UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, DC 20549

FORM 8-K

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

Date of Report (Date of earliest event reported):

November 2, 2018

VORNADO REALTY TRUST (Exact Name of Registrant as Specified in Charter)

| Maryland | No. 001-11954 | No. 22-1657560 |
|---------------------------------|---|---------------------|
| (State or Other | (Commission | (IRS Employer |
| Jurisdiction of Incorporation) | File Number) | Identification No.) |
| (Exact N | VORNADO REALTY L.P. Name of Registrant as Specified in Chart | er) |
| Delaware | No. 001-34482 | No. 13-3925979 |
| (State or Other | (Commission | (IRS Employer |
| Jurisdiction of Incorporation) | File Number) | Identification No.) |
| 888 Seventh Av New York, New | | 10019 |
| (Address of Principal Exe | cutive offices) | (Zip Code) |

Registrant's telephone number, including area code: (212) 894-7000 Former name or former address, if changed since last report: N/A

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instructions A.2.):

- o Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- o Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- o Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- o Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

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

Item 7.01. Regulation FD Disclosure.

On November 2, 2018, Vornado Realty Trust, the general partner of Vornado Realty L.P., posted an investor presentation to its website at www.vno.com on the "Investor Relations" page. A copy of the investor presentation is attached as Exhibit 99.1 to this Current Report on Form 8-K and is incorporated herein solely for purposes of this Item 7.01 disclosure.

Exhibit 99.1 hereto shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the Exchange Act), or otherwise subject to the liabilities under that Section and shall not be deemed to be incorporated by reference into any filing of Vornado Realty Trust or Vornado Realty L.P. under the Securities Act of 1933, as amended, or the Exchange Act.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits.

The following exhibit is being furnished as part of this Current Report on Form 8-K:

99.1 Vornado Realty Trust investor presentation.

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

VORNADO REALTY TRUST

(Registrant)

By: /s/ Matthew Iocco

Name: Matthew Iocco

Title: Chief Accounting Officer (duly

authorized officer and principal accounting officer)

Date: November 2, 2018

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

VORNADO REALTY L.P.

(Registrant)

By: VORNADO REALTY TRUST,

Sole General Partner

By: /s/ Matthew Iocco

Name: Matthew Iocco

Title: Chief Accounting Officer of Vornado

Realty Trust, sole General Partner of Vornado Realty L.P. (duly authorized officer and principal accounting

officer)

Date: November 2, 2018











NOVEMBER 2018





FORWARD LOOKING STATEMENTS

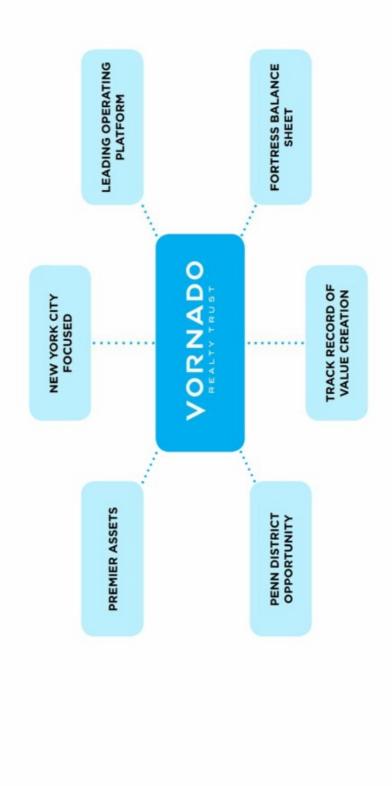
materially from those expressed in these forward-looking statements. You can find many of these statements by looking for words such as "approximates", "believes", "expects", "anticipates", associated with property improvements, financing commitments, and general economic and competitive factors. For further discussion of factors that could materially affect the outcome of complete; and stabilized yields, estimates of future capital expenditures, dividends to common and preferred shareholders and operating partnership distributions. Many of the factors that beliefs and are subject to numerous assumptions, risks and uncertainties. Consequently, the future results, financial condition and business of Vornado Realty Trust ("Vornado") may differ will determine the outcome of these and our other forward-looking statements are beyond our ability to control or predict. These factors include, among others: the timing of and costs 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 redevelopment projects, the estimated completion date, estimated project cost and costs to complete, incremental rent, incremental revenue and NOI, yields, value created and cost to Certain statements contained in this investor presentation constitute forward-looking statements as such term is defined in Section 27A of the Securities Act of 1933, as amended, and estimates", "intends", "plans", "would", "may" or similar expressions in this presentation. We also note the following forward-looking statements: in the case of our development and our forward-looking statements and other risks and uncertainties, see "Risk Factors" in Vornado's Annual Report on Form 10-K for the year ended December 31, 2017.

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 to place undue reliance on our forward-looking statements. All subsequent written and oral forward-looking statements attributable to us or any person acting on our behalf are expressly 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 statements to reflect events or circumstances occurring after the date of this presentation.

Market Data

Market data and industry forecasts are used in this presentation, including data obtained from publicly available sources. These sources generally state that the information they provide has been obtained from sources believed to be reliable but the accuracy and completeness of the information are not assured. Vornado has not independently verified any of such information.

