Company Update

September 2024



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 28, 2024 (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, 2024, 2023, 2022, 2021 and 2020, March 31, 2024, 2023, 2022, 2021, and 2020, December 31, 2023, 2022, 2021, 2020, and 2019, and September 30, 2023, 2022, 2021, 2020, and 2019 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, 2024, except as otherwise noted. See "Definitions and Methodology" in the Appendix for certain definitions and calculation methodologies of certain terms and metrics used herein.

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Strategic Initiatives Overview



Strategic Initiatives Overview

NSA has made significant progress on optimizing the portfolio, balance sheet and platform to best position the Company for accelerated growth in 2025 and beyond

Non-core Portfolio Sale	 \$540 million portfolio sale of 71 assets to a private buyer Drives operating efficiencies through improved portfolio concentration Reflects portfolio value above market-implied cap rate and generates capital for balance sheet initiatives
Joint Venture Contribution	 Contribution of 56 assets valued at \$346.5 million into new joint venture (2024 JV) Generates capital for balance sheet initiatives in an accretive manner Allows NSA to more efficiently fund and address capex plans related to revenue enhancing opportunities
Joint Venture Formation	 Formation of new joint venture (2023 JV) with \$400 million of committed equity capital for acquisitions Leverage up to 60% implies \$1.0 billion of buying power, positioning NSA for capital-light growth
Share Repurchase	 Repurchased 18.2 million common shares totaling \$675 million since launching the program in 2022 Retired 12% of the total common shares and OP units outstanding, at a discount to consensus NAV⁽¹⁾
Reduce Floating Rate Exposure	 Utilized proceeds from asset sales and \$370 million of private placement notes issuance in 2023 to fund the repayment of floating rate debt Combined with the 2023 JV formation, reduced interest rate risk and generated dry powder for acquisitions

(1) Beginning share and unit count as of June 30, 2022. Assumes SP units are converted at the June 30, 2022 conversion ratio of 1.69x. Consensus NAV of \$39.09 as of May 24, 2024 per S&P GMI.

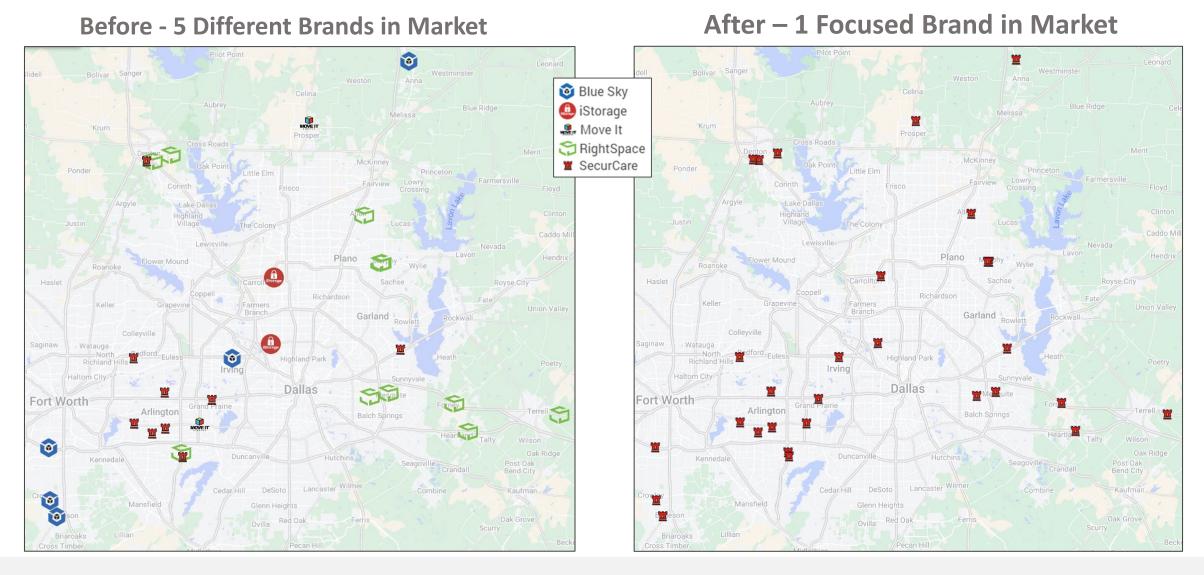
PRO Internalization Overview

N	ISA internalized its PRO structure, effective as of July 1, 2024
Internalization Details	 PRO management agreements were acquired Management contracts and certain intellectual property (brand, trade names and trademarks) NSA paid 4x EBITDA from the management of the PRO-managed properties in 2023 PRO tenant insurance program rights were acquired Acquired right to direct tenant insurance business for formerly PRO-managed properties
Anticipated Internalization Impacts	 Phased transition Will be staggered over the next 12 months Captive pipeline Will continue to pursue growth opportunities with former PROs Non-core property sales Will likely pursue sales over next 12 to 24 months
Consideration and Adjustment to Share Count	 Adjustment to FFO per share calculation for SP unit conversions All 11.9 million outstanding SP units and DownREIT SP units were converted to 17.9 million OP units, which number includes DownREIT OP units SP unit conversions included in calculation of FFO per share Consideration for management agreements, PRO intellectual property and tenant insurance rights Total consideration was \$94.9 million, consisting of 1,548,866 OP units and \$32.6 million in cash OP units issued as consideration in the PRO internalization are subject to a one-year lockup provision

