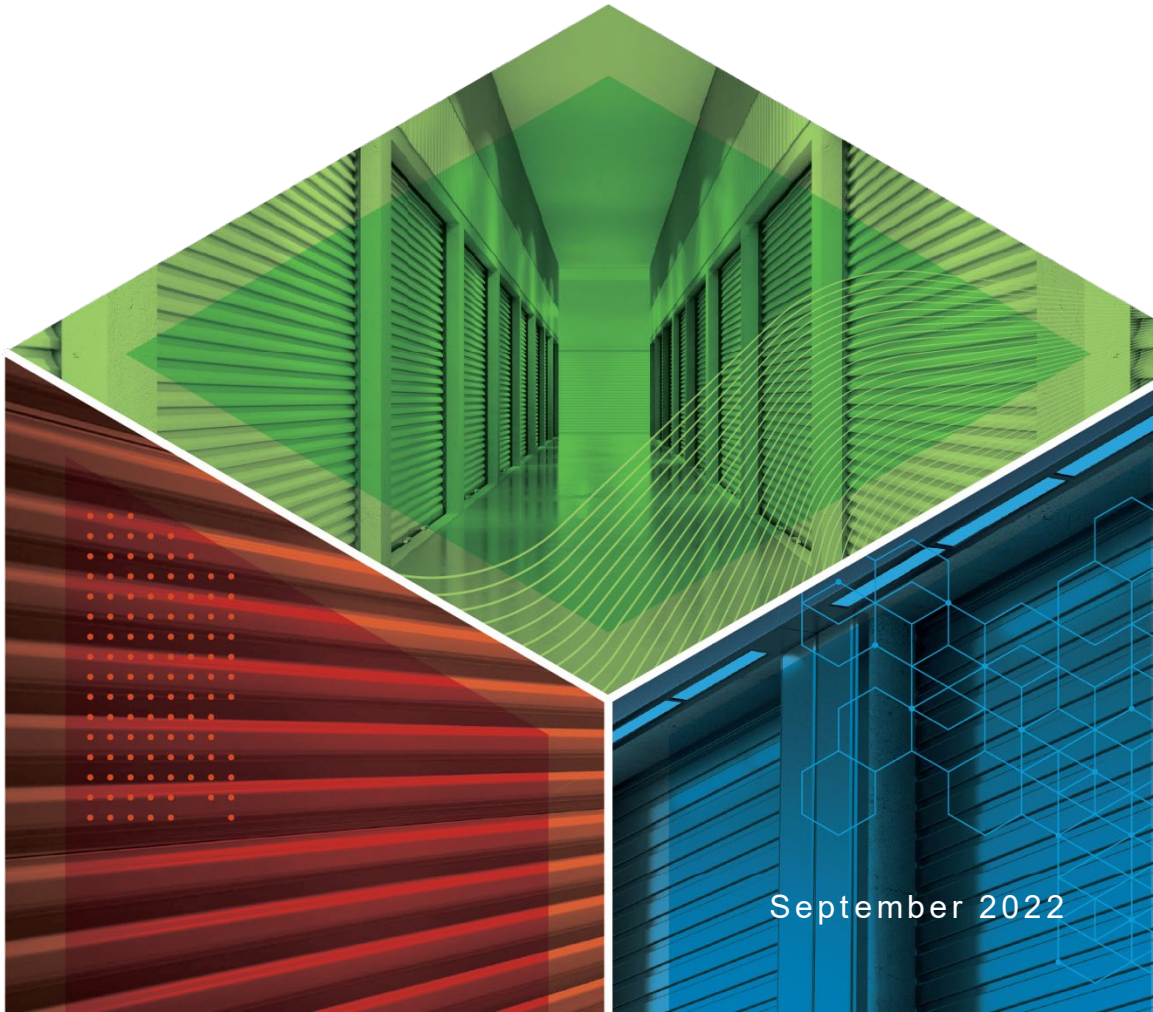




National Storage Affiliates Company Update



NATIONAL STORAGE
— AFFILIATES —

September 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 25, 2022 (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 June 30, 2022 and 2021 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 March 31, 2022, 2021, 2020, 2019, and 2018, December 31, 2021, 2020, 2019, 2018 and 2017, September 30, 2021, 2020, 2019, 2018, and 2017, and June 30, 2020, 2019, and 2018 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 June 30, 2022, except as otherwise noted.





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National Storage Affiliates Company Overview



NATIONAL STORAGE
— AFFILIATES —

NSA Snapshot as of June 30, 2022

420%

Total Shareholder Return
Since IPO in April 2015

\$10.9B

Total Enterprise Value

1,076

Property Portfolio

Q2 2022 Performance

\$115M

Wholly-Owned Acquisitions
In Q2 2022

45%

Y-O-Y Growth In Q2 2022
Dividend Rate

17.3%

Y-O-Y Same Store NOI
Growth In Q2 2022

29.1%

Y-O-Y Core FFO/Share Growth
In Q2 2022

95.1%

Same Store Avg. Occupancy
In Q2 2022

14.6%

Y-O-Y Same Store Revenue
Growth In Q2 2022

Well Diversified;
Located in

42

States +
Puerto Rico

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

**Leading owner
and operator of
self storage
facilities in the
U.S.**



Size and Diversification Reduce Risk

69.9M
Rentable Square Feet

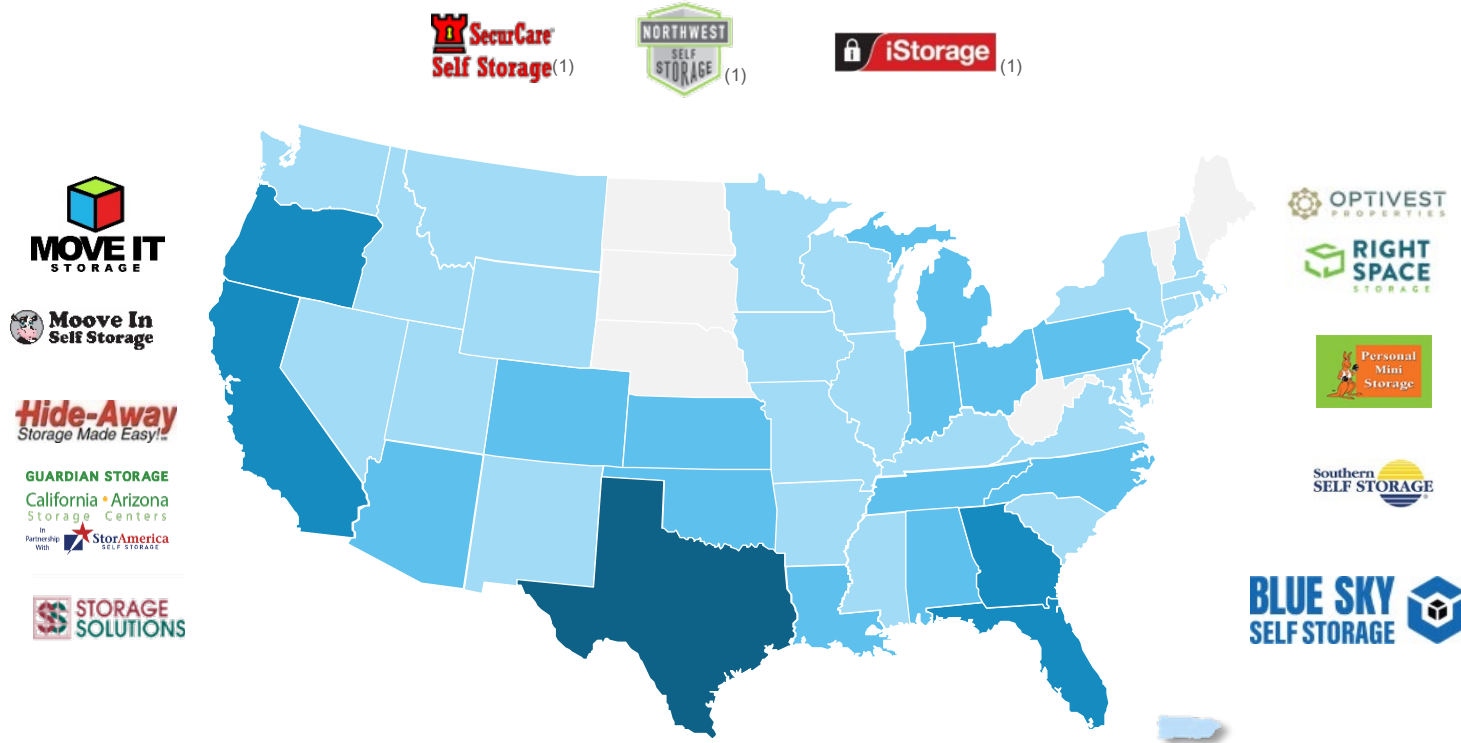
1,076
Properties

892 Wholly-Owned

514 Corporate Portfolio
378 PRO Managed Portfolios

184 Joint Venture

Managed by NSA Corporate Property Management Platform
(NSA has a 25% ownership interest in its two joint ventures)