THE VORNADO STORY





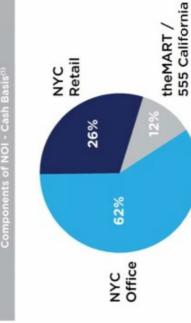
Peerless NYC focused real estate company with premier office and street retail assets

- Vornado RemainCo's 5 and 10-year same-store NOI growth is the best among blue chip REITs
- Vornado's portfolio consists of 38MM SF (29.5MM SF at share)
- New York focused company, with an irreplaceable NYC portfolio generating 88% of the Company's NOI - Cash Basis
- NYC office includes trophy assets in best submarkets with a blue chip tenant roster
- Well positioned with over 50% of SF in fast growing west side of Manhattan
- the world

 Over 50% of NOI Cash Basis comes from Upper Fifth Avenue and Times Square (the two premier submarkets), leased for term with high quality tenants

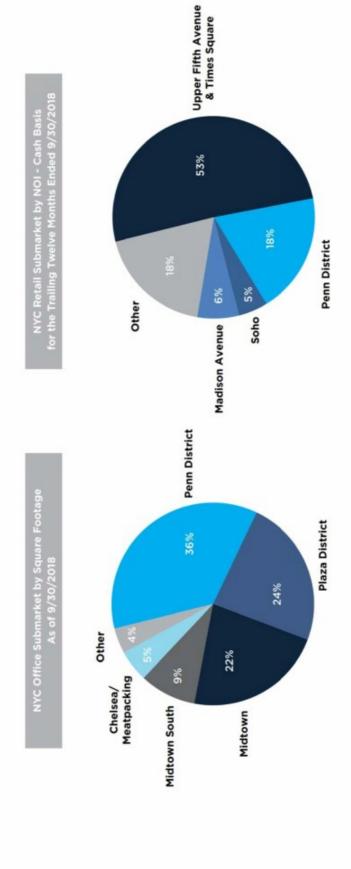
NYC street retail is among the scarcest and most valuable real estate in

 theMART and 555 California Street — the best assets in Chicago and San Francisco



 For the trailing twelve months ended September 30, 2018 excluding other investments (see page 37 for non-GAAP reconciliation)

NEW YORK OFFICE & STREET RETAIL PORTFOLIOS BY SUBMARKET

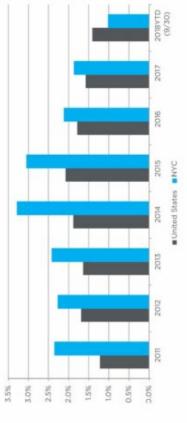




NYC CONTINUES TO BE A MAGNET FOR TALENT

- New York is a global gateway city with strong projected population growth
- Population projected to increase on average 23,700 annually for the next three decades, surpassing 9 million by 2040 (NYC.gov)
- Diversified employment base
- In 1990, 1 in 2 New York City jobs were in the financial services industry today the ratio is 1 in 4
- Today, 1 in 4 office jobs are TAMI, and half of office jobs are in professional business services
- Second largest tech center outside of Silicon Valley
- Growing footprint of healthcare systems and emergence of life sciences industry
- Resurgence of financial services sector
- Continuing corporate investment in New York
- J.P. Morgan Chase building new 2.5 million SF corporate headquarters at 270 Park Avenue
- Google acquisition of 1.2 million SF Chelsea Market building
- Disney purchase of 4 Hudson Square leasehold to build new headquarters





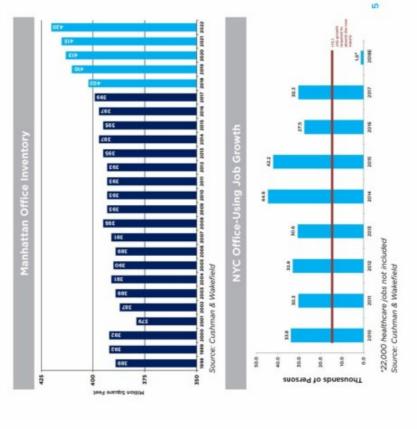
Sources: U.S. Bureau of Labor Statistics, NYS Department of Labor, Non-Farm Employment, Seasonally Adjusted



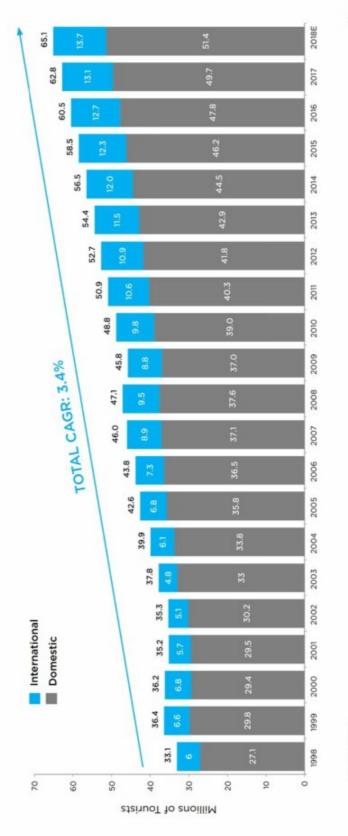
MANHATTAN IS WELL-POSITIONED TO ABSORB UPCOMING OFFICE SUPPLY

- Manhattan has benefited from negligible net new supply over the past 20 years
- New York City office-using jobs grew at an average of 34,000 per year from 2010 through 2017
- Average job growth of 15,120 per year will absorb the new supply