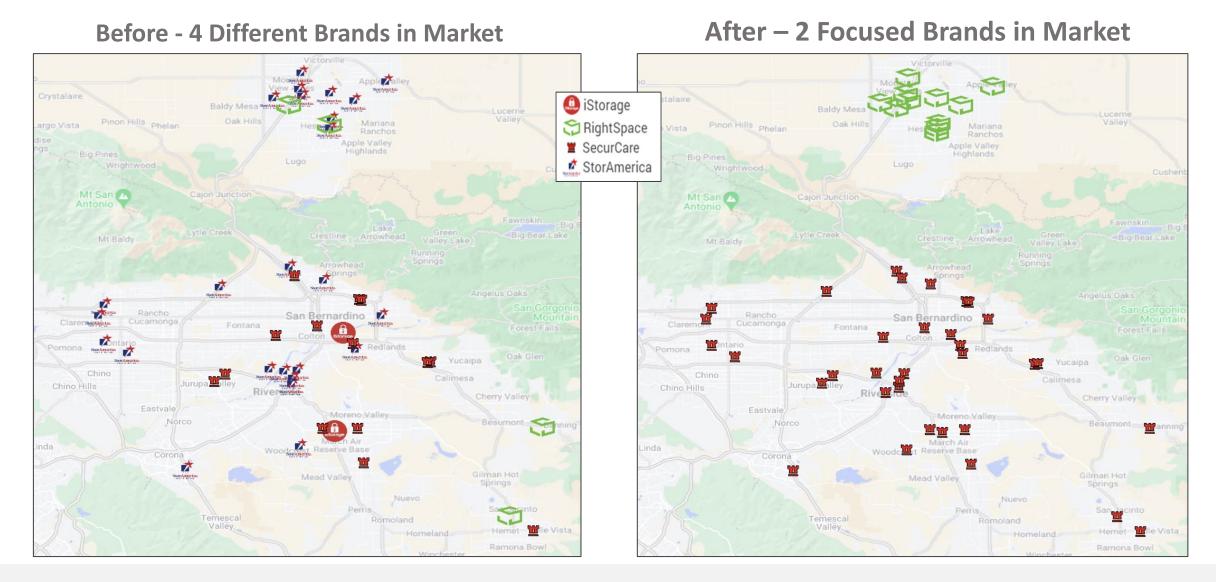
PRO Internalization: Strategic Rationale

Simplified Structure and	Will no longer pay performance distributions to PROs
Financial Reporting	Greater potential upside in FFO per share growth
	Eliminate management fees to the PROs upon completion of phased
Significant G&A Savings	management transition
	Benefit from synergies created from operational scalability
	• Multi-brand web domain, NSAstorage.com, for seamless performance
Enhanced Customer	 Full integration of our centralized call center
Acquisition Strategy	 Consolidated pricing and paid marketing strategies
	consolidated pricing and paid marketing strategies
Enable Brand Flexibility	Select brand with the best authority in market
	Select brand with the best authority in market
Ontimize Onerational	Execute on a fully centralized platform
Optimize Operational	Consistent approach to data analysis and pricing
V Execution	Enhance our ability to drive occupancy and rental rates
	Continuo accat reguling program
Expand Portfolio	Continue asset recycling program
V Optimization Strategy	Focus on core markets to build concentration

Illustrative Market Focused Brand Strategy – Dallas MSA



Illustrative Market Focused Brand Strategy – Riverside MSA



PRO Internalization Final Takeaways

NSA Will Remain Differentiated	 Sunbelt-focused with balanced approach to primary and secondary markets Still utilize OP units to facilitate tax-deferred transactions for sellers to stimulate external growth Former PROs remain vested in NSA's success due to significant equity ownership Ability to source acquisition and investment opportunities through former PROs, including existing captive pipeline properties, new developments and potential joint ventures
Win-Win Outcome for Shareholders and PROs	 Management expects that upon completion of management transition, the transaction will be accretive to FFO per share by approximately \$0.05-\$0.08, consisting of \$0.03-\$0.04 due to annual G&A savings of \$7.5 - \$9.0 million, and \$0.02-\$0.04 from changes in revenue management and operational efficiencies Additional future accretion is expected to be realized through positive NOI growth from PRO-managed properties. For example, each 1.0% increase in same store NOI from PRO-managed properties will equal \$0.01 per share of accretion
Track Record of Successful Internalizations	 Management expects the internalization will remove NSA's perceived complexity discount Successfully executed three PRO internalizations since 2020 Integrated over 380 properties Delivered the expected FFO accretion Optimized operational alignment and performance Transitioned over 500 former PRO employees onto NSA's platform

"Our long-term vision for NSA always contemplated the eventual internalization of the PRO structure, and current market conditions make today the right time for a win-win scenario for common shareholders and PROs alike. I'm grateful to our PROs for their invaluable contributions to NSA's success and excited about how this event will contribute to earnings growth going forward." - Arlen Nordhagen, Co-Founder of NSA and Vice Chairperson

History Of Successful Internalizations



- April 2020
- 217 properties across 13 states / 12.7m SF
- Increased NSA managed stores from 215 to 432
- ✤ \$0.05 FFO per share accretion
- Executive team actively involved in NSA leadership



- January 2022
- 93 properties across 3 states / 4.7m SF
- Increased NSA managed stores from 592 to 685
- ✤ \$0.02 FFO per share accretion
- Executive team actively provides acquisition and development opportunities to NSA



- January 2023
- 72 properties across 6 states / 4.9m SF
- Increased NSA managed stores from 716 to 788
- \$0.02 FFO per share accretion
- Executive team actively developing expansion projects for NSA







