

Development[®]

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Anchored Approach
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**Nearshoring's
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Built Environment 82**

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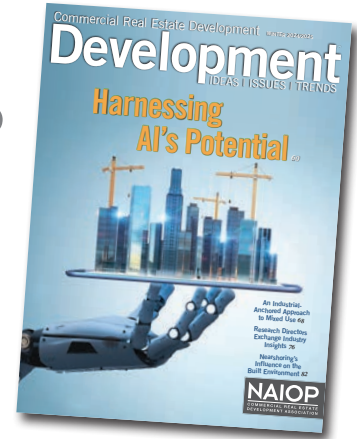


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Reflecting on My Year as NAIOP Chair

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A New Landscape for Commercial Real Estate

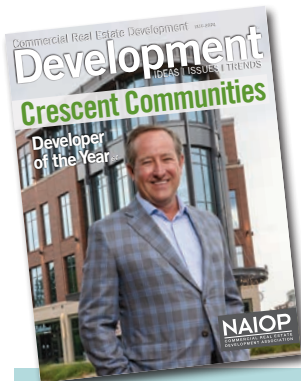


Jennifer LeFurgy

This past year, we witnessed a significant shift in trends and priorities within the CRE sector. As interest in the office market declines, more investment is flowing toward data centers and innovative mixed-use developments. Simultaneously, companies are working to build more resilient supply chains in North America through nearshoring and onshoring strategies. This shift is expected to create numerous opportunities in the transportation and logistics sectors. Additionally, the rise of artificial intelligence is set to change how CRE professionals conduct their work both now and in the future.

This issue explores these trends, offering insights from NAIOP's research directors and a case study of a former mall site that has been transformed into industrial, retail and multifamily uses.

Happy holidays and wishing you the best in the new year,
Jennifer LeFurgy, Ph.D.
Editor-in-Chief



Most Popular From Fall 2024

1. **"Reaching for a New Standard in Industrial Warehouse Design"** (naiop.org/24reaching), page 80
2. **"Beware the Silver Tsunami: Preparing Your Company to Survive the Boomer Bust"** (naiop.org/24beware), page 16
3. **"Crescent Communities: Building Communities That Better People's Lives"** (naiop.org/24crescent), page 64
4. **"Trophy Industrial: A Call to Inspire Creativity, Legacy and Community"** (naiop.org/24trophy), page 12
5. **"Living in a Park, Not a Parking Lot"** (naiop.org/24living), page 88

In Brief

Notable facts and figures on the state of the commercial real estate industry, culled from media reports and other sources.

INDUSTRY OUTLOOK

\$23.3 Billion The amount that U.S. REITs raised from secondary debt and equity offerings in the third quarter of 2024, according to Nareit. Of the total, \$15.4 billion came from debt, \$2.8 billion came from secondary common and preferred equity offerings, and \$5.1 billion was raised in one initial public offering (IPO) by Lineage, the world's largest cold storage provider by capacity. It stands as the largest REIT IPO in history.

DATA CENTERS

40% The portion of total capital being raised by real estate funds specifically to invest in data centers, according to an analysis by global law firm Linklaters. "Globally, there are more than 50 real estate funds currently capital raising and actively

Future NAIOP Events

- **Chapter Leadership and Legislative Retreat**, Feb. 3-5, 2025, Washington, D.C.
- **I.CON West**, March 26-27, 2025, Los Angeles
- **National Forums Symposium**, May 13-15, 2025, New Orleans

For the most current information on upcoming NAIOP events, both virtual and in-person, visit naiop.org/Events-and-Sponsorship/

seeking exposure to data centres, with a combined target size of over \$50 [billion]." More than \$20 billion of that total is marked exclusively for data centers, "with the remainder being raised to invest across real estate asset classes, including data centres."

3% The data center vacancy rate in the Americas, as highlighted in Cushman & Wakefield's October research report on data center markets. Over 80% of deliveries are preleased in major markets. "Demand for artificial intelligence and cloud data centers surged in the first half of 2024, in both established and emerging markets. Absorption is poised to surpass the record levels set in 2023. Power availability remains a critical concern, prompting developers to

explore extensive geographic areas for substantial power options within the next two to three years.”

MULTIFAMILY

740,000 The number of annualized multifamily unit completions over the past year, according to the RealPage Analytics Blog, reporting on numbers from the U.S. Census Bureau and the Department of Housing and Urban Development. More apartments have been completed in the last year than at any point in the last 50 years, dating back to April 1974. The number of completions was 79.2% above the total for August 2023.

OFFICE

30 Million The amount of office inventory in square feet that has been planned for removal, predominantly for office-to-residential conversions, through the third quarter of 2024, per JLL's U.S. Office Market Dynamics report. This marks the fourth consecutive year of record office inventory removal volume in late September. “With the concurrent acceleration in leasing activity and slowdown of new supply, availability levels [in the office market] have begun to decline for the first time in over five years.”

83% The percentage of Canadian CEOs who said they envision in-office work becoming the norm again within the next three years in an annual KPMG CEO Outlook survey. In 2023, only 55% of respondents held the same opinion. In the 2024 survey, 13% of Canadian CEOs saw hybrid work becoming the norm (compared

with 40% in 2023), while 4% said fully remote work would be the primary working environment (compared with 5% in 2023). Of the 75 CEOs polled, 90% said they would be likely to reward workers who returned to the office with favorable assignments, pay raises or promotions.

OPPORTUNITY ZONES

17 The number of Major League Baseball stadiums (out of 31 total, including the Athletics' new stadium in Las Vegas) that are either located in or in very close proximity to Opportunity Zones (OZ). As noted by the website

OpportunityZones.com, “This is an impressive total, considering only roughly 12 percent of the landmass of the United States lies within an OZ. Clearly, stadium districts are ripe for development opportunity and investment.”

CLIMATE RISK

290,000 The number of new properties built in high-risk flood zones across the United States from 2019 through 2023, as reported by The Wall Street Journal. That amounts to nearly 20% of the 1.6 million properties built during that time. ■

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Construction Workforce Challenges Persist

Occupations requiring specialized training or prior experience are particularly hard to fill.

■ By Ken Simonson, AGC

The construction industry has added workers much faster than the economy as a whole for the past two years. Yet contractors say finding workers is their biggest challenge. This lack of workers often means developers don't get the keys to their projects when they hoped to. Unfortunately, relief does not appear to be in sight, although contractors are expanding their recruitment efforts while also adopting labor-saving technology.

In the 12 months through September, construction employment increased 3%, nearly double the 1.6% rise in total nonfarm payroll employment, as reported Oct. 4 by the Bureau of Labor Statistics (BLS). Employment at non-residential building and specialty trade contractors — the types of firms most

likely to work on developers' projects — climbed more than 4%.

Despite the strong uptick, the construction industry had 370,000 job openings on the last day of August, according to the Oct. 2 Job Openings and Labor Turnover Survey report from BLS. That figure exceeded the 338,000 employees hired during the entire month, which suggests contractors wanted to bring on board at least twice as many workers as they could find.

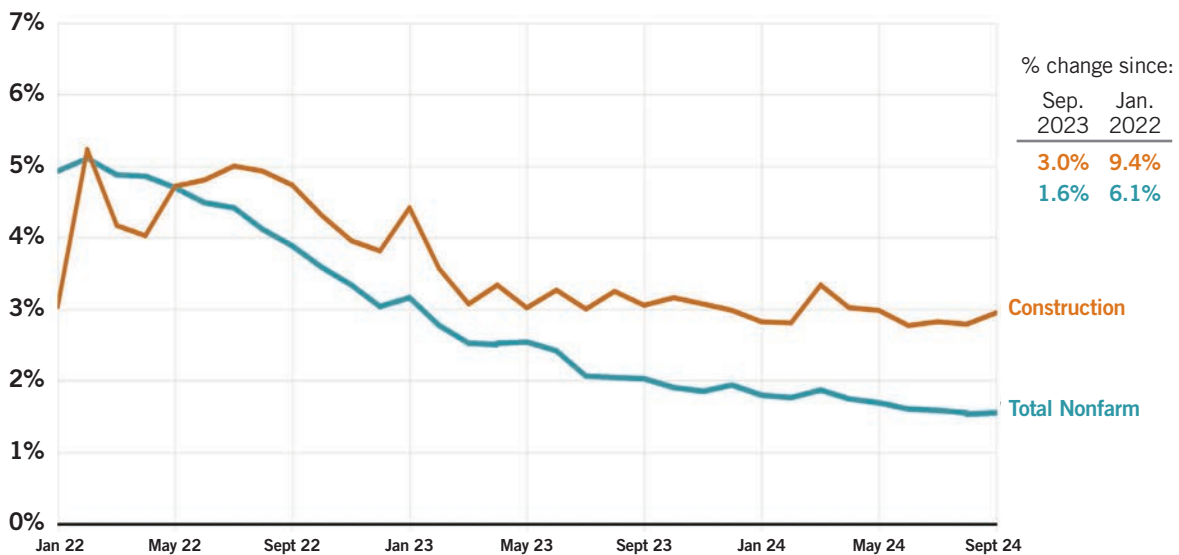
Efforts to Address Worker Shortages

If anything, worker shortages are getting worse in construction, even as they ease in other sectors. An annual workforce survey the Associated General Contractors of America

Four out of 5 firms acknowledged experiencing project delays. The most common reason, cited by 54% of firms, was a shortage of workers — either their own or workers employed by subcontractors.

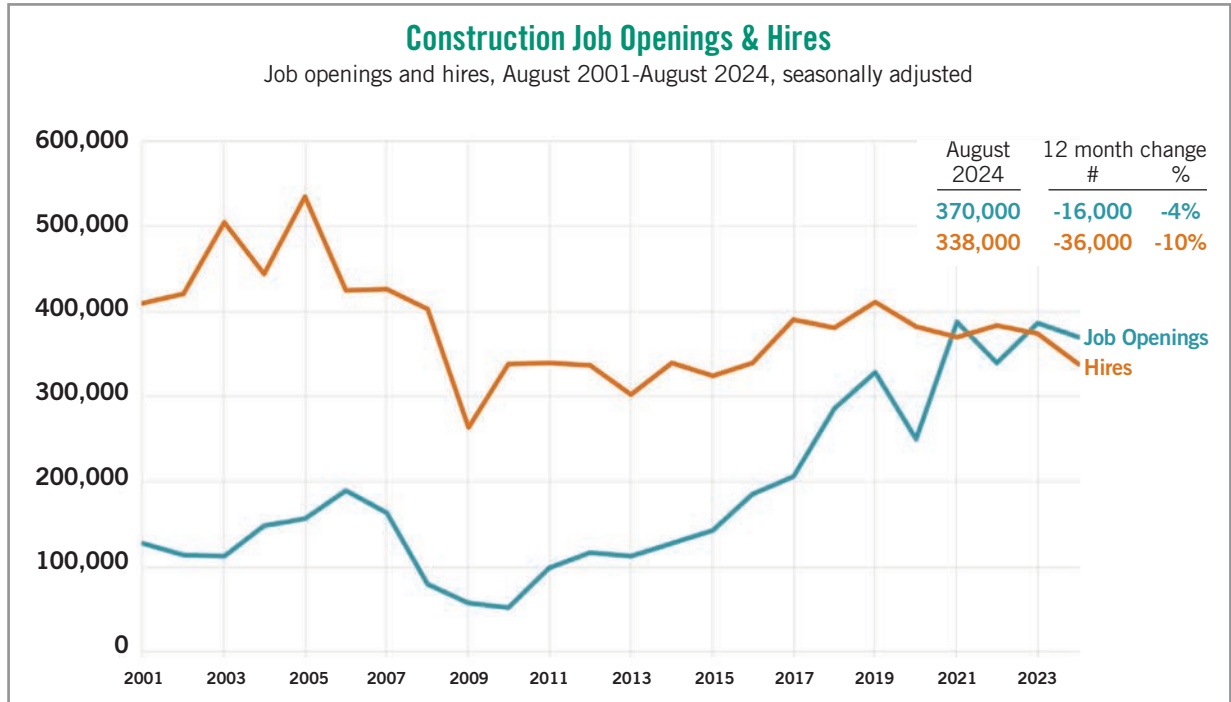
Total Nonfarm & Construction Employment, January 2022-September 2024

Year-over-year change, seasonally adjusted



Source: BLS current employment statistics, <https://www.bls.gov/ces/>

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Source: Bureau of Labor Statistics, www.bls.gov/jlt Job Openings & Labor Turnover Survey (JOLTS)

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(AGC) conducted in July and August found that 94% of the nearly 1,500 respondents reported having an opening for hourly craft workers on June 30, up from 85% of respondents in the 2023 survey. Similarly, 79% of firms had an opening for salaried employees in 2024, compared with 69% of respondents in 2023.

The problem is most acute for occupations requiring specialized training or prior construction experience. For instance, 76% of firms that had openings for surveyors in 2024 reported those positions were hard to fill, an increase of 10 percentage points from 2023. Some 78% of firms seeking estimating personnel said those openings were difficult to fill, an 8-point increase from 2023. And 79% of firms with openings for pipefitters or welders reported challenges finding candidates, up 7 percentage points from the year prior.

In contrast, some positions requiring no prior construction experience or training, such as laborers and traffic

control personnel, were easier to fill in 2024 than in 2023. As hiring and job openings in other sectors have tapered off, more applicants are likely seeking entry-level construction positions.

To improve their outreach, 57% of respondents reported adding online strategies, such as social media and targeted digital advertising, to connect better with younger applicants. In addition, a majority said they had engaged with career-building programs at the high school, college, or career and technical education level.

In an effort to upgrade employees' skills faster, 45% of firms said they had implemented or strengthened performance review or performance management. Roughly one-third had implemented career pathing or partnered with a third party for training courses. Around one-quarter had started a new learning program or technology to deliver and track training.

Nevertheless, 4 out of 5 firms acknowledged experiencing project

delays. The most common reason, cited by 54% of firms, was a shortage of workers — either their own or workers employed by subcontractors.

Firms are increasingly experimenting with or adopting a variety of robotics, drones, laser- and GPS-guided equipment, and artificial intelligence (AI) to reduce the need for certain occupations or to make workers more productive. A majority of respondents believe AI and robotics will have a positive impact on construction jobs by either automating manual, error-prone tasks or improving the quality of construction jobs and making workers safer and more productive.

However, firms and the AI and tools they adopt have a long learning curve. Developers shouldn't expect rapid or across-the-board improvements in project completion times. ■

Ken Simonson is chief economist with the Associated General Contractors of America. Contact him at ken.simonson@agc.org.

Ten Challenges Facing Commercial Real Estate in 2025

Many of the issues confronting industry stakeholders in the new year are interrelated.

■ By Anthony F. DellaPelle, Esq., CRE, Counselors of Real Estate

The impact of dozens of elections around the world — most notably the U.S. presidential election — are top of mind for commercial and multifamily real estate advisers. These elections could shift the political winds in numerous countries and reshape how real estate professionals do business.

This past fall, the Counselors of Real Estate, an international consortium of real estate problem solvers who provide advice on complex real property and land-related matters, released its top 10 issues likely to affect the industry in 2025. The issues were determined through broad membership polling, discussion and debate. Political uncertainty led the list of pressing issues.

In the United States, a new Trump administration is likely to usher in both challenges and opportunities. The stated intention to streamline or eliminate regulatory processes and bureaucratic red tape (like restrictive climate change policy) would expedite construction timelines, which would enable faster deliveries and lower costs. This could be particularly impactful in the single-family and multifamily sectors, where increasing the pace of construction and lowering costs are key to addressing the housing shortage and affordability crisis. And while most land use and zoning regulations are established at the municipal level, which is outside the authority of the executive branch, the incoming Trump administration has proposed releasing federal land tracts for housing development.

On the other hand, the president-elect's stance on international trade



CHUYN via iStock/Getty Images Plus

Extreme weather events are driving up insurance costs and will likely lead to greater focus on resilient properties in the coming years.

policy may have adverse consequences for commercial real estate markets — and commercial real estate development in particular. Increases in import tariffs have been shown to increase the cost of intermediate inputs used in construction, such as steel, lumber and other raw materials that are often sourced globally. The impact on global supply chains and construction costs could lead to a slowdown of both new and existing projects, while also shrinking developers' profit margins. Additionally, while President-elect Trump's immigration policies may limit additional stress on housing demand, they would also reduce the flow of new workers to the construction industry.

One boon for real estate investors is that there likely won't be changes to 1031 exchanges, a tax deferral strategy that enables investors to

delay the payment of capital gains tax. The Biden-Harris administration's proposed 2025 budget included a cap on 1031 capital gains tax deferrals of \$500,000 per taxpayer annually. That had caused a great deal of concern among investors.

Here are nine other challenges that commercial real estate professionals should monitor heading into 2025.

High Financing Costs

No one in commercial real estate escaped the interest rate spike over the past couple of years. While the Federal Reserve lowered its benchmark interest rate by 50 basis points in September and another 25 bps in November, financing challenges remain.

Even though transaction volumes are stabilizing, uncertainty plagues buyers and sellers amid interest rates that are

still elevated. As a result, the Counselors of Real Estate believes buyers and sellers will exercise caution heading into 2025. Complicated deal assessments and market valuations will keep some folks on the sidelines. When they come off, many buyers will concentrate on deals with higher cap rates.

Amid ongoing market uncertainty, the organization believes a robust rebound for commercial real estate transactions won't happen for another couple of years.

Massive Commercial Real Estate Debt

The commercial real estate sector is slipping closer to a debt cliff. In 2026, \$1.8 trillion in commercial loans are scheduled to mature. Some lenders are extending these loans as they await an uptick in the market, yet they still must cope with regulatory concerns and inadequate capital reserves.

Although forecasters predict the Fed's benchmark rate will slide to around 3.5%-3.75% by the end of 2025, borrowers who took out loans at sub-4% cap rates might be hit with a 75% to 100% jump in debt service payments.

This scenario — which makes refinancing more difficult — promises to seriously influence market dynamics in 2025, including competition and tenant retention in commercial real estate.

High Cap Rates

As investors account for greater risk from situations like global instability and supply chain disruptions, the Counselors of Real Estate expects cap rates to climb in 2025.

Such turmoil plays a major role in economic factors like inflation, housing affordability and monetary policy, all of which affects real estate

2 million sq. ft.

Affinius Capital, McDonald Property Group and **PREMIER Design + Build Group** began work on a master-planned logistics park in **Ontario, California**. Situated across from Ontario International Airport, **The HUB @ ONT** will be one of the first large-scale developments in Southern California



to incorporate a carbon reduction system for the slab, tilt wall panels and paving. Phase I will involve constructing four buildings totaling about 2 million square feet. The project ownership is **CanAm Ontario, LLC**, an investment affiliate of Affinius Capital, a Canadian pension fund and McDonald Property Group. CanAm Ontario executed a 55-year ground lease to develop the entire 200-acre site.

1.5 million sq. ft.

Frampton Construction Company and **Rockpoint** broke ground on **Race Track Logistics**, an urban industrial complex in **Pompano Beach, Florida**.



Frampton Construction

The approximately 1.5 million-square-foot, 87-acre **Class A industrial park** is on the site of a former horse-racing track. It is currently approved for eight

buildings. Race Track Logistics is located east of Harrah's Pompano Beach Casino. Phase one will consist of 620,738 square feet of construction across four buildings, which will include 36-foot clear heights, 165 dock doors with two drive-in doors per building, and a thermoplastic polyolefin roofing system for weather resistance and energy efficiency.

834 units

Lendlease and joint venture partner **Aware Super** announced the topping-out of **1 Java Street's** two towers, reaching 37 and 20 stories, along **Brooklyn's Greenpoint waterfront**. The **residential development** contains 834 rental units, 30% of which are designated as affordable housing, and approximately 13,000 square feet of neighborhood-oriented retail space. Upon completion, 1 Java Street will be the largest residential geothermal building in New York state. The project's vertical closed-loop geexchange system will reduce annual carbon emissions from heating and cooling by 53% compared with typical residential systems. Designed by **Marvel**, 1 Java Street features an interconnected building that occupies a full city block.



pricing and risk-adjusted returns. Amid this environment, investors should adjust their strategies to reflect specific market conditions rather than historical cycles.

Soaring Insurance Costs

Inflation, higher property values and natural disasters have driven up property insurance premiums. This is especially true for residential, hospital-ity and senior living properties.

In particular, losses from natural disaster claims are causing anxiety among property insurers. In 2023, global natural disasters generated \$380 billion in losses. Of these, 31% were covered by insurance, putting insurers on the hook for billions of dollars in claims.

As property owners grapple with rising insurance costs, we expect them to zero in on factors such as risk management and appropriately sized coverage to lower expenses related to protecting their assets.

Increasingly Unaffordable Housing

The dream of homeownership continues to fade for some Americans due to worsening affordability. Two key factors contribute to this: rising costs and housing shortages.

This puts more pressure on the multifamily sector. The Counselors of Real Estate believes declining multifamily construction and greater demand from younger renters will aggravate affordability challenges in 2025. Already, a little over half of renters spend more than 30% of their income on housing. It won't be a surprise if the share of cost-burdened renters increases in 2025.

To ease the strain of housing affordability, we should build even more housing and preserve housing units



Sundry Photography via iStock/Getty Images Plus

Two related issues — the rising costs of owning a home and the shortage of available housing — will keep the multifamily sector in the spotlight.

that already are affordable. To achieve this, the private sector must step up.

Rise in Artificial Intelligence

Artificial intelligence dominates today's business landscape, and the commercial real estate sector is no exception.

In 2025, commercial real estate professionals will continue to confront challenges such as fragmented data and location-specific distinctions. Meanwhile, as AI algorithms demand additional computing power, the AI-fueled frenzy over data centers might be dampened.

Impact of Extreme Weather

October's back-to-back hurricanes in Florida and the Southeast are just two examples of the threat extreme weather poses across the United States. While the European Union and the United Kingdom are adopting strict rules surrounding sustainability, U.S. regulations are far less stringent.

Considering the tremendous impact of extreme weather events, 2025 could be the year when the need for resilient properties takes on greater urgency. For property owners, this could mean boosting investment in green technologies and other resilience-enhancing measures.

Lingering Office Vacancies

The pandemic slashed demand for office space, particularly in urban cores. This triggered double-digit office vacancy rates and declining property values, most notably in places like New York City and San Francisco.

Amid the ongoing recovery of the office market, some property owners in 2025 and beyond will embrace adaptive reuse. Therefore, we should expect more office buildings to be converted for use by residential, health care and education tenants, among others.

While adaptive reuse can help resolve the glut of empty office space in some markets, it remains a potentially costly and complex approach.

Narrower Buyer-Seller Price Gap

The good news on the gap between buyers' and sellers' price expectations is that the divide is narrowing. Stronger rent growth and interest rate declines could further propel this trend. But with a slew of property loan maturities on the horizon, sellers may need to tweak their pricing expectations, potentially lifting deal volumes as refinancing pressures grow. ■

Anthony F. DellaPelle, Esq., CRE, is global chair of the Counselors of Real Estate.

New & Noteworthy

An Overview of State Data Center-related Tax Incentives

A 50-state survey reveals different approaches to building out data center capacity.

■ By Jake Remington and Rod Carter, Husch Blackwell

Even before the advent of generative artificial intelligence (AI), policymakers were quickly discerning that their states' economic prosperity was linked to the ability of private businesses to store, use and process data. This first realization often came in conjunction with a second one — that states were falling behind projected levels of demand. According to CBRE, data center capacity in North America increased 24.4% year over year during the first quarter of 2024. The cost of space is still rising and vacancies are “negligible,” according to an April report in *The Wall Street Journal*.

Demand looks set to outstrip supply for the foreseeable future. The industry faces multiple constraints, including the scarcity of raw materials and labor, potential shortages of electricity and a formidable permitting process in many jurisdictions. Additionally, data centers are expected to deliver a larger range of distributed services. This is especially evident in the context of emerging technologies — such as those that power autonomous vehicles or so-called smart factories — that require low latency, large amounts of data and real-time responses. These requirements are difficult to satisfy in a centralized, cloud-based architecture. In the future, a data center network's geographical distribution — and not just its scale — will likely be

398,000 sq. ft.

QuadReal Property Group and **Ware Malcomb** announced construction was completed on **The Birmingham**, a historic Campbell Soup factory site redeveloped as a three-building facility to accommodate light industrial and e-commerce uses in the South Etobicoke district near downtown **Toronto**. The 398,000-square-foot project's new buildings range from 157,710 to approximately 120,000 square feet, each with 36-foot clear heights. The site provides a total of 86 loading docks and 80 truck-level doors. The Birmingham is designed with several green features, including solar panel rooftops, EV charging stations and solar electric power. **Leeswood Construction** provided general contracting services.



Philip Castleton Photography

300,000 sq. ft.

Meridian Design Build completed construction on a 300,000-square-foot cold storage build-to-suit distribution facility for **Corteva Agriscience** and developer **Scannell Properties** in **Anderson, Indiana**. The new building is Corteva's largest warehouse and distribution center in North America. The facility, constructed on a 30-acre site, includes 100,000 square feet of refrigerated/humidity-controlled cold storage and an adjacent dry storage area accessible via high-speed rollup doors. The building features 25 loading docks, two drive-in doors, a storm shelter and approximately 4,000 square feet of office space. Meridian completed the project on a design-build basis.



300,000 sq. ft.

Brinkmann Constructors, in partnership with **Agracel, Inc.**, recently broke ground on a 300,000-square-foot manufacturing facility in **Minden, Louisiana**, for **Fibrebond**, a company that designs and builds complex electrical and mechanical solutions for the data center, fiber, industrial and utility markets. The electrical integration facility will also include 16,000 square feet of high-end office space. The facility is set to be fully operational by July 2025.





Gerville via iStock Unreleased

Among the challenges data centers face are strict permitting processes in certain jurisdictions.

a critical factor for the implementation of emerging technologies.

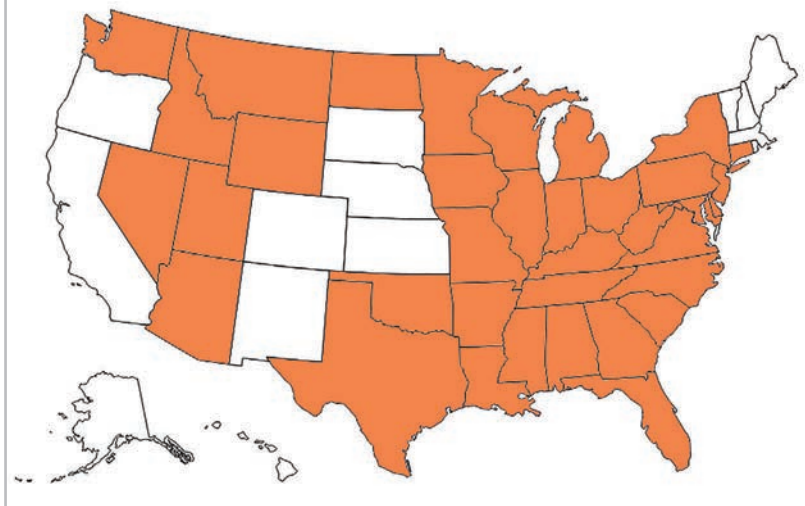
One of the most consequential tools to spur development involves taxes at the state level. Husch Blackwell's 50-state survey of data center tax incentives summarizes these various state-level initiatives and identifies key differentiating features that could affect the economic viability of projects.