% of NSA Properties >10% 5-10% 2-5% < 2%

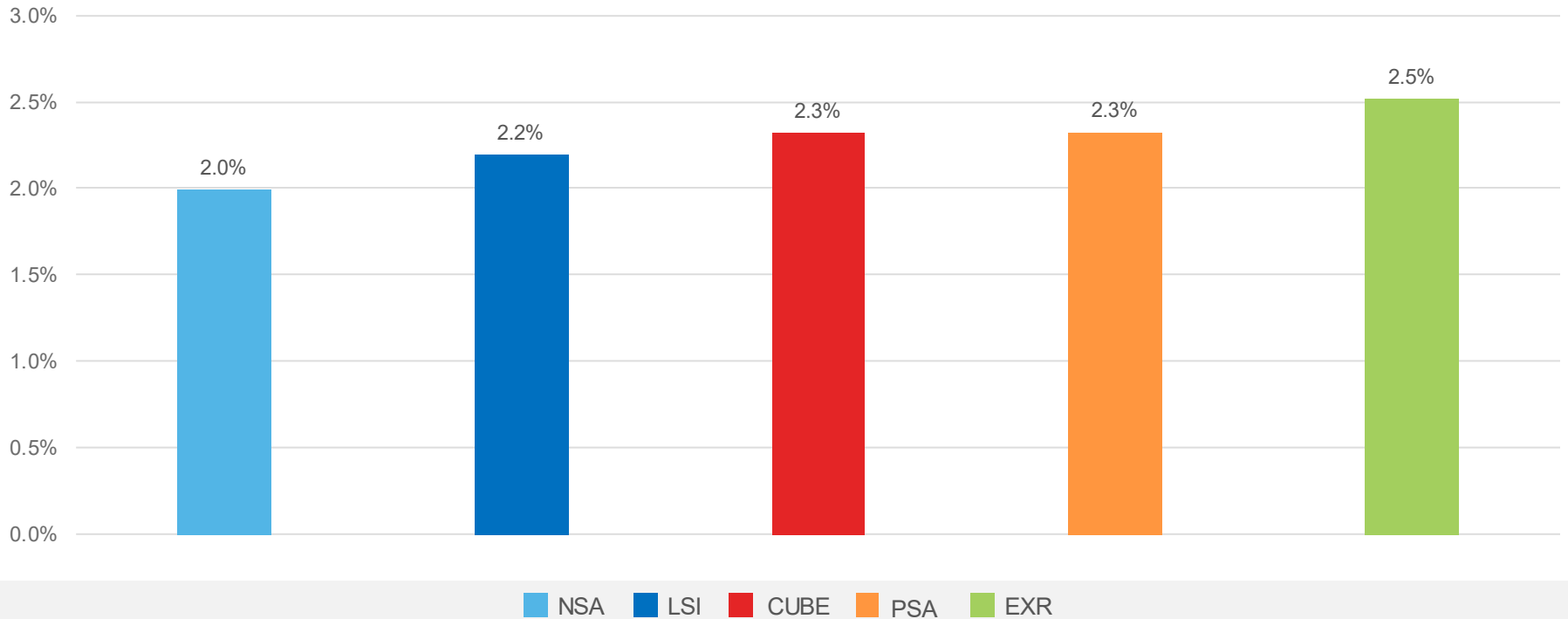
(1) NSA Corporate Brands



Demographic Analysis - NSA Well Positioned

Storage Rent in NSA's Markets is More Affordable on Average Relative to Peers

Typical 10x10 Unit Annual Rent as a % of Median HH Income⁽¹⁾



(1) Based on utilizing 2Q 2022 3-mile radius Median HH Income from Evercore ISI's report: 2Q22 Storage Demographic Update, combined with 2Q 2022 same store annualized rental revenue per occupied square foot as follows: NSA \$14.55; LSI \$18.45; CUBE \$20.96; PSA \$21.37; and EXR \$21.98. The annualized rental revenue per occupied square foot is then multiplied by 100 to represent a 10x10 unit.



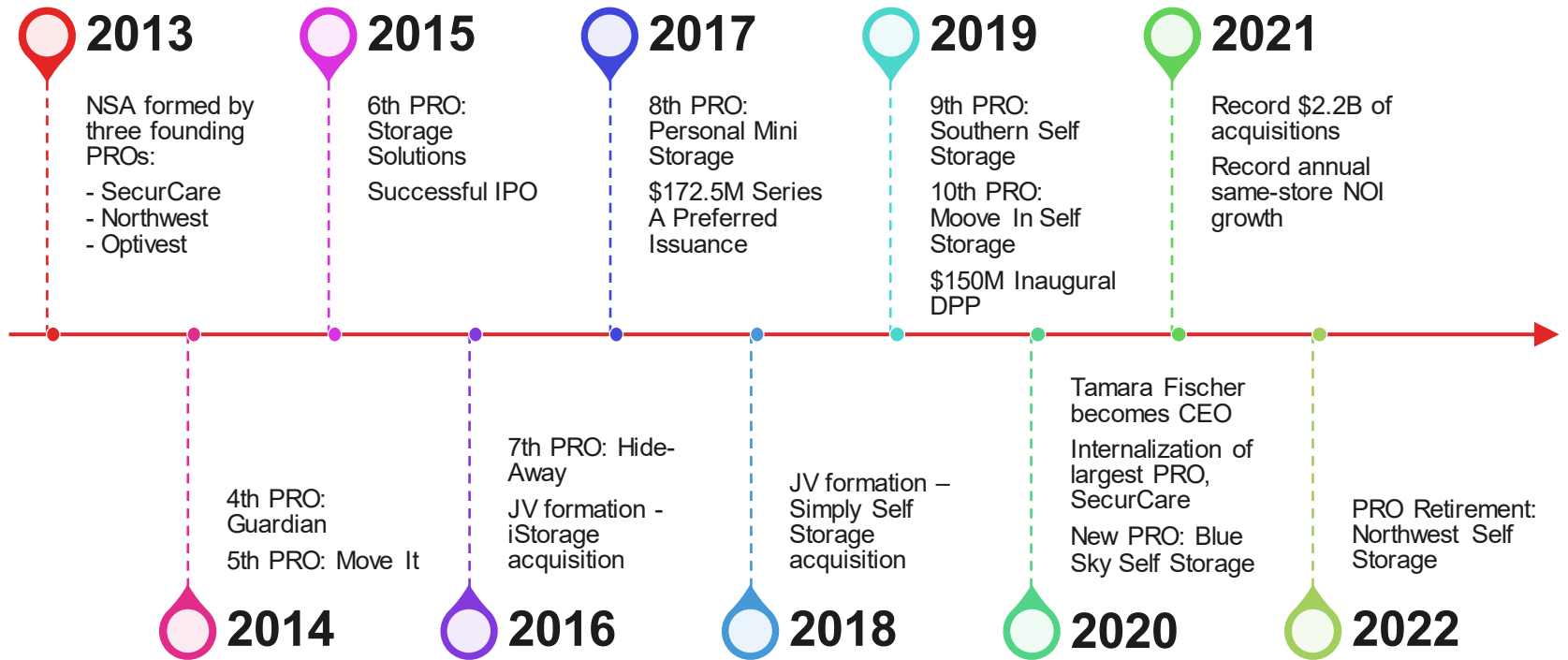


Portfolio Metrics Update – 2022 Same Store Pool

Metric	Q2 2022	August 2022
Period-End Occupancy	95.2%	93.7%
Year-Over-Year Change in Period-End Occupancy	-140 bps	-270 bps
Year-Over-Year Change in Street Rates	+18%	+10%

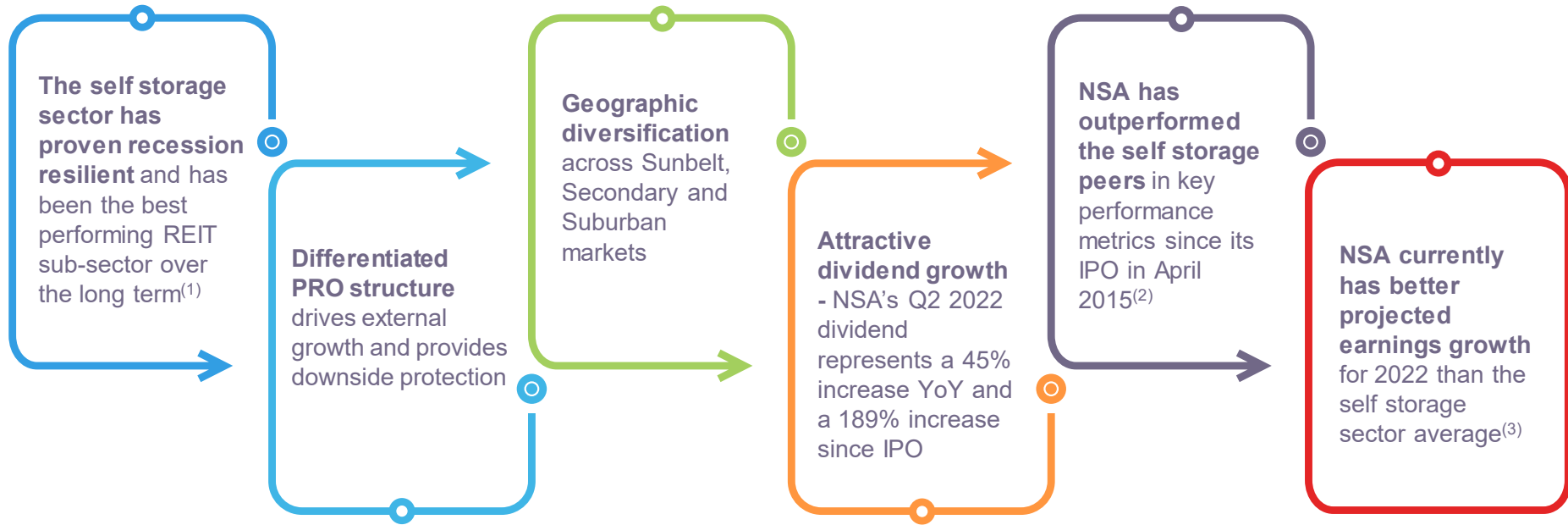


NSA Timeline of Key Milestones





Why Invest in NSA?



