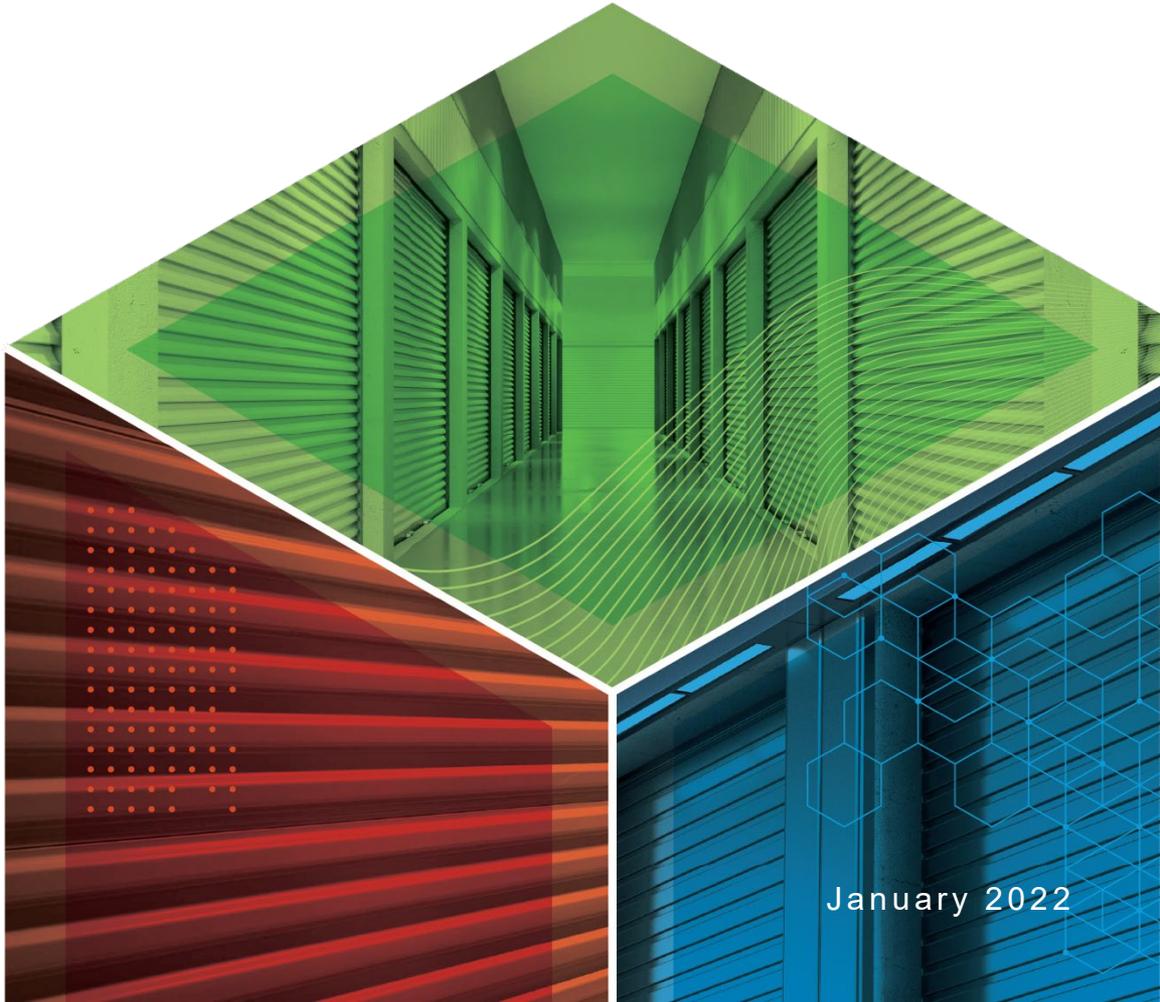




National Storage Affiliates Company Update



NATIONAL STORAGE
— AFFILIATES —

January 2022

Forward-Looking Statements and Non-GAAP Financial Measures

FORWARD-LOOKING STATEMENTS: We make forward-looking statements in this presentation that are subject to risks and uncertainties. These forward-looking statements include information about possible or assumed future results of our business, financial condition, liquidity, results of operations, plans and objectives. When we use the words “believe,” “expect,” “anticipate,” “estimate,” “plan,” “continue,” “intend,” “should,” “may” or similar expressions, we intend to identify forward-looking statements. The forward-looking statements contained in this presentation reflect our current views about future events and are subject to numerous known and unknown risks, uncertainties, assumptions and changes in circumstances that may cause our actual results to differ significantly from those expressed in any forward-looking statement.

The forward-looking statements are based on our beliefs, assumptions and expectations of our future performance, taking into account all information currently available to us. Forward-looking statements are not predictions of future events. These beliefs, assumptions and expectations can change as a result of many possible events or factors, not all of which are known to us. Some of these factors are described in our annual report on Form 10-K filed with the SEC on February 26, 2021 (the “Annual Report”) under the headings “business,” “risk factors,” “properties,” and “management’s discussion and analysis of financial condition and results of operations,” as applicable. You may get these documents for free by visiting EDGAR on the SEC website at www.sec.gov. If a change occurs, our business, financial condition, liquidity and results of operations may vary materially from those expressed in our forward-looking statements. Any forward-looking statement speaks only as of the date on which it is made. New risks and uncertainties arise over time, and it is not possible for us to predict those events or how they may affect us. Except as required by law, we are not obligated to, and do not intend to, update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

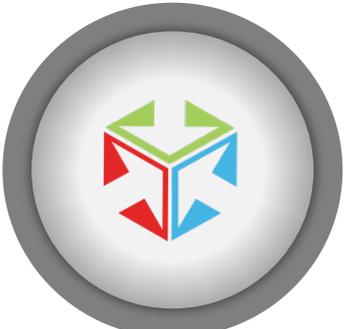
This presentation and the information contained herein are for informational purposes only and may not be relied upon for any purpose, including in connection with the purchase or sale of any of our securities. Such information does not constitute an offer to sell or a solicitation of an offer to buy any security described herein.

Non-GAAP Financial Measures: This presentation contains certain non-GAAP financial measures, such as funds from operations (“FFO”), Core FFO, net operating income (“NOI”), EBITDA, and Adjusted EBITDA, which are each defined in NSA’s Annual Report. These non-GAAP financial measures are presented because NSA’s management believes these measures help investors understand NSA’s business, performance and ability to earn and distribute cash to its shareholders by providing perspectives not immediately apparent from net income (loss). These measures are also frequently used by securities analysts, investors and other interested parties. The presentation of FFO, Core FFO, NOI, EBITDA, and Adjusted EBITDA herein are not intended to be considered in isolation or as a substitute for, or superior to, the financial information prepared and presented in accordance with GAAP and should not be considered as alternative measures of liquidity. In addition, NSA’s definitions and method of calculating these measures may be different from those used by other companies, and, accordingly, may not be comparable to similar measures as defined and calculated by other companies that do not use the same methodology as NSA. Reconciliations of these non-GAAP financial measures to their most directly comparable GAAP measures for the three months ended September 30, 2021 and 2020 are set forth in the Appendix attached hereto. In addition, reconciliations of these non-GAAP financial measures to their most directly comparable GAAP measures for the three months ended June 30, 2021, 2020, 2019, 2018, and 2017, March 31, 2021, 2020, 2019, 2018, and 2017, and September 30, 2019, 2018, and 2017 are available in NSA’s earnings releases for such period ends, which are furnished to the SEC quarterly as Exhibit 99.1 on Current Reports on Form 8-K pursuant to Item 2.02.

Information in this presentation is as of September 30, 2021, except as otherwise noted.



Contents



	National Storage Affiliates Company Update	4
	Consistent Sector-Leading Results	9
	Differentiated PRO Structure Drives Growth	14
	External Growth Has Momentum	18
	Supply Update	21
	Flexible Capital Structure Supports Future Growth	23
	Appendix (including Definitions and Methodology)	26



National Storage Affiliates Company Update



NATIONAL STORAGE
AFFILIATES

NSA Snapshot as of September 30, 2021

433.3%

Total Shareholder Return
Since IPO in April 2015

\$9.9B

Total Enterprise Value

\$5.8B

Completed Acquisitions
Since IPO⁽¹⁾

940

Property Portfolio

15.2%

Avg. Quarterly Y-O-Y Increase
in Core FFO/Share Since IPO
through Q3 2021

29.5%

Y-O-Y Core FFO/Share Growth
In Q3 2021

96.5%

Same Store Avg. Occupancy
In Q3 2021

24.3%

Y-O-Y Same Store NOI Growth
In Q3 2021

60.4M

Rentable Square Feet

Well Diversified;
Located in
38
States +
Puerto Rico

Unique
Structure with
**Participating
Regional
Operators**
("PROs")

6th
Largest
U.S. Operator⁽²⁾

(1) Since the Company's IPO at April 23, 2015 through September 30, 2021; includes ~\$3.8 billion in wholly owned acquisitions and ~\$2.0 billion in Joint Venture acquisitions.