PRO Internalization: Progress To Date



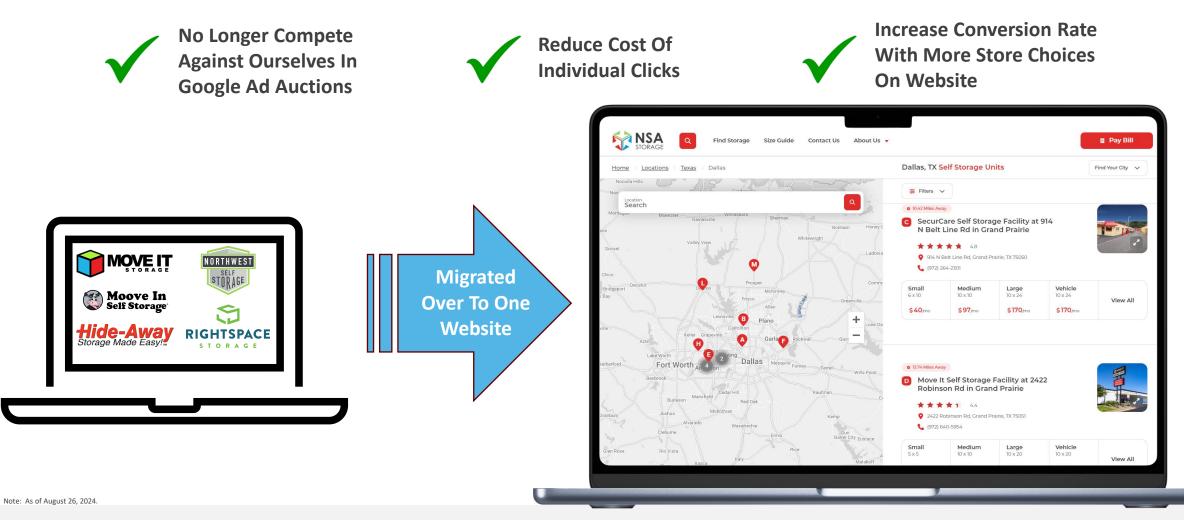
Brand Strategy: Consolidation Underway

Twelve Existing Brands Seven Market Focused Brands MOVE IT STORAGE iStorage iStorage SecurCare SecurCare Self Storage RIGHTSPACE Self Storage TSPACE STORAGE STORAGE Moove In Self Storage^{*} IORTHWES 1 Southern SELF STORAGE SELF 5 brands transitioning STARAGE Moove In Self Storage NORTHWEST Southern STORAGE SELF STORAGE **GUARDIAN STORAGE** SOLUTIONS California • Arizona Centers Storage ersonal Hide-Away Storage Made Easy! Ŷ torage

Note: Red circles reflect two brands that have already been transitioned as of August 26, 2024

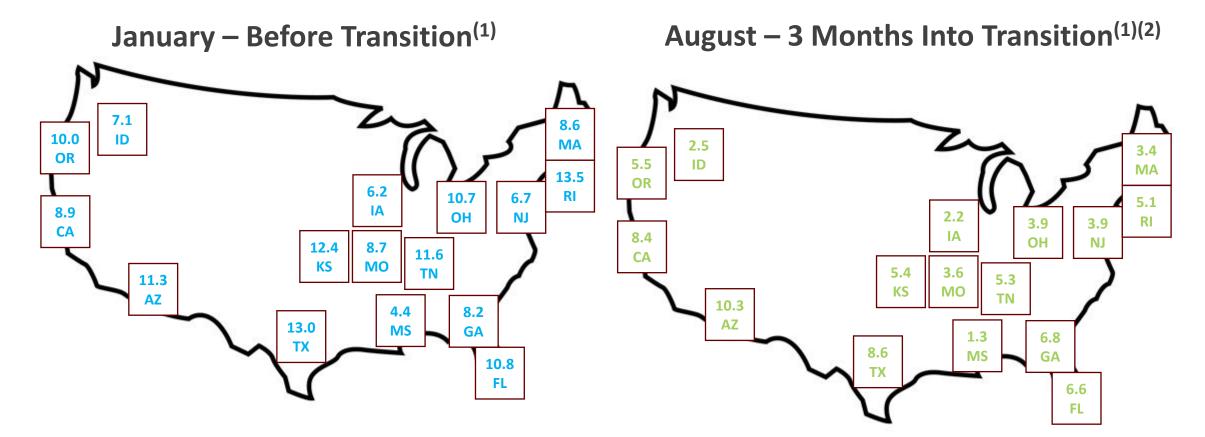
NSAstorage.com – Consolidation Of Websites





NSAstorage.com Consolidation: Began in May 2024

Early Positive Implications: Improved Ranking In Local Search Results (Lower Numbers Are Better)