| | SF in Millions |
|--|----------------|
| Under Development (2018-2022) | 21.4 |
| Less: Pre-Leased to Date | 10.0 |
| Available to be Leased | 11.4 |
| Future vacancy in Midtown due to relocations to new construction | 7.5 |
| Total Required New Leasing | 18.9 |
| Years to Complete | S |
| Estimated SF Per Person | 250 |
| The state of the s | 444 |



CONSISTENT NYC TOURISM GROWTH SUPPORTS RETAIL SALES

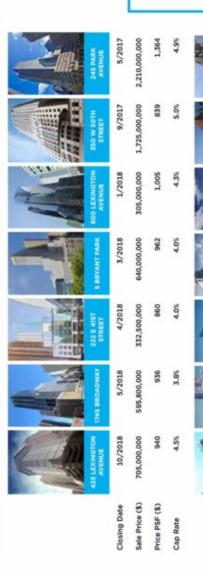


Source: NYC +Co

CATALYSTS FOR SHAREHOLDER VALUE CREATION

- · Trading at a significant discount to NAV
- Only significant way to invest publicly in fast growing West Side of Manhattan
- Growth from creative-class new developments (1,336,000 SF at share)
- 61 Ninth Avenue
- 512 West 22nd Street
- Farley Office Building
 - 260 Eleventh Avenue
 - 606 Broadway
- Penn District Redevelopment over 9 million SF existing portfolio with significant NOI upside and value creation
- 6.7 million SF of office with average in-place rents of \$63 PSF
 - PENN1 redevelopment commences 4Q18
- PENN2 redevelopment (1.8 million rentable SF) to commence in 1Q20
 - Hotel Pennsylvania (2.8 million rentable SF of development)
 - Other development sites
- Internal growth over time from highly sought-after existing assets
- Fortress balance sheet with substantial cash and available immediate liquidity (-\$3.5 billion)
 to take advantage of market opportunities
- Sale of \$1 billion of non-core assets and anticipated sellout of 220 Central Park South luxury condominiums will generate significant additional dry powder
 - Closing of unit sales in 220 Central Park South began in 4Q18
- Attractive common dividend yield of 3.8% highest among peers

IMPLIED VALUE OF VNO'S NYC OFFICE PORTFOLIO AT SUBSTANTIAL DISCOUNT TO PRIVATE MARKET SALES



At Vornado's stock price of \$66.82 (11/2/18), our NYC Office implied Price per Square Foot is \$525, with a Cap Rate of 7.5%.⁽¹⁾

Based on NOI and Cap Rates for other holdings per 12/31/2017 NAV Analysis

Weighted Average Price per Square Foot of \$1,043 and Cap Rate of 4.4%

1,055

10/2017

159,000,000

1,202

1,576

853

Price PSF (\$)

Cap Rate

4.8%

10/2017

1/2018 385,000,000 826 4.7%

4/2018

5/2018

7/2018

10/2018

Closing Date

260,000,000

Sale Price (\$)



FORTRESS BALANCE SHEET®

(Amounts in millions)

| | d | AT 9/30/18 |
|--|----|------------|
| Secured debt | w | 8,172 |
| Unsecured debt | | 1,680 |
| Pro rata share of non-consolidated debt (excluding Toys R Us) | | 2,800 |
| Less: noncontrolling interests' share of consolidated debt | | (605) |
| Total debt | | 12,047 |
| 220 CPS (mortgage + term loan) | | (1,700) |
| Projected cash proceeds from 220 Central Park South in excess of the \$1,700 debt repaid | | (1,011) |
| Cash, restricted cash and marketable securities | 13 | (1,078) |
| Net Debt | w | 8,258 |
| TTM EBITDA, as adjusted $^{(0)}$ | • | 1,287 |
| Net Debt/EBITDA, as adjusted | | 6.4x |

Weighted average debt maturity — 3.8 years

Investment grade — Baa2/BBB

• \$2.4 BN in revolver capacity

• \$1.1 BN in cash

• ~\$11 BN of unencumbered assets

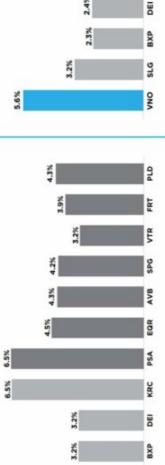
1. See page 38 for non-GAAP reconciliation

VORNADO LEADER AMONG BEST-IN-CLASS REITS

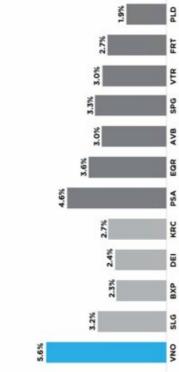
Vornado has delivered superior same-store NOI - Cash Basis growth relative to blue chip peers on both a 5-year and 10-year basis