(2) Source: 2021 Self Storage Almanac





Portfolio Metrics Update – 2021 Same Store Pool

Metric	Q3 2021	December 2021
Period-End Occupancy	96.2%	94.8%
Year-Over-Year Change in Period-End Occupancy	+450 bps	+310 bps
Year-Over-Year Change in Street Rates	+27.2%	+24.0%





Environmental - Social - Governance Highlights

E

- 500+ LED lighting retrofit projects completed
- Annual energy savings of 11 million annual kilowatt hours
- Water-saving plumbing devices & eco-friendly landscaping

S

- More than a third of senior management (director level & above) and ~30% of board of trustees is diverse by gender or race
- Donation of \$1 per rental at participating stores to Feeding America to assist in ending food insecurity in America

G

- Separate chairman and chief executive officer roles
- Vendor awareness of ethical and environmental practices
- ESG Steering Committee formed in 2019



Consistent Sector-Leading Results



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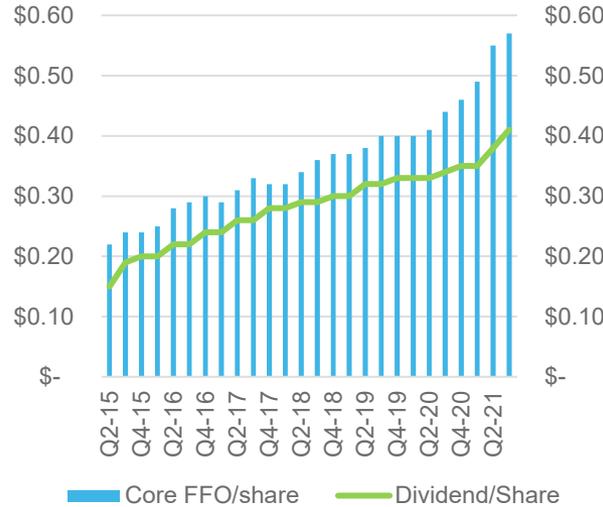
NSA's Transformational Growth Since IPO

NSA's PRO Model Drives All Aspects of Growth

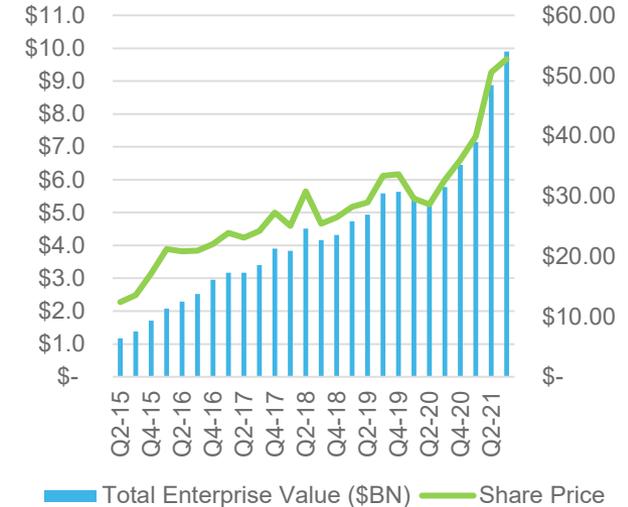
Growth in Total Properties and Rentable Square Feet



Growth in Core FFO/Share and Dividend/Share



Growth in Total Enterprise Value and Share Price



137% Growth in Quarterly Dividend per Share Since IPO⁽¹⁾

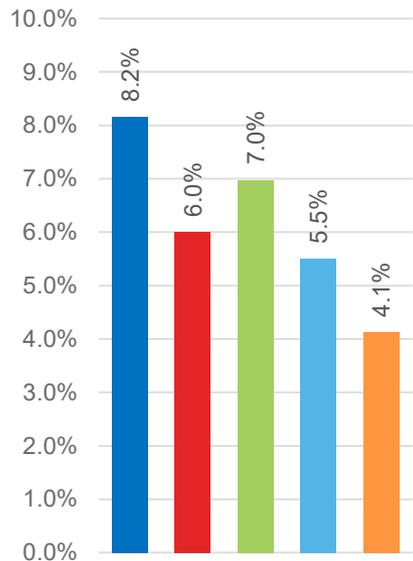
(1) Based on Q4 2021 quarterly dividend per share of \$0.45, and Q2 2015 quarterly dividend rate of \$0.19.



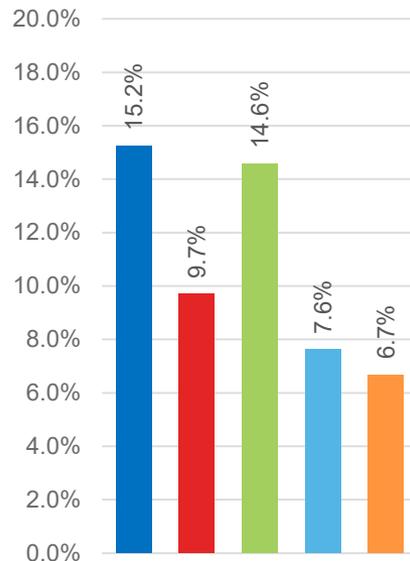
NSA Has Consistently Outpaced REIT Peers Since IPO

Twenty-Six Quarters of Performance Since IPO – through September 30, 2021⁽¹⁾

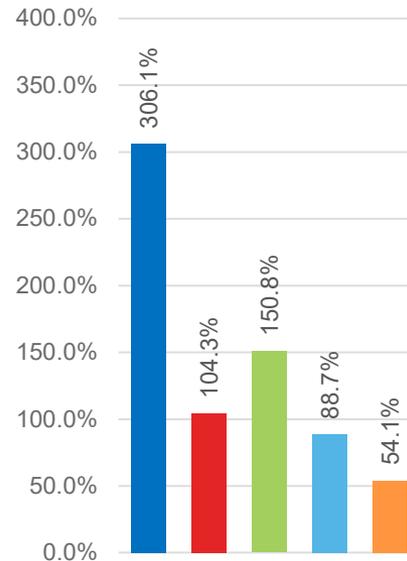
Average Same Store NOI Growth⁽²⁾



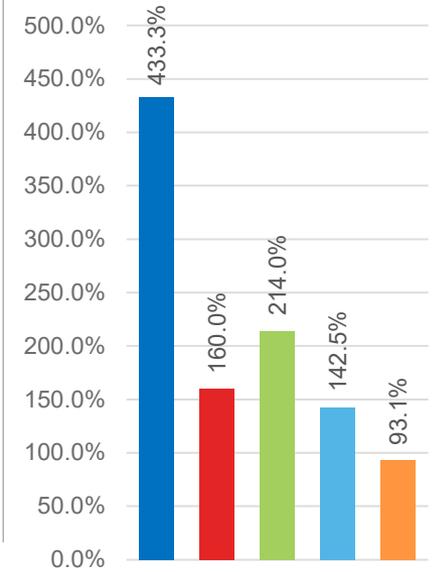
Average Core FFO Per Share Growth⁽²⁾



Stock Price Performance



Total Shareholder Return



■ NSA ■ CUBE ■ EXR ■ LSI ■ PSA

(1) Source: Public reporting and S&P Global Market Intelligence.

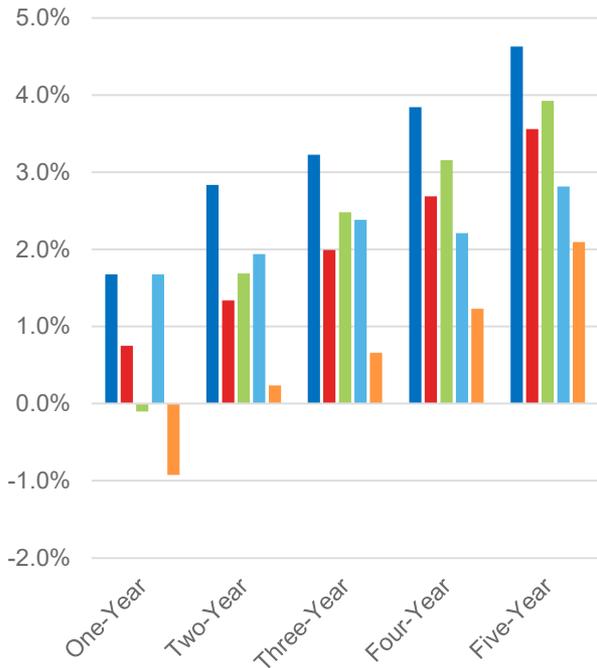
(2) Quarterly averages are computed using a simple average of year-over-year quarterly growth rates from second quarter 2015 through third quarter 2021.