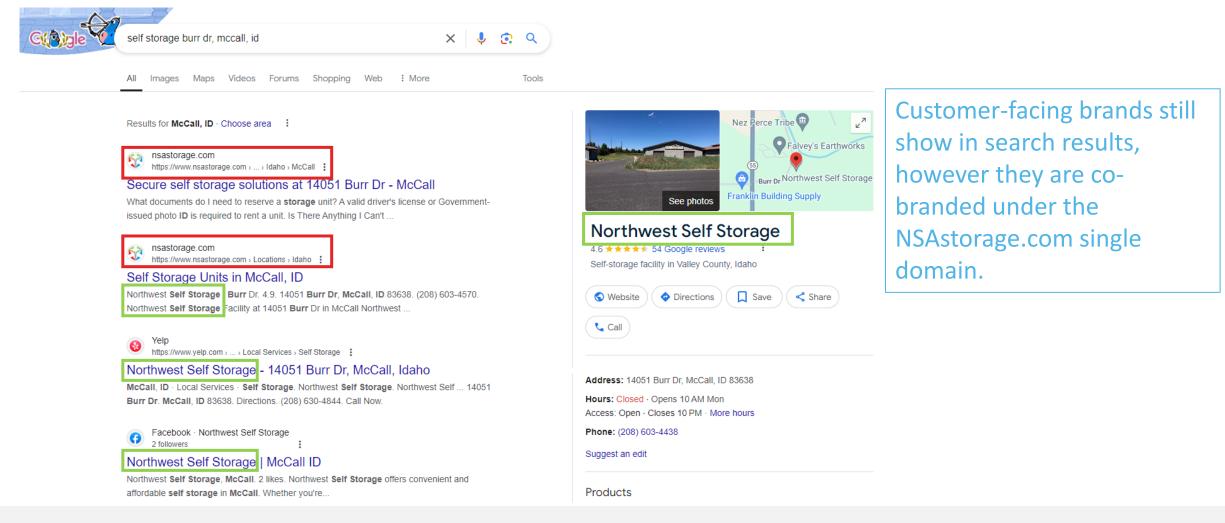


(1) Number represents ranking position in search results. Source: BrightLocal

(2) As of August 26, 2024

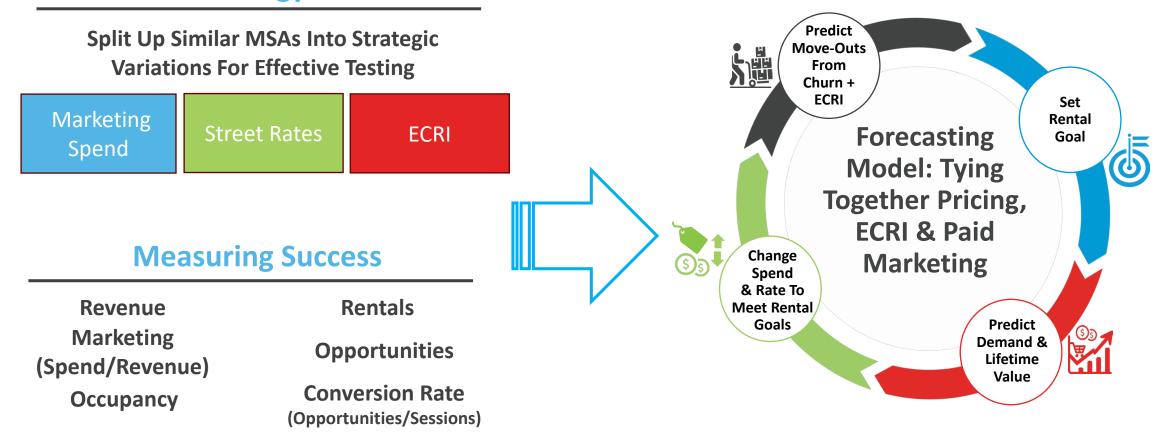
Search Results: Brand Strategy Is Working

Individual Storage Brands Live Together In A Single Website



Long Term Testing: Informs Evolving Machine Learning Models

Strategy



NSA Is Excited About Our Strategy To Gain Upside Momentum

Longer Term

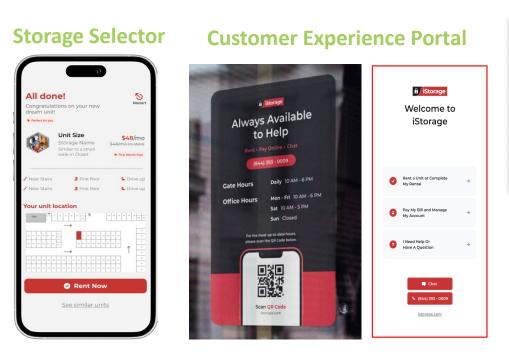
Strength In Technology & Customer Experience

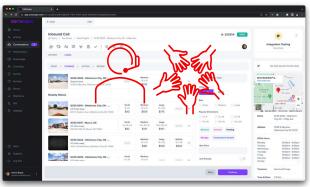
Support Center Of Excellence

Near Term

PRO Internalization Brand Consolidation NSAstorage.com

Medium Term Machine Learning Model Continuous Improvement





Data Warehouse & Custom Centralized Control Center



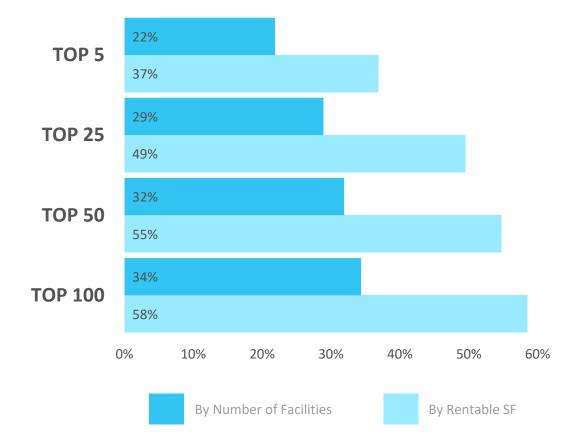


Self Storage Industry Overview



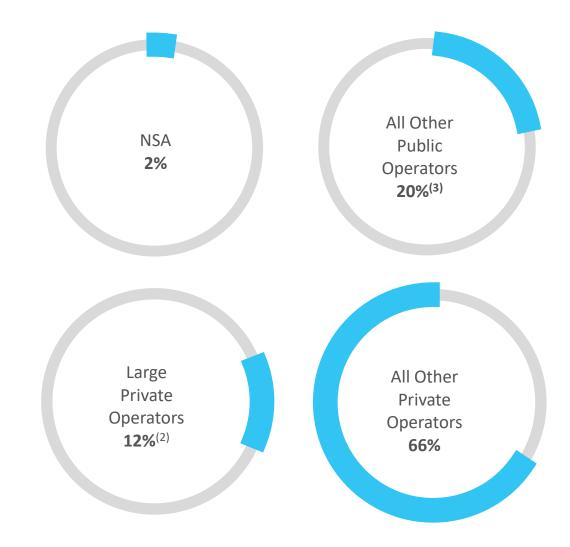
Highly Fragmented Industry: Consolidation Opportunity

Self Storage Top Operator Market Share



Market Share by # of Facilities⁽¹⁾

(Approximately 52,000 self storage facilities in the U.S.)



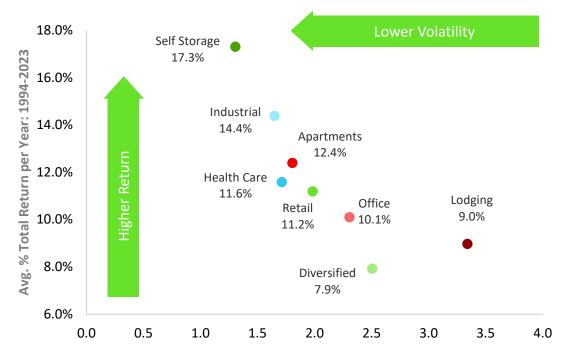
(1) Source: 2024 Self Storage Almanac.

(2) Represents top 100 operators, excluding publicly traded REITs and UHAL.