(1) See slide 33.

(2) Based on quarterly average same store revenue growth and same store NOI growth from Q2 2015 – Q2 2022, and total shareholder return since NSA's IPO through June 30, 2022.

(3) Based on consensus 2022 Core FFO per share estimates. NSA consensus 2022 CFFO per share growth of 26% vs the peer average of 22% as of 9/9/2022.



Consistent Sector-Leading Results

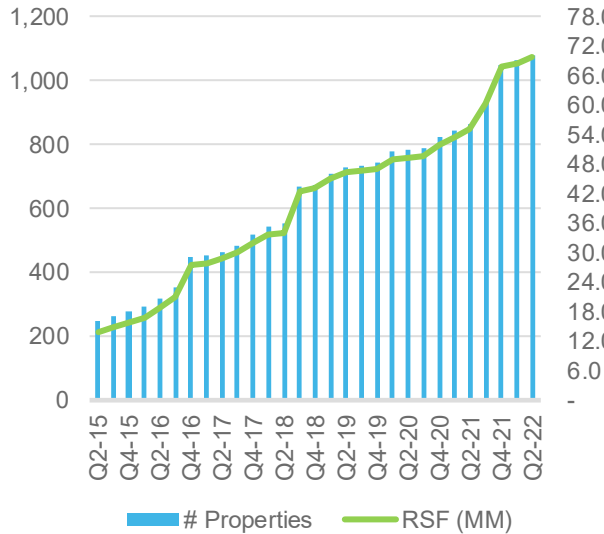


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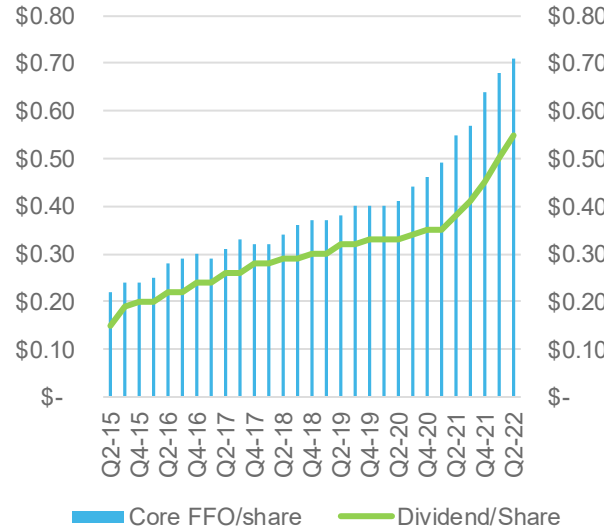
NSA's Transformational Growth Since IPO

NSA's Differentiated Strategy Drives All Aspects of Growth

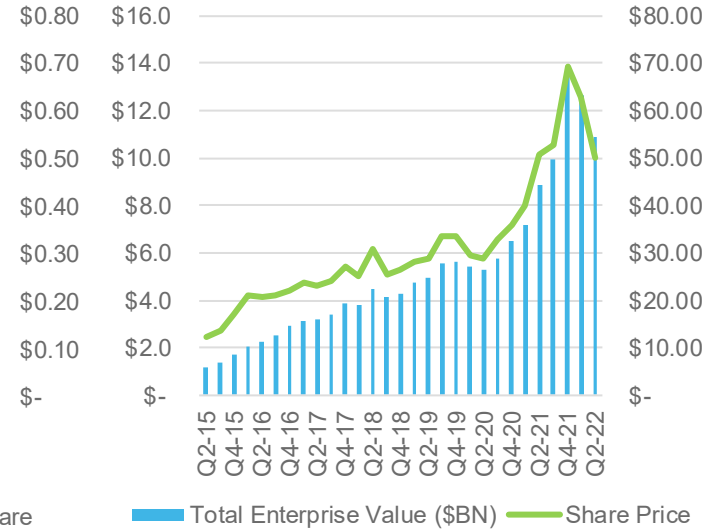
Growth in Total Properties and Rentable Square Feet



Growth in Core FFO/Share and Dividend/Share



Growth in Total Enterprise Value and Share Price



189% Growth in Quarterly Dividend per Share Since IPO⁽¹⁾

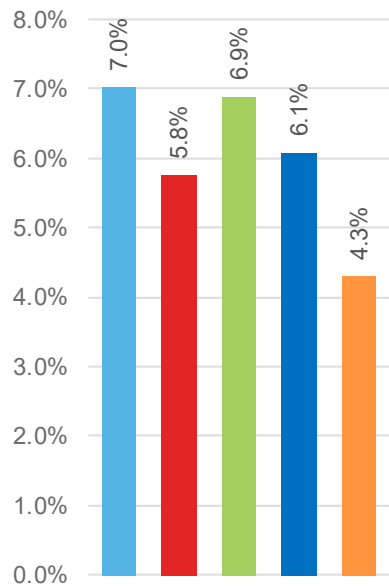
(1) Based on Q3 2022 quarterly dividend per share of \$0.55, and Q2 2015 quarterly dividend rate of \$0.19.



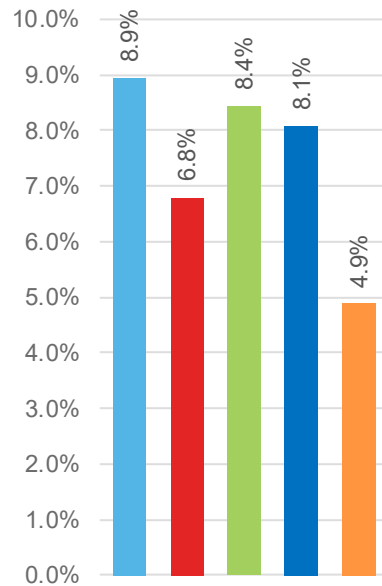
NSA Delivers Sector Leading Results

Trailing Five Years of Performance⁽¹⁾

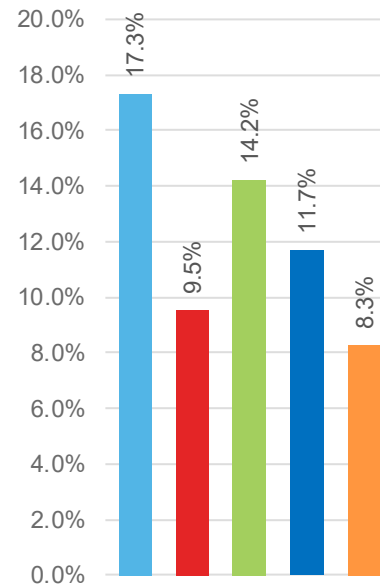
Average Same Store Revenue Growth⁽²⁾



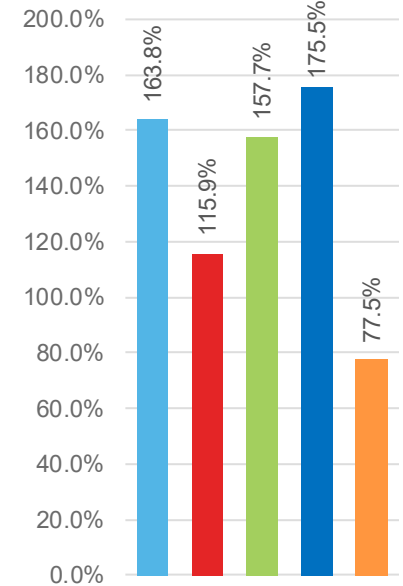
Average Same Store NOI Growth⁽²⁾



Average Core FFO Per Share Growth⁽²⁾



Total Shareholder Return



■ NSA ■ CUBE ■ EXR ■ LSI ■ PSA

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

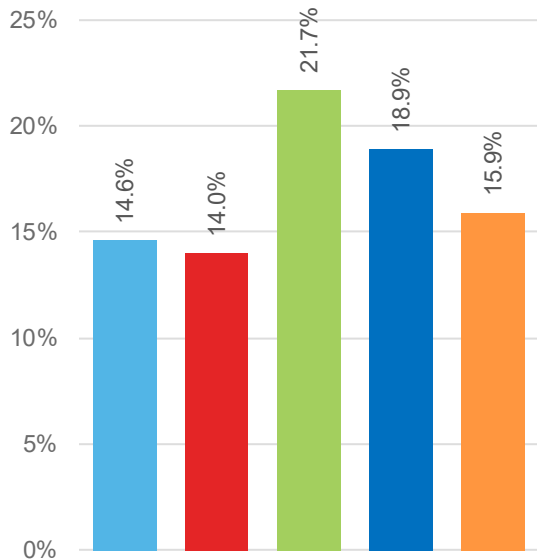
(2) Quarterly averages are computed using a simple average of year-over-year quarterly growth rates from third quarter 2017 through second quarter 2022.