7.3%



3.8%



Source: Green Street Advisors

SLG

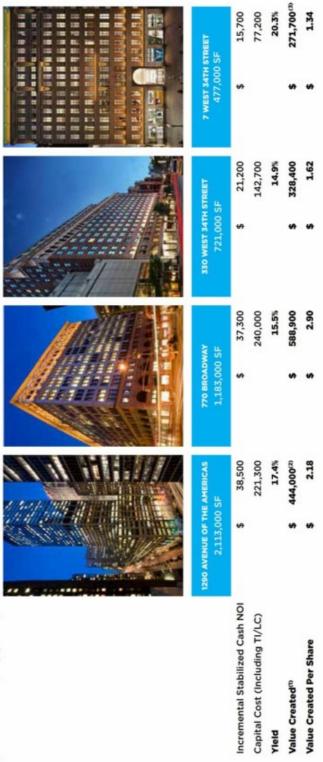
VNO

1.34

VORNADO

LEADER IN REPOSITIONING AND MODERNIZING PROPERTIES SELECT CASE STUDIES

(Amounts in thousands, except per share)



^{1.} Incremental NOI valued at 4.5% cap rate, less capital cost (including TVLC)
2. Shown at 70% share
3. Shown at 100% share; Vornado monetized 47% of the value creation through sale of a partial interest

1535 BROADWAY (MARRIOTT) RETAIL ACQUISITION - VORNADO NOW OWNS 100%





 On September 24, 2018, Vornado acquired from Host Hotels & Resorts ("Host") the remaining 46% interest in the retail condominium located at the base of the New York Marriott Marquis Times Square hotel (1535 Broadway) for \$442MM, taking Vornado's ownership stake to 100%

- This transaction satisfied a put/call arrangement based on a formula negotiated at the time Vornado acquired its original 54% interest
- Vornado now owns 100% of the fee in 45,000 SF of retail which is 100% leased to T-Mobile, Invicta, Swatch, Levi's and Sephora, the 1,611 seat Marquis Theater leased to the Nederlander Organization, and the largest digital sign in New York with a 330 linear foot, 25,000 SF display

| 1535 BROADWAY (MARRIOTT) | | |
|-------------------------------|----|-------------|
| Vornado Basis ⁽¹⁾ | 49 | 663MM |
| Estimated 2019 Cash NOI | 4 | 56MM |
| Estimated 2019 Cash NOI Yield | | 8.5% |
| Value at 4.25% Cap Rate | 49 | 1,326MM |
| Value Created | • | 663MM |
| Value Created Per Share | 49 | 3.26 |

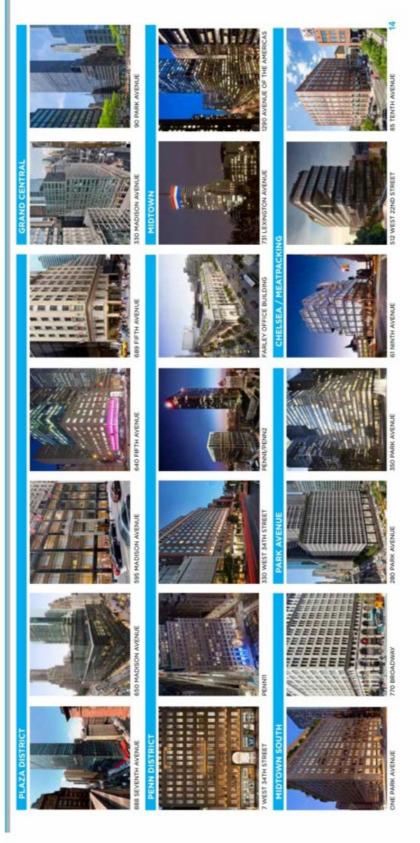
Average remaining retail lease term is 10.4 years

1. Basis post-transaction; inclusive of all capital previously invested

VORNADO'S OFFICE ASSETS LOCATED AT THE EPICENTER OF GROWTH

VORNADO

SELECT NEW YORK CITY OFFICE PROPERTIES



BLUE-CHIP OFFICE TENANT ROSTER

| REAL ESTATE | COHEN & STEEDS COHEN & STEEDS COHEN & STEEDS RANGONS BRINGCERHOFF RAMSA APPROACH STRUCTURETONE OTHER | RALPH LAUREN American Management Addago O openJar SIVIC |
|------------------------|--|--|
| HEALTHCARE / INSURANCE | AM Set Day Columbia University a-etna Setna Set Allscripts: Allstate. UnitedHealthcare Americal Sham Ketering Set Of Secret Center Center Set Of Secret Center Center Of Secret Center Of Secr | MISTON +BIRDus -BONAGRA -BONAG |
| ТАМІ | Deutsch facebook yelp yelp merworks EMC LILLIII CISCO EMC | PayPal Moroscal Medicine Millianes Medicine Millians Moroscal Siemens |
| FINANCIAL | Bloomberg Bank of America LUBS Capital One Capital On | DODOGE & COX FUNDS Geste Bartan Inc. MCKINSES/SCOMPANY FACTSET MFA FACTSET MFA FRANCEAL FACTSET MFA FINANCIAL FIN |

SELECT NEW YORK CITY STREET RETAIL PROPERTIES



CONCENTRATION IN THE KEY HIGH STREET RETAIL SUBMARKETS IN MANHATTAN



1. Excludes churches, clubs and retail owned by users

17

1535 BROADWAY

BLUE-CHIP RETAIL TENANT ROSTER





















BLANCPAIN

TOPSHOP

EQUINOX.