(3) Includes CUBE, EXR, PSA and UHAL

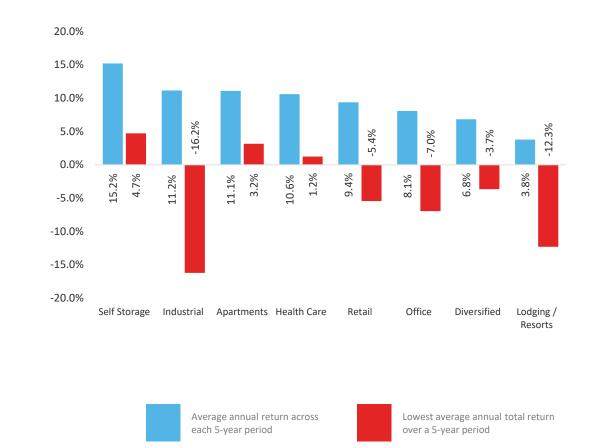
Self Storage: Higher Returns, Lower Volatility Self Storage Has Outperformed Over The Past 30 Years

NAREIT Equity REIT Sectors: 30 Yrs. Avg. Return vs. Volatility⁽¹⁾



Volatility Ratio: Std Deviation of Return divided by Avg. Return 1994-2023

Even in the worst five-year period, self storage delivered >4.5% average total shareholder return per year⁽¹⁾



(1) Source: NAREIT, see appendix for additional detail.



Company Overview



Q2 2024 Update



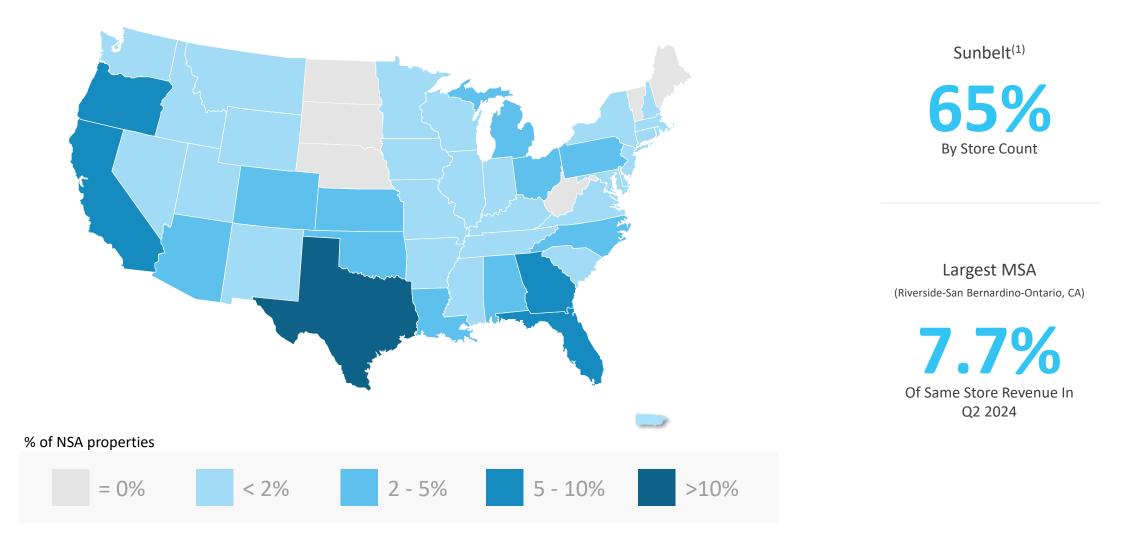
(1) See appendix for definition.

Portfolio Metrics Update – 2024 Same Store Pool

Year-over-year comparisons remain challenging due to muted housing transition and competitive pressures

METRIC	Q2 2024	August 2024
Period-End Occupancy	87.0%	86.0%
Year-Over-Year Change in Period-End Occupancy	-280 bps	-300 bps
Year-Over-Year Change in Street Rates	-15%	-17%

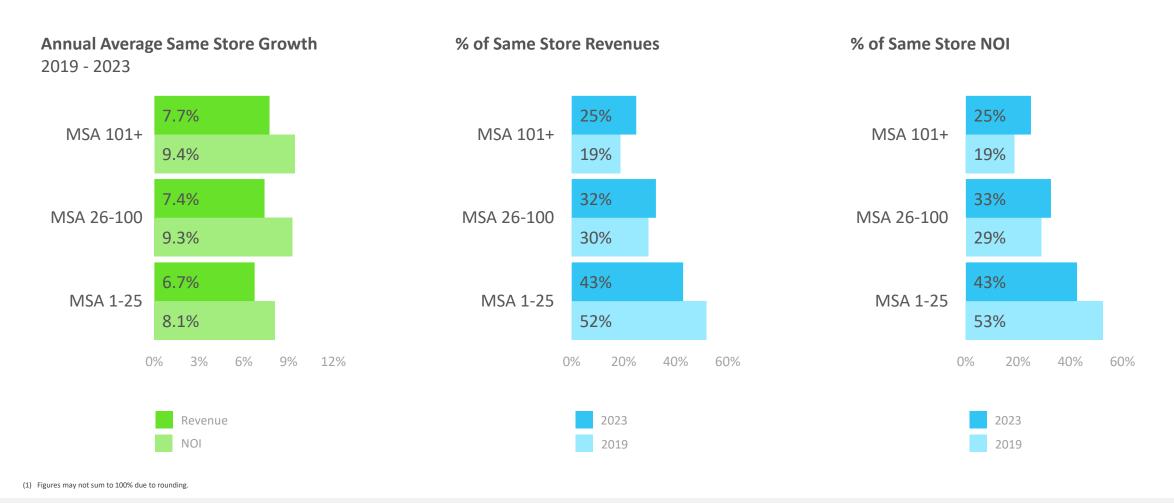
Strategic Focus In Sunbelt Markets



(1) NSA defines the Sunbelt as the following states: AL, AR, AZ, CA, FL, GA, LA, MS, NC, NM, NV, OK, SC, TN and TX.