Currently, 36 states have some kind of legislation authorizing tax incentives for new data center development. Some states have been using data center tax incentives for over a decade, but the approach has gathered momentum, especially since AI-related stories have captured the public's imagination.

As more states crafted legislation, significant variations emerged in how they address key issues, including:

- The kind of tax exemption offered
- The time period covered by the incentive

States With Data Center Tax Incentive Legislation



Source: Husch Blackwell, *Tax Incentives for Data Centers 50-State Survey*

- The facilities eligible for the incentive (e.g., square footage and parcel requirements)
- Investment thresholds
- The kinds of expenditures or items covered in the legislation

Certain ancillary issues — such as job creation thresholds or security mandates — appear highly prioritized by some states and unmentioned by others, demonstrating the divergent objectives and priorities.

Some states have been using data center tax incentives for over a decade, but the approach has gathered momentum, especially since AI-related stories have captured the public's imagination.

Points of Departure

While nearly all of the legislation included in the survey takes up similar concerns, there is no standard template for how incentives are structured. State laws of this kind are the products of idiosyncratic local conditions and personalities. A common temptation is to view the collection of state tax incentives along the political spectrum from “red” to “blue,” but that sometimes papers over policies that do not fit neatly into a comprehensive — or comprehensible — political point of view. Tax incentives for data centers defy many conventional political labels, and one can find supporters and detractors at all points along the political spectrum.

Each state's policy must be viewed as a whole to appreciate how it might influence developments throughout the project's life cycle. A good place to start is the particulars of the incentive structure itself — the kinds of exemptions included and their duration. Some states have been explicit in limiting the period of time that incentives run, usually ranging from 10 to 50 years. Additionally, the duration can flex depending on the nature of the investment. Larger investments sometimes get a longer runway, and new facilities sometimes get the benefit of

210,000 sq. ft.

The NBA's **Cleveland Cavaliers**, **Cleveland Clinic** and **Bedrock Real Estate** broke ground on the **Cleveland Clinic Global Peak Performance Center**. At 210,000 square feet, it will be one of the largest and most advanced **training and performance complexes** in the world, designed to optimize the performance and well-being of Cavaliers basketball players while also offering comprehensive care for the general public. The **Populous**-designed complex is the first vertical development in Bedrock's \$3.5 billion master plan to reimagine 35 acres of the Cuyahoga riverfront. The facility is expected to open in 2027.



354 units

Developer **Weston Urban** announced the opening of **300 Main**, the tallest residential tower in **San Antonio** at 32 stories. The 354 units in the **Class AA multifamily development** average 924 square feet. The development includes 6,275 square feet of retail space and a six-level parking garage with more than 450 spaces. Residents have access to 40,000 square feet of amenity space, including a Sky Lounge on the 25th floor, a seventh-floor pool deck, and coworking lounges with private study pods and conference rooms. **Rogers-O'Brien Construction** served as the general contractor, with the design provided by **Page**.



160,250 sq. ft.

Capital Development Partners completed **Shipyards Creek**, a 160,250-square-foot, **Class A transload property** in **Charleston, South Carolina**. The 42-acre site features a port-adjacent cross-dock facility designed to meet the needs of major importers. With 153 dock doors and 724 trailer parking spaces, Shipyards Creek has the capacity to handle high volumes of container movement. The property's infrastructure includes on-site storage parking that can stack up to five shipping containers. It is located near South Carolina Ports' Leatherman Terminal, which is a critical gateway for the Southeast market.



Do you have a new and noteworthy project in the planning, design or construction stage that you'd like to share with fellow real estate professionals? Send a brief description and high-resolution rendering to developmentmagazine@naiop.org.

a longer period than improvements to existing facilities. Several states have not defined a sunset date on incentives.

Just as important as the duration of the incentives is what they purport to cover. Most states have bundled exemptions, and it is important to appreciate what is in the bundle and what is excluded from state to state. Even within the same state, different items qualify for different kinds of exemptions. In Georgia, for example, the purchase and use of high-technology data center equipment to be incorporated or used in a high-technology data center are exempt from state and local sales and use tax; however, the state's sales and use tax exemptions are subject to different subsections of the law and have different triggers.

The investment thresholds from state to state also offer interesting points of differentiation. Some states have a single threshold level that is applied to all projects; others have tiered levels that tie back to a range of factors, including lower levels for rural areas or new construction, and levels that differ according to the type of investment made. All of these variables should receive the careful attention of tax incentive counsel at the earliest possible point in the project timeline.



Halbergman/E+ via Getty Images

Ancillary issues such as job creation thresholds and security mandates are often tied to tax incentives for data centers.

Incentives With Requirements

With so much scrutiny aimed at tax incentives generally, it is not surprising to see the presence of requirements baked into legislation that mandate certain community benefits. Of note, several states have specific job-creation thresholds for qualifying projects, and as with other provisions, these vary greatly. Like the investment thresholds, the job-creation requirements are sometimes tied to other provisions. For instance, Nevada's legislation requires 10 new jobs to qualify for the 10-year abatement; however, the 20-year abatement requires 50 jobs. Additionally, some states require that jobs created cannot be subject to workforce reductions for a specific time period.

These might seem like modest requirements, but data centers — even large ones — do not require a large workforce to operate. When job-creation

requirements are tied to the operation of data centers rather than their construction, the requirements might be hard to meet.

Additionally, provisions often target not just the number of jobs but a variety of other metrics. These typically include mandated salary/wage levels (many use county or state averages as benchmarks), mandated health insurance coverage levels, and requirements that enterprises use state residents for the construction of projects.

Other tax incentive-related mandates selectively put into place by states — almost appearing as legislative afterthoughts — could have a significant impact on projects. For instance, Illinois requires data centers to become carbon neutral within two years after being placed into service. Minnesota defines qualified facilities

New & Noteworthy

111,704 sq. ft.

Canadian developer **Beedie** recently started construction on **Lincoln by Beedie**, a 111,704-square-foot **Class A industrial condominium development** in **North Las Vegas**.

The project will consist of 10 premium units available for purchase, ranging in size from 10,208 to

15,974 square feet. The development will feature tilt-up concrete construction, 28-foot clear heights, LED lighting, pit leveler dock loading per unit, R-38 insulation and ESFR fire sprinklers. It is located along Lincoln Road in the East Cheyenne industrial corridor, just east of Interstate 15. Completion is anticipated by the second quarter of 2025.



When job-creation requirements are tied to the operation of data centers rather than their construction, the requirements might be hard to meet.

as having “sophisticated” fire suppression systems and “enhanced” security. Some of these ancillary requirements are negligible to the overall cost structure, but some are material or, at the least, undefined in terms of cost. Project developers and investors should be careful not to overlook their impact.

Wading Into Complexity

The presence of data center-specific tax incentives can be an opportunity for improving a project’s cost structure, but misconstruing key provisions of tax incentive legislation can have damaging consequences after capital has been committed and shovels are in the ground. Additionally, it is important to confirm with localities the presence of general incentives that can also apply to data center projects.

Husch Blackwell’s 50-state survey (<https://bit.ly/50statesurvey>) is a starting point and a useful reference tool, but it is just a snapshot in time. Priorities — and the laws that aim to reflect the same — change over time. ■

Jake Remington and **Rod Carter** are partners at the law firm Husch Blackwell.

239 units

Toll Brothers Campus Living announced the opening of **Kinetic**, an off-campus **apartment community designed exclusively for college students**, featuring 239 apartment homes with 752 beds. The community is in **Atlanta** near the campus of Georgia Tech. It offers a mix of one- through five-bedroom fully furnished apartment homes with features such as smart home technology, including in-residence Wi-Fi and app-controlled door locks. Select residences include en suite private bathrooms. Students have access to multiple study lounges, with both private and collaborative spaces, as well as a high-tech content studio.



Toll Brothers Inc.

89,500 sq. ft.

Skanska completed the **Vernier Science Center at Portland State University** in downtown **Portland, Oregon**. Formerly known as Science Building One, the renovated six-story, 89,500-square-foot building will serve as an inclusive hub for STEM study and applied education, featuring labs, classrooms and spaces that support collaboration. In partnership with **Bora Architects**, the



Skanska USA Building

design process engaged Black, Indigenous, and students of color to inform the facility’s development. The new structure features heavy reinforcement of shear walls to update its seismic readiness, stronger fire suppression construction, a wet lab and food labs, shared access and equipment, and nature images that improve wayfinding. ■

The Hidden Tax Benefits in Teardown Properties and Renovation Projects

Deconstructing rather than demolishing buildings can present both financial and environmental advantages.

By Rachel Vanni

In the current economic environment — with rising materials and labor costs, combined with challenges in financing — developers are facing serious headwinds. Some are mitigating these challenges by generating additional income through the demolition process itself.

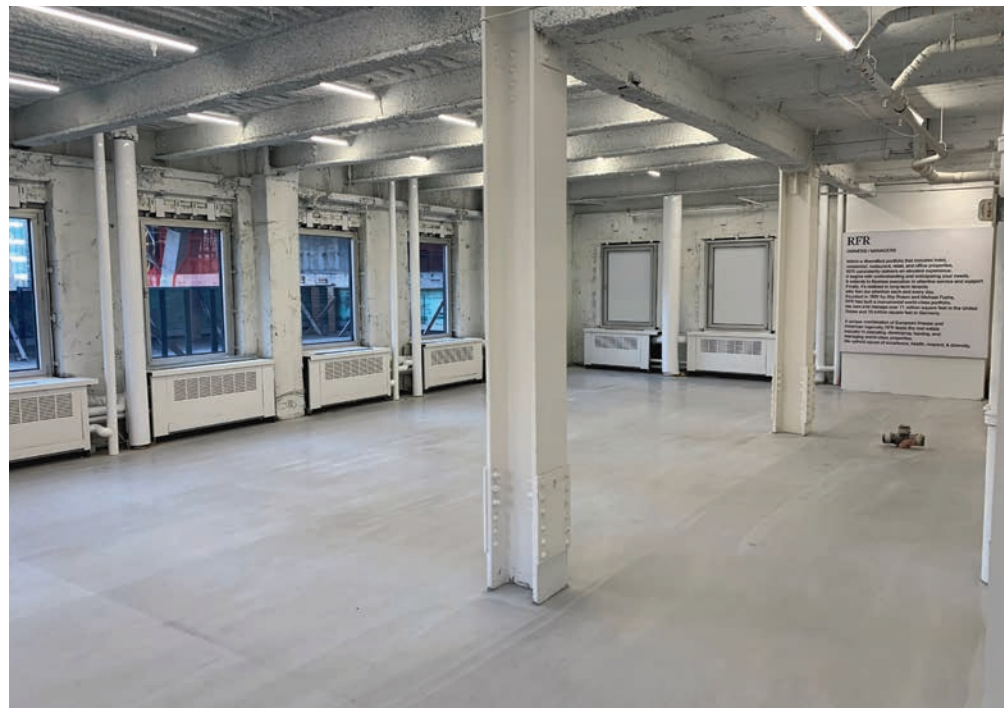
While traditional demolition methods reduce prior structures to rubble, deconstruction involves dismantling a building piece by piece, with up to 90% of the collected materials being donated and used again. The donations not only keep these materials out of landfills but can also offset demolition costs in a net positive way due to the high demand for quality used building materials.

The Benefits of Reuse

With the expiration of lease terms from pre-COVID tenants on the horizon, many office buildings are having difficulty maintaining their marketability. But how much value lies on the inside of these properties?

Deconstruction firms are starting to see more interest in this opportunity. It is becoming more common for developers to purchase office buildings for little more than the value of the materials extracted during a conversion or repurposing process.

For example, the purchase of a large commercial building in Libertyville, Illinois, recently resulted in a net positive for a local commercial management firm. The commercial campus had over 1.1 million square feet of space and was purchased fully



Courtesy of Green Donation Consultants and Recyclean, Inc.

Deconstruction teams can begin work on a structure's interior while the developer is waiting on permitting.

furnished for \$9.5 million. By donating desks, fixtures, flooring, electrical systems, windows, doors and other building materials, the company received an \$8.9 million tax deduction. The management company's net profit amounted to \$2.36 million after the building was stripped and made ready for build-out.

The value of these structures lies in the fact that builders are facing two main challenges in the current economy: the struggle to find affordable building materials and the lack of quality and durability in new materials.

The lumber industry is facing restrictions due to concerns about increased carbon emissions and deforestation. Additionally, supply chain interruptions from the COVID-19 pandemic are still a concern. These factors are contributing to the rise in cost of new materials. In a challenging economy, budgets are becoming tighter, creating more pressure to find affordable building materials.

Previously thought to be a niche market, the demand for used building materials is climbing. The reclaimed lumber market alone is expected to

Previously thought to be a niche market, the demand for used building materials is climbing. The reclaimed lumber market alone is expected to be worth \$98.1 billion by 2033.

be worth \$98.1 billion by 2033, and other materials like stone, brick and piping are fetching higher prices than ever before.

Deconstruction also provides a practical way for developers to demonstrate their investment in a community. Deconstruction firms collaborate closely with government organizations and nonprofits like the Federal Emergency Management Agency, Habitat for Humanity, the Salvation Army and others that create affordable housing, multiuse buildings, schools and other vital community infrastructure with limited budgets.

Navigating Timelines

The demand for deconstruction as a sustainable alternative has surged within the last decade. Since 2016, several cities, including Portland, Oregon; San Jose, California; Milwaukee; and San Antonio, have established deconstruction ordinances requiring either all or a proportion of buildings set for demolition to be disassembled instead. More than 400 deconstruction companies and supporting organizations currently provide this service nationwide.

Timeline is often cited as the main driver when weighing between decon-



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struction and demolition. Traditional demolition offers the comfort of the familiar, providing a straightforward method to meet a hard deadline. However, deconstruction allows for the process to begin even sooner than demolition. While awaiting permitting, teams can begin on the interior of a property and dismantle fixtures, furniture and other materials without puncturing the skin of a building, putting a project into motion quickly.

Once permits are approved, structural materials can be disassembled in alignment with even tight timelines. Ideally, having 90-120 days from initial inspection to deconstruction is recommended, but the process can be sped up if needed.

Deconstruction can offer a solution for developers needing immediate cash flow and reduce estimated quarterly tax payments in alignment with the final tax benefit assessed at the start of a project. If revenue is deferred, the tax deduction can be taken within a five-year span.

Ins and Outs of the Deconstruction Process

The deconstruction process is managed by a personal property appraisal firm with a team of qualified appraisers. These teams have ample experience and connections with local organizations and charities, making the process easy for an already busy developer.

The first step involves a visit to the property by a project inspector who takes photos, measurements and detailed notes to understand the size and scope of the materials to be salvaged.



Courtesy of Green Donation Consultants and Recyclean, Inc.

Top: Green Donation Consultants and Recyclean, Inc. recently completed the full deconstruction of a commercial office property in Chicago, including foundation removal; **bottom:** an architectural rendering of the new building, which will include business and residential uses.

They use this information to present a detailed plan to the developer that includes a proposed value, pricing, and nonprofit organizations that will receive the donated materials.

The cost of deconstruction and the final tax benefit depend on numerous factors, including the size of the property, quantity of materials, quality

of fixtures, and the fair market value of those salvaged materials at the time they are appraised.

The sheer logistics of donating these materials from large commercial projects can be complex. One office building can create an enormous amount of inventory, each piece needing to be documented, assessed for

Donation Case Studies: By the Numbers

Case Study 1

Involved all furniture, fixtures and equipment from a large multistructure manufacturing plant in Milwaukee.

- Donation value of materials: \$24,434,000
- Effective tax rate (federal and state tax rates added together): 40%
- Tax savings (\$24,434,000 x 40%): \$9,773,600
- Cost of disassembly, cleanout and transportation: \$2,155,995
- Cost of charitable donation packet (appraisal, IRS Form 8283): \$933,985
- **Net profit to owner: \$6,683,620**

Case Study 2

Involved full interior gut to the walls on the west wing of a mall in Philadelphia.

- Donation value of materials: \$1,875,500
- Effective tax rate (federal and state tax rates added together): 40%
- Tax savings (\$1,875,500 x 40%): \$750,200
- Cost of deconstruction: \$0.00 (builder completed)
- Cost of charitable donation packet (appraisal, IRS Form 8283): \$39,995
- **Net profit to owner: \$710,205**

Case studies courtesy of Green Donation Consultants, Fredericksburg, Virginia.

fair market value and properly indexed. This detailed documentation process is handled directly by the appraisers, who conduct research to ensure accuracy when determining the value for sometimes very nuanced materials.

Typically, up to 90% of building materials and fixtures can be salvaged, reused or recycled, including brick, lumber, plumbing, artwork, doors, framing, flooring, lighting, and any personal property or furniture on-site. Materials such as drywall, concrete, broken appliances and damaged furniture are not eligible for donation.

Once deconstruction is completed, the nonprofit provides a signed receipt detailing the materials that were

donated. The deconstruction firm reconciles the preliminary list with the donation receipt to produce a final donation inventory list. That information is crucial to making a complete determination of the fair market value of the materials.

The appraisal is then compiled into an IRS qualified comprehensive appraisal report, which is submitted with a signed IRS Form 8283 and sent to the developer with instructions on how to submit the final packet.

While deconstruction is a valid avenue for most, some unique circumstances may limit a commercial developer from taking full advantage of the financial benefits. For example, pass-through

entities and investment trusts are not eligible to receive deconstruction tax benefits. Additionally, if the building has already been depreciated, tax benefits cannot be applied, and deconstruction may not be as financially attractive.

Alternatively, developers could still capture tax benefits via deconstruction through the ability to earn LEED points, leading to other tax benefits down the line. For property placed in service before Jan. 1, 2023, the deduction is capped at \$1.80 per square foot (indexed for inflation after 2020) for buildings with 50% energy savings. Other state or city incentives for LEED certification could benefit developers looking for energy-efficient alternatives.

Capturing All the Benefits

If a commercial developer is considering deconstruction, being prepared with the right information will ensure a smoother process. Having the developer's accountant or tax team member on the initial call with the project inspector can reveal additional tax benefits that may apply to the project.

The financial benefits of deconstruction, along with its potential to produce a positive impact on the environment and communities, make it a powerful tool for developers to leverage. Given the trend toward environmentally focused practices, deconstruction may one day become the norm rather than the exception. ■

Rachel Vanni is an attorney turned freelance writer who spotlights companies and industries focused on ESG.

Maximizing Tax Incentives for CRE Projects

By better leveraging tax deductions and incentives, developers can reduce the capital needed from debt and equity sources.

■ By Jess LeDonne and Joseph Wutz, The Bonadio Group

Tax deductions and incentives tend to be complex, but they can provide much-needed relief to commercial real estate owners and developers who understand how to leverage them. Especially in the current economic climate, these financial tools can offset some of the challenges posed by declining property values and high interest rates. This article describes the most common incentives available to CRE stakeholders.

Cost Segregation Studies

Cost segregation studies are a popular tax strategy that allows property owners to accelerate depreciation on certain building components, thereby reducing taxable income in the year a building is acquired. This strategy is further enhanced by the bonus depreciation rules allowable at the federal level, where 60% of qualifying property purchased and placed in service in 2024 can be expensed immediately.

Assume a commercial building is acquired for \$10 million, and \$9 million of the purchase price is allocated to the building. The building owner would be entitled to depreciate the building over 39 years, producing an annual depreciation deduction of approximately \$230,700. A cost segregation study done on that same building could allow portions of the building to be depreciated over shorter lives, depending on the type of building and its related components. For example, if the study concludes that 10% of the building qualifies as 5-year property and 5% of the building qualifies as 15-year property, the



Onurdongel via iStock/Getty Images Plus

Commercial building owners that make energy-efficient improvements to their properties may be eligible for certain tax deductions.

federal tax depreciation allowable for a building purchased in 2024 would be approximately \$1,372,000.

In certain situations, a cost segregation study can be detrimental if other incentives are being pursued. For instance, if the intent is to sell the building within one to two years of acquisition, the depreciation deductions generated would have to be recaptured at ordinary income tax rates, thereby diminishing the value of the cost segregation study. Additionally, projects with historic tax credits generally do not undergo cost segregation studies because doing so would reduce the amount of costs eligible for the tax

In many cases, credits are more favorable than deductions, since a credit represents a dollar-for-dollar reduction of one's tax liability.

The best time to undergo a Section 45L study is immediately after a property is developed, before it is occupied by tenants.

credits. In many cases, credits are more favorable than deductions, since a credit represents a dollar-for-dollar reduction of one's tax liability.

Bonus depreciation is scheduled to phase out by the end of 2026 (2027 for self-constructed property with a longer production period). Qualifying assets placed in service by the end of 2024 are eligible for 60% bonus depreciation, but the same assets, if placed in service in 2025, will qualify for only 40% bonus depreciation. It is not known at this time whether there will be any new legislation that changes the rules for bonus depreciation.

Section 179D Energy Efficiency Deduction

The Section 179D deduction incentivizes energy-efficient building design and retrofitting. It allows commercial building owners to deduct the cost of energy-efficient improvements such as lighting, HVAC systems and building envelope upgrades, which otherwise would have to be capitalized and depreciated over 39 years.

The deduction is worth up to \$1 per square foot of building space if the building is certified by way of a qualified study to reduce annual energy and power costs by greater than 25%. If the project also satisfies prevailing wage and apprenticeship requirements, the deduction increases to \$5 per square foot. Generally, the prevailing wage under the Inflation Reduction Act of 2022 allows for increased credit where documentation demonstrates that project laborers are paid no less than the rates set by the Department



Onurdongel via iStock/Getty Images Plus

A tax credit of up to 30% of the total cost of the project may be issued for installation of high-speed electric vehicle charging stations.

of Labor. The apprenticeship requirements for increased credit state that a minimum percentage of labor hours be performed by qualified apprentices, with ratios and participation rules. Projects of less than 1 megawatt or those that began construction prior to Jan. 29, 2023, may qualify under a transition rule that exempts such projects from having to satisfy prevailing wage and apprenticeship requirements.

EV Charging Station Credits

The installation of high-speed electric vehicle charging stations is eligible for a tax credit of up to 30% of the project's total costs, limited to \$100,000 for each charging station. As of 2023, charging stations are eligible only if located in an eligible census tract (defined as a low-income community or a nonurban area). Thus, the project's exact location should be checked against

those eligible locations to ensure the credit can be used and maximized.

Section 45L Tax Credits

Landlords of mixed-use projects and other multifamily rental developments may wish to consider an incentive under Section 45L of the tax code, which allows a tax credit of up to \$5,000 per unit if the unit meets certain energy efficiency standards and satisfies the prevailing wage and apprenticeship requirements. The energy efficiency standards are typically set by the Department of Energy or the Environmental Protection Agency and involve achieving specific levels of energy savings, such as Energy Star certification or Zero Energy Ready Home standards. The best time to undergo a Section 45L study is immediately after a property is developed, before it is occupied by tenants.

Historic Tax Credits

The federal historic tax credit (HTC) provides a valuable incentive for owners rehabilitating and preserving structures listed in the National Register of Historic Places. Projects are eligible for a tax credit equal to 20% of the qualified rehabilitation expenditures claimed ratably over five years. Some states, such as New York, have their own historic rehabilitation credits programs that mirror the federal credit.

Qualified Opportunity Zone Investments

Three main tax benefits are available with a qualified opportunity zone (QOZ) investment:

1. Deferral of capital gains that are invested into an entity that self-certifies to the IRS as a qualified opportunity fund (QOF) that will own QOZ property. The capital gains are deferred until the earlier of either the date on which the qualified investment is made or Dec. 31, 2026. Any taxes owed on the deferred capital gains would have to be paid on or before April 15, 2027.
2. For QOF investments made prior to 2021, 10% of the deferred capital gain can be excluded from taxable income when the gains must be recognized in 2026. For QOF investments made prior to 2019, the exclusion percentage increases to 15%.



The Plaid Penguin

Developers and owners may be able to benefit from historic rehabilitation tax credit programs at both the state and federal levels.

3. After a minimum 10-year holding period, the QOF investor may exclude from their income the gain on sale of their qualified investment in the QOF. Alternatively, any gain on the sale of the qualified property owned directly or indirectly by the QOF may be excluded from the investor's income as well. This is arguably the most lucrative benefit of the QOZ incentive.

While the rules and structuring of such investments are complex and require careful planning and execution at both the federal and state levels, investors can defer paying tax on certain capital gains in exchange for making eligible investments in these projects, while at the same time paving the way for a potential tax-free exit from the investment after a minimum holding period of 10 years. Capital gains contributed to a QOF after Dec. 31, 2025, will not qualify for a deferral but would still be eligible for benefit No. 3 above. There has been discussion about extend-

ing or refining the QOZ incentive, but it is unclear whether this will happen. Despite this uncertainty, QOZ investments remain a viable option, particularly for investments intended to be held for at least 10 years.

Brownfield Tax Incentives

Several states have developed programs to incentivize the cleanup of brownfields. The credits can pay off because the cleanup costs are often substantial. Keep the following considerations in mind:

- Brownfield projects often require substantial expenditures of capital up front, so it is critical that the project has sufficient funding during the development phase.
- The incentives can differ depending on the state in which the project is located. For instance, New York requires completion of a comprehensive application process and payment of a \$50,000 fee before starting the project.

Several states have developed programs to incentivize the cleanup of brownfields. The credits can pay off because the cleanup costs are often substantial.

- Once the project is completed and credits are claimed, the taxing authorities will closely examine the tax returns given the dollar amounts of the credits. While each situation is different, the audit process can drag on for multiple years. Project sponsors should expect that components of the claim may be contested. This involves examination by a brownfield cleanup expert to ensure such challenges are fair and substantiated by authoritative guidance. The audit process will delay the time that investors can see a return on their investment for funding the cleanup costs up front.