NORTH

















STARBUCKS

STARBUCKS RESERVE *

WHÔLE FOODS

INVICTA

Salvatore Ferragamo

sunglass hut









MONCLER

Madswell

HOLLISTER

OLD NAVY





sandro

Swatch

··· T··Mobile

john varvatos





8



STREET RETAIL PORTFOLIO UPPER FIFTH & TIMES SQUARE BUTTONED UP FOR TERM

Over 50% of Vornado street retail NOI - Cash Basis comes from Upper Fifth Avenue and Times Square. Both are locked up for term with high quality tenants

| UPPER FIFTH AVENUE | NUE | TIMES SQUARE | | ž |
|--------------------|--------------------|---------------------|--------------------|--------|
| Tenant | Year of Expiration | Tenant | Year of Expiration | |
| Zara | 2019 | US Polo | 2023 | |
| MAC Cosmetics | 2024 | Sunglass Hut | 2023 | |
| Hollister | 2024 | Planet Hollywood | 2023 | |
| Uniqlo | 2026 | MAC Cosmetics | 2025 | |
| Tissot | 2026 | T-Mobile | 2025 | |
| Dyson | 2027 | Disney | 2026 | lio d |
| Ferragamo | 2028 | Invicta | 2028 | ,0 30 |
| Swatch | 203100 | Sephora | 2029 | PIIIIW |
| Harry Winston | 2031 | Swatch | 2030 | |
| Victoria's Secret | 2032 | Levi's | 2030(2) | |
| | | Forever 21 | 2031 | |
| | | Nederlander Theater | 2050 | |

34% 40° 500 9000 500 40g 30% 500 202 402 0202 0/O2 \$160 \$60 \$40 \$20 \$140 \$120 \$100 \$80

Tenant has the right to cancel in 2023
 Tenant has the right to cancel in 2024





theMART building (Chicago) – best example of contemporary office space outside of Silicon Valley. Transformed from a showroom building to the premier creative and tech hub in the Midwest, resulting in significant earnings growth and value creation

3,675,000 SF building - 95.5% Occupancy at 9/30/2018

- Located in River North, the hottest submarket in Chicago
- Between 2011 and 3Q18, converted over 950,000 SF in the building from showroom/trade show space to creative office space
- 3.1 million SF of total space leased since 2012
- 9/30/2018 TTM Cash NOI (non-GAAP)[™] of \$104.0 million versus 2011 Cash NOI (non-GAAP)™ of \$54.3 million
- In-place escalated rents average \$43.41 PSF as of 9/30/2018 (office \$38.75, showroom \$48.84 and retail \$50.54)
- In conjunction with the City of Chicago, theMART debuted Art on theMART on September 29, 2018. This curated series of digital artworks projects the work of renowned artists across the 2.5 acre exterior river-façade of theMART, creating the largest permanent digital art projection in the world.

Major Tenants:

(guaranteed by Google) - Motorola Mobility

- Paypal, Inc.

- Yelp Inc.

- Razorfish

- ConAgra Foods Inc.

Alistate Insurance

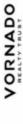
- Caterpillar Inc.

- 1871
- Kellogg's
- Allscripts Healthcare

- Herman Miller
- Steelcase

20

555 CALIFORNIA STREET















555 California Street - the franchise office building in San Francisco and arguably the most iconic building on the west coast - further NOI growth expected from redeveloped concourse and 315/345 Montgomery

- 1,819,000 SF building 100% Occupancy at 9/30/2018
- 1.7 million SF of office space leased since 2012
- 9/30/2018 TTM Cash NOI (non-GAAP)⁽³⁾ of \$55.8 million at share (which does not include Cash NOI from approximately 78,000 SF of space under redevelopment) versus 2012 Cash NOI (non-GAAP)⁽³⁾ of \$38.2 million at share
- In-place escalated rents average \$75.26 PSF as of 9/30/2018

Major Tenants:

- Bank of America
- Kirkland & Ellis LLP - Morgan Stanley
 - Fenwick & West LLP - Dodge & Cox