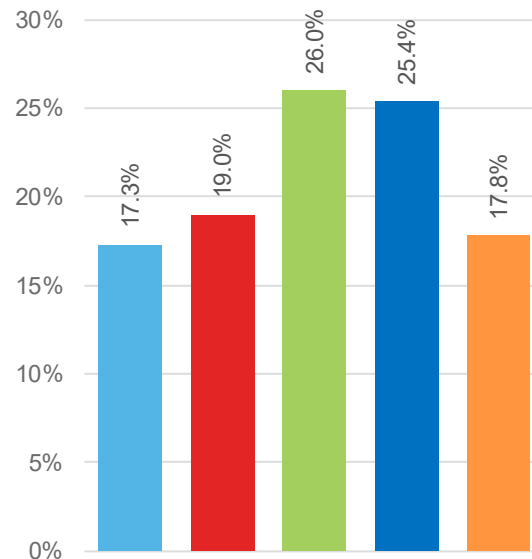
NSA Delivers Healthy Second Quarter Results

Second Quarter 2022 Key Metrics

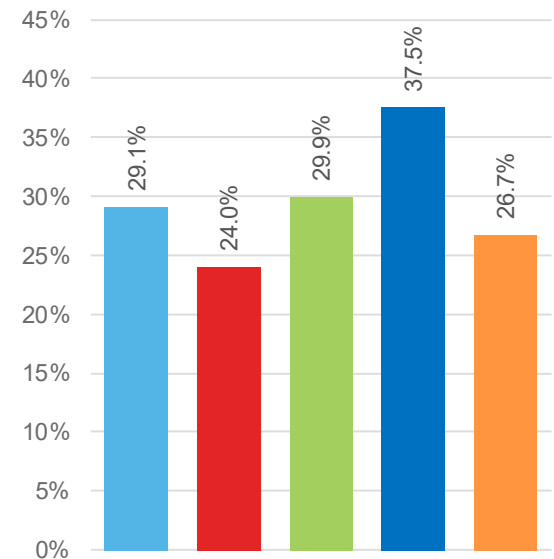
Same Store Revenue Growth



Same Store NOI Growth



Core FFO/Share Growth



■ NSA ■ CUBE ■ EXR ■ LSI ■ PSA



Multi-Faceted Growth Strategy



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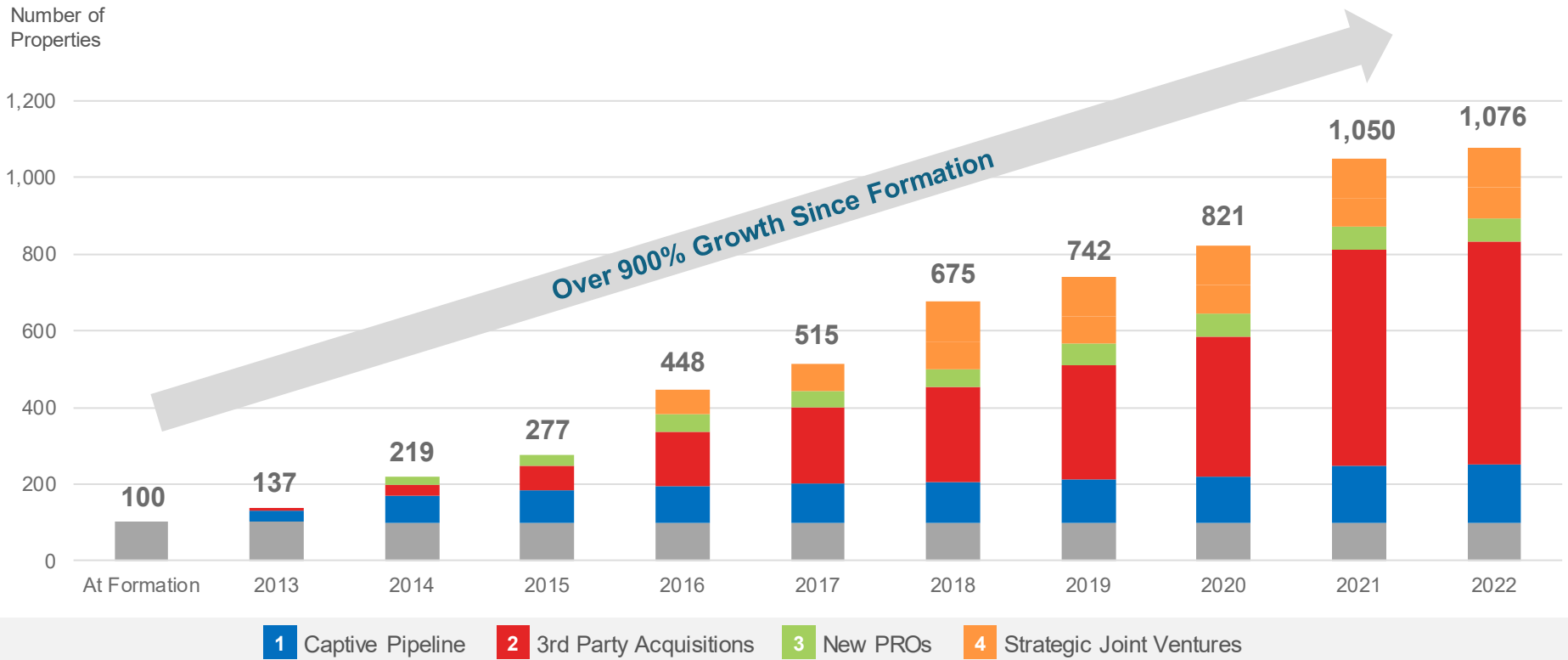


NSA Structure Promotes Internal and External Growth



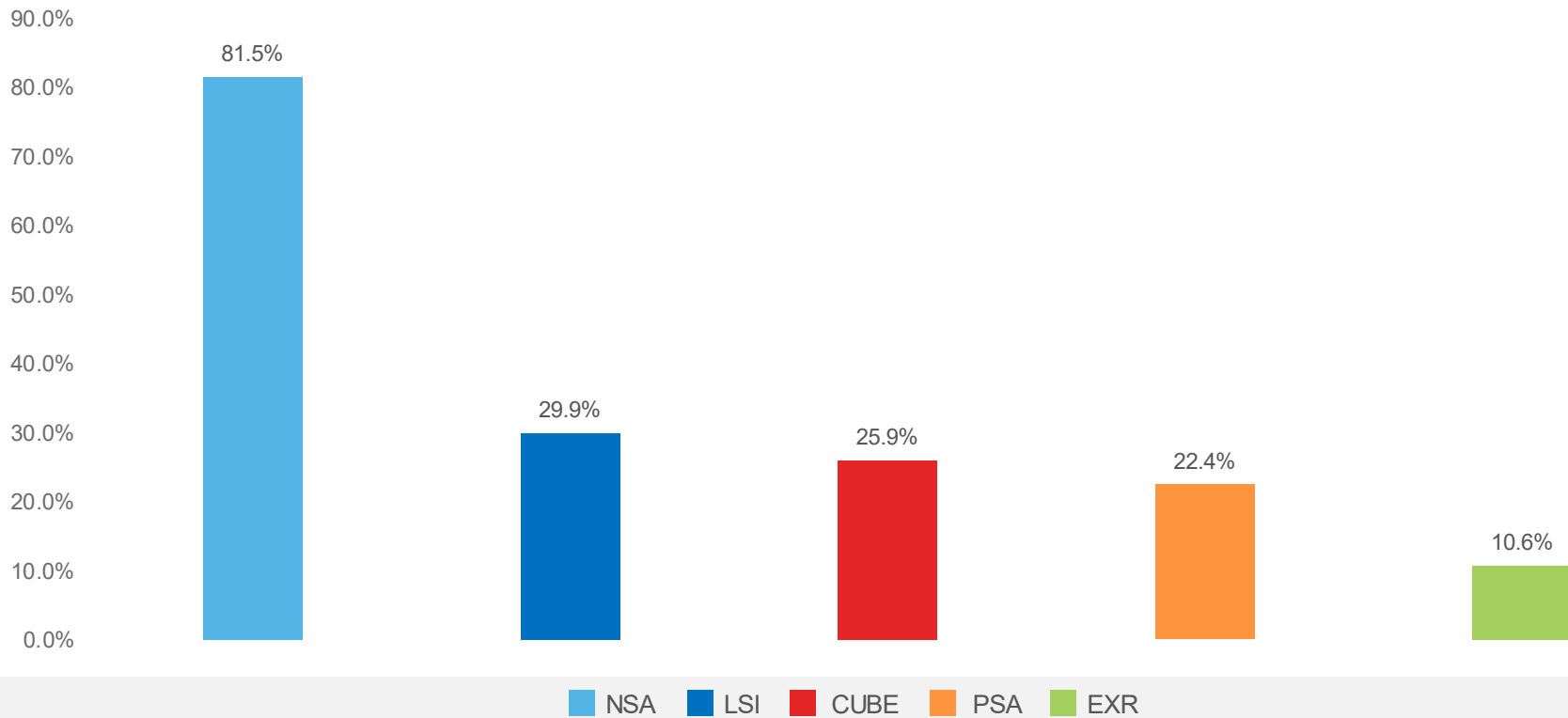


Multi-Faceted Acquisition Strategy



Extraordinary Portfolio Growth

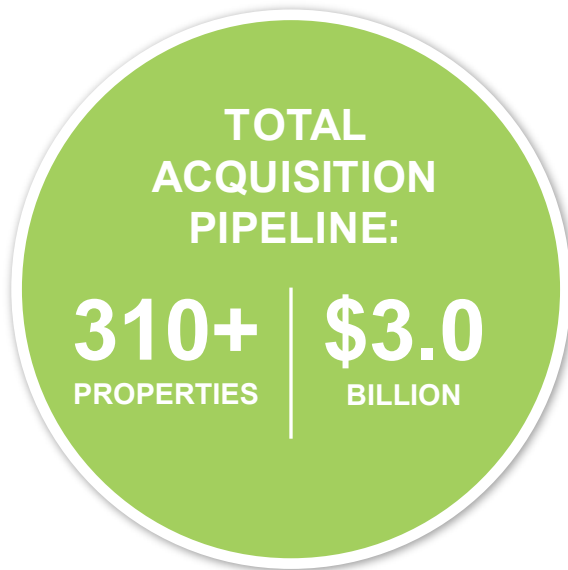
3-Year Growth in Wholly-Owned Square Feet (2019 – 2021)



1) Based on reported wholly-owned / consolidated square footage as of December 31, 2018 and December 31, 2021



Robust Long-Term Acquisition Pipeline



Captive Acquisition Pipeline

- 130+ properties
- Estimated value **\$1.4 billion**

Potential Buyout of JV Partner Interest

- 184 properties
- JV Partner ownership interest 75%
- Current estimated value of JV partner interest **\$1.6 billion⁽¹⁾**

(1) The 75% third-party share of gross real estate assets is approximately \$1.6 billion based on the historical book value of the joint ventures.