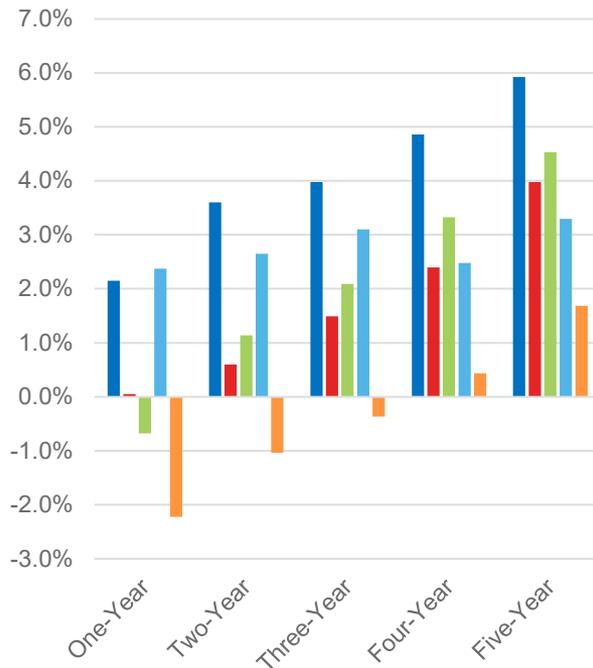


NSA Outperforms Over Past Five Calendar Years

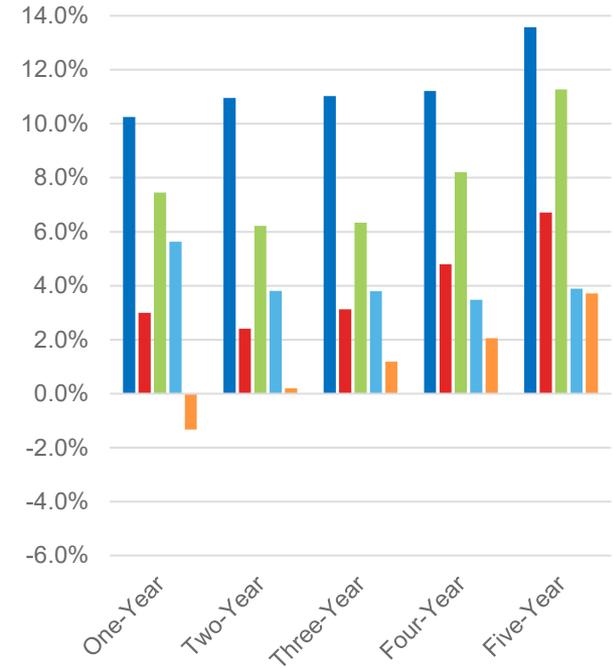
Average Trailing Quarterly Same Store Revenue Growth⁽¹⁾



Average Trailing Quarterly Same Store NOI Growth⁽¹⁾



Average Trailing Quarterly Core FFO per Share Growth⁽¹⁾



■ NSA ■ CUBE ■ EXR ■ LSI ■ PSA

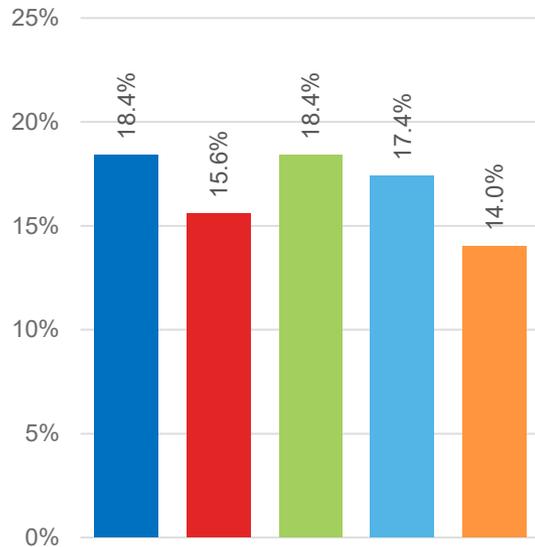
(1) Quarterly averages for the one-year, two-year, three-year, four-year and five-year periods ended fourth quarter 2020.



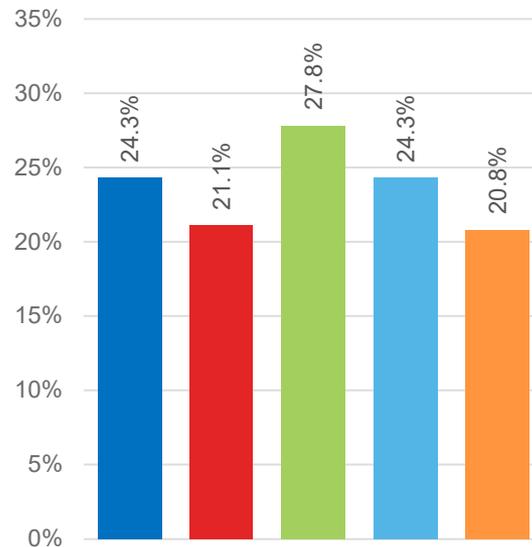
NSA Delivered Robust Growth in the Third Quarter

Third Quarter 2021 Key Metrics

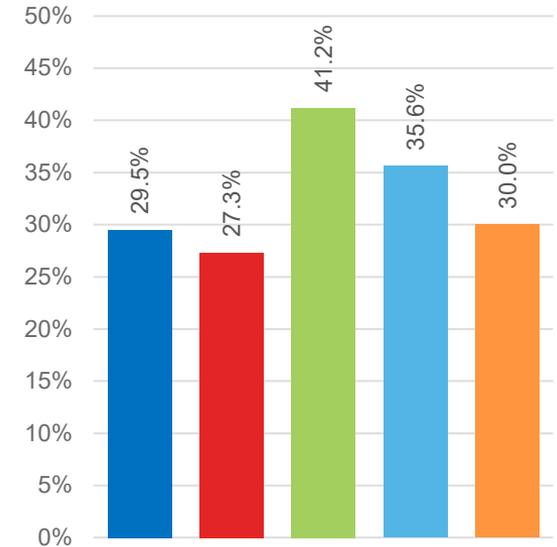
Same Store Revenue Growth



Same Store NOI Growth



Core FFO/Share Growth



■ NSA ■ CUBE ■ EXR ■ LSI ■ PSA



Differentiated PRO Structure Drives Growth



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— AFFILIATES —



NSA Structure Promotes Internal and External Growth



NSA's Tools and Decentralized Structure Deliver Results

Since IPO in April 2015, NSA has Delivered Average Year-over-Year Same Store Revenue Growth of 6.1% and Same Store NOI Growth of 8.2%



Structure Attracts Disciplined Growth-Oriented Operators

Successful regional operators join NSA as PROs rather than JV or sale options, giving NSA access to top portfolios not otherwise available

CRITERIA	NSA	JV	SALE / EXIT
Liquidity / Monetization	✓	●	●
Ability to Maintain Property Management	✓	●	
Participate in Upside	✓	●	
Enhance NOI Through Best Practices	✓		
Opportunity and Incentives to Grow Portfolio	✓		