Case Study

Consider the following example: A developer is looking to transform an old industrial facility sitting on contaminated land in New York state into a mixed-use development, with retail and warehouse space on the ground level and 100 residential rental units on the remaining levels. In addition, the municipality has encouraged installation of five high-speed EV charging stations, which the developer agrees to include. A simplified version of the developer's budget for this project is as follows:

- Demolition and removal work: \$5 million
- Walls, stairs, elevators: \$3 million
- Plumbing and electrical work: \$2 million
- Structural components: \$10 million
- Paving: \$500,000
- Signage: \$500,000
- Soft costs: \$500,000
- Brownfield cleanup costs: \$5 million
- Developer fees (arms-length): \$4 million
- Charging stations: \$1 million
- Total costs: \$31.5 million

The developer can leverage various credits in connection with this project, including the federal HTC for a building listed in the National Register of Historic Places or located in a registered historic district, and state historic tax credits for a project located in certain census tracts. In addition, the property is in a QOZ, so the developer can inject eligible capital gains from the sale of another property into this project. The following is an overview of the cost savings:

- QOZ investment, initial investment (capital gain deferral): \$2 million (capital gain deferral — time value of money between investment of capital gain and April 15, 2027)
- QOZ investment, exit after 10 years (exclusion of capital gain on sale of the investment or the underlying property): Unknown/variable, but expected to be substantial (minimum 10-year holding period required)
- Tax credits for charging stations (30% of the costs, up to

\$100,000 per single charging station): \$300,000

- Federal historic tax credits (20% of the total rehabilitation costs, claimed over a 5-year period): \$2 million
- State historic tax credits (20% of the total rehabilitation costs, claimed over a 5-year period): \$2 million
- Section 45L tax credits (\$5,000 per qualified residential rental unit): \$500,000
- Brownfield tax credits (estimate of 20% of the cleanup costs for project): \$1 million
- Total tax credits to be earned over the next 5 years: \$7.8 million

A Caveat

The availability of one or more incentives should not be the sole reason for pursuing a particular project component. For instance, in the above case study, if the property's tenants do not utilize EVs, the developer will likely want to spend that money on other value-add areas. In addition, many tax credits and incentives are now tied to prevailing wage and apprenticeship requirements, which means a project's out-of-pocket costs will invariably be higher than if such requirements did not have to be considered. ■

Jess LeDonne, JD, is director of policy and legislative affairs at The Bonadio Group. **Joseph Wutz**, CPA, is partner at The Bonadio Group. **Nancy Cox**, CPA, partner, and **Jamie Card**, CPA, partner, also contributed to this article.

Future-proofing Real Estate: The Importance of Adaptable Design

Developers and architects can intentionally plan new projects with eventual adaptive reuse or multiple uses in mind.

■ By Eric Hudson, Method Architecture

In a time where change is the only true constant, the real estate industry must continue adapting to evolving market demands, technological advancements and generational shifts in the workplace. As a result, future-proofing real estate has become a necessity rather than a buzzword.

Developers and architects who embrace adaptable design can create spaces that thrive in the face of change. These forward-thinking strategies help ensure that buildings will remain relevant, flexible and valuable, regardless of what the future holds. However, focusing on adaptability in design is not just about preserving value — it's about seizing new opportunities in an ever-shifting landscape.

By not considering future possibilities, we limit buildings to serving only their initial purpose. Adaptive reuse, driven by future potential, is key to slowing the carbon-intensive cycle of new construction and demolitions. Incorporating adaptability into design considerations will enable cities to handle change more effectively, meet the needs of growth and enhance the long-term profitability of assets for owners.

Factors to Consider

How each building is used and by whom are crucial elements to continued profitability and success. Strategic planning and considerations reduce the likelihood of prolonged spikes in vacancy rates by giving owners the option to pivot. Converting an office building or industrial site extends the asset's life by preserving the existing development. It also can reduce the



Courtesy of Triten Real Estate Partners

Open floor plates, good clear heights and a forgiving structural system were integral to allowing Triten Real Estate Partners and Radom Capital to transform five industrial warehouses into M-K-T Heights, a mixed-used project that has become a community hub in Houston.

investment costs required when it's time to upgrade, pivot or repurpose.

The act of future-proofing an asset is a broad concept, but in practice, it's a detail-oriented process that considers many different scenarios. Structural layouts, bay sizing, building heights, core locations, exterior wall composition, loading areas, building systems and many other elements help determine whether a building can be adapted affordably.

It is wise to consider the placement of utilities and parking as well as building orientations. For example, while it

might work in the short term to locate trailer parking on one side of an industrial building, a small shift in location could help preserve that development decades down the line when someone needs to convert it into a retail center and use that same space as a public parking lot or additional building.

Converting office to residential continues to be at the forefront of these discussions (see Research Update, p. 96) as the demand for affordable housing increases and the need for commercial office space decreases. However, many existing commercial

Incorporating adaptability into design considerations will enable cities to handle change more effectively, meet the needs of growth and enhance the long-term profitability of assets for owners.

offices do not qualify for this type of conversion for myriad reasons, including minimal opportunity for natural lighting due to deep floor plates and the lack of necessary HVAC, plumbing and other internal systems to support residential. Therefore, newer office buildings should be planned with such conversions in mind.

A Need to Anticipate Adaptive Reuse

Houston's M-K-T Heights is an example of flexible building types enabling adaptive reuse. Originally built in the 1970s as an industrial park composed of five individual warehouse buildings, the 12-acre site was purchased in May 2018 by Triten Real Estate Partners and Radom Capital with the goal of turning the underutilized site into a vibrant community hub. A demolition crew could have been their first call. Instead, Triten and Radom recognized the sustainability and cultural benefits of salvaging the existing structures and opted to pay homage to the neighborhood's industrial roots.

To bring the vision to life, Triten and Radom enlisted Michael Hsu Office of Architecture and Method Architecture as the design architect and architect of record, respectively. The open floor plates, existing clear heights and

parking infrastructure were integral to allowing the team to readapt the warehouses. To elevate the design and placemaking, the buildings underwent major facade renovations, and exterior walls were removed and pierced to create pathways through buildings. Another focus was transitioning old truck courts not only into parking but also parklike amenities to give patrons and tenants outdoor space to inhabit. This transformation wouldn't have been possible had the buildings been oriented differently or built with a less forgiving structural system.

The reimagined design delivers 200,000 square feet of retail, dining and creative office space. M-K-T also benefits from its orientation along the neighborhood's hike and bike trail, developed in 1997 after the nearby railway line, Missouri-Kansas-Texas, was decommissioned. Today, M-K-T Heights honors that history through its name. Despite completing the project in spring 2020, Triten and Radom leased the development up to 70% by the following year. Regardless of the project's success, it also highlights the limitations of buildings that don't consider the future. One example is the overall building height. If the original height had been a few feet taller, M-K-T could have added more

Possibilities for Parking Garages

Shifts to automated vehicles and alternative forms of transportation could create a future that requires less parking and fewer parking garages. Older parking garages with 6-foot clearance heights are unlikely to be candidates for adaptive reuse. However, parking garages designed to consider the needs of other asset types could potentially live on as inhabitable facilities or mixed-use environments.

Flat plates and larger floor-to-floor heights give developers options. A 15-foot floor-to-floor height in a parking garage (at least at the lower levels) opens the possibility of converting each floor into retail, office space or even residential. Better yet, in the event a parking garage needs more cars, high floor-to-floor heights can enable double stacking of vehicles with the right technology.



Rendering courtesy of Method Architecture

The Caldwell County Evacuation Center, currently under construction outside of Austin, Texas, has been designed to serve multiple purposes, including as a community events center.

mezzanine levels, likely doubling the square footage and opening even more possibilities for its repositioning.

Breweries are ideally suited for warehouse adaptive reuse projects. At its core, a brewery is a factory requiring some level of industrialization. However, many are now focusing on hospitality and becoming local gathering spots suitable for all ages. Houston's Eureka Heights Brewing took advantage of one such opportunity by converting a 22,000-square-foot grocery warehouse into a popular microbrewery and event space. The open floor plates and existing clear heights allowed for a smooth transition. The conversion also benefited from the warehouse having the space and height necessary to accommodate the brewing systems.

The Value of Versatility

Optionality is key to adaptable design. Without careful planning during the design stage, a developer might eliminate future adaptive reuse possibilities before even knowing what their property will be used for or by whom. Examples of forward-thinking

design features include increasing roof structures to accommodate future solar panels and planning drainage systems for potential water collection, especially in areas prone to flooding. Although designing a building to be flexible for multiple potential uses may incur higher up-front costs, in an unpredictable world with ever-evolving technology, the price of limiting options can be even greater.

Some might assume that merchant developers who aim to build, lease and sell buildings don't need to consider the building's long-term future. However, assets with conversion options could be more attractive to buyers and investors or banks for lending. By providing investors with more levers to pull after purchasing assets, potential vacancies can be reduced if the structure's initial purpose doesn't prove as lucrative as anticipated.

The Caldwell County Evacuation Center, which began construction outside Austin, Texas, this past fall, is an example of a structure intentionally designed to accommodate

multiple purposes. When the project was over budget in preconstruction, its stakeholders reassessed and shifted to a multipurpose strategy, realizing the community needed more than just an emergency shelter. It was decided that the building would also serve as a community events center most of the time, hosting banquets and other gatherings for locals.

Method Architecture worked with Caldwell County representatives to compare the functional differences between an event space and an evacuation center to ensure alignment with both uses before finalizing the concept. For example, two models of the main hall were created — one to realize how many event tables could fit in the space, the second to confirm that same space could comfortably accommodate the necessary number of sleeping cots in an emergency. Several other aspects of the building were approached in a similar way to ensure continuity throughout.

The resulting 45,000-square-foot shelter will be able to house up to

Although designing a building to be flexible for multiple potential uses may incur higher up-front costs, in an unpredictable world with ever-evolving technology, the price of limiting options can be even greater.

350 people in its main hall during emergencies. Trucking bays will allow trucks and trailers of all sizes to deliver necessities to accommodate Federal Emergency Management Agency operations.

The site includes optional plans to add a rodeo arena or show barn in the future, which would also serve as facilities for local evacuees with horses and other animals or a staging ground

for other activities. With its large open spaces, site access and ample infrastructure, this facility can adapt to many different uses in the future as the needs of Caldwell County and the surrounding community change.

Developers, architects, contractors, leasing agents and other stakeholders should consider future possibilities when designing and building new developments. By making decisions

Relevant Readings

To learn more about the development of M-K-T Heights, read “The Attraction Game: Creating Community Hubs From Old Uses” in the Spring 2024 issue of Development.

now that account for future needs, the industry can help prevent developments from eventually losing their purpose and better position communities to face the unforeseen challenges of tomorrow. ■

Eric Hudson is a partner and principal at Method Architecture.

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Surveying the Retail Landscape

Could retail real estate have emerged from the pandemic as a preferred asset class?

■ By Alex Zikakis, Capstone Advisors

Retail continues to evolve as consumer preferences shift, new retailers emerge, and old retailers either change with the times or go out of business. The pace of change and the threat of widespread disruption accelerated with the advent of online shopping and gave rise to predictions about the imminent “death of retail.” Current reports are more likely to tout retail’s comeback. However, well-located, functional retail that meets current tenants’ needs has been enduring for years.

Survival of the Fittest

The retail evolution (or revolution) has hit certain types of retail properties harder than others, but none more so than the classic American regional mall. The popularity of e-commerce greatly influenced this shift, but changing consumer preferences also played a role, with shoppers increasingly favoring open-air shopping centers that offered parking close to the store of their choice. There are about 1,150 malls in the United States currently, but projections show this number could be reduced to 150 by 2032. As GlobeSt.com reported, more than 130 million square feet of retail space has been demolished in the last five years alone, and according to CoStar, retail space per capita in the 45 largest markets dropped to a multidecade low of 54.3 square feet in September 2023.

COVID-19 dealt a significant blow to many retail store concepts, but most of the chains that shuttered during this period were most likely doomed to fail within the next five years, with the pandemic merely accelerating their eventual demise. According to McKin-



Courtesy of Capstone Advisors

Tenants in the food and beverage, health and wellness, and experiential retail sectors have been particularly active in leasing available retail space.

sey, the 25 top-performing retail companies (excluding Amazon) increased their market cap by 38% on average between the start of the pandemic and April 2021, significantly outpacing the rest of the industry, which grew by only 10%. The data indicates that retailers that adapted their strategies to changing consumer preferences saw substantial financial growth compared with those that did not.

Challenges and Opportunities

The surprising strength of retailers as they adjusted their operating strategies and successfully navigated through the uncertainty of the pandemic buoyed retail’s reputation among real estate professionals. E-commerce sales accelerated during the quarantine

Retail net absorption increased sharply in 2024, with the average time to secure tenants once shopping center space became available dropping to 8.5 months, the fastest pace in more than two decades.

period, but over time, consumers came to realize the constraints of overnight delivery and expressed an increasing desire to leave the house and socialize. Private capital seemed to sense these shifts and went into the market during 2022 and 2023, doubling its share of the investment market in retail assets. At the same time, retail net absorption increased sharply in 2024, with the average time to secure tenants once shopping center space became available dropping to 8.5 months, the fastest pace in more than two decades, according to CoStar. New construction builds are at a record low, and construction and financing costs have kept new projects on hold, allowing existing landlords to hold firm on rents during lease negotiations.

There has also been a dearth of capital available for retail investment of all types. Retail development in the U.S. went from 217 million square feet in 2008 to a projected 17 million in 2024. However, retail has generally weathered the increase in interest rates better than other asset classes and kept owners' equity intact since cap rates were typically higher for multitenant retail centers than was the case with offices in central business districts, multifamily properties and industrial properties. Retail, for the first time in many years, stands relatively unscathed and looks like a preferred asset class, leading new entrants into the world of retail ownership.

At the same time, development costs continue to inflate, making ground-up construction difficult. Construction costs were projected to increase by 2% to 6% for materials and 3% to 5% for labor in 2024, primarily due

Retail at a Glance

- **Total retail sales, excluding automobiles and gasoline**, were up 4.13% unadjusted year over year in October, according to the CNBC/National Retail Federation Retail Monitor.
- Consumer visits to open-air shopping centers in 2023 were only 1% below the total for 2019 (an improvement of 13.2 percentage points since 2021), while visits to indoor malls were down 5.8% for the same period (an improvement of 9.5 percentage points since 2021).
- Real estate transaction volume for the retail sector totaled approximately \$16 billion in the first quarter of 2024 (compared with an average Q1 transaction volume of \$18 billion for the pre-pandemic years of 2015-2019). For the same quarter, multifamily tallied \$21 billion of real estate transaction activity (down from a Q1 average of \$36 billion in 2015-2019); industrial registered \$17 billion (on par with its 2015-2019 average); and the office sector totaled \$15 billion (compared with a pre-pandemic average of \$32 billion).
- Per JLL, store openings were expected to outpace store closings by a 2-to-1 ratio in 2024, while Cushman & Wakefield projected a net gain of 851 retail stores for the year.
- As of Q1 2024, vacancy rates for power centers (5.2%) and neighborhood/community shopping centers (7.1%) had returned to pre-pandemic levels. The vacancy rate for malls stood at 11.8% (compared with a pandemic-era peak of nearly 15% in 2021).

Unless otherwise indicated, all information courtesy of The Shopping Center Opportunity: 2024 Retail Investing Outlook, a white paper released by MCB Real Estate in October.

to ongoing labor shortages and rising interest rates, according to JLL. This has led to opportunities to buy existing properties and reposition the assets to better meet the needs of today's consumers and retailers. However, this requires finding well-located centers, understanding their local demographics and delivering a product that will attract the right retailers to excite shoppers.

Notable Retail Leasing Trends

The key to many successful retail centers is experiential retail, which enhances the shopping experience with stores offering unique, immersive experiences that can't be delivered online. Most of Capstone Advisors' tenant growth is concentrated in food and beverage, wellness, and health and beauty. Colliers reported that in 2023, 53.8 million square feet of retail space was absorbed, with the majority being leased by sectors such as food and beverage, health and wellness, and experiential retail.

The key to many successful retail centers is experiential retail, which enhances the shopping experience with stores offering unique, immersive experiences that can't be delivered online.

Another notable growth area is the migration of formerly digital-only retailers to a hybrid model that includes brick-and-mortar retail.

Capstone Advisors' portfolio is seeing an increase in small-scale restaurants, especially those with counter service. Large-format sit-down restaurants are extremely difficult to operate profitably, especially in high-cost labor markets. Restaurant operators have needed to aggressively optimize their cost structures to survive in a competitive market, especially during the last few years of high inflation.

Small-format gyms are also extremely popular and continue to be niche-focused. This is an extremely competitive space with concepts that rise and fall in popularity quickly, so landlords need to consider their tenant improvement costs.

Southern California, where Capstone Advisors is based, is seeing real growth in wellness-related tenants, such as infrared saunas, cold plunges and breathwork classes — concepts that didn't exist a few years ago. Landlords must navigate a fine line between looking to deliver unique concepts to their centers and balancing the risk that such concepts will be here today and gone tomorrow.

The number of health-related tenants coming to retail centers has increased notably. It is much more common now for urgent care offices and satellite offices of medical centers to be located in neighborhood retail centers. In addition, the growth of medical spas and

dental spas in higher-income demographic areas is significant, especially with the new generation of weight loss drugs that nurse practitioners and physician assistants can prescribe. According to Colliers, over 15% of all new retail leases in major metropolitan areas in 2023 were signed by wellness-related businesses, including medical and dental spas. The overall square footage dedicated to health and wellness tenants in retail centers grew by 12% in 2023, a clear indicator of the sector's expansion.

Another notable growth area is the migration of formerly digital-only retailers to a hybrid model that includes brick-and-mortar retail. These retailers have found that customer acquisition and retention costs are improved when having both online and physical stores. A JLL report indicated that in 2023, 38% of the top 100 e-commerce brands had opened physical stores as a growth strategy. This figure is expected to rise to 50% by 2025. Successful retailers have learned to blend their online and physical stores. In the process, they discovered that their physical stores not only picked up sizeable sales but also boosted the amount of online shopping in the immediate area.

As retail continues to evolve, investors who adapt their strategies based on the market and long-term trends, understand the demographics of the areas in which they operate, and see the value in having both a digital and physical storefront are the most likely to see success. While retail real estate may have emerged from the pandemic as a preferred asset class, investors should remain strategic and nimble to adapt to an unpredictable future and be willing to explore new opportunities and diversify their tenant portfolios. ■

Alex Zikakis is president of Capstone Advisors.



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On Leadership: L. Mark Billeaud

A founding partner of Summit Real Estate Group in St. Louis shares his insights and lessons learned from nearly 35 years in the commercial real estate business.

■ By Ron Derven



L. Mark Billeaud

“In our first two funds, we invested in retail as well as industrial. However, as e-commerce began to grow exponentially, we realized the risk-adjusted returns for industrial far outweighed retail.”

— L. Mark Billeaud,
founding partner,
Summit Real Estate Group

Development: *What drew you to a career in commercial real estate?*

L. Mark Billeaud: I always liked the built environment and the pathways that create it: finance, construction, people. When I got out of college, rather than pursue a master's degree, I went to work with a brokerage firm specializing in the industrial sector. Prior to joining Summit Real Estate Group in 2009, I had worked for Trammell Crow Company, Duke Realty and as a partner with Maune Development Company in St. Louis.

Development: *What brought you to Summit?*

Billeaud: I was drawn to the seasoned team of professionals I would work with and the great opportunities open to me.

Development: *How was your firm set up to handle the financial challenges of that period?*

Billeaud: The Great Financial Crisis had been brewing for more than a year by 2009. When Lehman Brothers collapsed, that was the opening bell for a total financial breakdown of the global economy. Summit had to play defense with existing assets, but we also wanted to play offense and position ourselves to expand the business.

We had just formed a new partnership, and our primary goal was to create a source of ready capital that could be deployed opportunistically when others were on the sidelines. We established a vehicle for that — a private equity discretionary fund. This gave us the needed capital at the front of the transaction instead of at the rear,

which benefited our project sourcing, execution and returns for investors.

Development: *Tell us about your funds.*

Billeaud: Since 2010, we've launched four funds. Fund I, Fund II and Fund III are fully and successfully realized. We're in the final stages of deploying Fund IV capital. With our joint venture partners investing alongside our capital, Fund IV will end up with about \$900 million of projects in six states. We are beginning the process of creating Fund V.

Development: *Summit has a strong industrial real estate portfolio throughout the Southeast. Why did it focus on this asset class rather than diversifying into office, multifamily or retail when forming the funds?*

Billeaud: Our senior leadership has experience in several asset classes, including office, industrial, multifamily and hotel. In our first two funds, we invested in retail as well as industrial. However, as e-commerce began to grow exponentially, we realized the risk-adjusted returns for industrial far outweighed retail. We made a pivot to 100% industrial in Fund III, which is where we remain.

Development: *Are there any plans to expand beyond Summit's industrial base? For example, what is your view of data center development?*

Billeaud: We are always studying other real estate opportunities, especially subcategories in the industrial sector such as data centers, industrial outside storage and freezer-cooler. However, we think it's important to

remain focused, which for us is tried-and-true mid-sized, multitenant industrial buildings and business parks.

Development: Please describe Mission Realty Advisors, Summit's 501(c)(3) that exclusively serves community-based nonprofits in the St. Louis area.

Billeaud: Over many years, we have helped quite a few nonprofits with their real estate needs, including acquisitions, expansions, construction and development. We helped them do what we do every day at Summit, but on a pro bono or reduced-fee basis. As our team grew, we decided we could do more to help the nonprofit community in St. Louis because there is a real need for such services.

Development: What do you look for when hiring senior leadership at the firm?

Billeaud: If you think about the spectrum of skills needed to invest in real estate — finance, analytics, marketing, creativity, social skills and so on — I prefer individuals who would grade at a B-plus or better over the broad set of skills as opposed to an A-plus in one category and C's in others. In other words, we need well-rounded team members.

Development: As a founding partner, you are responsible for investments, and you manage the Arrowrock Fund Series. What is the greatest challenge in your role?

Billeaud: Deal sourcing is always challenging. Finding viable investment acquisitions with legitimate value-creation potential can be difficult. For ground-up development, we have the added challenge today of entitlements, especially zoning and site plan approvals. Community leadership wants real estate that helps produce job growth, but many of their constituents are slow- or no-growth-minded.

Development: What is your greatest leadership challenge today at Summit?

Billeaud: We have 22 people at the firm. My team is composed of seven talented individuals. Candidly, as the leader of that team, I don't feel challenged. It's a complete joy. We

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work hard, have fun and put people in position to utilize their talents to the fullest — for their benefit and our investors' benefit.

Development: *When conflicts arise or mistakes are made, how do you handle these situations as a company?*

Billeaud: We try to never miss an opportunity to learn from our mistakes. When a mistake is made, we talk about it openly and try to figure out how not to make that mistake again. To help limit mistakes, one to two weeks before we launch a project, we have an “Add Them Up Again” meeting. Starting from the beginning of a project, we look at all aspects from a financial, construction, marketing and leasing perspective to analyze if have we missed something, because after a project hard launch happens, it is too late.

Development: *What is your outlook for commercial real estate over the next three to five years? Are there things that concern you about the market looking forward?*

Billeaud: We are very positive about commercial real estate, particularly our focus on industrial. Although many factors have come into play over the past few years, e-commerce leads to the growth of industrial real estate.

The other big positive is the trend to onshoring of manufacturing. For a while we thought it was just a buzzword and a temporary trend. But there are changes in the planet's geopolitical structure requiring companies to bring jobs back to the U.S. Fortunately, we have a talented labor pool in this coun-

“The other big positive is the trend to onshoring of manufacturing. For a while we thought it was just a buzzword and a temporary trend. But there are changes in the planet's geopolitical structure requiring companies to bring jobs back to the U.S.”

— L. Mark Billeaud

try. To some degree, that labor has gone dormant, but quality labor is still out there and wants to be put back to use. Corporate America needs to bring its processes back home. Industrial real estate is on a positive growth trajectory for those reasons.

Development: *When you started your career in commercial real estate, did you have a mentor?*

Billeaud: As I began my career, my goal was to find as many mentors as possible. I sought out senior mentors in their respective fields, as well as individuals who were just starting out

“Do not seek out a work-from-home job if you are just starting out in commercial real estate. Real estate is a people business. It is a people business inside the office and outside the office.”

— L. Mark Billeaud

in the business but whom I admired and could learn from nonetheless.

Development: *What do you consider the most important lesson from your years in the business that could be passed on to others?*

Billeaud: When you get knocked down, you need to get right back up, roll up your sleeves and get back in the saddle. You need to have a mindset of perseverance and work hard at it.

Development: *What advice do you have for someone just entering the business today?*

Billeaud: Do not seek out a work-from-home job if you are just starting out in commercial real estate. Real estate is a people business. It is a people business inside the office and outside the office. You need to be constantly communicating with the people you work with, and just being together helps that communication. This goes back to my Trammell Crow days.

Trammell Crow had created an empire, but he was at an open desk in an open office, just like everyone else. How he operated made an impact on me. My partners at Summit are 100% aligned on this concept.

Development: *How do you like to spend your off hours, away from the demands of Summit?*

Billeaud: I am a homebody. I love being with my wife and children and our pets. One hobby I have is cars. I like to take one of my cars out to a track every quarter or so. ■

Ron Derven is a contributing editor to *Development* magazine.



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Public Records Issues and Solutions in Data Center Deals

Data center developers can take steps to protect sensitive information while complying with public records laws.

■ By Eli F. Redfern and Sean P. Byrne, Vorys, Sater, Seymour and Pease LLP

Data centers are critical infrastructure in the digital age. Developing these facilities, whether they are hyperscale, co-location or data mining projects, involves complex negotiations and substantial investment.

One key challenge is balancing confidentiality with the transparency required by public records laws while the developer works with local governments to lay the groundwork for the data center project on issues such as electricity, water and tax incentives. Data center companies may need to keep certain information confidential for a variety of reasons, such as to avoid tipping off competitors about project sites under consideration or affecting negotiations for tax incentives. However, these confidentiality goals may directly conflict with public records requirements.

Communications Strategies

Companies developing or operating data centers should have a comprehensive communications strategy to preserve confidentiality when necessary while engaging with community and government stakeholders. In some cases, filtering written communications through legal counsel or another outside adviser can shield the company's identity. Even when a company is not shielding its identity, having only one or two key communicators can help ensure that what is provided to public stakeholders is consistent with the company's communications strategy, particularly with respect to sensitive matters such as use of resources, neighborhood concerns and tax incentives.

Understanding the counterparty is crucial in managing confidentiality in



Denisik11 via iStock/Getty Images Plus

Data center companies can enact several strategies to minimize disclosure of sensitive information.

data center transactions and should be part of an initial communications strategy. For example, if a data center developer is seeking certain electricity or water usage agreement terms from a local government or public utility, it is essential for the company to identify which entity will need to receive project information and whether that party is subject to public records laws. Once that entity is identified, it is time to review statutory and administrative provisions governing public records in the jurisdiction where the data center is being developed, including specific exemptions that may apply and any laws specific to the type of public entity involved. Often, a good starting place for this research is a public records or sunshine law manual published by a state agency, such as

A Guide to the Massachusetts Public Records Law, Washington state's Open Government Resource Guide and the Arizona Ombudsman-Citizens' Aide Public Records Law Booklet. Individual public entities often have their own public records policies that also should be reviewed.