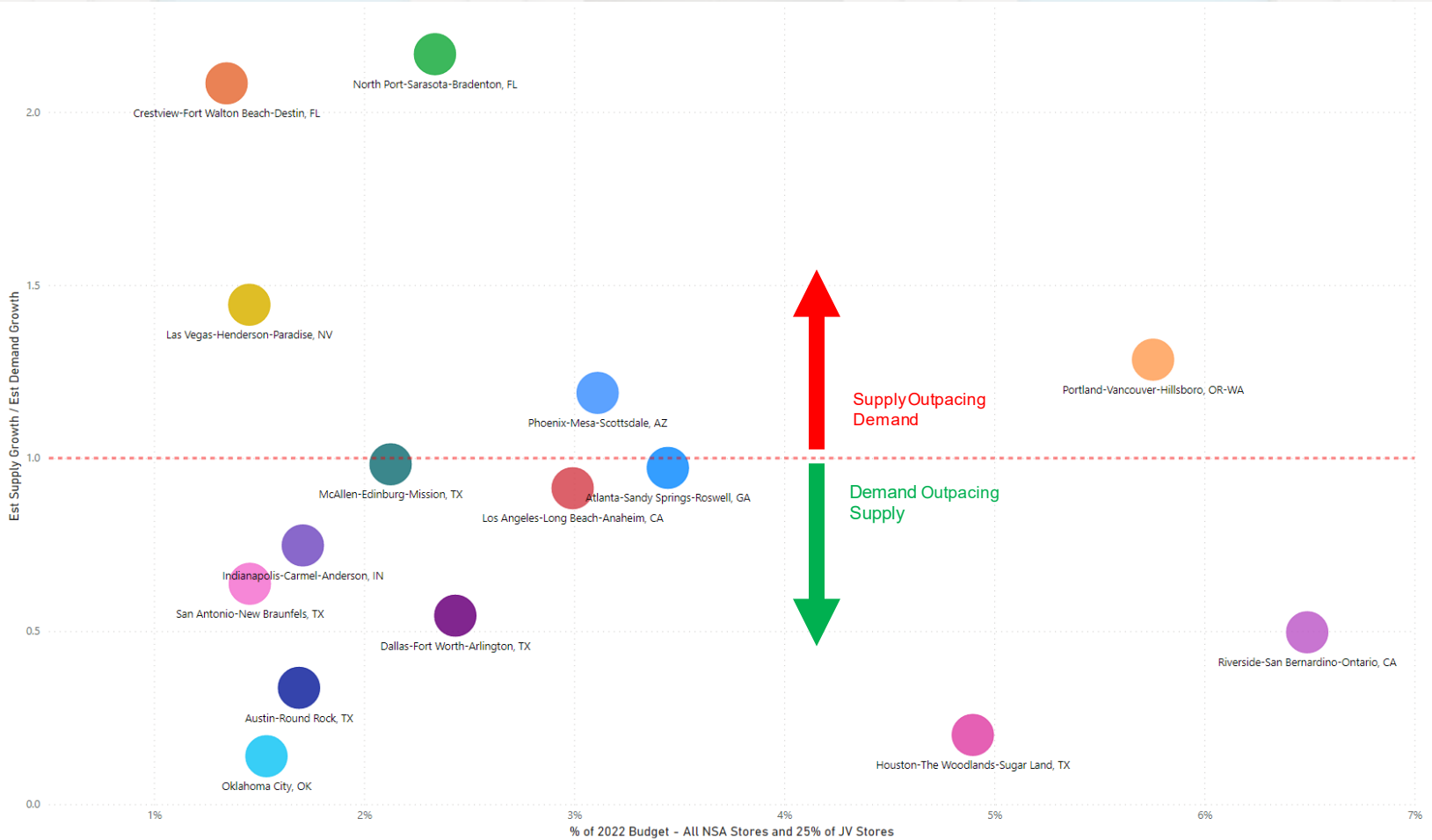


Supply Update



NATIONAL STORAGE
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NSA's Top 15 Markets – Supply Outlook Stable



See description of methodology in Appendix: Definitions and Methodology.



Flexible Capital Structure Supports Future Growth



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NSA's Flexible Capital Structure Positioned for Growth

BBB+ Rated
by
Kroll Bond Rating
Agency

29%
Principal Debt
/Total Enterprise
Value

Key Credit Metrics

5.6x
Net Debt/
Adjusted EBITDA

5.6x
Interest
Coverage Ratio

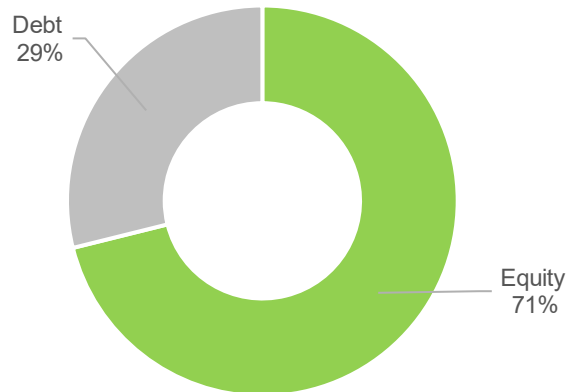
Capital for Growth

\$650MM
Unsecured Revolving
Line of Credit

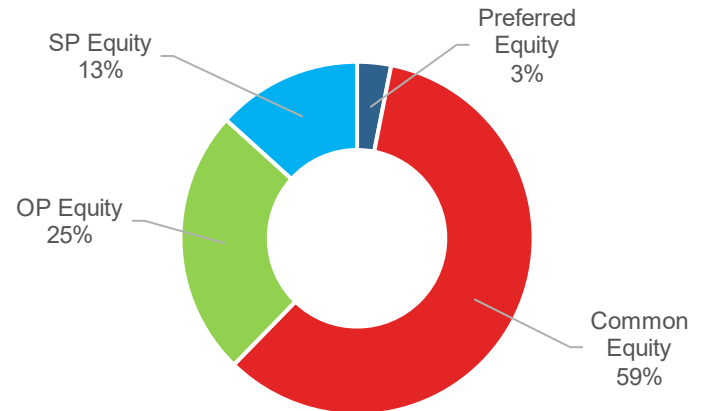
**OP & SP
Equity**

Dividend
Yield
4.4%

Total Enterprise Value \$10.9 Billion



Equity Capitalization: Large Investment by Management and PROs



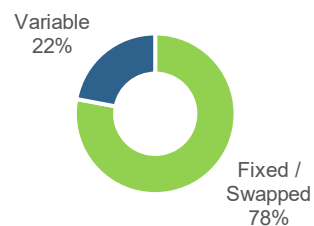
Investment Grade Balance Sheet Provides Strength and Flexibility to Finance Growth

Total Principal Debt Outstanding
\$3.2B

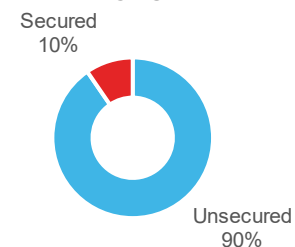
Weighted Average Maturity
5.5 Years

Effective Interest Rate
3.2%

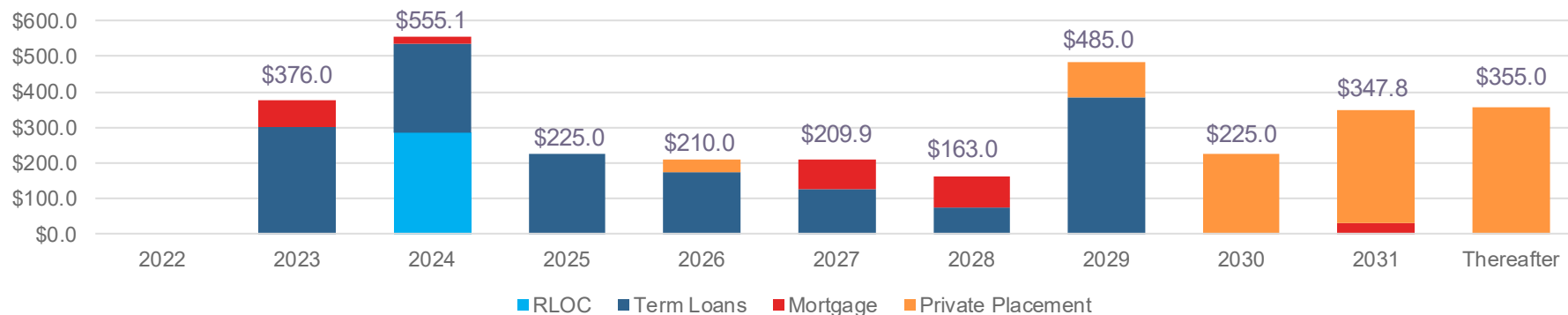
Minimal Interest Rate Risk



Conservative Debt Profile



Debt Maturity Schedule
(\$ in millions)⁽¹⁾



1) As of June 30, 2022 the Company had \$359.3 million of remaining borrowing capacity on its \$650 million revolving line of credit (RLOC). See description of terms in Appendix: Definitions and Methodology.