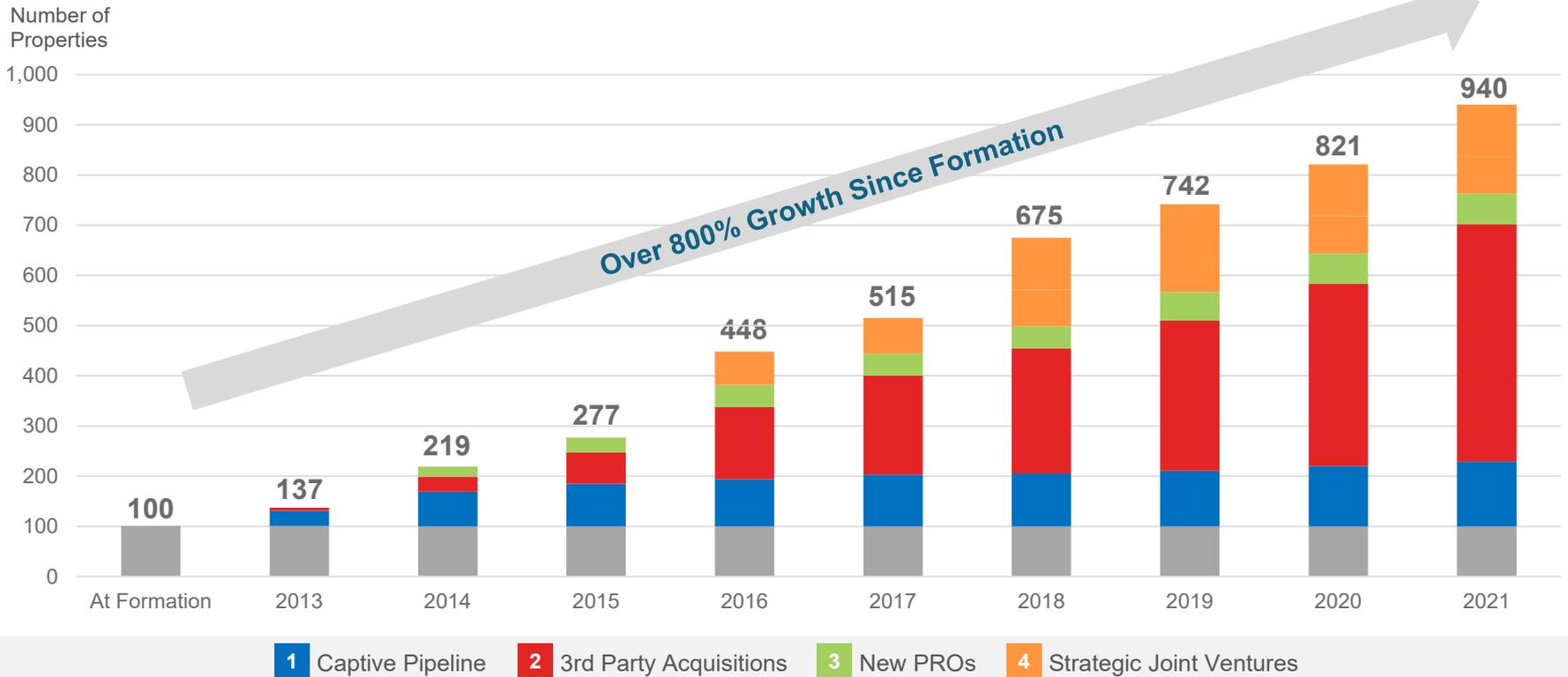


External Growth Has Momentum



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Multi-Faceted Acquisition Strategy Drives Growth



Robust Long-Term Acquisition Pipeline



Captive Acquisition Pipeline

- 150+ properties
- Estimated value **\$1.7 billion**

Potential Buyout of JV Partner Interest

- 177 properties
- JV Partner ownership interest 75%
- Current estimated value of JV partner interest **\$1.5 billion⁽¹⁾**

(1) The 75% third-party share of gross real estate assets is approximately \$1.5 billion based on the historical book value of the joint ventures.

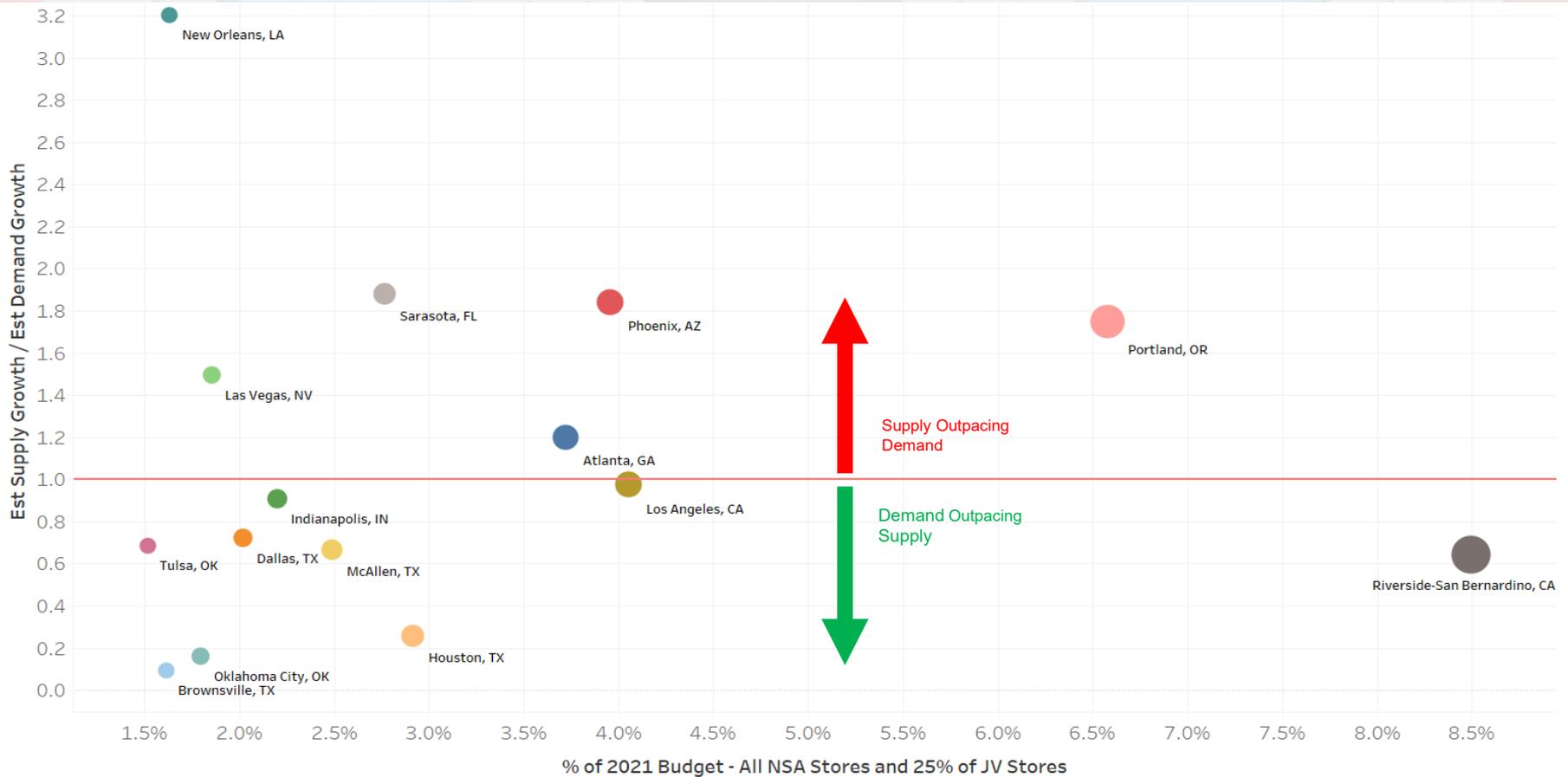


Supply Update



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NSA's Top 15 Markets – Supply Outlook is Balanced



See description of methodology in Appendix: Definitions and Methodology.



Flexible Capital Structure Supports Future Growth



NATIONAL STORAGE
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NSA's Flexible Capital Structure Positioned for Growth

BBB Rated
by
Kroll Bond Rating
Agency

22%
Principal Debt
/Total Enterprise
Value

Key Credit Metrics

4.9x
Net Debt/
Adjusted EBITDA

5.7x
Interest
Coverage Ratio

Capital for Growth

\$500MM
Unsecured Revolving
Line of Credit

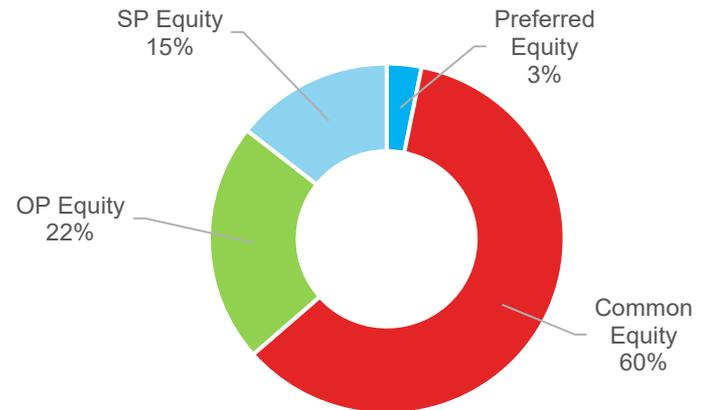
**OP & SP
Equity**

Attractive
Dividend
3.1%
Yield

Total Enterprise Value \$9.9 Billion



Equity Capitalization: Large Investment by Management and PROs



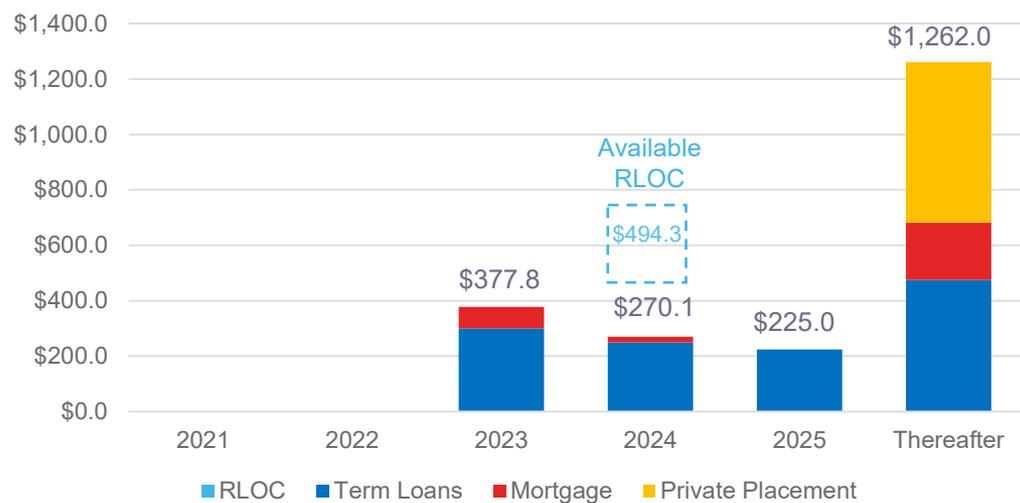
Investment Grade Balance Sheet Provides Strength and Flexibility to Finance Growth