Reducing Public Records Disclosures

Not disclosing sensitive information is one of the most effective tools for avoiding public records problems. To this end, data center companies should consider various strategies to reduce disclosures, including:

- Visually reviewing documents, either in person or during video calls, without providing copies.

If a data center developer is seeking certain electricity or water usage agreement terms from a local government or public utility, it is essential for the company to identify which entity will need to receive project information and whether that party is subject to public records laws.

- Making compliance information available for inspection but not for copying to allow the public entity to review records relevant to the project without creating a public record.
- Redacting sensitive information.
- Using a special purpose entity (SPE) or a third party to provide information on a client-anonymous basis.

These approaches can help data center companies avoid the disclosure of sensitive electricity and water usage information, for example, which can be crucial for maintaining competitive standing in the industry.

NDAs: Public Sector Limitations

Data center projects require confidentiality to protect sensitive business information such as a company's identity during initial tax incentive negotiations or utility usage information once the project becomes operational. Nondisclosure agreements (NDAs) are commonly used to safeguard this type of information in the private sector, but they can be more limited when used with public entities.

There are several key questions to consider for NDAs involving public entities:

Does the NDA comply with applicable public records laws? For example, if state law does not provide an exemption for the disclosure of compliance reports associated with tax incentives, the NDA should not require that such reports be kept confidential. On the other hand, if state law

exempts information about sensitive infrastructure from public records disclosures, an NDA can require the public entity to keep such information confidential.

What is the scope of the NDA?

For example, does a trade secret or business and financial records exemption in state law extend to water usage? If so, it may be ideal to identify water usage as exempt from disclosure.

Is the NDA a public record? Ironically, NDAs with public entities usually are public records. If that is the case, it is important to consider whether the NDA can be assignable from an initial party (e.g., the landowner) to the ultimate party-in-interest or whether an outside service provider can enter into the NDA on behalf of the service provider's client. Another consideration is whether companies can use a project name or SPE to protect their identity.



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In Touch With Tenants

Does the NDA require the public entity to give the company notice of, and an opportunity to respond to, public record requests? This type of provision provides an opportunity to defend against records requests that seek the disclosure of information that the company considers to be a trade secret. Inclusion of this provision is especially important because determining what information is a trade secret is sometimes ambiguous, and the public entity and the data center company may disagree on this point in the future.

NDA's may be able to resemble a standard, commercial NDA if a separate nongovernmental organization (NGO),

NDA's may be able to resemble a standard, commercial NDA if a separate nongovernmental organization, such as a local chamber of commerce, is negotiating aspects of a data center deal on behalf of the public entity.

such as a local chamber of commerce, is negotiating aspects of a data center deal on behalf of the public entity. These NDAs should include the correct parties, properly define confidential information, establish the scope and duration of confidentiality, and ensure that information shared with a public entity remains confidential to the maximum extent allowed under applicable law. Caution is necessary when working with NGOs because, depending on the jurisdiction, these organizations may still be treated as public entities for purposes of a state's public records laws.

Balancing Act

Balancing confidentiality goals with transparency requirements in data center transactions is a complex but manageable task. By employing strategic approaches, reviewing relevant laws, negotiating effective NDAs and understanding the counterparty, data center developers can maintain their competitive advantage by protecting sensitive information while still complying with public records laws. ■

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Don't Expect AI to Revolutionize Real Estate Capital Markets

A relative lack of data and connectivity in the industry makes it difficult to leverage technologies like predictive and generative AI.

■ By Raj Singh, Altrio

Recent advances in artificial intelligence, particularly generative AI, have prompted real estate professionals to ask how these powerful new technologies will impact real estate capital markets and the way they work day to day.

The blogosphere generally asserts that AI will “change everything.” Technology vendors have rushed to make exaggerated claims about the application of AI within their solutions. Many real estate professionals, meanwhile, remain skeptical. Thus far, the tangible effects of AI have been underwhelming.

The earliest impacts of AI on real estate will likely come from changes in other industries. As the demand for AI services increases and some jobs become less human intensive, the world will need more server racks and fewer desks and meeting rooms. This will create opportunities for investment in data centers and infrastructure while adding to the pressure on the office sector.

Regions with high levels of employment in industries that are either bolstered or disrupted by AI will see rents influenced as economic activity in those regions is positively or negatively impacted.

The timing of physical space market changes is unlikely to correspond with the investment cycle. As has happened in previous “hype cycles,” asset prices in the affected sectors will probably overshoot economic fundamentals, resulting in an initial rally (or slide), followed by a correction,



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followed by a more gradual growth or decline in prices over the long term.

Unraveling Predictive and Generative AI

Before predicting how AI might change the working lives of real estate investors, lenders and others in the market, the term “AI” must be clarified. When people speak of AI, they often conflate very different technologies with different trajectories and potential impacts.

Predictive AI

Predictive AI systems have existed for a long time and have improved steadily over the past few decades, along with growth in computing power and the availability of data. Predictive systems

It is important to note that recent advances in AI have not meaningfully improved the efficacy of predictive analysis within the realm of real estate investing and are therefore unlikely to accelerate adoption.

are essentially statistical models, and “data science” is merely an evolution of statistics that harnesses new technologies and practices developed to work with very large data sets.

Predictive AI models can find patterns and predict outcomes based on vast amounts of structured data. These abilities can, in theory, be used to identify markets that look like other markets that have performed well or predict future rents and asset values.

While recognizing the potential of these applications, it is important to note that recent advances in AI have not meaningfully improved the efficacy of predictive analysis within the realm of real estate investing and are therefore unlikely to accelerate adoption. Rather, adoption of these technologies and approaches has been limited primarily by the lack of accurate, timely and consistent (“apples to apples”) information to feed predictive models.

Because real estate transactions are completed via the exchange of unstructured documents, typically over email, rather than anything similar to the electronic platforms commonly used in other sectors, it is impossible to obtain complete, consistent and accurate information on these transactions. Without this data, the application of predictive AI within real estate capital markets remains impractical.

Generative AI

Generative AI, the source of the recent buzz, is not designed to do the type of analysis discussed above. As the name implies, generative AI is designed to create, not analyze, and as such has a very different set of potential appli-

The ability to rapidly synthesize unstructured data and query that data using natural language will allow investors to churn through analysis much faster and spend more time considering qualitative and competitive dynamics.

cations within real estate investing. “GenAI” has improved by leaps and bounds over the past 18-24 months, demonstrating an ability to significantly enhance many tasks previously considered the exclusive remit of human experts.

Fields like law, medicine and education — all of which, at their core, are based on digesting, synthesizing, structuring and presenting large sets of information — look likely to be severely disrupted.



But what about real estate investing? One could argue assessing a real estate investment is similar to assessing a contract or diagnosing a patient's condition. Certainly, there are aspects that are similar. For example, understanding a real estate asset's potential value involves analyzing a significant amount of information about the asset, the tenants, operating costs, local market context and so on.

However, the job of a real estate investor differs in important ways. Investors operate in a dynamic environment in which the outcomes of their decisions depend on the decisions of others outside their firms. Developments in real estate capital markets depend on a set of ever-changing factors in both the market for physical space and the market for capital, not a set of relatively static facts as in the case of law and medicine.

This isn't to say that real estate investors won't leverage generative AI to increase their productivity. The ability to rapidly synthesize unstructured data and query that data using natural language will allow investors to churn through analysis much faster and spend more time considering qualitative and competitive dynamics.

Is AI a Threat to Real Estate Investors?

Some have argued that the power of new GenAI models will result in analysts being replaced by agents who can more quickly consume, digest, process and present information about prospective investments. Altrio, a real estate investing management software company based in Toronto, disagrees. By increasing the productivity of real estate investors and lowering the barriers to entry (i.e., the effort/cost required to participate in the market), AI should lead to an increase

By increasing the productivity of real estate investors and lowering the barriers to entry (i.e., the effort/cost required to participate in the market), AI should lead to an increase in demand for real estate investment professionals.

in demand for real estate investment professionals.

Consider a simple example from outside the industry — a burger restaurant where, without the assistance of technology, a single line cook can produce 50 burgers per hour. If the installation of a new machine allows the same cook to produce 100 burgers per hour, the restaurant owner will need only half the number of cooks. It would appear the new technology will reduce the demand for grill cooks. But what happens next? The owner can now generate more profit per grill cook, which creates an incentive to hire more cooks and buy more machines and perhaps open more restaurants. As the business grows and the number of locations increases, the total number of cooks needed to operate the machines across the chain of restaurants rises.

When the marginal productivity of a resource increases, so does demand for that resource. As real estate investment analysts and associates begin to leverage AI to do certain parts of their

jobs faster and better, they will become more productive, and demand for their services will increase.

What Sets Real Estate Capital Markets Apart

In some industries, generative AI will make it possible to completely automate jobs that were once performed by humans. When that happens, the marginal productivity of those resources will drop sharply to zero, resulting in mass unemployment in those sectors.

However, it will be difficult to completely automate the job of real estate investing because much of what occurs during the execution of a real estate transaction happens offline. Investors, lenders and brokers use electronic forms of communication, but the lack of established standards and protocols, combined with the unstructured nature of most of the information involved in the transactions, means the capital markets are not “networked” in the same way many other markets are.

AI is an application that must run on a platform. The power of an AI agent will always be limited by the capabilities of the platform on which it runs — specifically its ability to access real-time structured data and interact with others based on a common set of rules.

The offline, fragmented nature of the real estate capital markets and the absence of accurate, timely data places significant limitations on the potential impact of AI agents within the commercial real estate development industry, just as these limitations currently frustrate the efforts of human agents who operate in the market. ■

Raj Singh is CEO of Altrio.



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The Silver Tsunami and Investment Opportunity in Senior Housing

A convergence of demographic trends, economic factors and market dynamics could boost investor confidence.

By Arick Morton, NIC MAP Vision

As the United States braces for a demographic shift of historic proportions, the senior housing industry stands on the cusp of immense challenge and opportunity. Over the next 25 years, the number of Americans 80 and older is projected to soar, adding nearly 17 million new octogenarians by 2050.

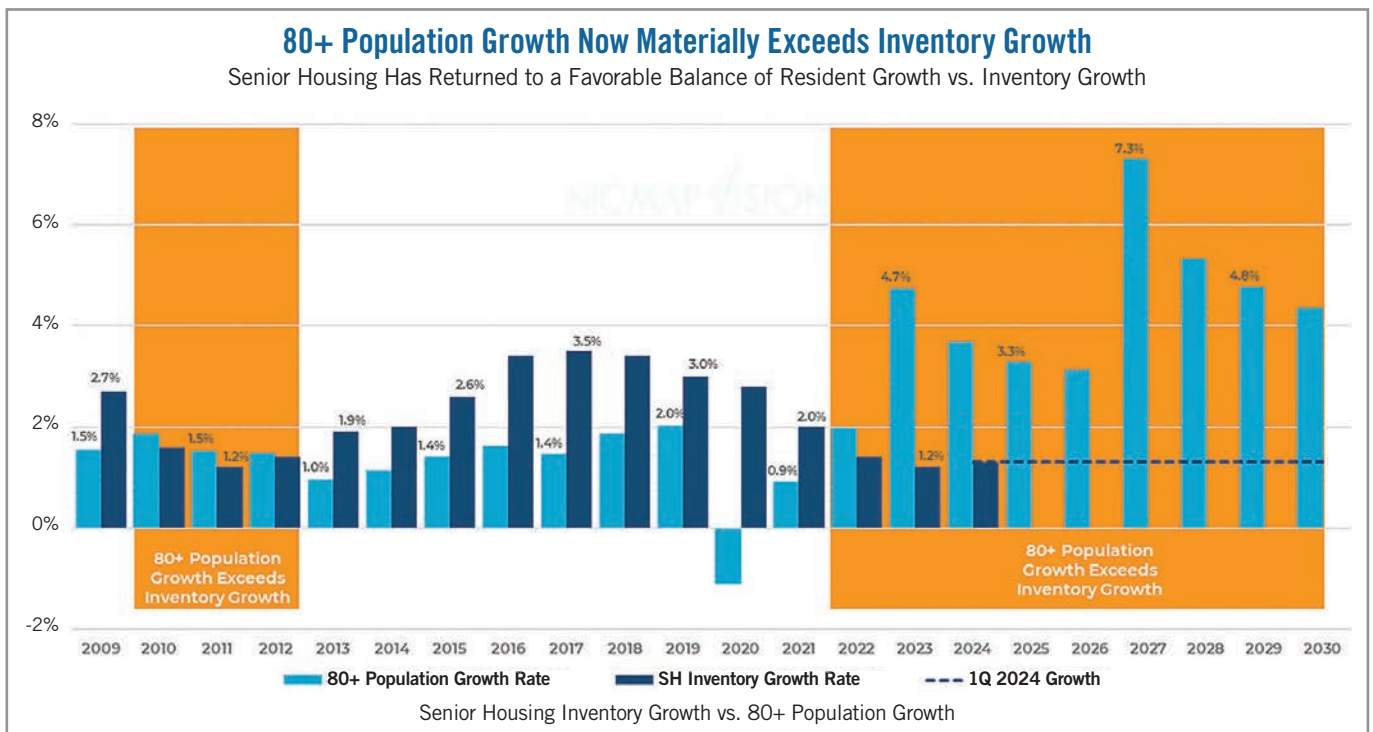
Emerging from the shadow of the pandemic — with labor shortages easing and interest rates softening — a ripe landscape is unfolding for investors. Senior housing is poised to become one of the most profitable real estate asset classes, yet the current pace of development suggests a looming shortfall that could reach 550,000 units by 2030.

The Coming Age Wave and Supply-Demand Imbalance

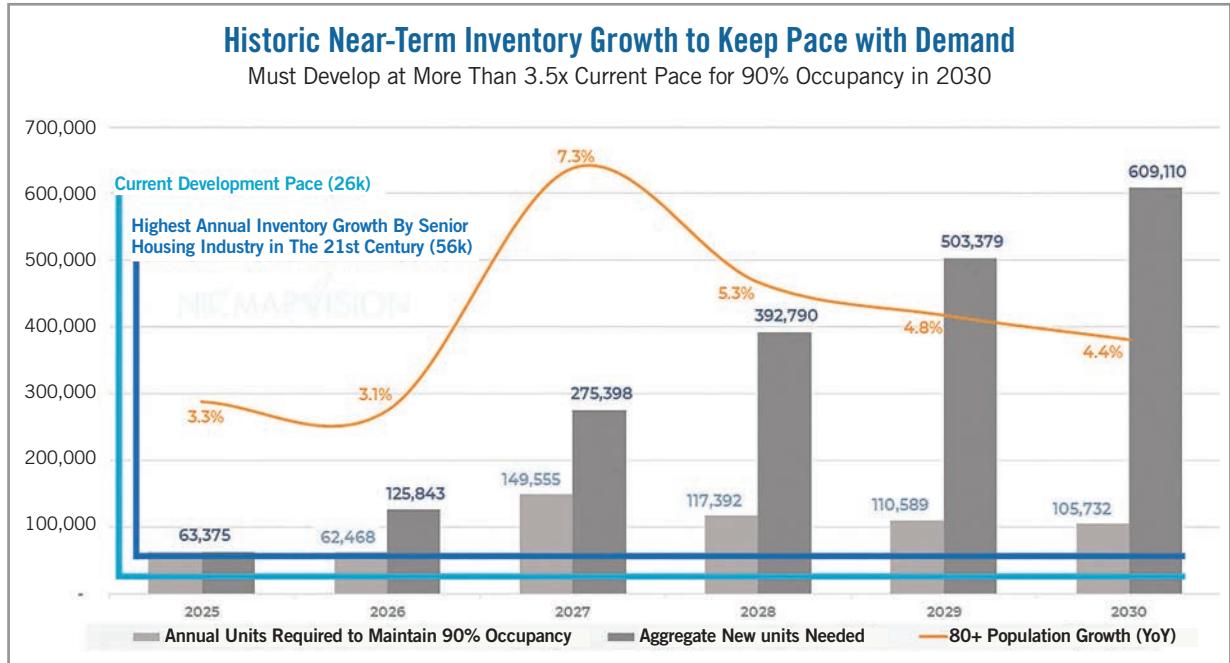
With the first wave of Baby Boomers turning 80 in 2025, the demand for senior housing is increasing and will continue for decades. Providing reliable housing and quality medical care for this burgeoning population is not merely a multibillion-dollar opportunity for industry stakeholders; it's an urgent national necessity.

In its senior housing market outlook published this past summer, NIC MAP Vision, an analytics and insights partner for the senior housing industry, reported that development must accelerate more than 3.5 times the current pace to meet projected demand over

Past and current development rates are insufficient to meet the imminent demand. To maintain 90% occupancy by 2030, the industry must develop at nearly double its historical maximum pace.



Source: NIC MAP® Data, powered by NIC MAP Vision, Primary and Secondary Markets; OECD.



Source: NIC MAP® Data, powered by NIC MAP Vision; Census Bureau.

the next six years. Currently, only 26,000 units are being developed annually — far below the peak rate of 56,000 units earlier this century. If this trend continues, the industry is on track to fall 50% short of the needed inventory in 2025.

To confront this looming demand tsunami, historic near-term inventory growth is imperative, necessitating unprecedented investment and a substantial influx of capital. In recent years, senior housing has faced barriers in attracting investors from the capital markets, which have posed significant transactional challenges. However, with interest rates softening, this dynamic is shifting, opening doors for enterprising collaboration.

An Environment for Strategic Investment

As the aging population surges, absorption rates — the net change in occupied units — are soaring. In the third quarter of 2024, over 6,500 senior housing units were absorbed in NIC MAP Vision primary markets.

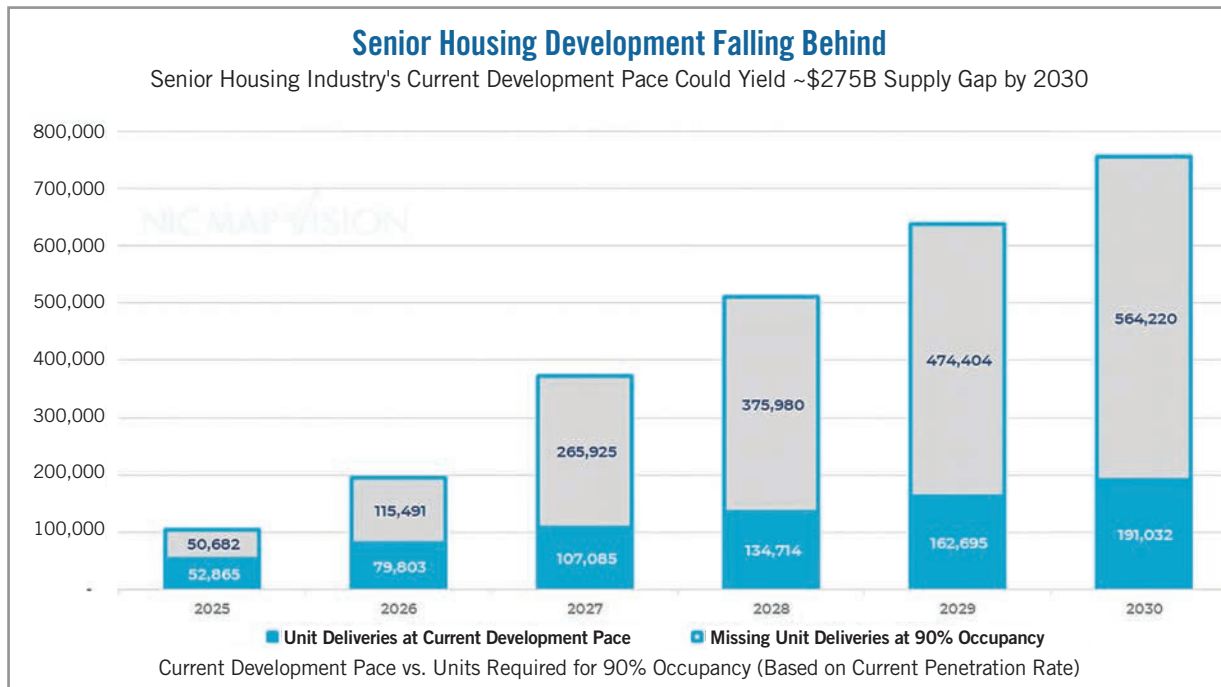
Eight of the past 12 quarters have exceeded 5,500 units absorbed — a threshold never surpassed before 2020 in NIC MAP Vision's data. Clearly, past and current development rates are insufficient to meet the imminent demand. To maintain 90% occupancy by 2030, the industry must develop at nearly double its historical maximum pace.

Despite robust absorption and occupancy growth signaling promise, high interest rates and limited capital have stunted senior housing construction starts, approaching lows not seen since the Great Recession of 2008. Given multiyear predevelopment and construction timelines, supply growth will likely remain depressed for years. Without the necessary investment, a \$275 billion supply gap will emerge by 2030.

Seizing the Opportunity

The current supply-demand imbalance stems from a perfect storm: unprecedented growth in the aging population, the ripple effects of the global pan-

Commercial real estate professionals and investors who collaborate now to unlock the necessary capital will be addressing one of America's most pressing issues while also creating opportunities for significant near-term capital appreciation.



Source: NIC MAP® Data, powered by NIC MAP Vision; Census Bureau.

demographic, and dislocated debt markets that suppressed investment activity. Paradoxically, this convergence has created an ideal environment for collaboration among creative, enterprising and problem-solving professionals.

Senior housing is a highly specialized asset class, demanding genuine expertise and effective relationships among stakeholders who understand the product. This unique landscape has posed barriers in the past. However, commercial real estate professionals and investors who collaborate now to unlock the necessary capital will be addressing one of America's most pressing issues while also creating opportunities for significant near-term capital appreciation.

Projections for senior housing occupancy remain consistently positive as fundamentals — driven by demographic, economic and sectoral trends — continue to surge. Yet a significant investment gap, potentially reaching \$800 billion by 2050 if the current development pace is main-

tained, underscores the necessity for an industry-wide effort to develop new inventory that meets the needs of the aging population. Institutional investors, REITs and private equity will be crucial in increasing capital allocation to the sector.

Engaging Investors and Overcoming Barriers

Building investor confidence is integral to the sector's continued expansion and success. A key strategy is providing comprehensive market data that reflects unprecedented demand growth and expanding margins. Public markets have already recognized the opportunity within senior housing — a direct barometer of investor sentiment. Public market valuations of senior housing equities exceed pre-pandemic levels, and current REIT dividend yields are well below the 10-year U.S. Treasury, suggesting significant near-term capital appreciation.

One of the most significant barriers for investors has been the challenge

In recent years, senior housing has delivered strong investment returns, even in the face of economic disruptions.

of transacting in the capital markets. High interest rates and a freeze in capital availability have slowed transactions over the past year. However, significant amounts of dry powder are waiting to be deployed. Overcoming these capital market challenges will be crucial moving forward.

While senior housing developments occasionally face community opposition, they are generally viewed as sympathetic and necessary projects. Many zoning cases that might fail for other housing types are more likely to succeed for senior housing due to

the clear societal need. Communities recognize the importance of providing health care and living spaces for seniors, making opposition to them less intense compared with other real estate uses such as multifamily residential developments.

Investment Performance

In recent years, senior housing has delivered strong investment returns, even in the face of economic disruptions. According to data from the National Council of Real Estate Investment Fiduciaries (NCREIF), senior housing produced double-digit returns in several key time frames, including nearly 14% in the three years following the Great Financial Crisis. Over the past decade, the sector has consistently outperformed other real

estate categories like retail, office and industrial. Most notably, according to NCREIF, the 10-year annualized return for senior housing exceeded 12%, an indication of the sector's ability to generate stable, long-term returns for investors, even amid broader market volatility.

The sector's resilience is also evident in its rapid rebound following the COVID-19 pandemic. Unlike other industries that struggled to regain pre-pandemic levels, senior housing saw a swift recovery in penetration rates, reflecting renewed consumer acceptance and demand for housing in the 80-plus age group. This is not merely an occupancy rebound but a resurgence in customer willingness to enter senior housing environments. Accord-

ing to NIC MAP Vision data, within five quarters of vaccine rollouts, penetration rates and total absorption returned to near pre-pandemic levels, reinforcing the need-based nature of the sector. Senior housing's ability to recover quickly further emphasizes its durable demand and value as a resilient asset class.

Investors and industry stakeholders have a unique opportunity to address a critical societal need while reaping significant financial rewards. The convergence of demographic trends, economic factors and market dynamics has created an ideal scenario that savvy investors can navigate to their advantage. ■

Arick Morton is the CEO of NIC MAP Vision.

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Pioneering Sustainable Design for Data Centers

Data-informed decision-making is crucial to improving the efficiency and environmental performance of data centers.

■ By Megan Baker, Green Building Initiative

Many factors are driving the delivery and occupancy of sustainable data centers. The most obvious is the regulatory environment, which influences industry practices and requires compliance. The commercial real estate community also recognizes the need for thoughtful decision-making and more transparent reporting in an industry that produces roughly 40% of global carbon emissions.

To this end, data collection is critical to decision-making from both a cost and efficiency standpoint. Performing assessments, conducting energy modeling and pursuing third-party whole-building certification helps those who design, construct or own data centers to better understand how design decisions influence a building's overall impact and how the building will be affected in the future.

“As sustainable developers, we care about the impact development has on our surrounding communities and desire to be mindful of any local constraint that is unique to the area during the build process.”

— Karen Petersburg, LEED AP, vice president of data center development and construction, PowerHouse Data Centers



Rendering courtesy of PowerHouse Data Centers

Given Reno's dry climate, PowerHouse committed to developing a surrounding landscape that will require little to no additional water.

One Company's Approach

PowerHouse Data Centers, wholly owned and operated by American Real Estate Partners (AREP), has over 16.8 million square feet of data center facilities underway, in planning or completed for a total of 4.1 gigawatts of utility power. As AREP's data center platform, the team works to integrate ESG strategies into every aspect of PowerHouse's operations, setting ambitious goals for project sustainability, occupant health and wellness, and community impact. The company understands that to meet these goals, everyone must have a seat at the table to leverage appropriate resources during the early stages of schematic design.