- UBS

- Jones Day - Microsoft
- Wells Fargo
- McKinsey & Company Inc. - Goldman Sachs













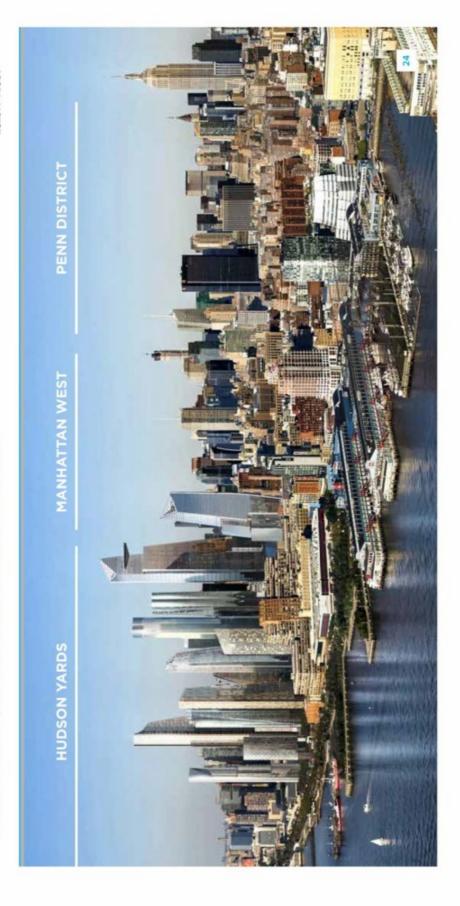


WELL-POSITIONED WITH EXISTING ASSETS AND NEW DEVELOPMENTS CONCENTRATED IN THE FAST GROWING WEST SIDE

VORNADO

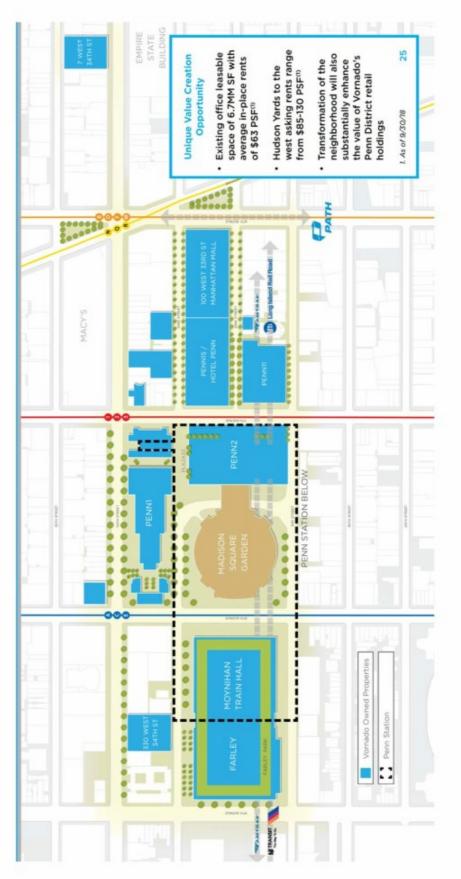


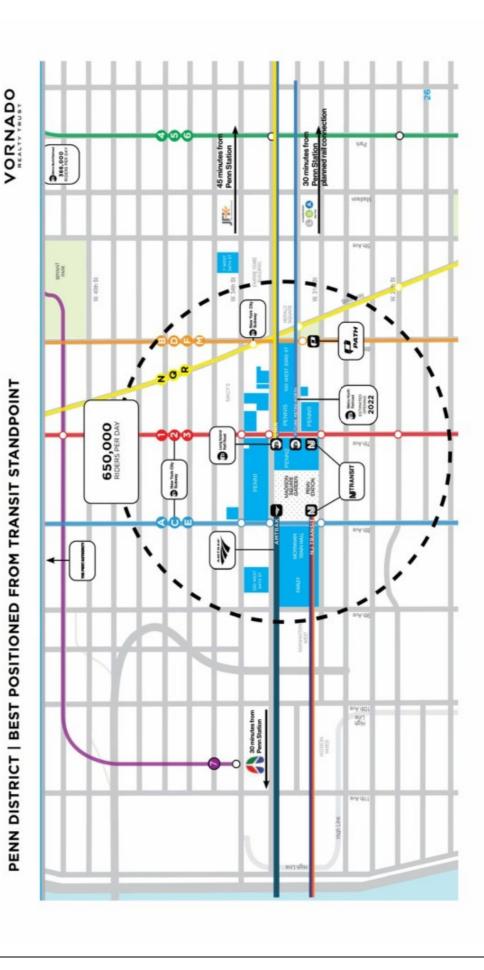
PENN DISTRICT | AN UNPRECEDENTED OPPORTUNITY





PENN DISTRICT | AN UNPRECEDENTED OPPORTUNITY







CURRENT DEVELOPMENT PROJECTS®

OUR CURRENT DEVELOPMENT PIPELINE IS EXPECTED TO INCREASE CASH NOI BY -\$130MM (AT SHARE) UPON STABILIZATION

| - |
|------|
| -50 |
| ю |
| -6 |
| - 78 |
| ü |
| -59 |
| 74 |
| -21 |
| 35 |
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| - 64 |
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| 3 |
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| 2 |
| -5 |
| -54 |
| 100 |
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| |