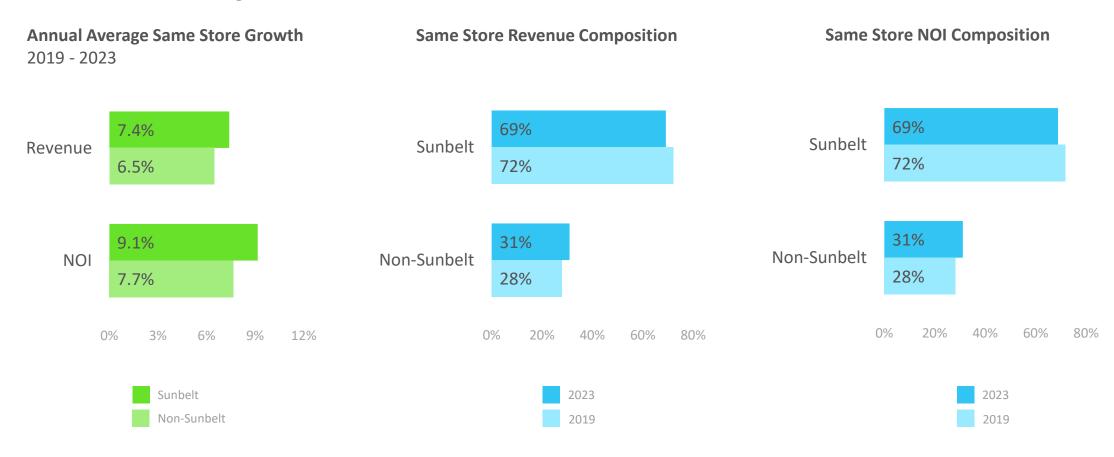
Secondary Market Outperformance

NSA properties outside of the top 25 MSAs have outperformed NSA properties in the top 25 MSAs over the past five years and we have increased our exposure to these markets⁽¹⁾



Sunbelt Outperformance

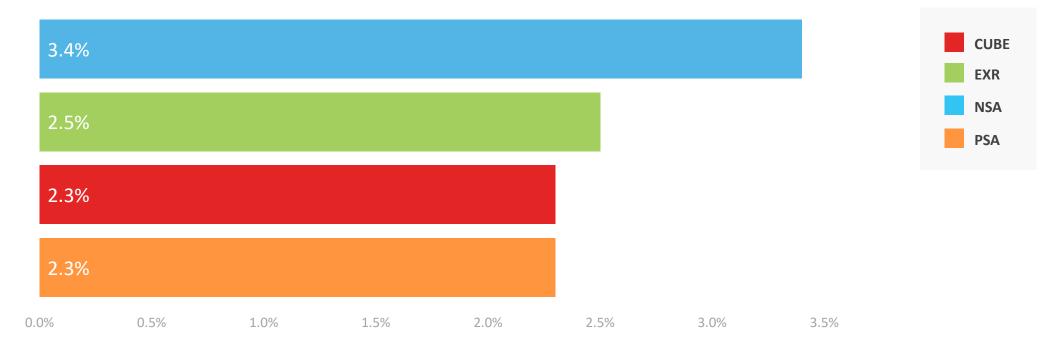
NSA's properties in Sunbelt Markets have outperformed NSA properties outside of the Sunbelt Markets over the past five years and given domestic migration, employment and housing trends - we expect this outperformance to continue over the long-term



NSA'S Markets Are Well Positioned Vs Peers

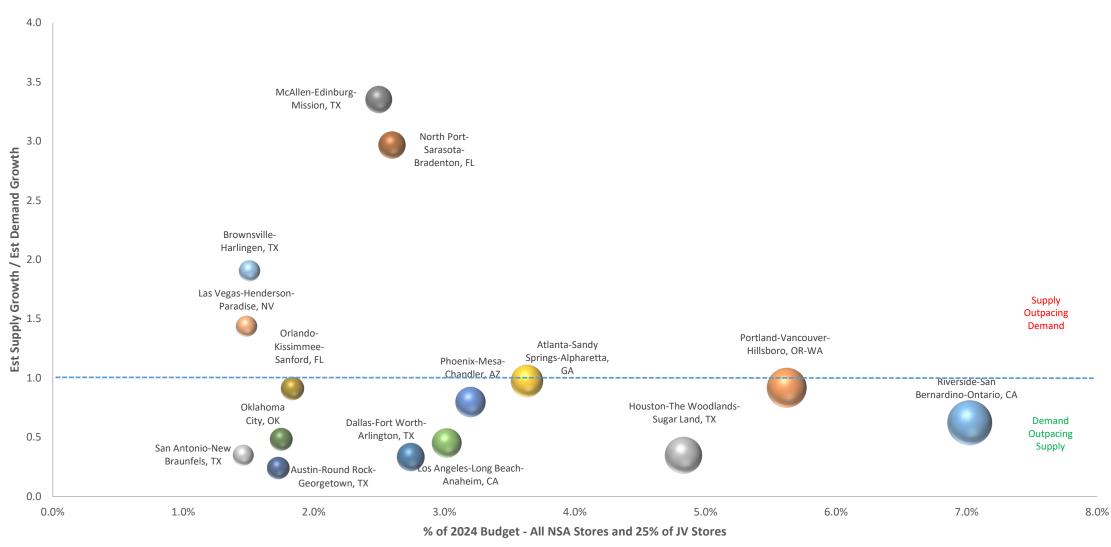
Population growth in NSA's markets is expected to outpace the peers⁽¹⁾

Projected Population Growth 2024 - 2029



(1) Source: Evercore ISI 4Q 2023 Storage Demographic Update (March 20, 2024).

NSA'S Top 15 Markets – Supply Outlook Favorable



See description of methodology in Appendix.

Why Invest In NSA?