Sustainability Champion

PowerHouse approaches each data center holistically, selecting the architect and design team (who can work to link tangible design strategies) and the general contractor simultaneously. PowerHouse designates a sustainability champion to lead the strategy, although every partner is held accountable for their impact. Another core aspect of the development process is partnership with the stakeholder community. The sustainability champion works with key individuals and organizations to address questions and identify ways to deliver value to the community. This could include partnering with local nonprofits supporting STEM education and creating opportunities for students to learn about the data center industry.

PowerHouse Reno Details and Specifications

Acreage: 49 acres

Developable SF: 900,000 square feet

Buildings: Up to 3

Stories: 2

Power: 65 MW bridging power, Q1 2026; 300 MW permanent power total

Entitlements/Design: Q1 & Q2 2024

Construction Completion/Delivery: Q2 2026

Case Study:

PowerHouse Reno Campus

Reno, Nevada, is a new market for PowerHouse, which erected several facilities on the East Coast before expanding to Nevada, Texas and North Carolina. The environmental considerations in Reno are unlike those along the Eastern Seaboard. This area has a dry climate with frequent water shortages and the potential for wildfires. Given that data centers can be significant water consumers, it's important to take water scarcity into consideration.

“As sustainable developers, we care about the impact development has on our surrounding communities and desire to be mindful of any local constraint that is unique to the area during the build process,” said **Karen Petersburg**, LEED AP, vice president of data center development and construction at PowerHouse.

During the early phases of design for the three-building campus, PowerHouse partnered with Bala Consulting Engineers and HKS Architecture to conduct a deep-dive assessment of Reno. The assessment utilized HKS's Nature of Place methodology, which is grounded in the AIA Framework for Design Excellence, alongside Bala's Climate Risk and Resiliency Assessment, which follows the standard risk profiling and resilience process. For further details, Bala's approach aligns with guidelines available on the U.S. Climate Resilience Toolkit website ([toolkit.climate.gov](https://www.climate.gov/toolkit)) under “Steps to Resilience.”

PowerHouse committed to developing a surrounding landscape that required

little to no additional water. Storey County, part of the Reno-Starks metropolitan area, requires greenscaping for new construction projects. However, the county is receptive to environmental concerns and understood that landscaping in new developments requires irrigation and that few options exist for attractive native landscaping. When PowerHouse presented a xeriscape plan consisting of rocks and boulders, Storey County accepted rock garden beds as a beautification alternative. This strategy allowed PowerHouse to use existing on-site materials excavated from the site's mountainous terrain to reduce water consumption and minimize carbon emissions by not transporting equipment to install an irrigation system.

Another environmental concern in dry climates is the risk of wildfires. The land area burned by wildfires in the Western U.S. has nearly doubled in the past three decades. Although PowerHouse Reno is not at high risk of experiencing a wildfire itself, Bala recommended following the ASHRAE Guideline 44P planning framework in the site's design to prevent smoke infiltration into the building.

Data on current and future climatic events was evaluated to understand the impact on the project site, including assessing potential hazards and risks in terms of probability and severity. Bala identified and prioritized key risks for each hazard specific to the site, including high winds, wildfires,

extreme heat and seismic/soil stability. While the project is still in the design phase, these risks are being evaluated to ensure resiliency is integrated into the final design. Specific details on how these factors will be addressed will become available as the design progresses.

In addition, a computational fluid dynamics analysis, including a wind rose study, was conducted to inform building orientation. This analysis considered both current and future wind patterns, ensuring that the project's orientation is strategically set up for long-term success. Each assessment provided critical information to help PowerHouse make informed design decisions.

“The up-front design analysis is a fraction of a fraction of the entire build cost, and when done correctly, it increases the profitability of the project, as focus is always on four core pillars during major decisions: scope, schedule, budget and sustainability,” Petersburg said.

Improving Environmental Performance

To ensure transparency and accountability, Bala created a sustainability index that it introduced to integrated project teams during the kickoff meeting. The Bala Sustainability Index includes the most important metrics around sustainability, with questions specific to operational and embodied carbon, energy usage intensity, power

GBI Certification Programs

Green Globes is a science- and consensus-based certification program that evaluates the sustainability, health and wellness, and resilience of commercial and multifamily real estate. The program serves as an educational framework; the criteria and a third-party Green Globes Assessor guide design and operational practices to deliver a more sustainable building or portfolio. Criteria are evaluated based on environmental impact and distributed across six key assessment areas: project management (new construction) or ESG management (existing buildings), site, energy, water efficiency, materials, and indoor environment, with a total of 1,000 maximum points. Green Globes provides a flexible framework, ensuring a rigorous yet adaptable approach to environmental assessment.

GBI's Green Globes Journey to Net Zero assessment and certification program advances decarbonization in the built environment by empowering commercial real estate owners to evaluate performance using a science-based approach to implement impactful change. GBI uses its Net Zero Calculator to determine a percent energy or carbon reduction from a baseline for an individual building or an entire portfolio.

usage efficiency, and water and waste reduction strategies. It also includes easier to manage aspects such as lighting power density. This evaluation matrix is reviewed and updated throughout the construction process and submitted with every substantial design deliverable.

Bala also conducted a whole-building life-cycle assessment (WBLCA) on the data center's building materials and systems throughout the design. WBLCA's determine the environmental impact of a building project by evaluating the carbon emissions from raw material extraction through construction, operation and end of life. This data provides opportunities to reduce operational and embodied carbon by making deliberate design decisions regarding building materials and systems and sourcing locally when possible.

Bala identified low-global-warming-potential concrete targets, which will be included in design specifications (using the 2021 Carbon Leadership Forum material baselines). HITT, the general contractor, is including carbon/environmental product declaration language in its subcontractor language

so that Bala can accurately estimate the project's embodied carbon.

Designing a building or portfolio without regard for the envelope can negatively affect energy consumption for years to come. Long-term efficiency and cost consequences can be substantial if the design is not analyzed during the early stages. Strategizing early allows for future operational savings for both costs and emissions.

Once the PowerHouse Reno campus building was preliminarily designed, HKS performed a series of energy models. By running these scenarios, HKS determined the impact of efficiency strategies, material selections and areas for improvement. PowerHouse is benchmarking overall energy consumption against the ASHRAE 90.1-2019 standard. The energy model demonstrated a 50% reduction in lighting and 30% reduction in space cooling, reducing the total building energy by 2.7%, meeting jurisdictional ASHRAE code requirements. Energy models provide key data on how materials affect a building's envelope design. This data can then be demonstrated for credit compliance within

the Green Building Initiative's (GBI) third-party assessment and certification programs.

Green Design Strategies

Together with HKS Architecture and Bala Consulting Engineers, PowerHouse is pursuing both GBI's Green Globes and Journey to Net Zero certifications for the Reno campus. The team has benefited from implementing the design strategies recommended throughout the Green Globes process, including:

- Reusing boulders on-site rather than planting trees.
- Starting conversations with a local utility about procuring renewable power and carbon offsets.
- Using the Green Globes Water Calculator to reduce water usage inside the building where possible.
- Setting specific waste diversion goals and collecting environmental product declarations during the construction phase with HITT.

The pursuit of assessment and eventual achievement of third-party certification recognizes PowerHouse and its partner team's ability to develop, design and deliver sustainable, healthy and resilient data centers that contribute positively to the local community. PowerHouse hopes its expertise and commitment to sustainability will provide the playbook for the industry, particularly during a time of unprecedented growth for data centers.

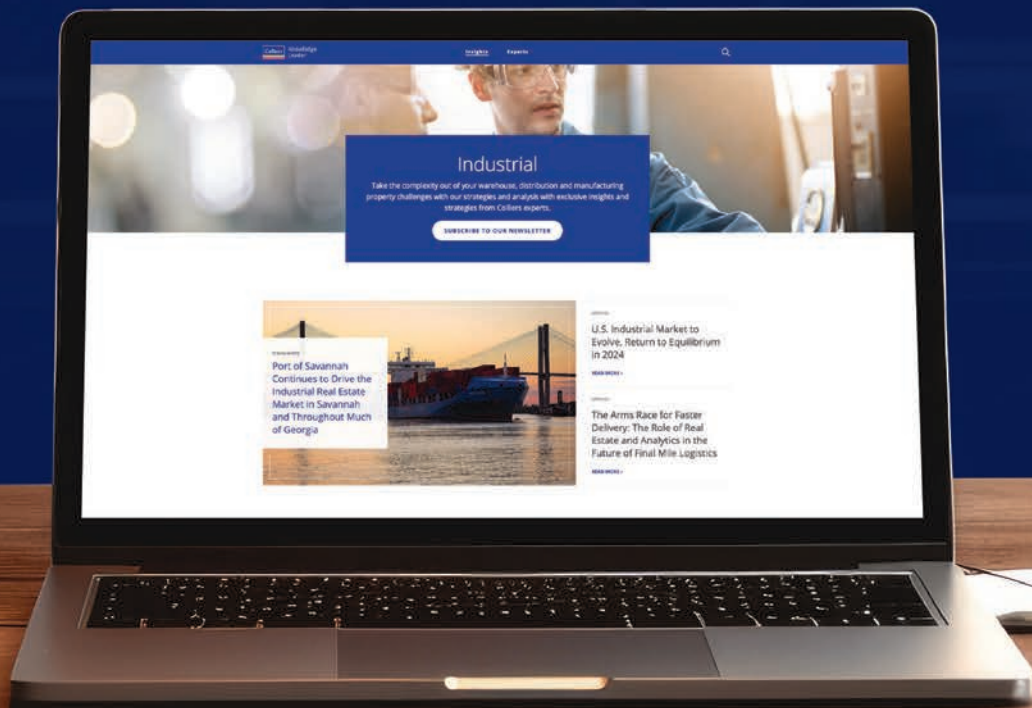
Learn More about PowerHouse Reno by visiting powerhousedata.com/data-center/powerhouse-reno. ■

Megan Baker is vice president of engagement at the Green Building Initiative.



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Rethinking Traffic Congestion in the Pandemic's Wake

The long-term effects on urban transportation remain unknown, but trends are emerging.

■ By Robert T. Dunphy

Workers have consistently specified the length and cost of commutes as reasons for their hesitancy to return to the office. According to the May 2024 Survey of Working Arrangements and Attitudes, over half of the respondents cited traveling to and from work as a key factor in their attitudes toward returning to the office. Is traffic as bad as it used to be?

A recent study from Texas A&M University shows that although congestion certainly increased from pandemic-era lows, it had not reached pre-pandemic levels throughout 2022. It confirms the profound impact of diminishing ridership on transit systems, the problematic importance of trucking and several other surprising trends.

Lessons From the Pandemic

The COVID-19 pandemic created a rare instance when traffic congestion did go away briefly as businesses shut down and most nonessential personnel were working from home. This past summer, the Texas A&M University Transportation Institute released its national Urban Mobility Report, which, among other things, compares urban traffic congestion in 2019 (pre-pandemic) with data available from 2022. The report, sponsored by the Texas Department of Transportation, uses crowdsourced data from INRIX on urban streets and highways, along with highway inventory data from a Federal Highway Administration database.

The Urban Mobility Report, the most recent in a series that dates to 1987, found that overall traffic congestion numbers in the 101 metro areas studied in 2022 were still lower than in 2019, but those numbers were catching up fast. Travel patterns had



peeterv via iStock/Getty Images Plus

Houston was one of several large metro areas that experienced a significant decrease in the total number of hours lost to traffic delays between 2019 and 2022.

changed throughout the day of the week and hour of the day.

The traditional morning and evening peak hours for commuting were still lower in 2022 than in 2019, reflecting the reduction and spreading of work trips as employers struggled to get workers to return to the office. The report cites national data which estimates that significant numbers of workers were still working from home in 2023.

These differences were sharper among the largest metro areas studied. In 2019, the average auto commuter in 26 large urban areas experienced 55 hours or more of "extra travel time" (congestion) in a year, a level classified as "extreme." In 2020, there was only one such area. Congestion had returned by 2022, with auto commuters in 27 large urban areas once again experiencing 55 hours or more of delays. However, several metro areas with populations over 3 million experienced

notable decreases in the total number of hours lost to traffic delays between 2019 and 2022:

- Washington, D.C.: -26%
- Boston: -21%
- Houston: -11%
- New York: -8%
- Chicago: -8%

These changes reflect the continued battle between employers and workers over returning to the office, as well as lagging economies.

Only five of the 101 metro areas studied experienced less than 30 hours of delay per average auto commuter in 2019. That number grew sharply to 73 in 2020 but returned to five again in 2022.

New Travel Patterns

Researchers for the Urban Mobility Report emphasized that the long-term effects of the pandemic on urban transportation are still unknown. They

did note, however, that certain travel patterns emerged between 2019 and 2022.

Travel was more spread out. According to the report's authors, "A familiar pattern of morning rush hours followed by less delay in the midday and then several hours of bad evening congestion seems to be making a comeback. However, although there is increasing resemblance between 2019 and 2022 daily congestion totals, there has been a noticeable rise in midday congestion, and weekends are now experiencing higher levels of travel compared to the pre-pandemic period." The national-level data confirms that when people commute, they avoid Mondays and Fridays, and weekends are also bigger travel days, so travel is flattening out over the week.

Troubling trends for transit are apparent. The urban mobility study, based on highway traffic counts and speeds, does not specifically address transit, but some of the trends are worrisome nonetheless. Transit ridership in the United States declined to 20% of pre-pandemic levels in April 2020 and recovered to nearly 40% in summer 2020. By summer 2021, after the introduction of COVID-19 vaccines, ridership grew to just over 50% of pre-pandemic levels. In March 2024, ridership levels reached 79%, according to the American Public Transportation Association. In New York City, by far the dominant transit agency in the United States, the Metropolitan Transportation Authority (MTA) reported that 2023 subway ridership had returned to 68% of 2019 levels, with a higher

Pumping the Brakes

Some data analytics firms have found that traffic congestion has returned or worsened from pre-pandemic levels, although their methodology and sources differ from the Texas A&M study, which is considered the most reliable and comprehensive traffic analysis. According to press accounts, StreetLight Data found that traffic congestion was down in May 2024 compared to May 2019 in only two metro areas in the nation: San Francisco (minus 0.4%) and Albuquerque (minus 0.3%). Congestion was unchanged in four metros, including Los Angeles. Everywhere else, traffic was worse off than it was before the pandemic, dominated by areas on or near the East Coast.



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recovery on weekends than during the week, reflecting changes in commute patterns. Bus ridership was slower to recover, reaching only 63% of the 2019 level. In contrast, MTA's Bridges and Tunnels agency, which operates seven bridges and two tunnels linking the city's boroughs, reported record annual traffic volume in 2023.

David Schrank, senior research scientist at the Texas A&M Transportation Institute and co-author of the Urban Mobility Report, said in an interview that workers' hesitancy to return to the office has also meant a slower than expected rebound for transit. When congestion improved, driving became more attractive for some commuters who previously relied on transit. And with the prevalence of hybrid work schedules, even dedicated transit

continued on page 58



The volume of truck traffic on the roads has continued to grow in step with the rise of e-commerce.

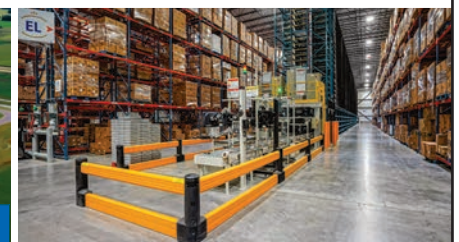
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continued from page 56

riders returning to the office could possibly be making only one to two trips per week, Schrank said.

Truckers kept on trucking. According to the report, truck traffic volume has continued to grow thanks to the

increase in at-home delivery of goods and services. Trucking is one of the least recognized components of the nation's transportation system by the public, but its importance to the economy continued — and even increased — during the pandemic while

other traffic was waning. E-commerce surged 55% during the pandemic and has continued to grow, according to Forbes.

In 2022, the cost of truck congestion was estimated at \$27.1 billion in lost time and fuel, according to the Urban Mobility Report. Truck congestion accounted for 12% of the total congestion cost in the U.S., with about 46% of this congestion cost in the largest 15 urban areas.

A New Perspective?

While travel demand post-pandemic is clearly returning and truck travel continues to grow, is it possible that a new perspective on traffic congestion will emerge?

The increased likelihood of encountering congestion during midday and weekend hours can be frustrating, and it may grow worse. Major employers are beginning to mandate return-to-office policies, and workers may be back on the roads in greater numbers.

Over the years, traffic engineers and public officials have explored diverse options for solving the vexing problem of traffic congestion. Among the proposed solutions: widening roads, optimizing the timing of traffic signals, offering more transit options to decrease people's reliance on cars, and implementing congestion charges during peak traffic periods. Another potential answer touted by proponents is the urban planning concept of 15-minute communities, designed so that anything residents need is within a 15-minute walk or bike ride. The need to make transportation improvements will continue in growing areas, but perhaps the former push for congestion relief for commuters will partially give way to an added emphasis on the importance of trucking and goods movement. ■

Robert T. Dunphy is a transportation consultant and an Emeritus Fellow of the Transportation Research Board.

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AI's Growing



Impact

on Commercial Real Estate

The industry is still in the early stages of realizing AI's potential while also wrestling with its downsides.

■ By Will McDonald

At a Glance

- AI is assisting with lease management, building operations, portfolio assessment, data analysis and building design.
- Stakeholders are grappling with how to collect and share the data that informs AI and establish use parameters.
- AI's net effect on employment within commercial real estate and other industries remains difficult to predict.

kaseko via iStock/Getty Images Plus

The world is captivated by the potential of artificial intelligence. Both companies and individuals are experimenting with accessible tools like ChatGPT, a chatbot developed by OpenAI that is trained to provide humanlike responses to user prompts. CRE companies are using AI to improve efficiency in everything from lease management to building operations. A 2023 report from Fortune Business Insights predicts that the proptech market will expand from \$34 billion in 2023 to \$90 billion by 2032.

However, the rise of AI has also exacerbated age-old concerns over technology's displacement of workers and questions about the amount of power it takes to generate even the simplest of commands. Despite its corporate sustainability initia-

tives, Google's greenhouse gas emissions increased 48% over the last five years due to the integration of AI into its products. A Washington Post report in September calculated that one 100-word email generated by ChatGPT requires the equivalent of one bottle of water to cool the servers on which these bots run.

But most of the analysis surrounding AI's impact on the commercial real estate industry — whether positive or negative — is focused on its potential. In these early stages of the AI revolution, it is difficult to decipher exactly how it is being applied or its overall effect. Regardless, conversations with leaders in the industry suggest that AI's influence on commercial real estate is beginning to take root and spread.

Occupier Solutions

Chris Zlocki is head of client experience and executive vice president, occupier solutions, at Colliers. This past summer, he led a report, *AI in CRE: The Now, the Next and the Possible*, examining AI's impact on key areas of occupier services, including lease administration, facility management, workplace advisory, portfolio strategy, location intelligence, transaction management, project management and supply chain solutions.

"What used to take a lease administration team five to seven days now takes minutes," Zlocki said in relation to AI's ability to process huge quantities of documents.

Lease administration is where much of the advancement in AI can already be seen. Colliers360, the company's integrated analytics platform, has incorporated AI into its suite of applications. Zlocki said AI's immediate impact involved reducing the redundancy and increasing the speed of task completion. Additionally, the platform's ability to comprehend and process data has improved dramatically.

"We have a client who was the victim of a cyberattack," Zlocki said. "Their entire system was disabled, and they were at risk of falling behind on lease and vendor expenditures. We had to get notices out to landlords to let them know what had happened and why the client would be delayed in making their regular payments."

Colliers used AI optical character recognition software, which converts image-based text into machine-readable format, to analyze 40 to 50 screenshots of printed rent rolls and lease documents. The information pulled from these screenshots included payment amounts and to whom payment was due. The client, a national energy company, didn't miss a payment across its entire portfolio of leases.

"AI was able to instantly do what would have taken two to three people a week to accomplish," Zlocki said. "And its ability to predict certain outcomes, and make recommendations based on those predictive outcomes, is changing the way clients are addressing their real estate decisions."

Colliers' Portfolio AI tool, developed by the company's Portfolio Strategies and Technology Services divisions, looks at a company's real estate obligations from a portfolio-wide perspective and makes an assessment based off the data it receives. It searches for opportunities to optimize a client's facility portfolio, churning out recommendations to improve overall performance and operational efficiency.

In one case, Zlocki said, Portfolio AI's assessment led to a recommendation that a client change up to 40% of its office portfolio planning decisions to reach optimal performance. Portfolio AI assessed the client's real estate footprint using different financial, real estate and operational scenarios to determine

"We're even getting to the point with AI that a building can start to predict maintenance and repair needs. The building can perform tests on itself, becoming more prescriptive rather than reactive."

— *Chris Zlocki, head of client experience and executive vice president, occupier solutions, Colliers*

cost-saving strategies for both individual leases and across the entire portfolio.

AI is also expected to have a significant impact on warehouse and third-party logistics. A January 2024 report from accounting and consulting firm EY asserts that 40% of supply chain organizations are investing in generative AI. The report identifies key areas like demand forecasting, risk management, and logistic network design and route optimization as sectors where AI will bring value to supply chains. Backed with this abundance of cognitive data, warehouse users will be able to make more informed space-related decisions for both their short- and long-term needs.

Practicing Quality Assurance

These early examples of the technology's value have raised expecta-



Rendering courtesy of HFA Architecture + Engineering

HFA Architecture + Engineering uses AI to enhance visualization in the design process, improving the quality of project renderings.

tions for AI in the commercial real estate industry, Zlocki said. But to reach the full potential of what AI can contribute, he added, industry stakeholders first need to figure out how they are going to collect and share the data that will inform AI. That means encouraging transparency among firms and ensuring the data is accurate and up to date. It also means instituting some type of data governance and creating parameters around how the data will be used.

Zlocki said a new profession, AI ethicist, is emerging to set guidelines around the uses and purpose of AI. As AI's technical capabilities evolve, becoming more intuitive and intelligent, how the technology is used will need to be reined in.

President Biden issued an executive order in 2023 outlining guidelines for the responsible collection

of data used by tech companies in training AI models. The order serves as a set of principles for ethical AI application, especially in employee surveillance, inherent bias and the use of privacy-enhancing technologies in collecting data to train AI machines. Companies pledging their support of the guidelines include Apple, Amazon, Google, OpenAI and Microsoft.

Building Design and Construction

Michael Villegas of IA Interior Architects is using AI to produce high-quality early visuals of design projects for his office and industrial clients. Villegas leads the international design firm's AIRIA team, a research group that focuses on AI's potential to enhance design and project processes. Advanced visuals aren't uncommon, he said, but they

AI's Effect on Data Centers

JLL anticipates global co-location and hyperscale data center inventory will grow at an annual rate of 20% over the next three years. That means by 2027, data center demand will more than double from current capacity. A report from Goldman Sachs projects that by 2030, demand for data center power will increase 160% due to wider implementation of AI.

Major investments in data center infrastructure will also be required to meet the rising AI demand: \$50 billion in new power generation in the United States, and nearly \$1 trillion to ready Europe for the oncoming AI surge.

typically come later in the project timeline due to the time and cost it takes to produce them. AI shortens the time frame by 30%, according to Villegas, and the ability to provide a 3D rendering, based on conceptual planning alone, streamlines clients' decision-making and accelerates project timelines.

"Designers can now use AI to generate hundreds of potential solutions in minutes," Villegas said. Five years ago, he added, the same process would have taken weeks. "The process was so linear back then. Now it's much more iterative and flexible."

Villegas also emphasized AI's ability to democratize projects by collecting prompts and inputs from multiple project stakeholders to inform the design process. He listed programs like ChatGPT, Midjourney (text-to-image AI) and various generative AI plug-ins for traditional software like Autodesk Revit as tools already in use by architects at IA Interior Architects and elsewhere.

AI is displacing some specialties traditionally included in the design and development process. But Villegas said what AI is actually replacing is the repetitive tasks that tend to bog designers down, opening opportunities for architects and designers to put their creativity to better use.

His advice is to approach AI with clear problems for it to solve or goals for it to achieve. "AI complements human expertise, it doesn't replace it," Villegas said. "The best results come from a partnership be-

tween AI-driven insights and human intuition, innovation and problem-solving capabilities."

Supporting Building Operations

Building management systems are already proving AI's sustainability benefits. The Colliers AI in CRE report references numerous owners implementing AI into their management platforms to harness sensor data, understand usage patterns and predict instances of energy wastage.

"Given the prominence of the green revolution, carbon neutrality, and the ongoing emphasis on energy, it will be imperative for our [Facility Management] Advisory team to draw insights from these evolving AI applications to provide advice and guidance to clients," the Colliers report reads.

Matthew McAuley, global property sectors research senior director for JLL, said that with the use of AI, building management systems can adjust their heating and cooling presets based on current climate and weather forecasts, reducing waste and embodied carbon.

"JLL's Hank platform is one of these software systems that can be integrated into building management systems," he said. "Hank leverages AI to adjust daily operations and settings to maximize performance and reduce energy use. This can lead to reductions in energy costs of 20% or more."

Nome Capital Partners, a Bay Area-based real estate firm primarily

"In the U.S., the footprint of AI companies has more than doubled since 2020. AI companies are also active beyond the office sector, with robotics and autonomous vehicles companies leasing industrial space or AI drug discovery companies taking lab space."

— *Matthew McAuley, global property sectors research senior director, JLL*

focused on investments in office properties, used JLL's Hank in a highly leased building to reduce HVAC energy consumption by 45%, achieve 60% less deviation from tenant setpoint, and increase its circulation of fresh air to double the minimum amount required — improving indoor air quality and the health of the building for occupants overall.

Zlocki added that facilities management is relatively low-hanging fruit for AI due to the growth in Internet of Things (IoT) technology across the commercial real estate industry. The combination of AI and IoT leads to a building being able to tell an owner or manager which part of the structure needs what service and how much.

Artistic Inspiration



Rendering courtesy of IA Interior Architects

This AI-generated rendering was produced with guidance and processing from IA Interior Architects in collaboration with feedback from project stakeholders.

“We’re even getting to the point with AI that a building can start to predict maintenance and repair needs,” Zlocki said. “The building can perform tests on itself, becoming more prescriptive rather than reactive.”

Impact on Office Space Demand

McAuley doesn’t expect that AI will cause lease rates to rise or drop or that it will affect other fundamentals like term length. However, all eyes are watching how AI’s expanding prevalence will affect job numbers, which heavily influence building occupancy rates. People need space to work — whether office space or elsewhere — and strong employment means more expansion

IA Interior Architects worked with a community organization looking to design and install a public art display in Miami’s Little River neighborhood, an up-and-coming area that wanted to commemorate its creative roots with public art reflecting the community. The process began with a vision session to gather the client’s aesthetic preferences, project goals and unique understanding of the neighborhood through audio, text and images.

IA Interior Architects fed the feedback from that vision session into different AI systems to analyze patterns to unlock a distinct creative direction for the project. This allowed the client to effectively design the mural themselves in real time and save money on third-party design consultants and illustrators.