| | TOTAL CURRENT PROJECTS 3,826,000 SF | | | | \$ 251,074 | \$ 911,926 | \$ 1,163,000 |
|---|--|---------------------------------------|-----------|---|-----------------|------------|-----------------------------|
| | THE FARLEY BUILDING ⁽¹⁾ 850,000 SF | Q2 2022 | 92.0% | | \$ 103,956 | \$ 656,044 | \$ 760,000 |
| | 545 MONTGOMERY STREET THE FA | Q3 2020 | 70.0% | | 9,523 | 22,477 | 32,000 |
| | | Q2 2020 | 20.0% | | 23,307 \$ | \$ 269'9 | 30,000 \$ |
| | 606 BROADWAY 34,000 SF | 92 | us | | \$ 23 | \$4 | 9 |
| | 512 WEST 22ND STREET 173,000 SF | 01 2020 | 82.0% | | \$ 50,065 | \$ 21,935 | \$ 72,000 |
| | 61 NINTH AVENUE 170,000 SF | Q2 2019 | 45.1% | | \$ 57,970 | \$ 11,030 | 000'69 \$ |
| 1. S. | PENN1 2,535,000 SF | N/A | 100.0% | | \$ 6,253 | \$ 193,747 | \$ 200,000 |
| (Amounts in thousands) | | Full Quarter Stabilized Operations | VNO Share | Development Budget (at Share) ⁽²⁾ | Amount Expended | Remaining | Total Incremental Budget |

^{1.} Square footages shown at 100%; costs shown at share 2. Excludes land and acquisition costs 3. Farley Building figures reflect increase in ownership from 50.1% to 95% post-September 30, 2018



FUTURE DEVELOPMENT PIPELINE

FUTURE REDEVELOPMENT OPPORTUNITIES PROVIDE BUILT-IN SOURCE OF ADDITIONAL GROWTH



1,800,000 SF PENN2



260 ELEVENTH AVENUE 340,000 SF

HOTEL PENNSYLVANIA 2,800,000 SF



Note: Shown at estimated rentable SF, subject to change

BEGINNING THE TRANSFORMATION OF PENN DISTRICT MOYNIHAN OFFICE BUILDING DEVELOPMENT

- Related Companies, increasing Vornado's ownership interest to 95%, in the joint venture that has a 99-year lease for the commercial space at the historic Farley Post Office building Recently acquired an additional 44.9% from the
- The joint venture is converting the Farley Post Office in Penn District into the new Moynihan Train Hall and office building, which includes the development of 850,000 SF of commercial space, comprised of approximately 730,000 SF of office space targeting creative class tenants and approximately 120,000 SF of retail space
- Total budget of \$977 million at share
- Expected delivery 3Q 2020

















VORNADO

PENN1 REDEVELOPMENT - PRELIMINARY ESTIMATES

64 PSF 84 PSF 20 PSF

48MM

24%

867MM

4.25

200MM

2.54MM SF



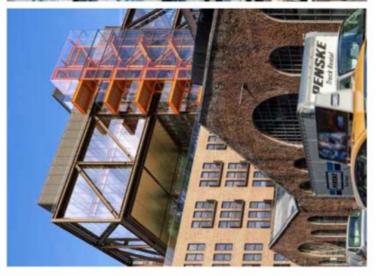
1. Incremental NOI valued at 4.5% cap rate, less development costs excluding recurring TV/LCs that would have been incurred on re-tenanting the building irrespective of this capital project

PENN2 REDEVELOPMENT









A LEADER IN SUSTAINABILITY

NATIONALLY RECOGNIZED, INDUSTRY-LEADING SUSTAINABILITY PROGRAM

- 5-time Energy Star Partner of the Year, Sustained Excellence recipient 2018
- 23.6 million square feet of owned and managed LEED certified buildings
- Largest landlord of LEED certified buildings in New York City with over 17.9 million SF. All new commercial developments will be, at minimum, **LEED Gold certified**
- NAREIT Leader in the Light award 2018, 9th year in a row
- Global Real Estate Sustainability Benchmark (GRESB) "Green Star" since 2013; #3 among all listed US Real Estate companies, 2018
- 20% reduction in same-store greenhouse gas emission since 2009

























APPENDIX







NON-GAAP FINANCIAL MEASURES

This investor presentation contains certain non-GAAP financial measures, including net operating income ("NOI") and earnings before interest, taxes, depreciation and amortization ("EBITDA").

NOI represents total revenues less operating expenses. We consider NOI to be the primary non-GAAP financial measure for making decisions and assessing the unlevered performance of our properties and segments as it relates to the total return on assets as opposed to the levered return on equity. As properties are bought and sold based on NOI, we utilize this measure to make investment decisions as well as to compare the performance of our assets to that of our peers. NOI should not be considered a substitute for net income. NOI may not be comparable to similarly titled measures employed by other companies. We calculate NOI on an Operating Partnership basis which is before allocation to the noncontrolling interest of Vornado Realty L.P. (the "Operating Partnership"). EBITDA represents earnings before interest, taxes, depreciation and amortization. EBITDA is essentially NOI less general and administrative expenses. We use EBITDA as a secondary non-GAAP measure primarily in the context of a net debt to EBITDA ratio. We calculate EBITDA on an Operating Partnership basis which is before allocation to the noncontrolling interest of Vornado Realty L.P. (the "Operating Partnership").

A reconciliation of NOI and EBITDA to net income, the most directly comparable GAAP measure, is provided on the following pages.