ESG Strategy



Environmental - Social - Governance

E

We constantly seek out ways to conserve energy and water, reduce waste and greenhouse gas emissions, and operate across the board in an environmentally sustainable manner.

S

We prioritize the wellbeing of our customers and team members as well as the communities that we serve. Our partnership with Feeding America exemplifies our community efforts. Promoting diversity is also a key part of how we operate our business.

G

NSA is committed to conducting its business with integrity, and in compliance with all applicable laws, rules, regulations and policies. Our commitment to these ethical principals extends to those we do business with as well. We are also committed to improving disclosure and transparency on ESG initiatives.



Appendix

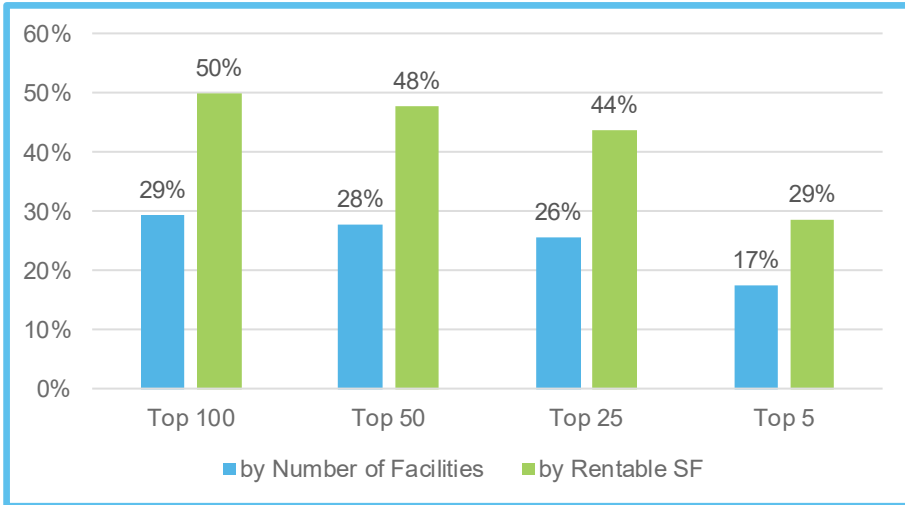


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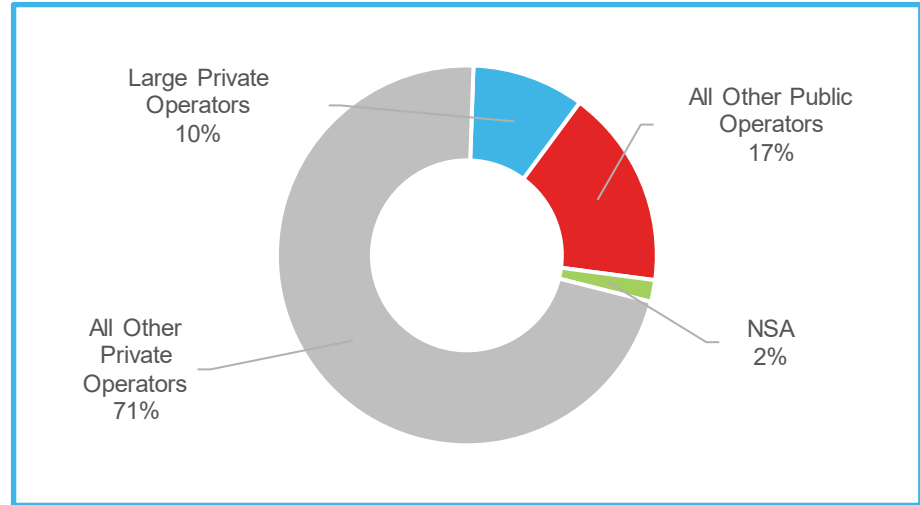
Highly Fragmented Industry: Consolidation Opportunity

- **Highly fragmented sector**
 - ~51,000⁽¹⁾ self storage properties with over 30,000 operators⁽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 4,900 self storage properties

Self Storage Top Operator Market Share



Market Share by # of Facilities



(1) 2022 Self-Storage Almanac based on total NRSF; survey excludes small, rural facilities.
(2) Sparefoot / IBISWorld

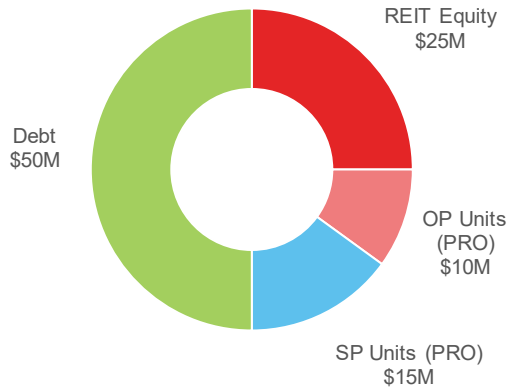


Structure Incentivizes PROs To Perform

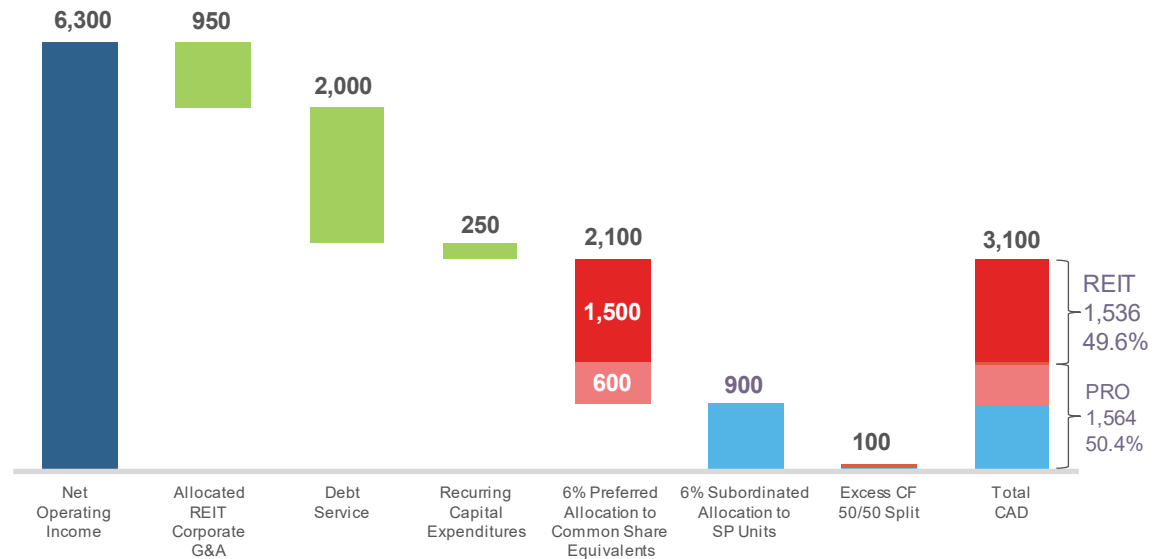
Key Assumptions

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

Illustrative Capitalization



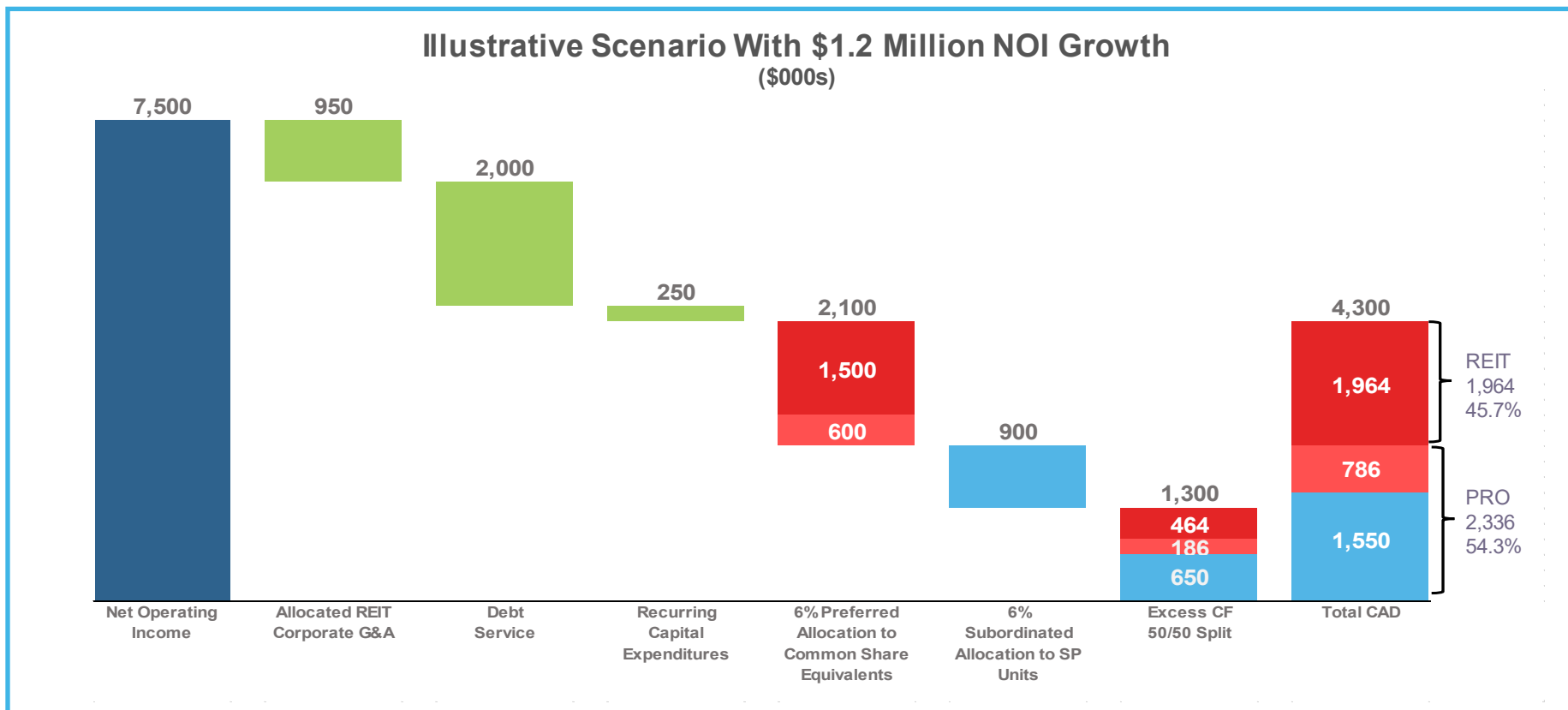
Illustrative Operating Cash Flow Allocation for Single Acquisition (\$000s)