The self storage sector has proven recession resilient and has been the best performing REIT sub-sector over the long term⁽¹⁾



Attractive dividend yield - NSA's dividend rate has grown 75% over the past five years (Q2 2024 vs Q2 2019) and has a current yield of 4.8%⁽²⁾

Simplification of company structure should drive multiple expansion going forward



NSA has outperformed the self storage peers in average quarterly Core FFO/sh growth since its IPO in 2015

Geographic diversification - Across Sunbelt, Secondary and Suburban markets



Recent strategic initiatives position the company for accelerated earnings growth in 2025 and beyond



Track Record Of Performance

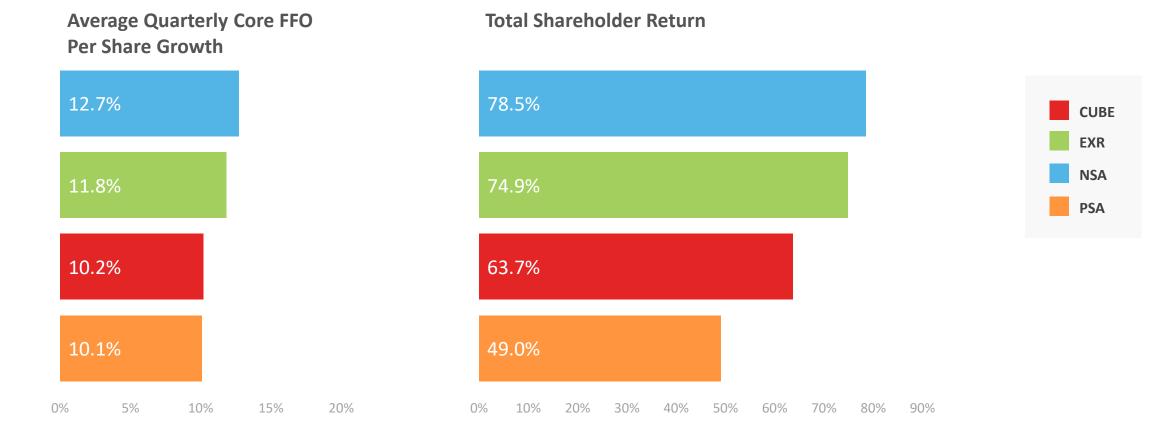


Trailing Five Years Of Performance (Q3 2019 – Q2 2024)





Trailing Five Years Of Performance (Q3 2019 – Q2 2024)



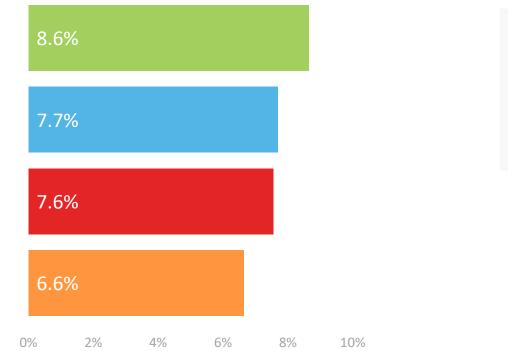
STRATEGIC INITIATIVES OVERVIEW | SELF STORAGE INDUSTRY OVERVIEW | COMPANY OVERVIEW | TRACK RECORD OF PERFORMANCE | MULTI-FACETED GROWTH STRATEGY | FLEXIBLE CAPITAL STRUCTURE | CORPORATE RESPONSIBILITY | APPENDIX

Trailing Five Years Of Performance (Q3 2019 – Q2 2024)

Average Quarterly Same Store Revenue Growth

7.3%				
6.4%				
6.2%				
5.9%				
%	2%	4%	6%	

Average Quarterly Same Store NOI Growth⁽¹⁾





(1) Beginning in 2020, PSA's same store NOI figures reflect "Same store direct NOI growth".



Multi-Faceted Growth Strategy



People, Process & Platform: Driving Internal Growth

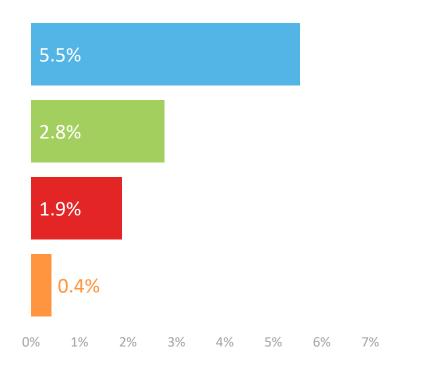
Online lease . Remote site management **OPERATIONAL EXCELLENCE** Continuous improvements to Web and Mobile experience NSA-Built Call Center Solution **DELIVERING NOI &** Store-level enhancements MEETING **CUSTOMER NEEDS** LEVERAGE DATA TO BUILD SOPHISTICATED STRATEGIES Modern data warehouse • Sophisticated paid marketing, pricing and promotion strategies Data science-driven revenue management **Advanced SEO practices**

SEAMLESS & ENHANCED CUSTOMER EXPERIENCE

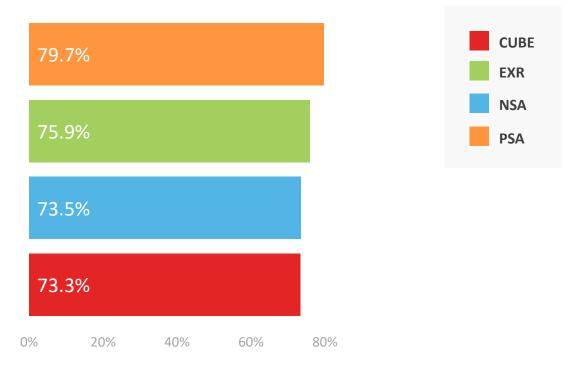
- Streamlining the unit selection process ۲

Sector-Leading Margin Improvement

Same-Store NOI Margin Expansion Since Beginning of 2017 through 2023⁽¹⁾



Same-Store NOI Margin Full-Year 2023



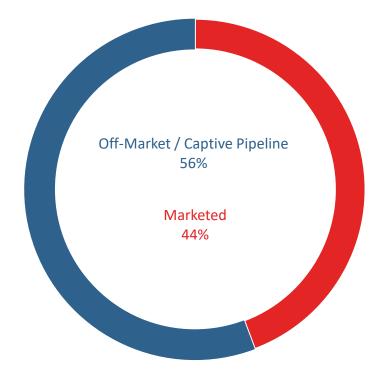
(1) Based on reported full-year same-store NOI margins in 2016 and 2023. For NSA, 2016 was the first full year post-IPO of reported performance.