Total Principal Debt Outstanding
\$2.14B

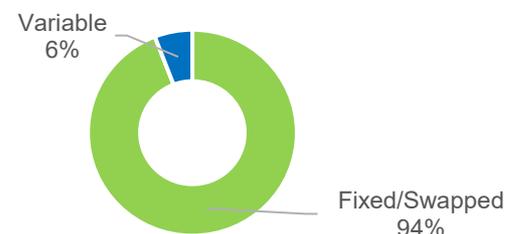
Weighted Average Maturity
5.5 Years

Effective Interest Rate
3.2%

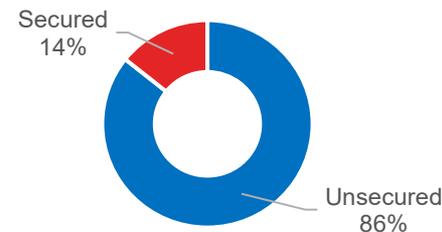
Debt Maturity Schedule
(\$ in millions)



Minimal Interest Rate Risk



Conservative Debt Profile



See description of terms in Appendix: Definitions and Methodology.



Appendix



NATIONAL STORAGE
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Highly Fragmented Industry: Consolidation Opportunity

- **Highly fragmented sector**

- ~49,000⁽¹⁾ self storage properties with over 30,000 operators⁽²⁾
- Over \$39 billion in annual revenue⁽²⁾

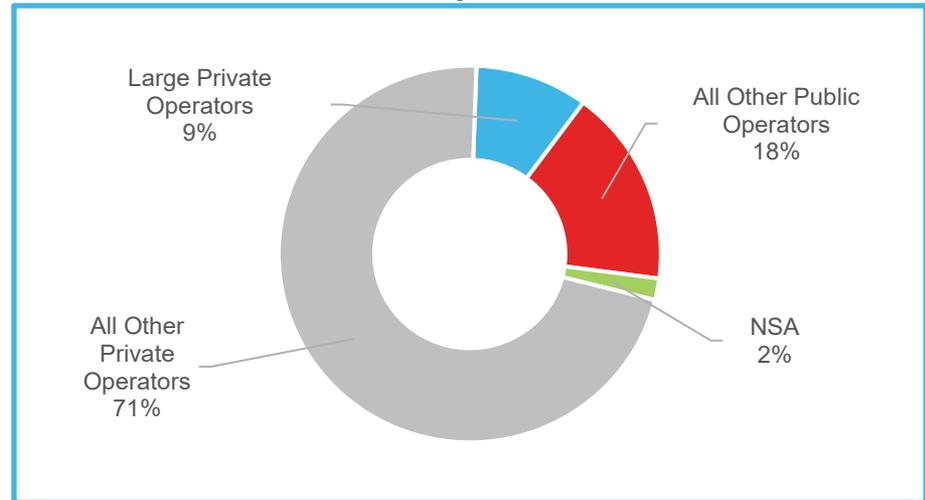
- **NSA PRO growth primarily targets top private operators with 20 or more institutional quality properties in the top 100 MSAs**

- Top 100 operators, excluding public REITs and U-Haul, own and/or manage over 4,700 self storage properties

Self Storage Top Operator Market Share



Market Share by # of Facilities



(1) 2021 Self-Storage Almanac based on total NRSF; survey excludes small, rural facilities.
 (2) Sparefoot / IBISWorld

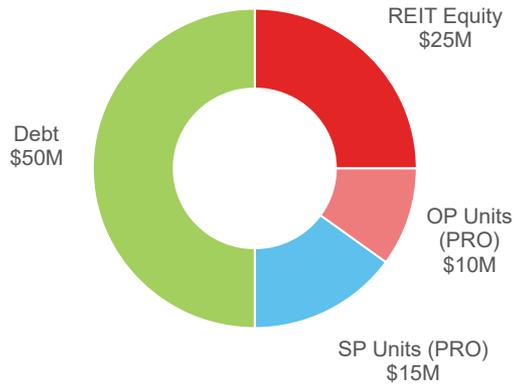


Structure Incentivizes PROs To Perform

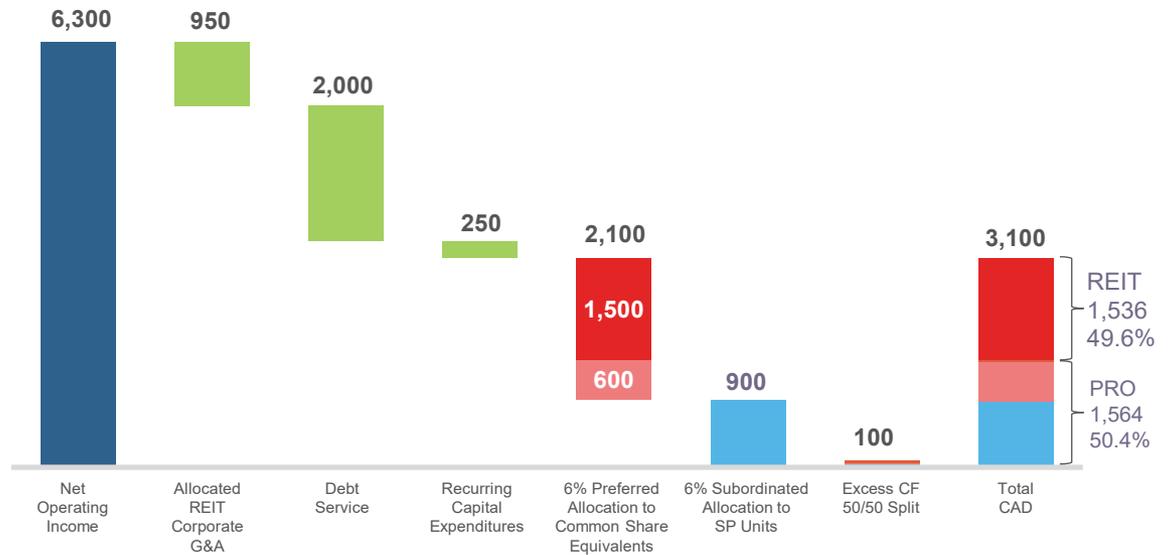
Key Assumptions

- \$100MM Purchase Price
- 50% Funded with Debt
- 6.3% Cap Rate
- 50% of Equity from PRO

Illustrative Capitalization



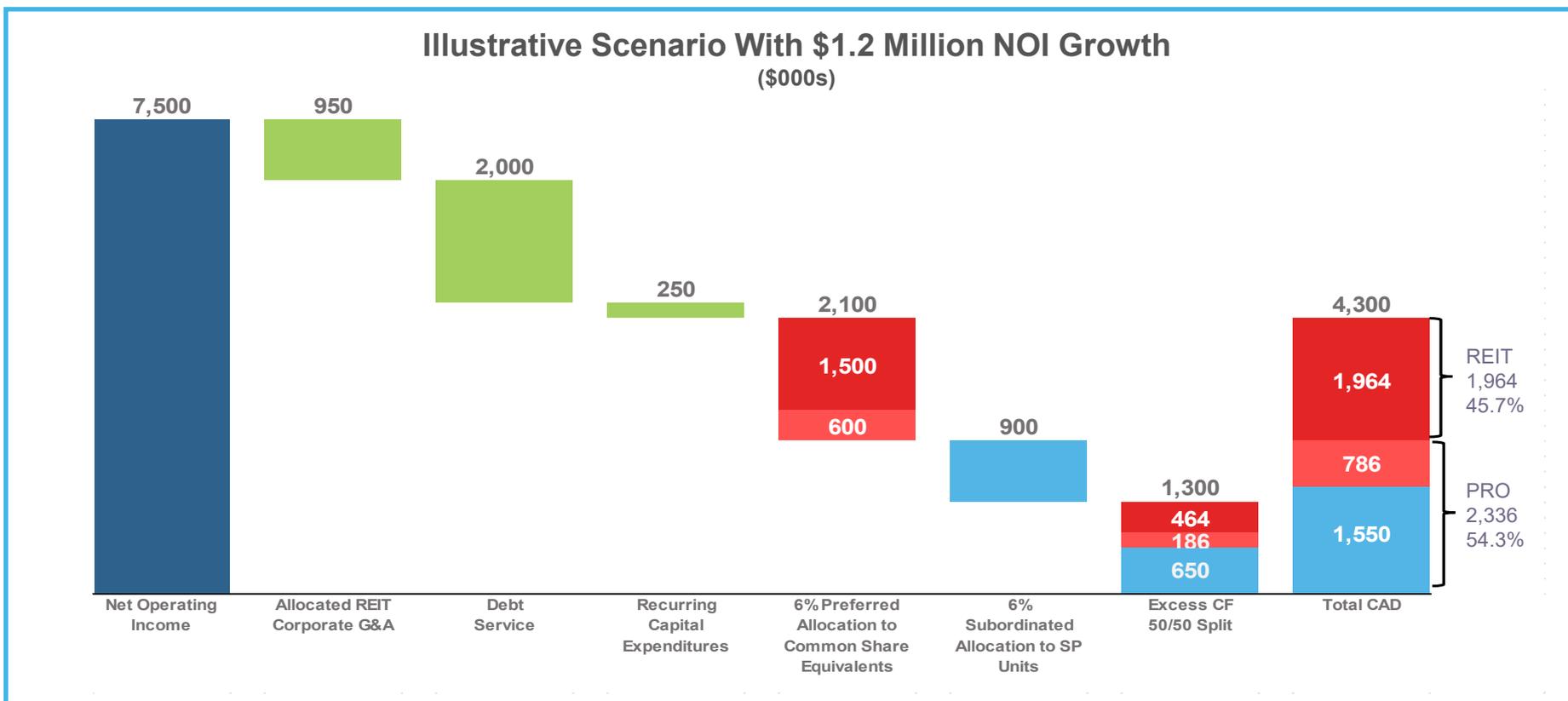
Illustrative Operating Cash Flow Allocation for Single Acquisition (\$000s)