These non-GAAP financial measures are used by management, investors and analysts to facilitate meaningful comparisons of operating performance between periods and among our peers predictably over time, rather than fluctuating based on existing market conditions. These metrics do not represent cash generated from operating activities and are not necessarily indicative of cash available to fund obligations and should not be considered as an alternative to net income as performance measures or cash flow as liquidity measures. These non-GAAP metrics may not be because they exclude the effect of real estate depreciation and amortization and net gains on sales, which are based on historical costs and implicitly assume that the value of real estate diminishes comparable to similarly titled measures employed by other companies.



For the TTM Ended September 30, 2018

\$ 716 327 22 48 12 1,125 106 52 73 231

\$ 1,356

NON-GAAP RECONCILIATIONS

(Amounts in millions)

| Reconciliation of net income to NOI at share - Cash Basis for the trailing twelve months ended September 30, 2018 | the trailing | NOI at share - Cash Basis by segment: |
|---|--|---------------------------------------|
| | For the TTM Ended September 30, 2018 | |
| Net income (loss) | \$ 378 | New York: |
| Deducti | | Office (includes \$26MM of BMS NOI) |
| Income from partially owned entities | (16) | Retail |
| Loss from real estate fund investments | 33 | Kesidential |
| Interest and other investment income, net | (18) | Mexander's |
| Net gains on disposition of wholly owned and partially owned assets | (165) | Hotel Perinsylvania |
| Income from discontinued operations | (2) | |
| NOI attributable to noncontrolling interests in consolidated subsidiaries | (89) | Other: |
| | | theMART Circlicling trade shows? |
| Add: | | CES California Carona |
| Depreciation and amortization expense | 448 | Other investments |
| General and administrative expense | 144 | COLOR INVESTIGATES |
| Acquisition and transaction related costs | 18 | |
| Our share of NOI from partially owned entities | 263 | NOI at chases . Once Back |
| Interest and debt expense | 358 | NOT OF SHORE - COST DOORS |
| Income tax expense | 44 | |
| NOI at share | 1,417 | |
| Non cash adjustments for straight-line rents, amortization of acquired below-market leases, net and other | (61) | |
| NOI at share - Cash Basis | \$ 1,356 | |



NON-GAAP RECONCILIATIONS

(Amounts in millions)

Reconciliation of net income attributable to the Operating Partnership to EBITDA and EBITDA, as adjusted for the trailing twelve months ended September 30, 2018

| | For the TTM Ended September 30, 2018 |
|--|--|
| Net income attributable to the Operating Partnership | \$ 402 |
| Interest and debt expense | 462 |
| Depreciation and amortization | 527 |
| Income tax expense | 44 |
| EBITDA | 1,435 |
| Adjustments, net ⁽¹⁾ | (148) |
| EBITDA, as adjusted | \$ 1,287 |

1. Includes income from our former Washington, DC segment, sold properties, our Real Estate Fund, gains on sale of real estate, impairment losses and other adjustments



NON-GAAP RECONCILIATIONS

(Amounts in millions)

Reconciliation of the MART net income to EBITDA, NOI - Cash Basis and NOI - Cash Basis adding back free rent for the year ended December 31, 2011 and for the trailing twelve months ended September 30, 2018

| | For the Tra Month Septemb | For the Trailing Twelve Months Ended September 30, 2018 | For the Decem | For the Year Ended December 31, 2011 |
|--|---------------------------------|---|------------------|---|
| Net income (loss) | w | 35.2 | 153 | (4.5) |
| nterest and debt expense | | 18.7 | | 31.2 |
| Depreciation and amortization | | 39.9 | | 21.6 |
| ncome tax expense | | 1 | | 1 |
| EBITDA | | 93.8 | | 48.3 |
| Non-cash adjustments and other | | 6.0 | | 3.1 |
| NOI - Cash Basis | | 94.7 | | 51.4 |
| Adding back free rent | 8 | 9.3 | | 2.9 |
| NOI - Cash Basis adding back free rent | 44 | 104.0 | us. | 54.3 |

Reconciliation of 555 California Street net income to EBITDA, NOI - Cash Basis and NOI - Cash Basis adding back free rent for the year ended December 31, 2012 and for the trailing twelve months ended September 30, 2018

| | For the Tr Monti September 3 | For the Trailing Twelve Months Ended September 30, 2018 at share | For the December 3 | For the Year Ended December 31, 2012 at share |
|--|------------------------------------|--|-----------------------|--|
| Net income (loss) | w | 6.8 | un- | (4.6) |
| Interest and debt expense | | 18.4 | | 22.0 |
| Depreciation and amortization | | 25.7 | | 28.5 |
| Income tax expense | | 0.4 | | 0.3 |
| EBITDA | | 53.4 | | 46.2 |
| Non-cash adjustments and other | | (1.8) | | (9.1) |
| NOI - Cash Basis | | 51.6 | | 37.1 |
| Adding back free rent | | 4.2 | | 1.1 |
| NOI - Cash Basis adding back free rent | * | 55.8 | * | 38.2 |







VORNADO REALTY TRUST



NOVEMBER 2018