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

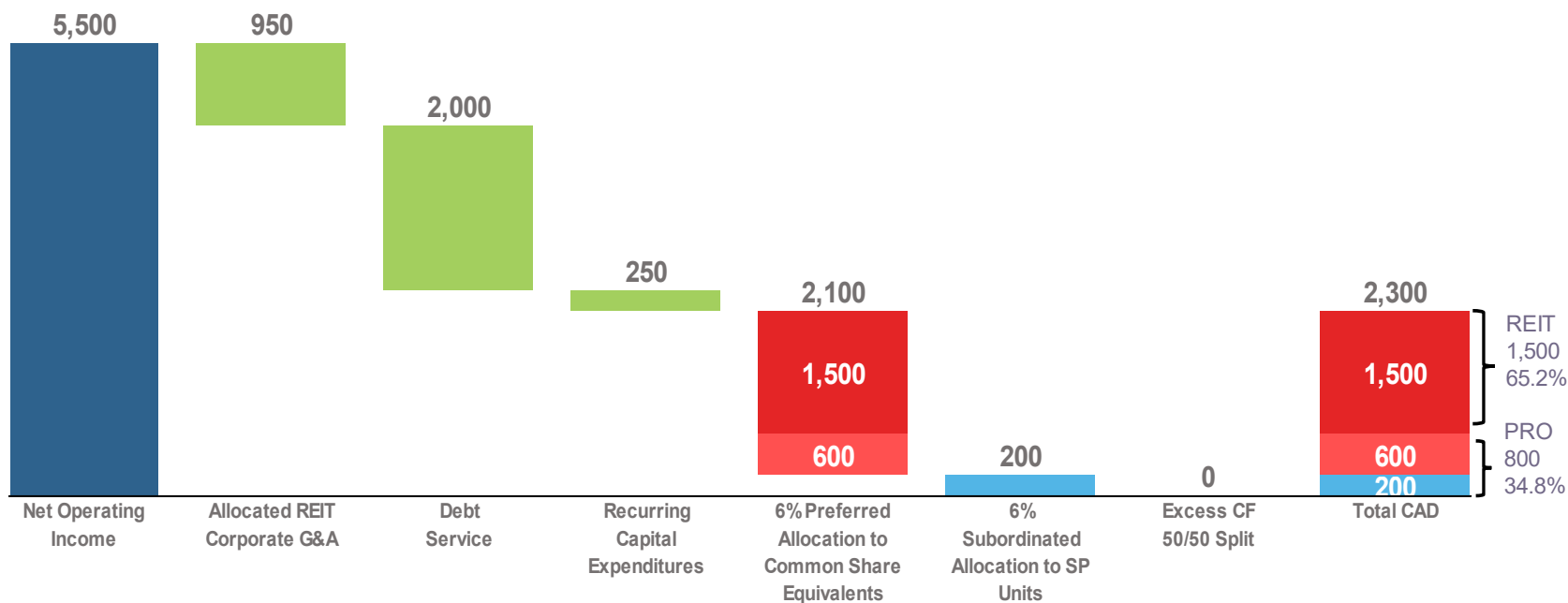


Note: Proportion of SP units and OP units in each acquisition will vary. In general, the number of OP units issued will be capped at a level intended to provide a minimal level of operating cash flow ("CF") allocation on unreturned capital attributable to the OP units. Debt Service is reflective of interest 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)



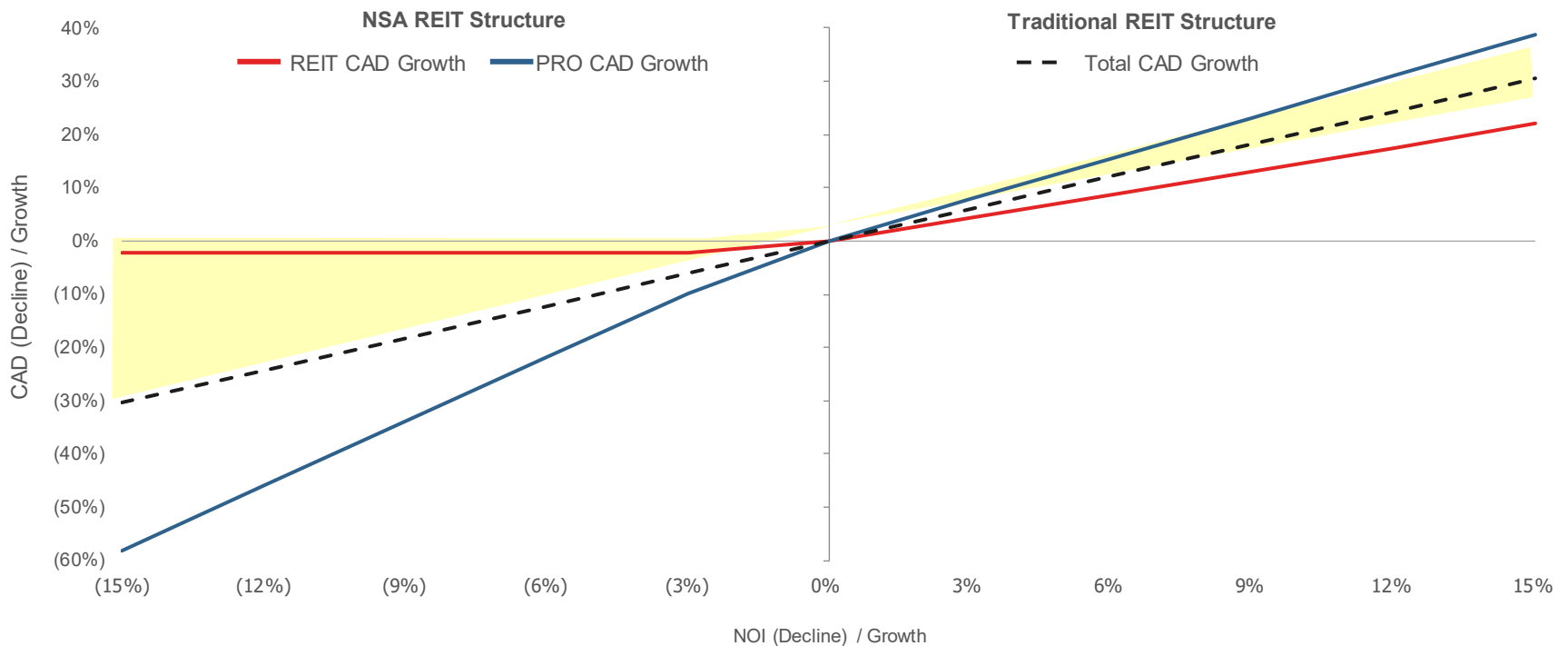
Note: Proportion of SP units and OP units in each acquisition will vary. In general, the number of OP units issued will be capped at a level intended to provide a minimal level of operating cash flow ("CF") allocation on unreturned capital attributable to the OP units. Debt Service is reflective of interest 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⁾