“The AI outputs provided the source material for a human-crafted collage, which we presented to the client,” said **Michael Villegas** of IA Interior Architects. “This collage reflected both the client’s vision and local values, ultimately leading to an expanded scope that benefited not just the project but the community.”

For AI to be a successful tool for the real estate industry, there must be

transparency among its stakeholders. Skepticism of AI can be countered through proper training and accessibility to the data AI is consuming and producing.

and more space leased. With AI? Not so much.

McAuley puts it bluntly: “AI will have an effect on most jobs. For example, the International Monetary Fund estimates that 40% of all jobs globally, and 60% in advanced economies, involve tasks that can be augmented or automated with AI.”

However, McAuley said it will take some time before any real effects are felt. “Most AI used to date has been experimental, entry level or specific to certain occupations,” he said. “The eventual impact on employment in specific industries is still highly uncertain. While specific tasks within jobs can be augmented or automated, it’s unlikely that many jobs can be fully automated with existing AI capabilities.”

Echoing Villegas’ sentiment about the ways that AI can enhance the work of designers, McAuley thinks some employees — especially those with a high degree of repeatable tasks in their descriptions — might be more productive at their jobs with assistance from AI.

“Technology has historically created more jobs than it removes,” he said. “Sixty percent of current employment is in occupations that didn’t exist 80 years ago. This process may lead to more job moves, but the net effect on employment will remain unclear for some time.”

McAuley noted a fairly obvious exception where AI’s impact is already evident in the real estate market:

the tech sector. And the geographic area most affected? The Bay Area.

In San Francisco, the traditional epicenter of tech activity, AI companies have leased 1.7 million square feet of office space since 2022, bringing the total AI office footprint in the city to 4.3 million square feet. The largest lease transaction in the fourth quarter of 2023 was OpenAI, the developer of ChatGPT, which leased 486,000 square feet of office space in the city’s Mission Bay submarket, adding to the 140,000 square feet the company has across multiple leases elsewhere in the metro area. Other deals include AI startup Anthropic’s lease of 230,000 square feet in the South Financial District and autonomous vehicle company Zoox’s 219,000-square-foot industrial lease in the East Bay. In nearby San Jose, Couchbase, an AI-powered cloud database, signed a lease in August 2024 for 24,000 square feet.

McAuley suggested these recent AI expansions are promising indications of what else may come. “In the U.S., the footprint of AI companies has more than doubled since 2020,” he said. “AI companies are also active beyond the office sector, with robotics and autonomous vehicles companies leasing industrial space or AI drug discovery companies taking lab space.”

Blanket optimism isn’t advised, however, especially given that layoffs at tech companies have been the norm for the past couple

years. According to Crunchbase’s Tech Layoffs Tracker, 191,000 tech workers were laid off in 2023, and at least 94,733 jobs had been lost in the tech sector in 2024 through Nov. 15. This broader tech industry trend, accompanied by uncertainties related to the ongoing remote versus hybrid versus in-person work debate, doesn’t necessarily signal a return to pre-pandemic office occupancies.

Potential for Improved Investment Performance

While AI is showing up on some owners’ rent rolls, it’s also making its way into their spreadsheets.

“AI tools are increasingly being integrated into investment decision-making,” McAuley said. “Key use cases include market and asset-level analytics and forecasting, risk assessment, automated or



Sanghwan Kim via iStock/Getty Images Plus

enhanced valuations, and asset filtering and identification.”

He points to JLL’s Capital Markets Quants platform as an example. The platform “analyzes data from over 1.25 million properties transacted globally in the past 20 years to predict shifts and opportunities in the real estate market, giving advisers more accuracy and intelligence in optimizing their clients’ portfolio strategies.”

Again, AI is doing the job that real estate investors and analysts have always been doing, but at a speed

that allows owners to make complicated, high-volume investment decisions early in the transaction process and armed with more information. Its predictive capabilities can analyze the market for opportunities and risk factors, giving investors a heightened level of certainty before deciding whether to proceed with a transaction. Conceivably, that additional certainty should improve investment performance.

But as reliance on AI grows, it creates its own risks. McAuley identified three primary areas of

concern AI presents for the real estate market: data, privacy and security risks; regulatory and compliance risks; and operational risks. He said most countries will have AI-related legislation by 2030, driving transparency in the training and use of AI.

This goes back to an observation both Zlocki and Villegas made: For AI to be a successful tool for the real estate industry, there must be transparency among its stakeholders. Skepticism of AI can be countered through proper training and accessibility to the data AI is consuming and producing.

Early Promise and Ongoing Questions

The AI revolution is just beginning to gain momentum. Much of the literature emphasizes its potential rather than its current effects. But it is already helping companies process data at speeds not seen before. That ability to instantaneously analyze large quantities of information and present scenarios and recommendations for users is remarkably useful to the real estate industry.

Serious questions remain, however, about the environmental and societal implications of broad acceptance of AI. A regulatory framework and a definition of ethical use of AI are needed to ensure the technology is a net positive rather than a detriment. ■

Will McDonald is a freelance writer in Brooklyn with prior professional experience as a commercial real estate broker.

A Different Approach to Mixed Use



Each of the industrial buildings in The Crossings was constructed with sustainable design features to maximize energy and water resource utilization.

An industrial-anchored redevelopment involving retail, multifamily and hospitality uses is bringing new life to a former “dead mall” site in New Jersey.

■ By Brian Peterson, MRP Industrial

At a Glance

- Clarion Partners and MRP Industrial pivoted to a mixed-used approach after initially planning an all-industrial development.
- The master plan includes four large industrial buildings, multiple free-standing buildings for retail uses, a full-service hotel, and a 500-unit multifamily development.
- Once completed, The Crossings will support nearly 1,400 new jobs and generate more than \$5.4 million in annual property tax revenue.

Michael Slack Photographer, courtesy of MRP Industrial

Replacing defunct shopping malls with open-air, lifestyle-oriented retail venues has become common throughout the United States. Mall demolition is expected to continue, with some projections suggesting that as few as 150 malls will still be in operation by 2032, down from the estimated 1,150 malls now operating nationwide. A report by Capital One Shopping Research stated that approximately 2 million square feet of mall space was demolished in 2023, and up to 87% of all large shopping malls may close over the next decade.

However, not all former mall sites can support private redevelopment into lifestyle centers. Despite many being located near transportation networks, the retail challenges that plagued these malls remain, leaving holes in their communities' economic development landscapes. Other single uses, such as residential, may overly stress municipal services. A new balance of uses is needed for many of these sites.

The recent transformation of Burlington Center mall into The

Crossings in Burlington Township, New Jersey, could serve as a model for industrial-led, mixed-use redevelopment at other failed mall sites located near interstate networks and population centers. The ongoing six-year, more than \$600 million redevelopment is one of the few instances where a former regional shopping mall has been reimagined as a mixed-use development integrating industrial/warehouse product along with complementary retail, multifamily and hospitality uses.

The complicated, hurdle-filled journey might have ended differently if the developers, Burlington Township, and the community had not been able to work together and coalesce around a unified vision.

“Our plan was deliberate and intentional. It was based on critical feedback and input from the local community and key representatives to ensure that the development plan satisfied the region’s long-term vision and approach to redevelopment initiatives,” explained **Dan Hudson**, managing principal at



An aerial view of The Crossings' redevelopment area between Interstate 295 and the New Jersey Turnpike.

Michael Slack Photographer, courtesy of MRP Industrial

MRP Industrial. “We believe The Crossings will serve as a national model for smart growth strategies that involve public-private partnerships working together to achieve goals that best meet the needs of the community.”

Recognizing the Need to Pivot

The Rouse Co. opened the 800,000-square-foot Burlington Center in the early 1980s to great fanfare. Its roster of national anchor tenants included Macy's, JCPenney, and Sears. At its peak, the enclosed mall included more than 100 stores and restaurants, and its opening was credited with catalyzing subsequent commercial office and retail development between Burlington and Mount Holly townships.

Over time, however, local consumer shopping patterns shifted as newer retail options arrived in the immediate area. Multiple retail concepts associated with the mall failed, and Burlington Center experienced a steady decline made worse by a

burdensome level of debt. The mall changed hands several times, including through foreclosure, before closing permanently in 2019.

Clarion Partners, a real estate investment management company headquartered in New York City, and Baltimore-based MRP Industrial, an active developer of warehouse/industrial buildings across the Northeast, acquired Burlington Center in early 2019 for \$22 million with a vision to capitalize on its strategic location between the New Jersey Turnpike and Interstate 295. The team understood the robust demand for logistics product and knew that global, national and regional users would be drawn to the site by its critical transportation arteries, proximity to local ports and access to a substantial segment of the U.S. population. The challenge would be to incorporate other uses desired by the broader community into a comprehensive plan.

Clarion Partners and MRP Industrial have a history of collaborat-

ing, particularly in Burlington County, where they reconfigured a 135-acre former brownfield site into Burlington Industrial Park, a project generally regarded as the first institutional-grade industrial park introduced in the central New Jersey marketplace. The two groups have worked together to develop more than 8 million square feet of industrial product, encompassing 15 buildings across five business communities. An additional 700,000 square feet of industrial space is currently in the approval process and awaits construction.

Building Consensus

The Clarion/MRP team outlined the advantages and benefits of an industrial-anchored redevelopment concept in numerous presentations to Burlington Township's governing body and the public. The original concept plan was composed entirely of industrial/warehouse space, with the development team emphasizing the need to establish a strong foundation for the project with an



Michael Slack Photographer, courtesy of MRP Industrial

To help gain support for the project, Clarion Partners and MRP Industrial committed to subsidizing the retail portion of the site, including constructing the road network and utility infrastructure for pad sites suitable for quick-service restaurants and other retail uses.

asset class that was economically viable and could quickly utilize the vacant site.

After a series of meetings with township officials, the partnership realized that an all-industrial approach would likely be met with disapproval, so the group pivoted to a mixed-use approach. While reactions from local government officials turned generally favorable, it was considerably more difficult to obtain public support amid anti-warehousing opposition from a vocal minority within the community.

The community's primary concern was the loss of retail space caused by Burlington Center's closure. It became clear that focusing on a mixed-use concept with a retail component was essential to garnering local support. However, these conversations and early entitlements occurred as the country recovered from a global pandemic,

resulting in substantial economic pressures on retailers.

To move the project forward, the Clarion/MRP team committed more than \$8 million toward subsidizing the retail portion of the site, which involved purchasing adjacent ancillary parcels and constructing the road network and utility infrastructure for immediately available speculative pad sites. The team believed this investment would spark interest from retailers that otherwise could not have justified the capital investment necessary to open new stores. Furthermore, the team was confident that initial success with quick-serve pad restaurants would increase site visibility and open the project to broader retail uses as the market recovered.

While a general anti-warehouse sentiment exists in New Jersey, partly due to increased truck traffic, the Burlington Center site had become

The community's primary concern was the loss of retail space caused by Burlington Center's closure. It became clear that focusing on a mixed-use concept with a retail component was essential to garnering local support.



Clarion Partners and MRP Industrial acquired the Burlington Center mall site for redevelopment in 2019.

Courtesy of MRP Industrial

a magnet for unwanted activity and vagrancy. Burlington Township officials recognized the chance to address this problem with a fresh approach that combined much-needed housing with a commercial outlet for new retailers and restaurants. The solution replaced a sense of nostalgia for the old mall with ownership stakes in progress and new reactivation.

After more than three years of collaboration with all stakeholders and extensive revisions to the site plan and building designs, The Crossings received full support from elected officials.

“The Crossings project demonstrates how taking a committed partnership approach, combined with thoughtful planning, can lead to successful outcomes for all stakeholders, including the municipality, residents, tenants and investors,” stated **Elliott Byers**, senior vice president at Clarion Partners. “It can serve as an example for other companies to study ... one that positively impacted and

brought new energy into an entire community.”

Aggregating Land to Support Reactivation

To realize the master-planned vision for the industrial-anchored redevelopment strategy, the Clarion/ MRP team had to acquire several neighboring land parcels from both private and public parties, in addition to the acquisition of the Burlington Center site. In total, the team acquired six separate parcels: a 138-acre farm along I-295 adjacent to the mall property, 86 acres across Bromley Boulevard, an Exxon fuel station, a commercial rental center along the Mount Holly Road frontage, an abandoned township road that divided the site, and a functioning county jughandle (an off-ramp that veers to the right, allowing vehicles to make safer, more controlled left turns). The total acquisition price approached \$52 million.

Each of the aggregated parcels unlocked a strategic objective for the

redevelopment, but the jughandle was critical to the success of the retail pad sites because it represented an optimal retail corner property with visibility sufficient to attract restaurant patrons. As that final assemblage transaction unfolded, it was determined that the New Jersey Department of Transportation (NJDOT) had originally purchased the parcel with taxpayer funds, meaning the State House Commission had to approve the sale. The development team worked closely with Burlington Township, Burlington County, NJDOT and the state district attorney’s office to obtain approvals, establish the land value and draft the contract to transact the property lawfully.

Industrial Focus With a Long-term Strategy

With the master plan in place, in the summer of 2020 the development team embarked on construction of the first industrial building, totaling 635,000 square feet, in the Westampton Township

portion of the redevelopment assemblage. Ahead of construction completion, Walmart preleased the entire building. Concurrent with the development of the first building, the Clarion/MRP team commenced demolition of the former mall and mass grading of the entire assemblage.

The development of two additional speculative industrial buildings followed shortly thereafter. A 940,000-square-foot warehouse and a 750,000-square-foot warehouse delivered in the fall and winter of 2023, respectively. The Clarion/MRP vision was realized again, with a full-building prelease of the larger warehouse to shipping and logistics company Maersk, due to the project's strategic location, access to labor and site features. Each building features securable truck courts and above-market overhead doors, trailer drop parks and auto stall counts.

As leasing efforts continue for the 750,000-square-foot building, planning has begun for the fourth and final industrial development on the site — a 210,000-square-foot warehouse/industrial building to be constructed on the pad-ready site between the two existing warehouses.

Each industrial building was constructed with sustainable design features that maximize energy and water resource utilization, benefiting both the environment and tenant operating costs. Two of the buildings will receive LEED Silver certification, and the planned 210,000-square-foot structure is anticipated to do the same.

At the core of The Crossings' design was an emphasis on creating sensible traffic flows for the various uses,

both on- and off-site. This required nearly \$3 million worth of off-site road improvements, such as county roadway expansion with additional travel lanes and full-phase intersection upgrades, including new signalization, additional turn lanes and pedestrian walkway accommodations. Enhanced landscape buffers and architectural walls facilitated transitions between industrial and retail uses, limiting the public's ability to intermix with the industrial traffic flow. Furthermore, the retail portion incorporates four separate access points to public roads, providing excellent interconnection to the surrounding areas.

Amenities integrated into the project design include a nearly mile-long, 10-foot-wide multipurpose walking path that connects to an existing path network. In addition, two charging stations were installed outside each warehouse building to promote electric vehicle usage. The development team also secured an on-site NJ Transit bus stop and shelter to provide transportation options for business park employees.

More than 160 trees and 1,300 pieces of shrubbery were installed, in addition to an on-site wetland basin with thousands of wetland grass plugs, adding vegetation to the former mall site once dominated by asphalt and concrete.

Success Beyond Industrial

Leveraging more than 150,000 consumers residing within a 6-mile radius of the site, Ferber Company, a retail development company selected by MRP Industrial and Clarion Partners, simultaneously developed several free-standing buildings on the speculative pad sites suitable for quick-service

Addressing the Housing Crisis

A July 2023 article in Forbes noted there is a shortage of 6.5 million homes in the U.S., observing that “while residential is in short supply, shopping malls suffer from a problem of abundance. ... Because retail has historically followed rooftops, most malls are already in dense population centers — the exact places most in need of housing.”

Reports indicate a housing shortage of 200,000 to 300,000 units exists in New Jersey. Jefferson Apartment Group, which recently purchased land from MRP Industrial as part of The Crossings' master plan, aims to help alleviate this problem by building a 500-unit multifamily development spanning 20 buildings and consisting of one-, two- and three-bedroom apartments and townhouses. Amenities will include two stand-alone clubhouses, two courtyards with swimming pools, a playground, and a dog park.

Incorporating a multifamily component into The Crossings satisfied Burlington Township's affordable housing obligations, as 20% of the units are designed for COAH- (Council of Affordable Housing) eligible residents. The development of affordable housing should also help to attract and retain industrial employees by offering logistics workers a rare opportunity to live within walking distance of their place of employment.



Jason Davis IMC, courtesy of Jefferson Apartment Group

The Crossings will eventually feature a 500-unit multifamily development that spans 20 buildings and includes affordable housing. The industrial building leased by Walmart is seen in the background.

restaurant and other retail uses. Two years after pad site development, Freddy's Frozen Custard & Steakburgers, Raising Cane's Chicken Fingers, Panera Bread and Sleep Number are operational and outperforming projections. Discount Tire is also expected to commence construction soon.

Negotiations are in the final stages for a 150-room full-service hotel with conference and meeting facilities. Once developed, this will add another use contemplated by the master plan for The Crossings.

A Vision Achieved

To date, activity at The Crossings has generated approximately 700 jobs, and the industrial projects alone have injected nearly \$7 million into the Burlington and Westampton township budgets through permit and Council of Affordable Housing fees. At the conclusion of all development and leasing activities, The

Crossings will support nearly 1,400 new jobs, including 900 in the warehouse/industry sector and 500 in retail/hospitality. Furthermore, The Crossings will generate more than \$5.4 million annually in property tax revenue for the local community — a consequential turnaround from a once “dead mall” that offered little tax revenue due to its diminished value.

Burlington Township Mayor **E.L. “Pete” Green** witnessed the decline of Burlington Center mall, and his administration was intimately involved in decisions and approvals that led to the site’s reinvention as The Crossings. “As a central gathering place for so many years, it was painful for everyone to watch [the mall’s] demise. We took our time to support the new vision, because it was critical to get it right the first time,” he said.

“The original proposal for an outlet mall, an asset class that

“The original proposal for an outlet mall, an asset class that lost favor nationally, never materialized, and this paved the way for the new [industrial-anchored] mixed-use strategy incorporating a range of essential product types to produce long-term value.”

— E.L. “Pete” Green, mayor, Burlington Township

lost favor nationally, never materialized, and this paved the way for the new [industrial-anchored] mixed-use strategy incorporating a range of essential product types to produce long-term value,” Green added. “The lesson we learned is the importance of collaboration, transparency and trust to arrive at a result that serves many important stakeholders and stands the test of time. The Crossings has breathed new life into a once-abandoned site, and this has been a rewarding and immensely satisfying journey that benefits many audiences.”

A Model for Future Development

The redevelopment of Burlington Center into The Crossings can serve as a model for other redevelopment projects with strategic suburban locations throughout the country. Such sites must possess strong regional labor pools, developed infrastructure that supports intra-regional connectivity and access to neighboring core and secondary markets, and moderate demand for housing or the expectation of population stability or growth.

By articulating a clear vision supported by market fundamentals, the Clarion/MRP team gained consensus and the support of governmental leadership. The reactivated site returned opportunity, jobs, tax revenue and activity to the community that surrounded the once-shuttered mall. As retail demand consolidates away from the regional malls of decades past, communities can now envision an opportunity for the next generation of mixed-use projects led by industrial and warehouse development. ■

Brian Peterson, senior vice president at MRP Industrial, was the primary development officer responsible for The Crossings.

The Crossings — Project Summary

Project Location	Burlington Township, Burlington County, New Jersey
Type of Site	Suburban: 23 miles to Philadelphia, 72 miles to New York City
Development Type	Ground Up/New Development, Redevelopment and Mixed Use (Industrial, Retail, Residential)
Transportation Modes	Car, Transit, Pedestrian
Mix of Uses	Retail/Restaurant: 159,650 SF, 9 Pad Sites, 9 Buildings Residential: 500 Dwelling Units, 20 Buildings (80% Market Rate & 20% Affordable) Industrial Warehouse With Office: Part of Industrial Lease Hotel: 82,500 SF, 5 Story, 153 Rooms
Parking	Surface Auto: 3,534 Stalls; Surface Trailer: 792 Stalls
Site Dimensions	Site Acreage: 364.2 Acres (278.3 Industrial, 39.5 Retail, 46.4 Residential) Site SF: 15,865,989 SF (12,124,185 Industrial; 1,720,141 Retail; 1,586,989 Residential)
Tenants (Retail and Industrial)	Panera (4,000 SF) and Sleep Number (2,700 SF) (Shared Site) Raising Cane's: 3,893 SF Discount Tire: 8,192 SF Freddy's Steakburgers: 3,148 SF HOME 2 by Hilton: 82,500 SF; 5-Story, 153-Room Hotel Maersk (Industrial): 939,300 SF Walmart (Industrial): 634,400 SF
Development Team	Developer: MRP Industrial Site Civil Engineer: Langan Project and Interiors Architect: RGA Architects General Contractor: Penntex Construction Co. Inc. Leasing Agent: JLL
Financial Partners	Co-owner: Clarion Partners (LIT) Tax Incentives: PILOTS — Industrial & Residential 25-year Long-term Abatement and Retail 5-year Phase-in Construction Loan: Syndicated construction loan by Wells Fargo Bank with Associated Bank
Timeline	Land Acquisition: Phased Purchases (Feb. 2019, Mall; July 2020, COBA Farm; Aug. 2020, Penn Realty Farm) Submitted Initial Plans: Sept. 2019, Township adopted resolution to study site to determine if area in need Phase I Completed: Aug. 2023, Maersk lease commencement
Development Cost Information	Acquisition Price: Approached \$52 million Retail Infrastructure Costs: More than \$8 million Off-site Road Infrastructure Costs: Approached \$3 million Total Project Costs (Including Land Acquisition): More than \$600 million

Research Directors Exchange Views on AI, Interest Rates and Market Trends

The NAIOP Research Foundation gathered research directors and Distinguished Fellows for a discussion of the factors influencing commercial real estate's outlook.

At a Glance

- Firms are using AI to increase efficiency and productivity, but it's not a near-term threat to replace experienced analysts.
- Declining interest rates should boost investment activity, but transaction volumes may lag without additional rate cuts.
- Office buildings continue to face the most headwinds, while demand for data centers keeps increasing.

■ By Shawn Moura, Ph.D.

The NAIOP Research Foundation held its National Research Directors Meeting at CRE.Converge in Las Vegas in October. **Jennifer LeFurgy**, Ph.D., the Research Foundation's executive director, and **Shawn Moura**, Ph.D., NAIOP's senior director of research, facilitated the conversation among research directors from commercial real estate services, data, investment and development firms. Four NAIOP Research Foundation Distinguished Fellows also joined the discussion, which addressed applications for artificial intelligence, the effects of declining interest rates on capital markets and development activity, and how recent trends are shaping the outlook for commercial real estate.

National Research Directors Meeting Participants



Danny Ismail,
Green Street



Phil Mobley,
CoStar



Amanda Ortiz,
CBRE



Mirle Rabinowitz
Bussell,
UC San Diego



Vanessa Rader,
Ray White



Dustin Read,
Virginia Tech



Jack Robinson,
Bridge Investment
Group



Brian Schwagerl,
New York
University



Kim Somers,
CDPQ



Michael Soto,
Savills



Mark Stapp,
Arizona State
University



Brandon Svec,
CoStar



Raymond Wong,
Altus Group

How AI is Shaping Market Research and Talent Management

Several research directors indicated that their firms are adopting AI tools to improve efficiency and productivity but shared that current AI tools still require substantial input, direction and editing from human analysts to produce useful insights. **Kim Somers**, economic director,

real assets and thematics at CDPQ, shared that the global investment group has used natural language models to develop sentiment indicators. One is related to the Federal Reserve “to give us some idea what the next move might be,” Somers said, and CDPQ plans to extend that analysis to predict the interest rate policies of other central banks worldwide. **Michael Soto**, vice president, research West at Savills,

observed that “the granular insights from some of the predictive modeling that’s being developed is the real thing that people want.” Commercial real estate firms are often most interested in trends within a specific market or property type, or submarket/subtype, and AI can be useful in analyzing large datasets to identify when conditions are changing for these narrowly defined markets.

“We have a lot of trust issues with the believability factor [of some generative AI models]. ... If you are not going to present us with the right answer every time, how do we know which one is wrong?”

— Jack Robinson, managing director, chief economist and head of research, Bridge Investment Group

Danny Ismail, managing director and co-head of strategic research at Green Street, shared that the firm has used generative AI tools to assist in drafting market data summaries for tertiary markets to improve efficiency. However, to be effective, human analysts first must clean the data, provide the model with narrow parameters and use the correct prompts, and they still have to edit the resulting summaries. Green Street is also limited by restrictions that vendors place on the use of their data in large language models or by external consultants. **Brandon Svec**, national director of U.S. retail analytics at CoStar, noted that AI has helped alleviate resource constraints associated with producing insights for 390 markets. He added that CoStar eventually hopes to develop “a dynamic program that can read the data itself and come to some conclusions about it.”

Jack Robinson, managing director, chief economist and head of research at Bridge Investment Group, indicated analysts at his firm are using a ChatGPT interface to enhance internal communications of data analyses and draft summaries. However, he noted that some generative AI models are designed to provide a variety of answers to a repeated query. As a result, “We have a lot of trust issues with the believability factor. ... If you are not going to present us with the right answer every time, how do we know which one is wrong?”

Raymond Wong, vice president, data solutions delivery at Altus Group, said although generative AI has taken over some of the work that analysts used to perform, such as compiling and summarizing basic market information, he does not think many of those jobs will be replaced by AI in the near future. Experienced analysts are still needed to explain why observable trends are occurring and offer their intuition on how these trends are likely to play out. “We can see the vacancy rate doing something, but we’ll also qualify it ... and that’s only based on experience.”

Meeting participants also discussed the ways AI tools are already affecting employee skill development, particularly for recent hires and those just entering the workforce. Workers who were in college or had just started their professional careers during the pandemic missed out on classroom and workplace interactions that are critical to developing soft skills like teamwork and communication. Generative AI may help augment younger workers’ writing and analytical skills, but it also poses new challenges for managers. Ismail shared that when reviewing the job applications of recent college graduates, AI detection software indicated several had used ChatGPT to draft a required case study. In a few instances, the detection software wasn’t even necessary because the applications contained “the same verbatim response.”

NAIOP Distinguished Fellows in attendance shared how they see students using AI and how they, as educators, are integrating the technology into their instruction.

Brian Schwagerl, Esq., clinical assistant professor at the Schack Institute of Real Estate at New York University, observed that generative AI has been particularly useful for international students who can formulate complex ideas but need help translating them into English.