Note: Proportion of SP units and OP units in each acquisition will vary. In general, the number of OP units issued will be capped at a level intended to provide a minimal level of operating cash flow ("CF") allocation on unreturned capital attributable to the OP units. Debt Service is reflective of interest expense and scheduled principal amortization. Post-contribution capital structure is reflective of cost and does not reflect market value. This hypothetical capital structure and cash flow allocation is for illustrative purposes only and reflects the terms of the partnership agreement: SP unit holders receive a 6% allocation of operating CF on their unreturned capital contributions after a 6% allocation on unreturned capital attributable to OP unit holders, and then share in the allocation of any excess cash flow 50/50 with OP unit holders. The REIT is allocated \$36K of the operating CF allocated to OP units related to the 50/50 split of excess operating CF. The allocation of operating CF between the SP units and OP units is for purposes of determining distributions on SP units and does not represent the operating CF that will be distributed on OP units (or paid as dividends on NSA's common shares). Any distribution of operating CF allocated to OP units will be made at the discretion of NSA (and paid as dividends on our common shares at the discretion of our board of trustees).



Structure Incentivizes PROs To Perform – Upside Scenario

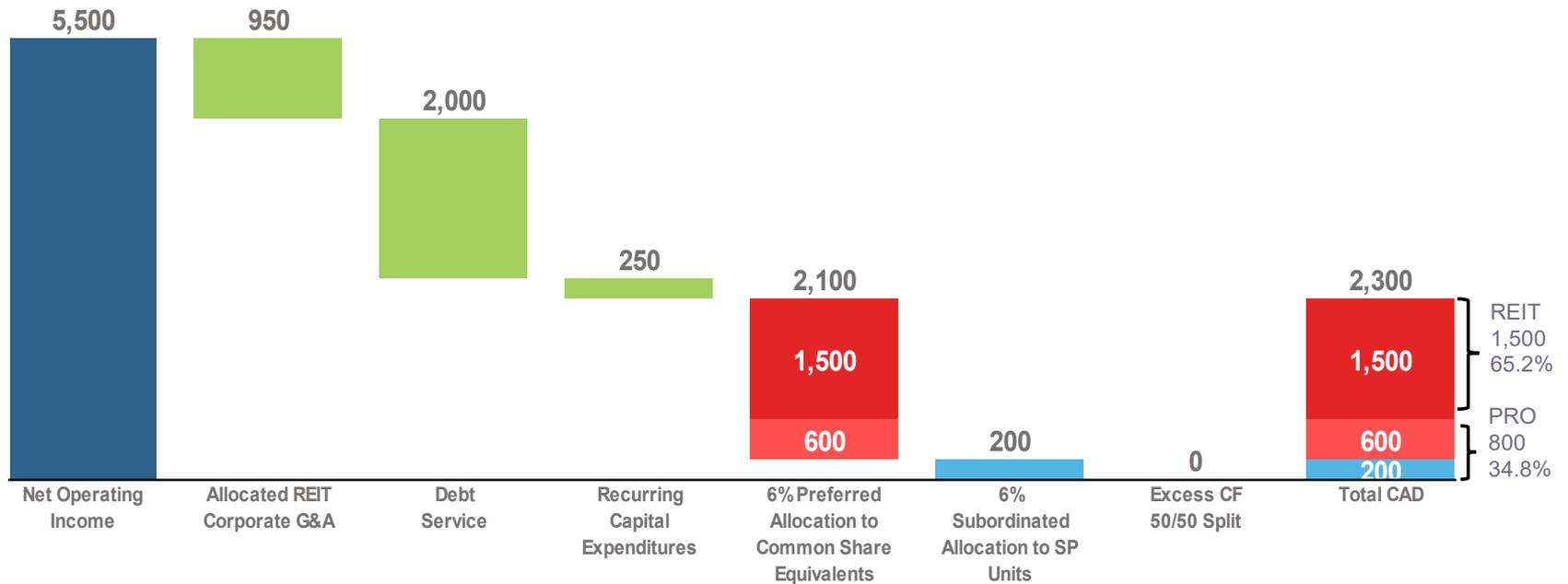


Note: Proportion of SP units and OP units in each acquisition will vary. In general, the number of OP units issued will be capped at a level intended to provide a minimal level of operating cash flow ("CF") allocation on unreturned capital attributable to the OP units. Debt Service is reflective of interest expense and scheduled principal amortization. Post-contribution capital structure is reflective of cost and does not reflect market value. This hypothetical capital structure and cash flow allocation is for illustrative purposes only and reflects the terms of the partnership agreement: SP unit holders receive a 6% allocation of operating CF on their unreturned capital contributions after a 6% allocation on unreturned capital attributable to OP unit holders, and then share in the allocation of any excess cash flow 50/50 with OP unit holders. The REIT is allocated \$464K of the operating CF allocated to OP units related to the 50/50 split of excess operating CF. The allocation of operating CF between the SP units and OP units is for purposes of determining distributions on SP units and does not represent the operating CF that will be distributed on OP units (or paid as dividends on NSA's common shares). Any distribution of operating CF allocated to OP units will be made at the discretion of NSA (and paid as dividends on our common shares at the discretion of our board of trustees).



Structure Protects NSA Shareholders – Downside Scenario

Illustrative Scenario With \$0.8 Million NOI Decline
(\$000s)