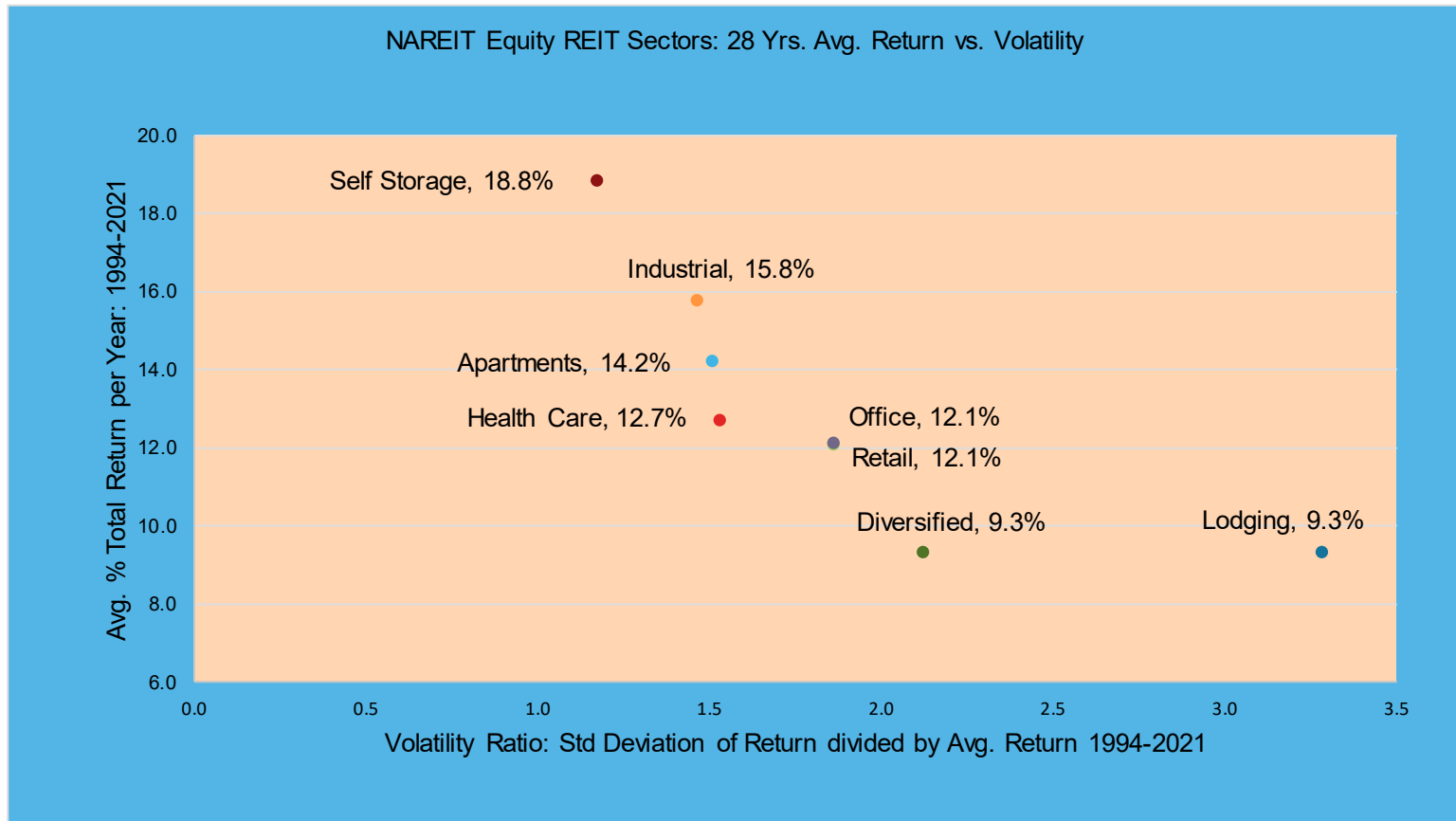


Note: PRO CAD Growth is comprised of cash available to PROs through their ownership interests in both OP and SP units. REIT CAD Growth is comprised of cash available to all other equity stakeholders.
 (1) This illustrative sensitivity graph reflects the capital structure of a single acquisition and standard 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).



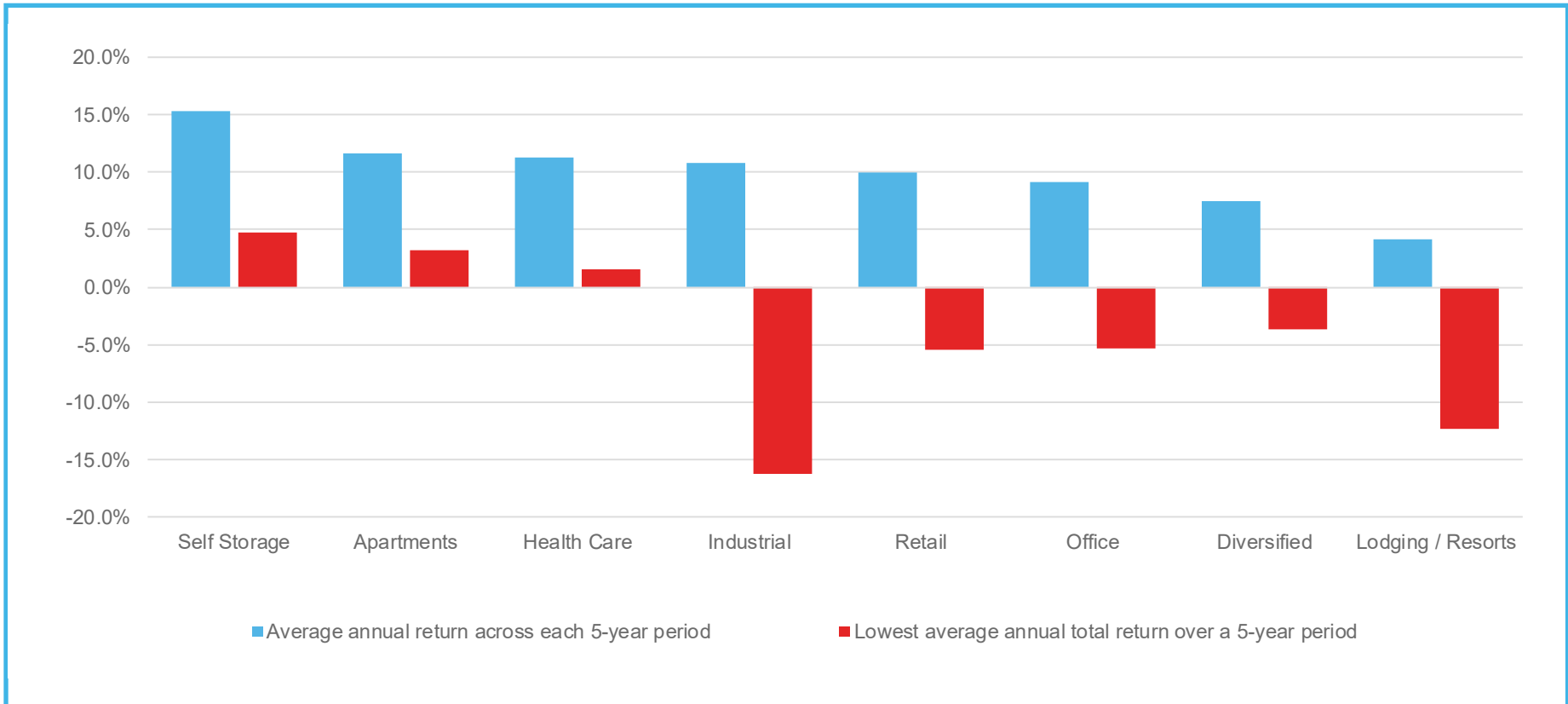
Self Storage: Higher Returns, Lower Volatility

Self Storage total returns have outperformed all other equity REIT sectors for 28 years while experiencing the least volatility



Self Storage Has Outperformed Over the Past 28 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 28 years ended 2021. Annual total shareholder returns calculated as five-year IRRs on NAREIT's individual property sector total return index levels, for 24 separate 5-year periods from 1994-1998 through 2017 - 2021. Lowest average annual return periods for each sector are the five years ended: Self storage 2020; Apartments 2009; Health Care 1999; Industrial 2011; Retail 2020; Office 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 June 30,			
	2022		2021	
Earnings (loss) per share – diluted	\$	0.24	\$	0.25
Impact of the difference in weighted average number of shares ⁽¹⁾		(0.07)		0.04
Impact of GAAP accounting for noncontrolling interests, two-class method and treasury stock method ⁽²⁾		0.18		-
Add real estate depreciation and amortization		0.44		0.33
Add Company’s share of unconsolidated real estate venture real estate depreciation and amortization		0.03		0.04
FFO attributable to subordinated performance unitholders		(0.12)		(0.11)
FFO per share and unit	\$	0.70	\$	0.55
Add acquisition costs		0.01		-
Core FFO per share and unit	\$	0.71	\$	0.55

Source: Q2 2022 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 June 30,			
	2022		2021	
Net income	\$	48,425	\$	35,675
(Subtract) add:				
Management fees and other revenue		(7,913)		(6,107)
General and administrative expenses		14,702		12,450
Other		525		310
Depreciation and amortization		57,891		36,051
Interest expense		24,448		17,339
Equity in earnings of unconsolidated real estate ventures		(1,962)		(1,174)
Acquisition costs		682		118
Income tax expense		730		675
Non-operating expense		261		148
Net Operating Income	\$	137,789	\$	95,485

Source: Q2 2022 Company financials.



Net Income to EBITDA & Adjusted EBITDA Reconciliation

	Three Months Ended June 30,			
	2022		2021	
Net income	\$	48,425	\$	35,675
Add:				
Depreciation and amortization		57,891		36,051
Company's share of unconsolidated real estate venture depreciation and amortization		4,324		3,840
Interest expense		24,448		17,339
Income tax expense		730		675
EBITDA	\$	135,818	\$	93,580
Add (subtract):				
Acquisition costs		682		118
Equity-based compensation expense		1,580		1,348
Adjusted EBITDA	\$	138,080	\$	95,046

Source: Q2 2022 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 June 30, 2022, of \$24.80 and \$50.07, 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 second quarter 2022 quarterly annualized dividend of \$2.20 divided by market closing price of NSA's common shares on June 30, 2022 of \$50.07.

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 21 – 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 June 30, 2022. 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 2022 revenue, with JV properties accounted for at NSA's 25% share.
5. Excludes the San Juan-Carolina-Caguas MSA due to lack of available supply data.



Contact Us

Investor Relations

George Hoglund, CFA

Vice President – Investor Relations

720-630-2160

ghoglund@nsareit.net

Marti Dowling

Senior Director – Investor Relations

720-630-2624

mdowling@nsareit.net

Corporate Headquarters

National Storage Affiliates Trust

8400 East Prentice Avenue

9th Floor

Greenwood Village, CO 80111

Website

www.nationalstorageaffiliates.com





NATIONAL STORAGE
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National Storage Affiliates
NYSE: NSA