Dustin Read, Ph.D./J.D., department head, Blackwood Department of Real Estate at Virginia Tech, observed that when students write using AI, their analyses are stronger and effectively tie together complex ideas, but he worries that many are becoming reliant on the technology and struggle to demonstrate critical thinking skills without it.

Mirle Rabinowitz Bussell, Ph.D., associate teaching professor and director of undergraduate studies in the Department of Urban Studies and Planning at UC San Diego, requests that students be transparent when they use AI programs. To demonstrate their critical thinking, she asks that students describe how they use the tools to arrive at a conclusion and evaluate their efficacy.

Meeting participants broadly agreed that AI skills are not a substitute for interpersonal skills, which remain critical in the commercial real estate industry and are best developed through interactions at the office and with current and

“Soft skill development is so important. This is still a relationship business [and] that will never change.”

— *Michael Soto, vice president, research West, Savills*

potential business partners. Soto urges new hires to canvass their assigned markets and attend open houses to get familiar with properties and how they are marketed, in addition to making contacts with local CRE professionals. “Soft skill development is so important. This is still a relationship business [and] that will never change.”

The Outlook for Capital Markets

Meeting participants said declining interest rates should support commercial real estate investment activity in the coming year, but most expected the Federal Reserve would need to cut rates further before a meaningful effect on transaction volumes resulted. At current rates, high construction costs remain an obstacle to new development. Ismail and Robinson suggested an additional 50 or 100 basis point decline in prevailing rates would be needed before the yield on cost of construction would be high enough to accelerate new multifamily development. (The Federal Open Market Committee lowered interest rates by an additional quarter point in November.)

For U.S. commercial real estate transaction volumes to grow, **Phil Mobley**, national director for office analytics at CoStar, believes a stable interest rate environment is more important than the level at which interest rates settle. Soto observed that banks have limited

interest in originating new loans because they still have distressed commercial real estate loans on their books that they need to work through before they will be able to increase lending. The slowdown in bank lending has left an opening for private investors, who are currently among the most active in the market.

Wong indicated that most of these observations also applied to the Canadian commercial real estate market. Although the Bank of Canada has cut rates by 75 basis points from their recent high, transaction volumes remain stalled due to a persistent bid-ask spread and owners waiting to list their properties until interest rates and cap rates are more favorable. He expected interest rates to decline by another 25 to 50 basis points by the end of the year and is optimistic that a favorable exchange rate should attract foreign investors to Canadian markets in 2025. (The Bank of Canada cut interest rates by 50 basis points on Oct. 23.)

It is difficult to tell how soon declining interest rates will translate into higher property valuations, but Ismail observed that REITs are already issuing new equity and trading above net asset value, indicating that investors expect capitalization rates to decline. The pricing of listed REITs and the spread between real estate yields and those provided by fixed income “are historically reliable indicators of

The pricing of listed REITs and the spread between real estate yields and those provided by fixed income “are historically reliable indicators of what real estate is going to do over the next three, six, 12 months,” said Danny Ismail of Green Street.

what real estate is going to do over the next three, six, 12 months,” Ismail said. Robinson noted that historically, changes in capitalization rates have lagged changes in interest rates by six quarters on average. However, cap rate increases followed the most recent round of interest rate increases more quickly than had previously been the case, suggesting that they may also come down more quickly than usual.

“I don’t think we can talk about the outlook for office without talking about the outlook for employment growth, and that’s going to be a big headwind.”

— Phil Mobley, national director for office analytics, CoStar

Office Closer to Reaching a Bottom

Among commercial property types, office buildings continue to face the most headwinds. Mobley said he expected we may still be another 15 months away from a bottom in average valuations nationwide, although some markets like San Francisco have likely already reached a bottom, with limited potential for near-term improvement. He thinks most of the negative impact on demand from increased hybrid and remote work adoption is already reflected in the market. However, “I don’t think we can talk about the outlook for office without talking about the outlook for employment growth, and that’s going to be a big headwind.”

On the supply side, Mobley suggested nationwide availability may have already bottomed out, mostly because the new construction pipeline has dried up. Nontrophy Class A properties face a particularly challenging market, as they are not competitive on amenities with trophy assets and struggle to attract price-sensitive occupiers, who are more likely to remain in Class B space. That said, commodity office properties have recently benefited from a limited supply of new office space. When high-end occupiers cannot find the best buildings in the best locations, many are choosing to renew their leases for up to five years to allow time for new construction. This is especially true for occupiers who would typically make a large investment in tenant improvements in a

new building and are not willing “to put \$150 per square foot of [their] own money” into a location that is unlikely to meet their long-term needs, Mobley said.

Soto shared that corporate tenants appear to be getting comfortable with longer office leases and that trophy properties continue to outperform the broader office market. However, “even if you’re talking about the trophy segment of the office market ... any kind of vacancy or short-term availability is getting severely punished by buyers ... and lenders.” Facing lower valuations, occupiers have proved more willing to purchase office properties for their own use, a pattern that has extended beyond corporate occupiers to nonprofits and state and local governments. Soto noted that current high vacancy rates are partly due to a normalization in demand following a pre-pandemic boom. Prior to 2020, coworking operators and tech firms had distorted the office market by leasing more space than was needed to meet immediate demand. “That level of leasing from coworking firms is probably not going to come back,” Soto said, and most large tech firms are still rightsizing their office footprints.

Svec noted strong parallels between today’s office market and the retail market a decade ago. Lessons learned in retail likely also apply to office buildings. Namely, the industry will need to find new use cases for vacant space and demolish obsolete space. “How do we right-size a structurally disrupted market

where demand ... doesn’t look like it did precycle?” Svec said.

However, **Mark Stapp**, Fred E. Taylor Professor of Real Estate and executive director of real estate programs at Arizona State University, pointed out that retail properties are often easier than traditional office buildings to convert to other uses. “You could slide a church in, you could put a bounce-house in [former retail properties]. ... You can’t do that with office as easily.” That means a higher proportion of obsolete office buildings will eventually need to be demolished, Stapp said.

Soto observed that the oldest and most obsolete office buildings, such as those from the 1920s, are often the easiest to convert. Schwagerl echoed this, noting that two of the newest corporate headquarters to open in New York City are converted low-rise buildings that had previously housed printing presses in a former industrial area.

Consumer Trends Reflected in Demand

Growth in consumer spending has slowed noticeably in recent months, and shifting consumer behavior appears to be shaping demand for industrial real estate, with varied effects in different markets. Ismail expressed concern that the purchasing power of lower-income consumers has eroded but believes it is too early to tell what the overall impact will be on the economy or demand for real estate. Institutional-quality real estate

Brian Schwagerl, Esq., Schack Institute of Real Estate at New York University, observed that **some of the larger data center occupiers are working to meet sustainability objectives by contracting directly with traditional nuclear power generators or with startups that can build new small-package nuclear reactors.**

generally caters to middle- or higher-income consumers, who are doing well. Soto said he sees this divergence playing out in demand for industrial real estate in the Inland Empire. Smaller properties under 300,000 square feet that typically serve small businesses are struggling, while larger properties over 500,000 square feet that serve corporate occupiers are performing well.

Wong observed a contrasting demand pattern in Canada, where small-bay buildings are outperforming the rest of the market. Overall, Canadian industrial real estate shows signs of cooling demand, with flat rent growth, increasing subleasing availability, and availability rates in recently completed buildings more than double what they have been in recent years.

Financial strains on lower-income consumers are also affecting fundamentals for retail occupiers. Robinson noted that consumers are more sensitive to price changes than in the past. He pointed to Walmart earnings reports, which show customers trading down from higher-value to lower-value items.

Svec echoed this, observing that the bottom 60% of consumers are financially stretched, with no room to buy luxury items. “They are focused on necessities, they are focused on health care, they are fo-

cused on housing” and are looking for value, he said. This has driven sales growth at Walmart, which is also now attracting customers from higher up the income ladder. While overall consumer spending growth has slowed considerably since the pandemic-era boom, Svec said purchases of goods to replace those that have worn out since 2020 or 2021 are helping maintain stable demand for retail.

Barriers to Entry Boosting Data Center Profitability

Tech firms’ AI initiatives have sharply increased demand for data center space, with many AI models requiring the construction of new data centers that can provide more power and cooling capacity than traditional data centers. While the increase in demand is notable, participants agreed that resource constraints will have a more significant effect on long-term rent growth and price appreciation in the sector by limiting new construction.

Data centers, especially newer ones, require large amounts of electricity to operate. At the same time, electrical grids are in a state of transition toward cleaner energy generation, and demand for electricity is also growing due to electric vehicle adoption, building electrification and the expansion of advanced manufacturing. Physical limitations on the amount of electricity

that can be delivered have created a bottleneck in new data center construction. In some Western states, water scarcity further limits the design and location of data centers, reducing potential supply. Robinson noted that data center developers also face a limited supply of sites that have the requisite fiber optic network in place and can meet occupier requirements for network redundancy.

Given limitations in the availability of potential data center locations that can source carbon-free electricity, some Big Tech firms have stepped back from commitments to reduce their carbon footprints. Schwagerl observed that some of the larger data center occupiers are working to meet sustainability objectives by contracting directly with traditional nuclear power generators or with startups that can build new small-package nuclear reactors.

It remains to be seen how much additional data center capacity will be needed to meet future demand from AI applications. Ismail observed this uncertainty might be a risk factor for data centers, which could see falling profitability if the companies currently occupying them struggle to generate a profit from the large investments they are making in AI. ■

Shawn Moura, Ph.D., is senior research director at NAIOP.

At a Glance

- Commercial real estate must evolve to accommodate modern manufacturing facilities, distribution centers and logistics hubs.
- Flexible spaces are particularly valuable to manufacturing operations that must scale up or scale down quickly based on market conditions.
- There is rising demand for transportation infrastructure, digital infrastructure and housing to support localized operations.

The desire to reduce supply chain risks is among the reasons that more manufacturers are setting up operations in North America.

The Role of Nearshoring and Onshoring in Redefining the Built Environment

As manufacturing operations return to North America, the need grows for commercial real estate that supports localized production and distribution.

■ By Scarlett Miller, Penn State

In the wake of global disruptions and the ongoing evolution of supply chains, nearshoring and onshoring have emerged as critical strategies for industries worldwide. This trend is particularly significant in the real estate industry and the broader built environment.

Innovations in nearshoring and onshoring are not just reshaping supply chains — they're transforming the very fabric of our built environment. As we pivot toward more localized and resilient development practices, we're creating opportunities for a new era of real estate solutions.

Penn State is dedicated to participating in this new era through the Coccoziello Institute of Real Estate Innovation, launched earlier this year (see feature box, p. 85). The institute formalizes the relationship between the diverse subject matter experts at Penn State whose work touches the real estate industry. This article explores the current ecosystem of nearshoring and onshoring and offers insights from Penn State experts associated with the Coccoziello Institute.

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“Supply chain leaders believe that volatility is omnipresent in the current business context, and onshoring enables localization, which allows firms to be closer to their customers and be more responsive to their needs without suffering from the disruptions that may occur in a longer supply chain.”

— Zhenzhen Yan, assistant professor of supply chain management, Penn State

A Response to Global Challenges

Nearshoring and onshoring involve relocating business operations, including manufacturing and supply chains, closer to their end markets. This shift has gained momentum as companies grapple with susceptibilities exposed by the COVID-19 pandemic, geopolitical tensions, and the increasing complexity of global supply chains. For the real estate industry, this shift presents both challenges and opportunities that demand innovative solutions.

“COVID-19 unveiled the vulnerability firms have to certain geographic regions due to overreliance on their production capabilities and low cost,” said **Johanna Amaya**, assistant professor of supply chain management and information systems at Penn State. “This vulnerability, combined with a lack of investment in developing their own capacity, has made companies think about moving operations and sourcing to other areas.”

“Supply chain leaders believe that volatility is omnipresent in the current business context, and onshoring enables localization, which allows firms to be closer to their customers and be more responsive to their needs without suffering from the disruptions that may occur in a longer supply chain,” said

Zhenzhen Yan, assistant professor of supply chain management at Penn State.

Amaya also emphasized that simply reshoring without creating capacity at new geographic locations does not solve the problem. It only shifts the blame to a different partner if another major disruption occurs, which is not a sustainable long-term solution. Reshoring alters a firm’s supply chain network structure, as the proximity to suppliers and target markets depends on the new chosen locations for production and procurement. While geographical decisions vary across industries and business contexts, popular destinations emerge each year and reshape the global supply chain landscape, according to Yan.

As companies move their operations closer to home, the need grows for industrial and commercial real estate that can accommodate modern manufacturing facilities, distribution centers and logistics hubs. This demand is reshaping the real estate market, driving the development of new properties and the repurposing of existing ones to meet the needs of nearshore and onshore operations.

“I think elaborating on previous research, it is fair to say that commercial real estate can be designed to promote the formation of industrial clusters, facilitate localization and

ultimately promote supply chain resilience,” Yan commented. “In this regard, real estate professionals can collaborate with supply chain managers to make manufacturing location decisions and help with site design.”

The built environment must evolve to accommodate new types of facilities and infrastructure to support nearshoring and onshoring. This includes developing sustainable buildings equipped with the latest technologies to enhance efficiency and productivity. It also involves creating transportation networks and logistics systems that can support the rapid movement of goods within local markets.

Developers, architects and urban planners are being challenged to think creatively about how to design and build properties that meet the unique needs of localized operations. This requires a focus on flexibility, sustainability and technological integration.

Flexible and Adaptive Spaces

One significant innovation in real estate development for nearshoring and onshoring is the creation of flexible and adaptive spaces. These properties are designed to be easily reconfigured, allowing them to accommodate a variety of

About the Coccoziello Institute of Real Estate Innovation



Courtesy of Penn State

The Coccoziello Institute is housed in the Burrowes Building on Penn State's University Park campus.

The Penn State Coccoziello Institute of Real Estate Innovation is dedicated to advancing the real estate industry through cross-disciplinary collaboration and education. The institute strives to identify and develop new solutions that improve the built environment, enhance the well-being of its occupants and support sustainable development. The endowed institute is named for longtime Penn State supporters **Peter and Sharon Coccoziello**. Peter, founder and chief executive officer of Advance Realty Investors, serves as the founding chairman of the institute and is a 1973 alumnus of Penn State. He is also a NAIOP Research Foundation Governor and has served on the NAIOP Board of Directors and Executive Committee.

Research and Expertise

The Coccoziello Institute's five key focus areas are:

- Next-generation building materials
- Insurance analysis
- Design for a nuclear future
- Environmental, social and governance
- Onshoring/offshoring/preshoring

The Coccoziello Institute connects industry experts with Penn State's interdisciplinary research institutes and academic colleges that intersect with real estate.

Commitment to Sustainability

Sustainability is a core principle of the Coccoziello Institute's work. It

is committed to promoting green building practices, reducing the environmental impact of real estate development, and advancing the use of renewable materials and energy-efficient technologies. The institute's goal is to create a more sustainable built environment that supports the needs of businesses and communities alike.

Get Involved

Researchers, developers and business leaders are invited to join the Coccoziello Institute in its mission of innovating the real estate industry and transforming the built environment. Visit the institute's website at coccoziello.psu.edu to learn more.

Developers, architects and urban planners are being challenged to think creatively about how to design and build properties that meet the unique needs of localized operations. This requires a focus on flexibility, sustainability and technological integration.

businesses and industries. Circular economy practices are integral to the redesign and retrofitting of existing buildings. At their core, these practices aim to minimize waste and maximize resource use by shifting from a “cradle to grave” model to one focused on reducing, reusing and recycling. While circular economy principles were initially applied to consumer goods like clothing and food, they are now increasingly relevant to the built environment.

The ability to create flexible and adaptive spaces is crucial for manufacturing operations, which often need to scale up or down quickly in response to market conditions. By designing properties that can be easily modified, developers ensure that these spaces remain valuable and relevant over time.

Adaptive reuse exemplifies this approach. As **Lisa Domenica Iulo**, professor of architecture and director of the Hamer Center for Community Design at Penn State, explained, “Within the circular economy, the adaptive reuse of existing building stock and the recycling and repurposing of materials and building components are key principles that move away from the linear economy ‘take, make and dispose’ paradigm. This reduces the embodied carbon of building materials and decreases the extraction of raw materials and their processing to create new materials, resulting in significantly fewer greenhouse gas emissions.”

Sustainable Building Practices

As companies aim to reduce their environmental footprint and comply with increasing regulations, demand is growing for energy-efficient and resource-efficient buildings. Innovative building practices, such as using renewable materials, energy-efficient systems and green technologies, are becoming more standard in nearshore and onshore developments.

A notable example of successful use of these practices is the Green Mountain Technology Center in Hardwick, Vermont, which provides training and education to high school-age students and serves as a hub for technology companies looking to nearshore operations while emphasizing sustainability. The facility is designed to meet LEED certification standards and incorporates renewable materials and energy-efficient systems.

These practices not only minimize environmental impact but also enhance the sustainability of the real estate market. According to **Rahman Azari**, associate professor of architecture and director of the RE2 (Resource and Energy Efficiency) Lab at Penn State, interdisciplinary collaboration across various sectors is urgently needed to better understand and address the drivers of building carbon emissions.

Embodied carbon — emissions from construction materials and processes — can account for up

NAIOP President and CEO Marc Selvitelli, CAE, recently interviewed **Peter Coccoziello** and **Scarlett Miller** of the Coccoziello Institute of Real Estate Innovation on NAIOP's Inside CRE podcast. To listen or subscribe, visit naiop.org/education-and-career/podcast.

to 50% of global greenhouse gas emissions. Managing these emissions more closely, particularly through onshoring and reshoring of building material manufacturing, presents a significant opportunity to reduce carbon footprints. Iulo explained that initiatives like Architecture 2030 provide guidelines for achieving carbon neutrality in new buildings and renovations by 2030, in part by focusing on material reuse and local sourcing.

Penn State is actively contributing to advancements in sustainable building practices through various faculty-led research projects. For example, **Benay Gürsoy's** work at the ForMat Lab explores the potential of growing buildings from mycelium. This work could lead to bio-based building materials that are grown on-site, minimizing the need for importing conventional building materials. This aligns with onshoring by using regionally available resources to construct sustainable buildings. **Jose Duarte's** team at the Additive Construction (AdCon) Lab focuses on printing homes from locally sourced materi-



onurdongel/E+ via Getty Images

Manufacturing, logistics and distribution facilities will need to adapt to accommodate ongoing technological advancements.

Infrastructure improvements are another critical aspect of supporting nearshoring and onshoring in the built environment. This **includes the development of transportation networks such as roads, railways and ports that can facilitate the efficient movement of goods within local markets.**

als in remote locations. This work could contribute to infrastructure projects by tapping into available resources to reduce costs and environmental impact.

These interdisciplinary efforts reflect Penn State's dedication to developing innovative solutions for sustainability challenges in diverse environments. They underscore the potential for nearshoring and onshoring by enabling local production, which can bolster economic resilience and sustainability.

Manufacturing Momentum

According to the third installment of a Newmark Industrial Research series released in August, more than 400 major manufacturing projects have been announced since 2020 across North America. Over the next decade, these projects are estimated to total:

- \$530 billion in investment
- 270,000 new jobs
- A minimum of 270 million square feet of new manufacturing space

To learn more, read Newmark's report, "Manufacturing Momentum: From Construction to Production."

Nearshoring and onshoring also present opportunities for urban regeneration, where **older, underutilized areas of cities can be revitalized to support new economic activities.**

Technological Integration

Integrating technology into the built environment is another key innovation driving the success of nearshoring and onshoring strategies. Penn State's partnerships, like those facilitated by the Smeal College of Business and the College of Engineering (both of which collaborate with the Coccoziello Institute), focus on integrating renewable energy and smart systems into industrial designs. This helps companies like Alcoa in Lancaster, Pennsylvania, use data analytics and automation to reduce costs and enhance sustainability in its manufacturing processes.

Additionally, Penn State is a key player in supporting nearshoring and onshoring initiatives through its Innovation Hub spaces across Pennsylvania. These spaces offer businesses access to advanced manufacturing technologies, 3D printing, and prototyping resources, enabling companies to keep production local while leveraging cutting-edge tools.

Impact on Infrastructure

As companies move their operations closer to home, there is a growing need for infrastructure and amenities that can support these localized operations.

"At the local level, urban freight systems are impacted by the increase in online orders that need to be delivered to final customers," Amaya said. "Relocating the suppli-

ers or partners could have multiple impacts. On the one hand, it would reduce the delivery time from the point where the order is placed until it is delivered. On the other hand, it could lead to increased costs for deliveries to other regions, particularly those where companies have ceased operations or scaled back." Changes in supplier locations may also result in a mismatch between the new distribution center and the target customer base, contributing to logistical inefficiencies for some delivery zones.

Infrastructure improvements are another critical aspect of supporting

nearshoring and onshoring in the built environment. This includes the development of transportation networks such as roads, railways and ports that can facilitate the efficient movement of goods within local markets.

In addition to transportation infrastructure, a need also exists for digital infrastructure such as high-speed internet and data centers to support the technological needs of nearshore and onshore operations. These infrastructure investments are essential for ensuring that cities can accommodate increased demand for localized production and distribution.

Adaptive Reuse, Brownfields and Housing

Peter Coccoziello, founder and CEO of Advance Realty Investors, founding chairman of the Coccoziello Institute of Real Estate Innovation, and a Penn State alum, is leading a notable adaptive reuse project. His company recently undertook the renovation of a commercial building in Harrison, New Jersey, and transformed it into a five-story, 399-unit building housing studio, one- and two-bedroom residences. The location of The Wyldes in Harrison next to a PATH train station provides convenient access to New York City.

The connection between adaptive reuse projects like this one and the trends of nearshoring and onshoring involves the strategic use of existing infrastructure to support new economic models. As companies seek to bring production closer to home, urban areas with repurposed spaces can provide essential housing for a workforce that supports these operations.

The Wyldes is part of a larger development in which Advance Realty spent approximately \$35 million cleaning up an old industrial brownfield site to build 3,000 apartments. The company has already delivered 1,000 apartments and is in the process of starting another 500-unit building.



vitpho via iStock/Getty Images Plus

The success of onshoring efforts will depend in part on the development of transportation networks that can move goods efficiently within local markets.

Urban Regeneration

Nearshoring and onshoring also present opportunities for urban regeneration, where older, underutilized areas of cities can be revitalized to support new economic activities. This often involves repurposing existing buildings, such as converting old factories into modern manufacturing facilities or transforming vacant warehouses into distribution centers.

For example, a decommissioned shipyard in New York, the Brooklyn Navy Yard, has been transformed into a thriving industrial park housing modern manufacturing, tech startup and green energy companies. Repurposing its historic structures into modern production and innovation hubs supports

nearshoring by offering businesses a central location close to key U.S. markets.

Mixed-use developments are particularly well suited to the needs of nearshore and onshore operations, as they provide convenient access to local supply chains, reduce transportation costs and support a more sustainable way of living.

Evolution and Innovation

As companies move their operations closer to home, the built environment must evolve to accommodate new types of facilities and infrastructure that can support localized production and distribution.

By embracing these changes and investing in collaborative solutions, real estate developers, urban

planners and architects can create a more resilient, sustainable and vibrant built environment that meets the needs of businesses and communities alike. In continuing to navigate the complexities of the global economy, innovation in real estate development will be essential for ensuring the long-term success of nearshoring and onshoring strategies. The Penn State Coccoziello Institute of Real Estate Innovation aims to bring together experts and industry to develop sustainable, thoughtful and interdisciplinary approaches to address problems from multiple perspectives. ■

Scarlett Miller is Paul Morrow Professor of Engineering Design and Manufacturing and director of the Coccoziello Institute of Real Estate Innovation at Penn State.

Partnership Tax a Major Issue in 2025 Reform Debate

Potential changes to taxation of partnerships and other pass-through entities could have an outsized impact on commercial real estate.

By Aquiles Suarez

Tax policy is expected to be the top domestic issue the White House and Congress will grapple with in 2025 due in large part to the expiration of major portions of the Tax Cuts and Jobs Act (TCJA) passed in 2017. That bill reduced marginal tax rates for individuals, drastically reduced the corporate tax rate, and established a temporary 20% tax deduction for so-called “pass-through” businesses.

The pass-through deduction, one of the most controversial provisions added to the bill to ensure its passage by the Senate, will expire at the end of 2025 unless renewed by Congress. The outcome of the debate over that provision, as well as any broader changes to partnership taxation that may be adopted, will have major implications for the real estate industry.

The Section 199A Deduction

Pass-through businesses include sole proprietorships, subchapter S corporations, partnerships and limited liability companies (LLCs). They are called pass-throughs because the income, loss, gain and deduction for the business are attributed (or “passed through”) to the owner, who then pays the taxes on any profits as part of their individual taxes. This differentiates them from subchapter C corporations, where profits are taxed twice — at the corporate entity level (the corporate tax rate) and then again by the individual shareholder at their individual income tax rate when those profits are distributed to them as dividends.

TCJA lowered the corporate tax rate from 35% to 21% — a reduction thought necessary to increase the international competitiveness of



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U.S. corporations. To give American corporations long-term assurance that they could invest in the U.S. instead of in other countries, the corporate tax rate reduction was made permanent. However, this meant owners of businesses organized as pass-throughs would be paying taxes at a much higher top individual rate (37%) than would a business structured as a corporation (21%). Many members of Congress believed this would put pass-through businesses, many of which are small businesses, at a serious competitive disadvantage compared to corporations.

In part to address some of the unintended impacts on pass-throughs resulting from the corporate tax reduction, Congress added Section 199A to the federal tax code. The provision enables individuals, estates and trusts with pass-through business income to deduct 20% of their qualified business income, as defined in the statute, from their income tax liability, subject to

several specific limitations. The taxpayer's qualified business income is the net amount of income and loss, gain and deduction from every pass-through they own. It does not include wages, capital gains, dividends or interest income. Limitations include income thresholds and the types of businesses that can utilize the deduction. Certain limits are calculated based on the business's W-2 wages and the owner's share of capital assets placed in service within the last 10 years.

While the Section 199A limitations and requirements can complicate calculation of the deduction for any individual partnership or pass-through business, the ultimate impact is to reduce the taxpayer owner's effective tax rate on qualified business income. Applying a 20% reduction to income that otherwise would be taxed at the top marginal individual rate of 37% results in an effective tax rate of 29.6%, which brings it more in line with the 21% corporate tax rate.

Importance to Real Estate

The way the U.S. taxes pass-through businesses, and the resulting flexibility it provides for determining what type of business structure owners wish to operate under, offers a competitive advantage. In large part, other countries impose inflexible corporate regimes that limit the ability of entrepreneurs to develop capital and ownership structures that appeal to investors and meet the specific needs of their businesses.