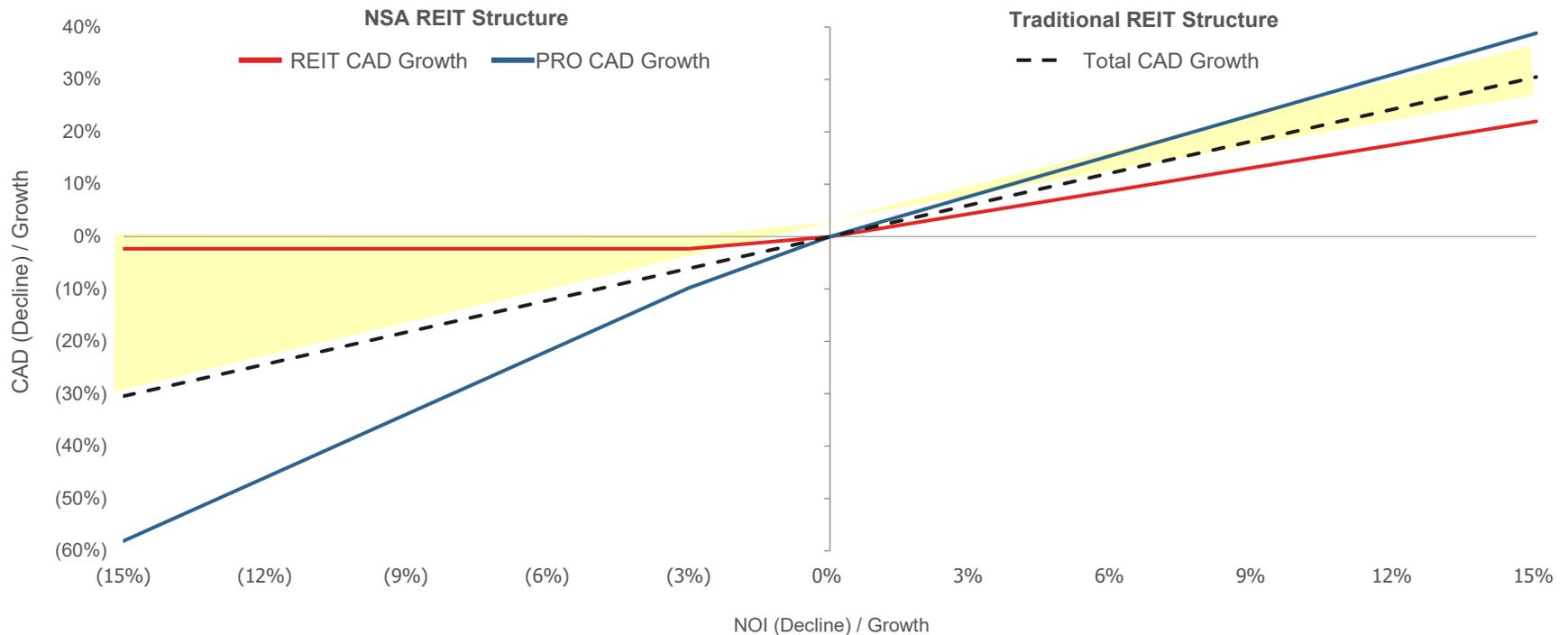
Note: Proportion of SP units and OP units in each acquisition will vary. In general, the number of OP units issued will be capped at a level intended to provide a minimal level of operating cash flow (“CF”) allocation on unreturned capital attributable to the OP units. Debt Service is reflective of interest expense and scheduled principal amortization. Post-contribution capital structure is reflective of cost and does not reflect market value. This hypothetical capital structure and cash flow allocation is for illustrative purposes only and reflects the terms of the partnership agreement: SP unit holders receive a 6% allocation of operating CF on their unreturned capital contributions after a 6% allocation on unreturned capital attributable to OP unit holders, and then share in the allocation of any excess cash flow 50/50 with OP unit holders. The REIT is allocated \$0K of the operating CF allocated to OP units related to the 50/50 split of excess operating CF. The allocation of operating CF between the SP units and OP units is for purposes of determining distributions on SP units and does not represent the operating CF that will be distributed on OP units (or paid as dividends on NSA’s common shares). Any distribution of operating CF allocated to OP units will be made at the discretion of NSA (and paid as dividends on our common shares at the discretion of our board of trustees).



PRO Structure – Shareholder Cash Flow Stability and Downside Protection

Shareholders benefit from less volatile cash flow and downside protection

Illustrative Impact on Operating Cash Flow Allocation for Single Acquisition⁽¹⁾



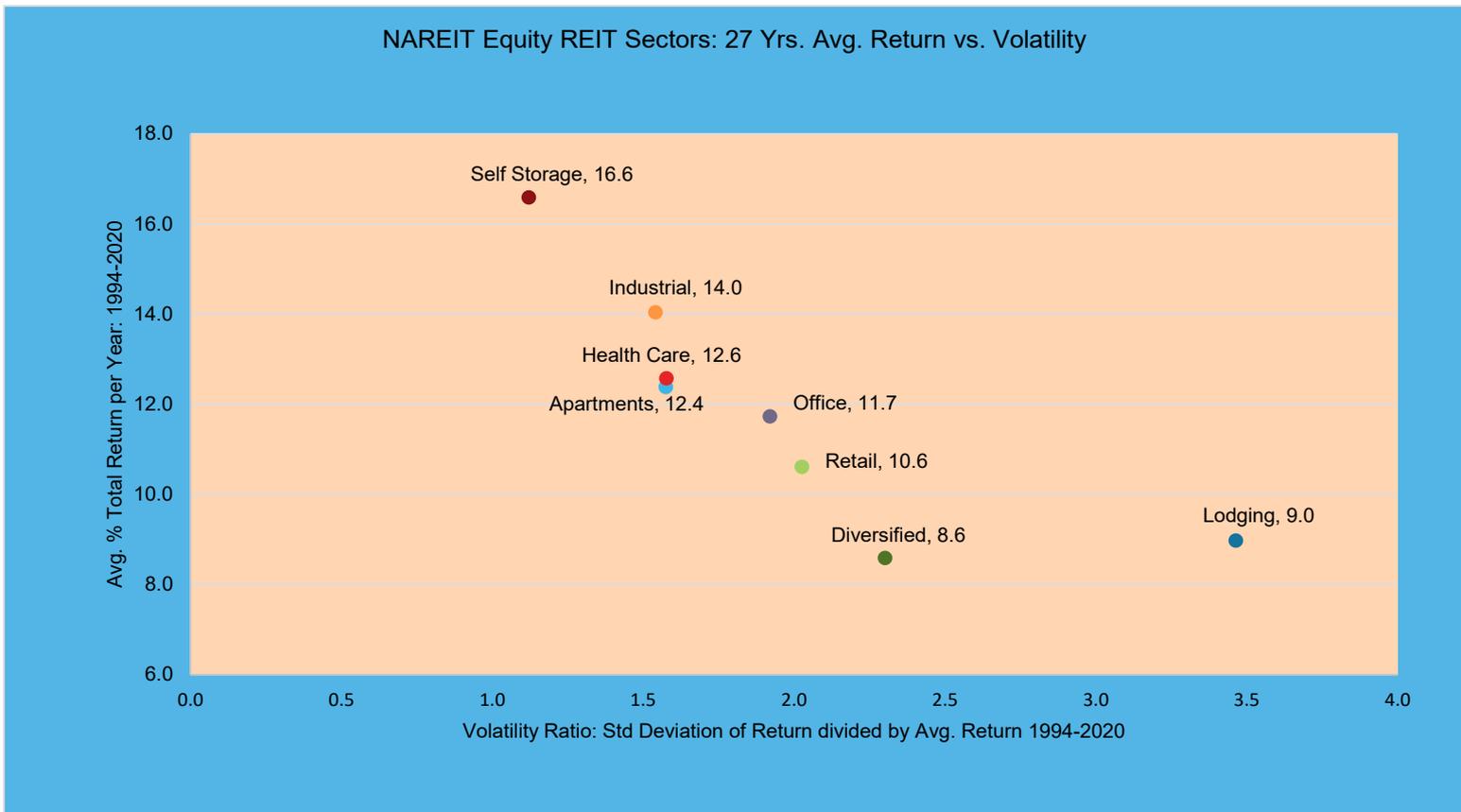
Note: PRO CAD Growth is comprised of cash available to PROs through their ownership interests in both OP and SP units. REIT CAD Growth is comprised of cash available to all other equity stakeholders.

(1) This illustrative sensitivity graph reflects the capital structure of a single acquisition and standard NSA operating CF allocation assumptions. This hypothetical capital structure and cash flow allocation is for illustrative purposes only and reflects the terms of the partnership agreement: SP unit holders receive a 6% allocation of operating CF on their unreturned capital contributions after a 6% allocation on unreturned capital attributable to OP unit holders, and then share in the allocation of any excess cash flow 50/50 with OP unit holders. This allocation of operating CF between the SP units and OP units is for purposes of determining distributions on SP units and does not represent the operating CF that will be distributed on OP units (or paid as dividends on NSA's common shares). Any distribution of operating CF allocated to OP units will be made at the discretion of NSA (and paid as dividends on NSA's common shares at the discretion of our board of trustees).



