measures employed by other companies.



NON-GAAP RECONCILIATIONS

RECONCILIATION OF NET INCOME ATTRIBUTABLE TO COMMON SHAREHOLDERS TO NET INCOME ATTRIBUTABLE TO COMMON SHAREHOLDERS, AS ADJUSTED (unaudited)

(Amounts in thousands, except per share amounts)											
	For the Three Months Ended					For the Six Months Ended					
	June 30,					June 30,					
	2023 2022 \$ 46 377 \$ 50 418 \$					2023		2022			
Net income attributable to common shareholders	\$	46,377	\$	50,418	\$	51,545	\$	76,896			
Per diluted share	\$	0.24	\$	0.26	\$	0.27	\$	0.40			
Certain (income) expense items that impact net income attributable to common shareholders:											
Our share of gain on sale of Rego Park III land parcel (Alexander's, Inc.)	\$	(16,396)	\$	_		(16,396)		_			
Deferred tax liability on our investment in The Farley Building (held through a taxable REIT subsidiary)		2,206		3,234		5,081		6,407			
Net gain on sale of the Center Building (33-00 Northern Boulevard, Long Island City, NY)		_		(15,213)		_		(15,213)			
Refund of New York City transfer taxes related to the April 2019 transfer to Fifth Avenue and Times Square JV		_		(13,613)		_		(13,613)			
After-tax net gain on sale of 220 Central Park South ("220 CPS") condominium units and ancillary amenities		_		(673)		(6,173)		(6,085)			
Other		(6,194)		12,691		(5,906)		20,520			
		(20,384)		(13,574)		(23,394)		(7,984)			
Noncontrolling interests' share of above adjustments		1,461		559		1,676		297			
Total of certain (income) expense items that impact net income attributable to common shareholders		(18,923)		(13,015)		(21,718)		(7,687)			
Net income attributable to common shareholders, as adjusted (non-GAAP)	\$	27,454	\$	37,403	\$	29,827	\$	69,209			
Per diluted share (non-GAAP)	\$	0.14	\$	0.19	\$	0.15	\$	0.36			



NON-GAAP RECONCILIATIONS
RECONCILIATION OF CONSOLIDATED DEBT, NET TO CONSOLIDATED CONTRACTUAL DEBT (unaudited)

	As of June 30, 2023							
		Consolidated Debt, Net	Deferred Financing Costs, Net and Other			Consolidated Contractual Debt		
Mortgages payable	\$	5,715,138	\$	46,677	\$	5,761,815		
Senior unsecured notes		1,192,853		7,147		1,200,000		
\$800 Million unsecured term loan		793,864		6,136		800,000		
\$2.5 Billion unsecured revolving credit facilities		575,000		<u> </u>		575,000		
	\$	8,276,855	\$	59,960	\$	8,336,815		



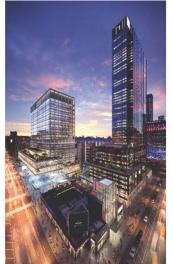
NON-GAAP RECONCILIATIONS
RECONCILIATION OF NET INCOME (LOSS) TO EBITDAre (unaudited)

		For the Three Months Ended Twelve Mo				the Trailing elve Months Ended	For the `	Year E	Ended Decer	nber 3	31,	
			2023		2022	Ju	ne 30, 2023	2022		2021		2020
Re	conciliation of net income (loss) to EBITDAre (non-GAAP):											_
	Net income (loss)	\$	62,733	\$	68,903	\$	(430,959)	\$ (382,612)	\$	207,553	\$	(461,845)
	Less net loss (income) attributable to noncontrolling interests in consolidated subsidiaries		2,781		826		26,994	 5,737		(24,014)		139,894
	Net income (loss) attributable to the Operating Partnership		65,514		69,729		(403,965)	(376,875)		183,539		(321,951)
	EBITDAre adjustments at share:											
	Depreciation and amortization expense		123,192		141,498		559,193	593,322		526,539		532,298
	Interest and debt expense		118,132		81,925		439,455	362,321		297,116		309,003
	Income tax expense (benefit)		4,655		3,749		21,673	23,404		(9,813)		36,253
	Net gain on sale of real estate		(16,805)		(27,978)		(47,196)	(58,920)		(15,675)		_
	Real estate impairment losses		_		_		595,488	595,488		7,880		645,346
	EBITDAre at share		294,688		268,923		1,164,648	1,138,740		989,586		1,200,949
	EBITDAre attributable to noncontrolling interests in consolidated subsidiaries		19,757		15,303		64,529	71,786		75,987		(91,155)
	EBITDAre (non-GAAP)	\$	314,445	\$	284,226	\$	1,229,177	\$ 1,210,526	\$	1,065,573	\$	1,109,794



NON-GAAP RECONCILIATIONS
RECONCILIATION OF EBITDAre TO EBITDAre, AS ADJUSTED (unaudited)

	Fo	r the Three l June			For the Trailing Twelve Months Ended			For the	ber 31,							
		2023	2022		June 30, 2023		2022		2022		2022		2021			2020
EBITDAre (non-GAAP)	\$	314,445	\$	284,226	\$	1,229,177	\$	1,210,526	\$	1,065,573	\$	1,109,794				
EBITDAre attributable to noncontrolling interests in consolidated subsidiaries		(19,757)		(15,303)		(64,529)		(71,786)		(75,987)		91,155				
Certain (income) expense items that impact EBITDAre:																
Gain on sale of 220 CPS condominium units and ancillary amenities		_		(1,029)		(42,364)		(41,874)		(50,318)		(381,320)				
Net gains on disposition of wholly owned and partially owned assets		(902)		_		(18,403)		(17,372)		(643)		_				
Our share of (income) loss from real estate fund investments		(41)		(223)		1		(1,671)		(3,757)		63,114				
Hotel Pennsylvania loss		_		_		_		_		11,625		31,139				
Other		(5,632)		2,745		4,498		12,741		2,483		(3,589)				
Total of certain (income) expense items that impact EBITDAre		(6,575)		1,493		(56,268)		(48,176)		(40,610)		(290,656)				
EBITDAre, as adjusted (non-GAAP)	\$	288,113	\$	270,416	\$	1,108,380	\$	1,090,564	\$	948,976	\$	910,293				





VORNADO REALTY TRUST

Supplemental Fixed Income Data

For the Quarter Ended June 30, 2023