This entrepreneurial flexibility is of particular importance for commercial real estate, where it is crucial to align the interests of diverse owners and investors involved in long-term capital investments. Nearly half of the 4 million partnerships in the U.S. are real

Nearly half of the 4 million partnerships in the U.S. are real estate partnerships. Consequently, changes to taxation of partnerships and other pass-through entities have an outsized impact on commercial real estate.

estate partnerships. Consequently, changes to taxation of partnerships and other pass-through entities have an outsized impact on commercial real estate.

Unlike the corporate tax rate, which was made permanent in TCJA, Section 199A and the lower individual income tax rates expire at the end of 2025. If Congress fails to renew these provisions, pass-through businesses will pay income tax at the owner's in-

dividual ordinary income tax rate. The top marginal rate will increase from the current 37% to 39.6%. In that scenario, owners of real estate pass-through businesses could be looking at an increase of 10 percentage points in the effective tax rate on their pass-through income.

Legislative Outlook

In general, there is bipartisan support for pass-through businesses in Congress. However, Section 199A has

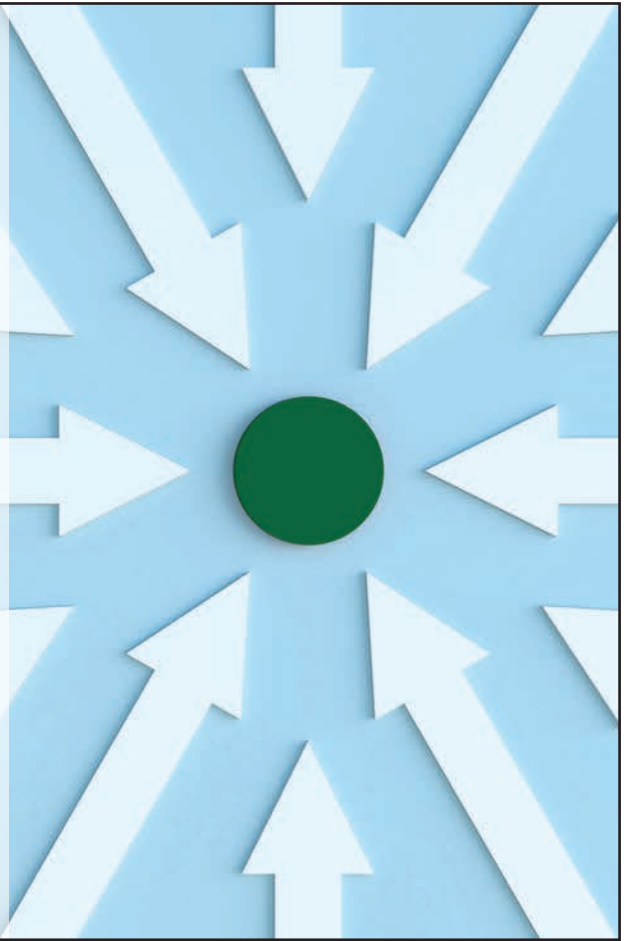
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its critics, and the costs of renewing all of TCJA's provisions will lead to intense competition among industries to protect those tax provisions they consider to be most important. The Congressional Budget Office estimates it would cost \$4.6 trillion over the next 10 years to renew TCJA, with Section 199A costing more than \$680 billion if made permanent. The costs of tax legislation are expected to be much higher if expansion of child care tax credits, elimination of the current limitation on the state and local tax deduction, and other tax proposals are considered. Perhaps appropriately, observers of the looming tax debate have nicknamed it "Taxmageddon."

Critics of Section 199A argue that it is an inefficient incentive for

increased investment and job growth by pass-through businesses, is overly complicated (thereby deterring many business owners from using it), and benefits some pass-through businesses while excluding others. Supporters counter that added profits from the tax deduction allow firms to invest more in capital assets and employ more workers than they otherwise would. More importantly, it addresses what would otherwise be a nearly 19% differential in how pass-throughs are taxed compared with corporations.

Because of the potential impact on real estate, NAIOP has made renewal of Section 199A a top legislative priority for 2025. The current provision can be improved by reducing some of its complexity. However, avoiding

a potential 10-percentage-point tax increase on many real estate partnerships remains the primary concern. At the federal level, NAIOP is working with a coalition of its real estate allies to develop research highlighting the importance of partnerships to U.S. economic growth and entrepreneurship. This research will be used in our advocacy efforts for Section 199A renewal.

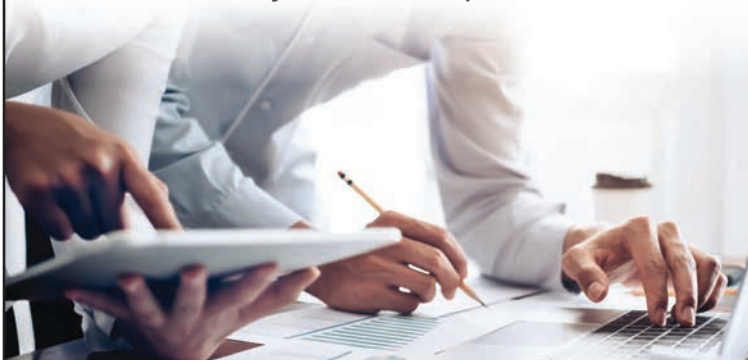
Deliberation over taxation of real estate partnerships will be just one aspect of a much larger debate on tax policies critical to real estate, including taxes on capital gains, the continuation of Section 1031 like-kind exchanges, the tax treatment of carried interests, and estate tax changes. ■

Aquiles Suarez is senior vice president for government affairs at NAIOP.

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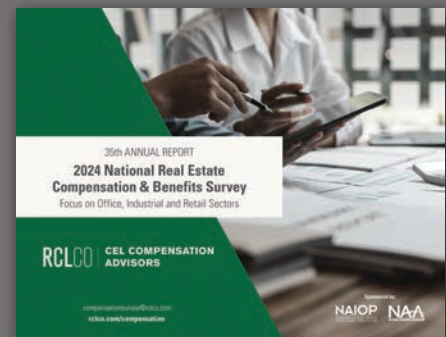


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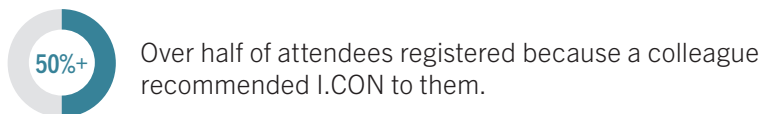
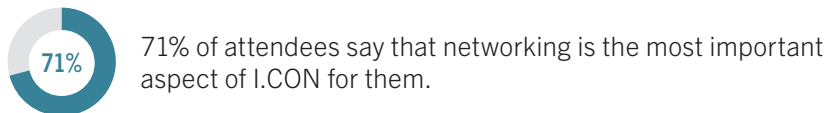
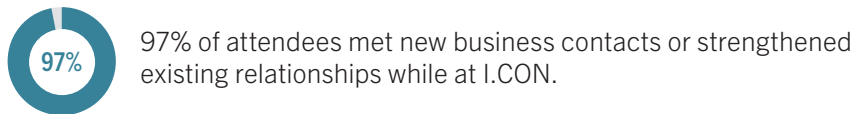


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Chapter Profile: NAIOP Vancouver

Land constraints lead to both challenges and opportunities.

■ By Jonathan Rollins

Vancouver, British Columbia, is surrounded by stunning natural landscapes. The coastal seaport city, located on the Burrard Peninsula, is bordered by English Bay, Burrard Inlet, the Fraser River, and the Strait of Georgia. The nearby North Shore Mountains can be seen throughout the metro area.

Vancouver's urban lifestyle and easy access to outdoor recreation make it a favorite destination for tourists and the television and film industries. Additionally, the city consistently ranks as one of the most livable places in the world, often appearing near the top of the Economist Intelligence Unit's annual Global Liveability Index.

However, Vancouver's constrained geography also means that land availability is limited in this densely populated city.

Development magazine recently contacted **Ted Mildon**, president of the NAIOP Vancouver chapter and vice president of office leasing and operations at Oxford Properties Group, for insights into the local market.

Development: *What are the market conditions for member companies in your area?*

Mildon: Vancouver remains a relatively healthy and stable market across most asset classes. Our industrial and office markets have seen some softening coming off of record-low vacancy rates, although relative to other cities in North America, our market continues to have positive stories and innovation.

Development: *What are the challenges you're facing in either the business or regulatory climate in your area?*

Mildon: A crisis-level shortage of industrial land in the region has reduced inventory and increased lease rates. In some cases, those conditions are driving companies that wish to establish a local presence to consider neighbouring markets like Calgary.

Perhaps the biggest challenge though is a continuous increase of development cost charges and levies from various levels of government. These increased charges, which are often introduced or increased sporadically, complicate and threaten projects, especially when combined with long timelines for permits and approvals.

Development: *What are the big opportunities in commercial real estate in your area currently?*

Mildon: Due to the constraints on land in the Greater Vancouver market, the conditions for innovation are positive and the growth of mixed-use developments, particularly along rapid transit lines, continues. One thing to watch going forward will be how well developers in Greater Vancouver can combine residential, retail, office and even industrial uses into mixed-use developments.

Development: *Share a few of your chapter's legislative priorities.*

Mildon: Municipalities have long been the level of government that is most relevant to the work of commercial real estate development. However, increasingly, provincial governments and federal government are introducing policy that affects the industry. An important priority for the Canadian chapters of NAIOP is to establish relationships at all levels of government and to serve as the voice of our industry.

Emphasizing the Importance of Vancouver's Industrial Land

In November 2023, NAIOP Vancouver released a first-of-its-kind report examining the impact of parking supply rates on industrial sites across metro Vancouver and the Fraser Valley. Prepared by Bunt & Associates Engineering, the report was a follow-up to another study commissioned by NAIOP Vancouver and the Greater Vancouver Board of Trade on the economic impact of the industrial land shortage in metro Vancouver. As highlighted on NAIOP Vancouver's website, the studies "aim to emphasize the importance of Metro Vancouver and the Fraser Valley's industrial land, given its limited supply and the geographic challenges of the region."

To learn more about NAIOP Vancouver's industrial parking study, read "Lots of Opportunity: Optimizing Industrial Parking" in the Fall 2024 issue of Development.

Development: *Education is an important part of NAIOP's mission. What educational sessions have been specific to your chapter recently?*

Mildon: Our chapter hosts an annual accredited Education Day series of four 90-minute sessions on commercial



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Vancouver is the fourth most densely populated urban region in North America.

real estate fundamentals. The sessions cover investment, development, leasing and capital funding. NAIOP Vancouver uses new speakers each year who present recent local case studies that provide regional context and examples that are specific to current market conditions. Our 2024 series ran throughout the month of October.

Development: *What is your chapter doing to cultivate the next generation of leaders in the commercial real estate industry?*

Mildon: Our chapter encourages and supports a thriving Developing Leaders committee that puts on regular events

to bring new and seasoned NAIOP members together, both to provide educational opportunities and nurture relationships. In turn, our Developing Leaders organize events that introduce local university students to the industry and help them establish relationships within it.

In addition, NAIOP Vancouver provides scholarships to postsecondary students in real estate programs or courses in three schools in the region. We also sponsor a University Real Estate Challenge, supporting a team of six to eight students. In 2025, NAIOP Vancouver will host the challenge

event, welcoming students from four western Canadian universities.

Development: *Is there anything I didn't ask you about that you'd like to highlight?*

Mildon: We are proud to mention that 2024 marks 30 years of our chapter being affiliated with NAIOP. The Vancouver chapter continues to grow in relevance, both to the local commercial real estate community and as an advocate to local governments for the betterment of our region's future. ■

Jonathan Rollins is the managing editor of publications for NAIOP.

Tracking Conversions to Multifamily

Recent data suggest office buildings are becoming more attractive conversion targets.

■ By Emil Malizia, Ph.D., University of North Carolina at Chapel Hill

Interest in conversions to apartments has surged since 2020 as other commercial uses, especially office, continue to underperform while the demand for housing has been sustained. Although conversions do not account for a significant portion of new multifamily supply — only about 35,000 units, or 4%, of the total constructed from 2020 to 2022, according to Statista — they represent strategically important projects for many urban neighborhoods.

Data from Yardi Matrix, which tracks all multifamily projects of 50 units or more anywhere in the U.S., are available for completed projects during the “late Covid” period since 2022. These projects generated over 24,000 apartment units (see Table 1). Converted hotels account for the plurality of converted units for these two years. Office conversions, which accounted for the most converted units of any prior use from 2013 to 2022, are second. Together, hotels and office buildings represented 70% of all converted units.

Yardi also collects data on projects that are planned (announced), prospective (seeking entitlements) or under construction. Together, these tally 151,289 units in 926 buildings — over six times the number of conversions during the past two years. Limiting the focus to buildings under construction provides an accurate forecast of conversions that will be completed in the 2024-2026 time frame (see Table 2). The pace of all conversions is about the same as in 2022-2023 (about 12,000-13,000 units per year). However, office conversions are expected to increase from about 3,500 annual conversions in 2022-2023 to 4,425 units over the next three years. This uptick suggests

Table 1
2022-2023 Completed Conversions and Share by Building Type

Building Type	Apartments	Share %
Hotel	9,839	41%
Office Building	7,043	29%
Factory	3,439	14%
Warehouse	1,578	7%
School	814	3%
Other	1,456	6%
Total	24,169	

Table 2
Under Construction Conversions and Share by Building Type

Building Type	Apartments	Share %
Office Building	13,274	33%
Hotel	11,312	28%
Factory	6,476	16%
School	2,630	7%
Warehouse	2,068	5%
Other	4,773	11%
Total	40,533	

office buildings have become more attractive conversion targets, likely due to lower acquisition costs per square foot.

Location of Converted Office Buildings

Since most attention has been devoted to office conversions, it is interesting to review the data on recent conversions and conversions under construction. Regarding office conversions completed in 2023, the five metro areas that produced the most apartment units were Atlanta (295), Milwaukee (216), Indianapolis (216), Washington (212) and Cleveland (202). As for office

conversions under construction, the top five metros by units expected are Dallas (864), Cincinnati (778), Houston (683), Washington (675) and Birmingham, Alabama (596).

Office Building Age

Previous research on office conversions (see “Relevant Research”) indicated that the median age of the converted building was over 80 years old, with one mode before 1930 and the other mode between 1960 and 1990. The 60 office building conversions completed in 2024 are distributed in a very similar manner. The bimodal distribution has 23 build-



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Dallas leads the nation in office conversions under construction with 864 apartment units.

ings built before 1930, seven built between 1930 and 1960, 25 built between 1960 and 1990, and the remaining five built after 1990. (The oldest buildings converted in 2024 were factories and warehouses.)

Older office buildings have many features that make them attractive conversion candidates, including less total square footage, smaller floor plates, central cores, functioning windows, sites allowing significant natural light penetration, and architectural significance. Buildings constructed between 1960 and 1990 often have significant physical, functional or economic

obsolescence and possibly deferred maintenance. Because replacement of major systems is a significant expense, the comparative cost of conversion makes them strong candidates.

Other Issues

Compared with new construction, especially when demolition of existing structures is required, adaptive reuse has many advantages. The environmental impacts are lower, whether considering greenhouse gas emissions, carbon footprint or other factors. Existing structures continue to be productively used instead of being razed. On the other hand, while multifamily con-

versions increase overall supply, they rarely provide housing that is affordable by conventional metrics.

Of considerable importance is the significant reduction of development period risk, mitigating one of the most serious concerns for real estate developers. In many instances, new projects that would take three or more years to plan, entitle, build and lease can be brought to market in two years or less as a conversion.

In addition, conversions can deliver apartments at 20% to 30% lower cost than new construction depending on project particulars. Parking sized for prior office use is almost always more than adequate for the number of new apartments.

Still, office conversions are complex, costly projects. Gensler, which has developed a detailed methodology for assessing office building conversion potential, finds that fewer than 20% are ideal candidates depending on the particular city (the Gensler Design Exchange podcast episode “Office-to-Residential Conversions: Mandates, Myths, and Possibilities” offers more

Relevant Research

The NAIOP Research Foundation published “New Uses for Office Buildings: Life Science, Medical and Multifamily Conversions” in 2022 to evaluate the risks and opportunities associated with office building conversions. The author, **Emil Malizia**, Ph.D., conducted a review of publications and market data on office conversions and interviewed developers, architects and other commercial real estate professionals to provide an overview of key considerations for converting office buildings to other uses.

To view or download the report, visit [naiop.org/research-and-publications/research-reports](https://www.naiop.org/research-and-publications/research-reports).

details). Public subsidies are often required to achieve feasible deals.

Case Example

The largest office conversion to date in New York City is Pearl House at 160 Water Street. Vanbarton Group and Gensler teamed to transform this underutilized 24-story office building into a 30-story building that includes 588 apartments and 40,000 square feet of amenity space. Pearl House opened earlier this year, with monthly rents for one- or two-bedroom apartments in the \$6,000 to \$8,000 range. ■

Emil Malizia, Ph.D., CRE, is a NAIOP Distinguished Fellow and a research professor at the University of North Carolina at Chapel Hill. All data on multifamily conversions were provided by **Doug Ressler**, senior research officer, Yardi Matrix. The author thanks Mr. Ressler and Yardi Matrix for their assistance.

The Revitalizing Downtowns and Main Streets Act

A bill spearheaded by NAIOP and its members was introduced in July in the U.S. House of Representatives. The bipartisan Revitalizing Downtowns and Main Streets Act is sponsored by Reps. **Mike Carey** (R-Ohio) and **Jimmy Gomez** (D-Calif.).

The proposed legislation includes:

- A 20% tax credit for expenses incurred during the conversion of an eligible underutilized or vacant commercial property that is older than 20 years and is capable of being repurposed for residential use.
- Affordable housing for those with incomes at or below 80% of the area median income designated for 20% of converted residential units.
- Additional incentives for rural and economically distressed areas to ensure that all communities can benefit from the legislation.
- The ability to combine existing historic tax credits and other incentives offered by municipalities and states.



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The Value of Partnerships, Negotiations and Taking on New Challenges

NAIOP's 2024 Developing Leaders Award recipients share lessons learned and advice for those starting out in commercial real estate.

■ By Marie Ruff

Commercial real estate is an industry often characterized by high stakes and high rewards. Success in the field requires strategic thinking, strong communication and interpersonal skills, tenacity, and continued growth and development. Each year, NAIOP selects outstanding members ages 35 and younger to receive the Developing Leaders Award in recognition of their exceptional professional accomplishments, strong leadership qualities and dedicated community involvement. NAIOP presented the award at the CRE.Converge conference this past October in Las Vegas in front of a record-breaking audience of industry professionals.

The five award recipients recently highlighted the projects and initiatives they have found most valuable to their professional growth and shared recommendations for other young leaders to succeed in commercial real estate.

Can you talk about a project or initiative you're particularly proud of and what you learned from it?



Lauren Carnevale, principal, national client manager, Partner Engineering and Science, Inc. (NAIOP North Texas):

I'm truly proud of my journey through leadership in NAIOP North Texas. I began as a volunteer for a newer philanthropy event benefiting The Boys & Girls Club of Greater Dallas, then advanced to be on the chapter Developing Leaders Board and serve as president. During my time on the board, I ended up overseeing the charity event in full and originating two more annual events

that are extremely successful in our chapter. I am proud to now serve on the board of directors for NAIOP North Texas and hope to continue bringing fresh ideas to our membership.



Christine Curry, vice president, Selig Enterprises (NAIOP Georgia):

I am particularly proud of the work my team and I did to make 1105 West Peachtree, a \$550 million mixed-use development in Midtown Atlanta, come to reality. This deal was unique in that we had one contractor and one construction contract for the entire project, making the capitalization process exceptionally complex. We successfully secured equity partners for the three components — offices, condominiums and a hotel — and a lender over the entire project. We delivered the project on time and under budget despite the headwinds created by the pandemic. My work on 1105 reinforced the value of partnerships, whether by picking up the phone to talk through a difficult topic or brainstorming how to approach a strategic decision. Ensuring you are aligning your investments with like-minded groups is critical for success.

Developing Leaders

NAIOP's **Developing Leaders** is an exclusive program geared specifically for commercial real estate professionals ages 35 and younger. It provides valuable opportunities to learn, grow, lead and give back at both the local chapter and national levels.

Membership gives Developing Leaders access to NAIOP's extensive network, updates on the latest industry news, targeted programs and unparalleled networking opportunities. NAIOP also offers National Forums that are specifically designed for Developing Leaders with at least four years of related commercial real estate industry experience.

Visit the dedicated Developing Leaders website at naiop.org/dl to learn more about the program and become a member.



Kelsey Kanspedos, development and construction manager, RIDC (NAIOP Pittsburgh): Working for RIDC (Regional Industrial Development Corporation) encompasses endless projects of which I am proud to be a part. RIDC's mission of job creation through economic development fosters projects that help reinvigorate communities and spark transformational change. The projects include everything from brownfield redevelopment to test-track facilities for first-responder training and autonomous vehicles. Being a part of this organization allows me to become integrated into the different communities instead of being looked upon as an outsider building in their community.



Stephen Lindley, vice president of development, market officer, Ambrose Property Group (NAIOP Indiana): My favorite project is always the next one. What drives me each morning is the excitement of pursuing the next land acquisition, prospective tenant or build-to-suit project. While it's crucial to celebrate wins with your team, the leaders who have shaped my commercial real estate career have instilled in me the importance of never becoming complacent. Each deal, whether a win or a loss, offers valuable lessons, and there is always an opportunity to improve and do better on the next one.



Sabreana Woods-Miller, client development manager, GBBN Architects (NAIOP Pittsburgh): One project I am particularly proud of is the real estate and development management of an emerging neighborhood in Pittsburgh. I realized that I excel at connecting various aspects through public art initiatives, award-winning historic preservation efforts, and collaboration with landowners and developers. Furthermore, I understand how crucial negotiation is for comprehending different perspectives and achieving common ground, ensuring that everyone leaves the table feeling like a winner. Mastering this skill set is essential.

What one piece of practical advice would you give to Developing Leaders who are just starting out in their careers?

Carnevale: I firmly believe we can always learn from others. Watching someone finesse their craft or network a room can be an irreplaceable skill to learn. I recommend staying humble and always recognizing there is something to be gained from all interactions.

Curry: Do not be afraid to stay inquisitive and ask questions. It can feel vulnerable, but you will likely find you are not the only one with that question, nor are you expected to know everything early in your career. This can present itself in meetings or in a new project. If you have spent time trying to problem-solve but acknowledge you have hit a dead end, do not be embarrassed to admit that you need some guidance to get to the next step. It is always better to be open and

honest versus feigning understanding something and ultimately losing that precious time because you were too afraid to ask for help.

Kanspedos: Prioritize building strong relationships and a professional network. Networking and fostering connections with colleagues, mentors and industry peers can provide invaluable support and guidance. Become involved with NAIOP and other organizations that can help to advance your career. And don't hesitate to take on new challenges. Stepping out of your comfort zone is where real growth happens.

Lindley: Establish a reputation founded on credibility and trust, and safeguard it at all costs. In our industry, success is built on relationships. If people trust you and enjoy working with you, your long-term success will follow naturally. No short-term gain is ever worth compromising your reputation. In the end, your integrity and the quality of your relationships will determine your trajectory in commercial real estate.

Woods-Miller: Keep your curiosity alive and hone your listening skills. Remember that the little nuggets of knowledge you pick up along the way — whether from a book or a casual conversation — can become an unexpected value in building connections with others. Always be open to learning and asking questions; this is where growth happens. Keep nurturing your curiosity and be receptive. These qualities will be your greatest assets. ■

Marie Ruff is director of marketing and communications at NAIOP.

NAIOP represents commercial real estate developers, owners and investors of office, industrial, retail and mixed-use properties. It provides strong advocacy, education and business opportunities, and connects its members through a powerful North American network. **For more information, visit naiop.org.**

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Jennifer LeFurgy, Editor-in-Chief, September 30, 2024

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Reflecting on My Year as NAIOP Chair

It has been my honor and privilege to serve this past year as the 57th chair of the organization. NAIOP has a long history of doing great work on behalf of the industry, and I'm proud to have contributed to all that we do.



Brian Walker

When I accepted the role at our annual meeting the prior fall, I shared that I viewed 2023 as a year of transition, as we studied who we were and evaluated who we wanted — and needed — to be while continuing to emerge from the pandemic and overcome its long-term impacts.

I envisioned 2024 as a year of implementing and executing new strategies and making progress with our association's goals. We moved

the ball forward in so many ways, but there is still work to do to stabilize the industry.

Economically, many sectors of our industry are still in peril with looming tax credit expirations. Similarly, we still have challenges in the capital markets. We've seen the beginning of rate cuts, and many executives are leading their employees back to the office five days a week. Our industry is resilient, and we will continue to battle through the headwinds.

Legislatively, NAIOP's lobbying team is working on Capitol Hill and partnering with chapters across the association to focus on the issues affecting our industry. We were successful in introducing federal tax incentives for adaptive reuse, and the work there continues. We supported NAIOP Colorado in its efforts to challenge the legality of statewide building performance mandates found in Regulation 28 and helped galvanize opposition among California members to flawed anti-warehouse legislation (AB 98). Recently, we held a Mountain West Regional Summit. We continue to support

I envisioned 2024 as a year of implementing and executing new strategies and making progress with our association's goals. We moved the ball forward in so many ways, but there is still work to do.

The collective voice of our organization is more important than ever. I urge each of you to stay involved and to encourage your fellow chapter members to join you in deepening their engagement.

our chapters' advocacy on state and local issues because real estate is a local business.

The collective voice of our organization is more important than ever. I urge each of you to stay involved and to encourage your fellow chapter members to join you in deepening their engagement.

I feel fortunate to have chaired the organization as it achieved myriad successes this year. These included experiencing tremendous growth beyond 22,000 members, implementing a strategic plan that will lead the association into the future, selling out industrial conferences, and helping to cultivate thriving chapters.

I'm pleased to have visited 26 chapters this year, traveling roughly 74,000 miles and spending almost 100 nights away from home as I attended chapter events and got to know our members. The number of members I've met and new connections I've made are invaluable. Your stories have motivated me, your markets have impressed me, and your dedication to our organization has inspired me. For these experiences alone, I am grateful.

At CRE.Converge in Las Vegas, I officially passed the gavel to 2025 Chair Alex Thomson, whom I have enjoyed getting to know and working with these past several years. Alex will be our first chair from Canada, and I'm looking forward to all the association will achieve with his leadership and unique perspective.

To our members across North America, thank you for your encouragement and your commitment to this organization. We are a stronger association because of it, and our members and chapters can feel supported by the spirit of teamwork and alliance when we work as one. ■

Brian Walker, President, Burns Scalo Real Estate
2024 NAIOP Chair

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