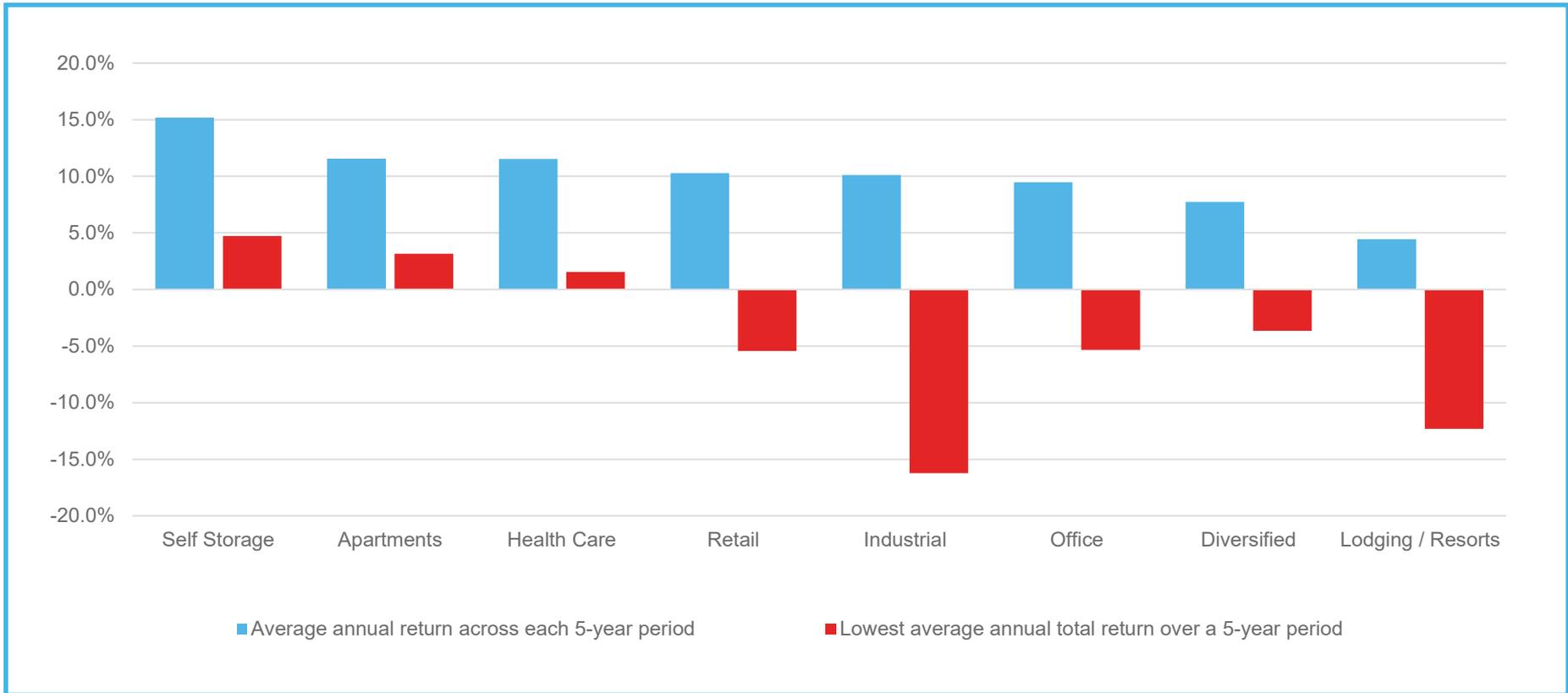
Self Storage: Higher Returns, Lower Volatility

Self Storage total returns have outperformed all other equity REIT sectors for 27 years while experiencing the least volatility



Self Storage Has Outperformed Over the Past 27 Years

Even in the worst five-year period, self storage delivered >4.5% total shareholder return per year



Source: NAREIT.

Sector Average Annual Total Shareholder Returns for Each 5-Year Period (All US Public Equity REITs) Over the Past 27 years ended 2020. Annual total shareholder returns calculated as five-year IRRs on NAREIT's individual property sector total return index levels, for 23 separate 5-year periods from 1994-1998 through 2016 - 2020. Lowest average annual return periods for each sector are the five years ended: Self storage 2020; Apartments 2009; Health Care 1999; Retail 2020; Office 2011; Industrial 2011; Diversified 2011; Lodging / Resorts 2002.



Earnings Per Share – Diluted to Funds From Operations (“FFO”) and Core FFO Per Share and Unit Reconciliation

	Three Months Ended September 30,			
	2021		2020	
Earnings (loss) per share – diluted	\$	0.26	\$	0.15
Impact of the difference in weighted average number of shares ⁽¹⁾		0.05		(0.05)
Impact of GAAP accounting for noncontrolling interests, two-class method and treasury stock method ⁽²⁾		-		0.08
Add real estate depreciation and amortization		0.33		0.28
Add Company’s share of unconsolidated real estate venture real estate depreciation and amortization		0.03		0.04
FFO attributable to subordinated performance unitholders		(0.11)		(0.07)
FFO per share and unit	\$	0.56	\$	0.43
Add acquisition costs		0.01		0.01
Core FFO per share and unit	\$	0.57	\$	0.44

Source: Q3 2021 Company financials.

- (1) Adjustment accounts for the difference between the weighted average number of shares used to calculate diluted earnings per share and the weighted average number of shares used to calculate FFO and Core FFO per share and unit. Diluted earnings per share is calculated using the two-class method for the company’s restricted common shares and the treasury stock method for certain unvested LTIP units, and assumes the conversion of vested LTIP units into OP units on a one-for-one basis and the hypothetical conversion of subordinated performance units, and DownREIT subordinated performance units into OP units, even though such units may only be convertible into OP units (i) after a lock-out period and (ii) upon certain events or conditions. For additional information about the conversion of subordinated performance units and DownREIT subordinated performance units into OP units, see Note 10 to the Company’s most recent Annual Report on Form 10-K, filed with the Securities and Exchange Commission. The computation of weighted average shares and units for FFO and Core FFO per share and unit includes all restricted common shares and LTIP units that participate in distributions and excludes all subordinated performance units and DownREIT subordinated performance units because their effect has been accounted for through the allocation of FFO to the related unitholders based on distributions declared.
- (2) Represents the effect of adjusting the numerator to consolidated net income (loss) prior to GAAP allocations for noncontrolling interests, after deducting preferred share and unit distributions, and before the application of the two-class method and treasury stock method, as described in footnote⁽¹⁾.



Net Income to Net Operating Income Reconciliation

	Three Months Ended September 30,	
	2021	2020
Net income	\$ 40,730	\$ 21,411
(Subtract) add:		
Management fees and other revenue	(6,282)	(5,901)
General and administrative expenses	13,012	10,818
Other	994	479
Depreciation and amortization	38,983	28,933
Interest expense	18,144	15,262
Equity in (earnings) losses of unconsolidated real estate ventures	(1,682)	(37)
Acquisition costs	512	596
Income tax expense	444	346
Non-operating expense	241	120
Net Operating Income	\$ 105,096	\$ 72,027

Source: Q3 2021 Company financials.



Net Income to EBITDA & Adjusted EBITDA Reconciliation

	Three Months Ended September 30,			
	2021		2020	
Net income	\$	40,730	\$	21,411
Add:				
Depreciation and amortization		38,983		28,933
Company's share of unconsolidated real estate venture depreciation and amortization		3,842		3,830
Interest expense		18,144		15,262
Income tax expense		444		346
EBITDA	\$	102,143	\$	69,782
Add (subtract):				
Acquisition costs		512		596
Equity-based compensation expense		1,454		1,183
Adjusted EBITDA	\$	104,109	\$	71,561

Source: Q3 2021 Company financials.



Definitions and Methodology

Total Enterprise Value: The sum of the Company's debt principal outstanding plus the perpetual preferred and common equity (on a fully diluted basis) valued at the closing price per share, as of September 30, 2021, of \$26.21 and \$52.79, respectively. SP equity is assumed converted using the hypothetical conversion ratio for the trailing twelve months ended at each respective quarter end, which we publicly disclose each quarter. See Supplemental Schedule 4 to each of our earnings releases which are furnished with the U.S. Securities and Exchange Commission.

Net Debt / Adjusted EBITDA: Total debt less cash and cash equivalents, divided by annualized Adjusted EBITDA for most recently reported quarter.

Interest Coverage Ratio: Computed by dividing Adjusted EBITDA by interest expense for most recently reported quarter.

EBITDA: Net income (loss), as determined under GAAP, plus interest expense, loss on early extinguishment of debt, income taxes, depreciation and amortization expense and the Company's share of unconsolidated real estate venture depreciation and amortization.

Adjusted EBITDA: EBITDA plus acquisition costs, organizational and offering expenses, equity-based compensation expense, losses on sale of properties and impairment of long-lived assets, minus gains on sale of properties and debt forgiveness, and after adjustments for unconsolidated partnerships and joint ventures.

Dividend Yield: Calculated based on third quarter 2021 quarterly annualized dividend of \$1.64 divided by market closing price of NSA's common shares on September 30, 2021 of \$52.79.

Effective Interest Rate: Incorporates the stated rate plus the impact of interest rate cash flow hedges and discount and premium amortization, if applicable. For the revolving line of credit, the effective interest rate excludes fees which range from 0.15% to 0.20% for unused borrowings.

Page 22 – Supply Graph Methodology

1. We estimate supply growth for each market as follows: first, we add together the expected total net rentable square footage attributable to (i) all Fill-Up and Under Construction Properties and (ii) 25% of all Planned and Prospective Properties. Properties refers to all self storage properties (including NSA's) in the MSAs set forth above, tracked and reported by Yardi Matrix. Fill-Up are stores that have opened in the 24-month period prior to September 9, 2021. Under Construction are those currently under construction. Planned and Prospective are those with a permit in place or an approval pending to build. We divide this number by the total net rentable square footage of all properties in each market.
2. We estimate demand growth in each market by adding together (i) Experian's 5-year projections for the percentage increase in household growth in each market plus (ii) 5%, which represents our assumptions with respect to increased demand in each market irrespective of population growth.
3. The ratio of supply growth to demand growth is calculated based upon NSA's estimates and assumptions as set forth in footnotes 1 and 2 above. There can be no assurance that supply growth and demand growth in any market will correspond to such estimates. Some or all of our competitor's properties in these markets may not fill up, reach completion or be built at all or on the schedule currently contemplated and increases in population and non-population related demand may differ from our estimates and assumptions.
4. Circle sizes correspond to each MSA's % share of NSA's projected 2021 revenue, with JV properties accounted for at NSA's 25% share.



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