Relationship-Driven Transactions Fuel Growth

\$25.2 2024 YTD \$229.5 2023 2022 \$783.4 2021 \$2,175.0 2020 \$565.2 \$447.8 2019 \$1,651.5 2018 2017 \$486.1 \$1,351.4 2016 2015 \$313.0 \$0 \$500 \$1,000 \$1,500 \$2,000 \$2,500 Wholly-Owned Joint Venture

Annual Acquisition Volume Since IPO⁽¹⁾

2020 – 2023 Acquisition Volume by Source



(1) \$ Millions



Flexible Capital Structure Supports Future Growth



Flexible Capital Structure

BBB+
RATED
Outlook Negative

By Kroll Bond **Rating Agency**

\$950M

Line of Credit

CAPITAL FOR GROWTH

MULTIPLE SOURCES OF EQUITY **UNSECURED** & SECURED DEBT

JOINT **VENTURES**

KEY CREDIT METRICS⁽¹⁾

6.5x 3.4x Net Debt/

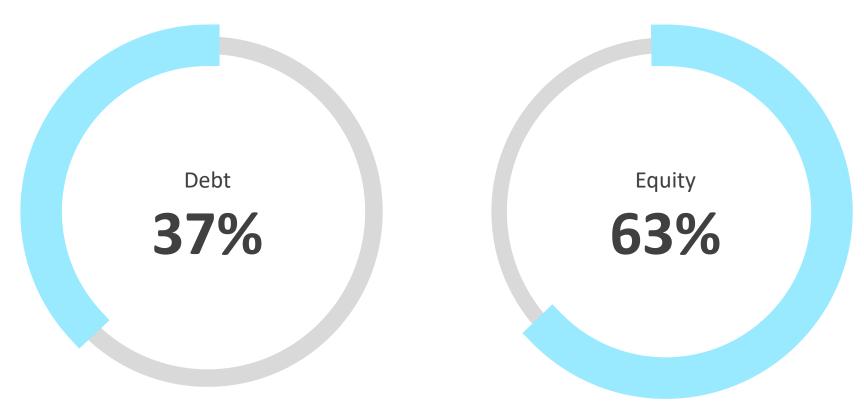
Adjusted

EBITDA

Interest Coverage

Flexible Capital Structure

Total Enterprise Value - \$9.3 Billion⁽¹⁾



(1) See appendix for definition.

Investment Grade Balance Sheet Provides Strength And Flexibility To Finance Growth



See description of terms in Appendix: Definitions and Methodology.

Total Principal Debt

Outstanding

Balance Sheet Update

- In September, NSA issued \$350 million of senior unsecured private placement notes
 - Weighted average maturity of 7.6 years
 - Weighted average coupon of 5.60%
- The notes consist of three tranches:
 - \$75 million 5.40% senior unsecured notes due 2028
 - \$125 million 5.55% senior unsecured notes due 2031
 - \$150 million 5.74% senior unsecured notes due 2034
- The proceeds will be used to repay outstanding indebtedness and for general corporate purposes

Well-Laddered Debt Maturity Schedule

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

1,000 RLOC **Private Placement** Term Loans Mortgage

(1) Based on (i) actual consolidated debt as of June 30, 2024 and (ii) pro forma for the \$350 million private placement issuance with gross proceeds used to repay the \$325 million outstanding balance on Term Loan Tranche C maturing in January 2025 and pay down \$25 million towards the outstanding balance on the revolving line of credit ("RLOC"); (iii) as adjusted for (a) the \$32.6 million cash paid in conjunction with the July 1st PRO internalization; and (b) the July payoff of \$145 million Term Loan Tranche B utilizing the RLOC. In addition, the figures assume exercise of maturity extension option on the RLOC, which extends the maturity to 2028 from 2027



Corporate Responsibility Overview





Community & Team



 National Storage Affiliates has partnered with Feeding America to provide over 1.5 million meals annually to individuals facing food insecurity.

 Our SecurCare brand was recognized by Newsweek Media as one of America's Best Customer Service Brands for 2024

- 63% of our employees are women⁽¹⁾
- 32% racially or ethnically diverse⁽¹⁾
- 32% of senior management are women⁽¹⁾
- Member of NAREIT DDEI CEO Council

(1) As of Dec. 31, 2023,

Corporate Governance Highlights

GRESB – participated in the 2024 assessment	Opted out of MUTA
Vendor code of conduct	No "poison pill" plan
9 of 12 trustees are independent	Annual election of all trustees
Separate chairman and CEO roles	Cybersecurity subcommittee



Appendix (including Definitions and Methodology)



Definitions And Methodology

Total Enterprise Value: The sum of the Company's debt principal outstanding plus the perpetual preferred series A and common equity (on a fully diluted basis, as of July 1, 2024) valued at the closing price per share, as of June 28, 2024, of \$22.73 and \$41.22, respectively, and the Company's perpetual preferred series B preferred equity valued at a par value of \$25.00 per share.

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, integration costs, executive severance costs, equity-based compensation expense, losses on sale of properties, impairment of long-lived assets and casualtyrelated expenses, losses and recoveries, minus gains on sale of properties and debt forgiveness, and after adjustments for unconsolidated partnerships and joint ventures, including the removal of the non-cash effect of applying hypothetical liquidation at book value (HLBV) for purposes of allocating GAAP net income (loss) for the 2024 Joint Venture.

Dividend Yield: Calculated based on second quarter 2024 quarterly annualized dividend of \$2.24 divided by market closing price of NSA's common shares on September 6, 2024 of \$46.47.

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 – Sector Average Annual Total Shareholder Returns for Each 5-Year Period (All US Public Equity REITs) Over the past 30 years ended 2023. Annual total shareholder returns calculated as five-year IRRs on NAREIT's individual property sector total return index levels, for 25 separate 5-year periods from 1994-1998 through 2018 - 2022. 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 2022; Diversified 2011; Lodging / Resorts 2002.

Page 29 – 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 3, 2024. 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 2024 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.

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