Commercial Real Estate Development

SUMMER 2019

Development®

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Development® Summer 2019

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Big data is reshaping our lives each day, and it is refashioning many aspects of the commercial real estate industry as well.

COLUMNS

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Swimming in Oceans of Information

The digital revolution is shifting how we relate to each other and the world. As with other revolutions, rigid hierarchies give way to the power of the networked individual.

Jennifer LeFurgy

Adam Grant, an organizational psychologist and Wharton professor, recently observed that a teenager with a cellphone can now reach more people than a corporate communications executive. We have seen the instantaneous power of this transformation in our personal lives through our use of ride-sharing companies, digital assistants, streaming entertainment, two-hour delivery and, for better or worse, social media.

The commercial real estate industry is now also beginning to experience the effects of the digital revolution. The electronic spreadsheets that replaced paper ledgers are now losing ground to integrated platforms that automatically collect and analyze large amounts of data. Moreover, much of this information is supplied by individuals. Building owners and operators, brokers and developers are becoming more attuned to the needs of the end user by interpreting the multifaceted data on how tenants use space. No longer are decisions about the built environment solely coming from the top down; employees are shaping the trend for more flexibility, connectivity and variety in the workplace. Office and, interestingly, warehouse space is becoming increasingly amenitized to assist tenants in retaining their employees.

The proliferation of instant information and the power of the individual will continue to reshape not only our daily lives but also our business decisions. This issue of Development magazine features stories that examine some of those changes. In future issues, we look forward to sharing your company's innovative ideas in these exciting times.

Stay informed,
Jennifer LeFurgy, Ph.D.
Editor-in-Chief

Most Popular From Spring 2019

1. **"The Changing Geography of Health Care Real Estate"** (www.naiop.org/18healthcarere, page 42)
2. **"The Workplace Makeover"** (www.naiop.org/18workplacemakeover, page 18)
3. **"A Silver Linings Playbook for Controversial Development Projects"** (www.naiop.org/18controversialprojects, page 56)
4. **"Lower Parking Minimums Mean Higher Value for Parking Spaces"** (www.naiop.org/18parkingpolicy, page 50)
5. **"CEO on Leadership: Kim Roy, CEO, HITT Contracting Inc."** (www.naiop.org/18kimroy, page 26)

The sheer volume of digital information generated in the commercial real estate industry can be daunting, but companies that can sort through and make sense of "big data" are poised to be big winners in the future. (Page 56)

New Albany, Ohio, a suburb of Columbus, has developed a planning process that makes the community extremely attractive to both businesses and residents. (Page 64)

Interest in golf has plummeted in recent years, leading to the closure of hundreds of courses. One abandoned club in Florida is being transformed into the largest speculative industrial project in the state's history. (Page 17)

Future NAIOP Events

- **Innovation in East Asia: Industrial and Office CRE Tour,** August 16-24, Hong Kong, Shenzhen and Tokyo
- **I.CON '19 East: The Industrial Conference,** September 12-13, Jersey City, New Jersey
- **CRE.Converge 2019,** October 14-16, Los Angeles
- **2020 Chapter Leadership and Legislative Retreat,** February 3-5, 2020, Washington, D.C.

Dynamic, open-air gathering spaces can play a vital role in the design of real estate developments by increasing dwell time at a property and encouraging people to return to it in the future. (Page 20)

5G, or the fifth generation of wireless technology, will be the force powering the rise of smart cities that run on sensors and the internet of things (IoT), and commercial real estate professionals need to be prepared for this radical change. (Page 27)

Going "green" can be a profitable strategy for hotels, and not only for "eco-lodgings." Beyond the savings in operating costs, many customers are happy to pay a premium to stay at these properties. (Page 44)

A new report from the NAIOP Research Foundation examines the economic impacts of commercial real estate in Canada by examining data related to gross domestic product, employment and labor income. (Page 90)

After a short respite, construction costs in the U.S. are starting to climb again thanks to rising wages for workers, along with increasing prices for materials. (Page 10)

NAIOP's Industrial Space Demand Forecast for the first quarter of 2019 predicts that demand will stay strong, but level out. (Page 86)

To attract a diverse workforce, companies in the CRE industry must develop and enact concrete strategies, according to panelists at a recent NAIOP event. (Page 98) ■

Construction Costs Outlook

After a brief retreat, outlays for materials are poised to increase; meanwhile, compensation for workers continues to climb.

By Ken Simonson, Associated General Contractors of America

Construction cost increases slowed, and in some cases reversed course, during the past few months after accelerating steeply in the first half of 2018. But property owners and developers may find the relief is short-lived as the pressures that drove costs higher have not disappeared.

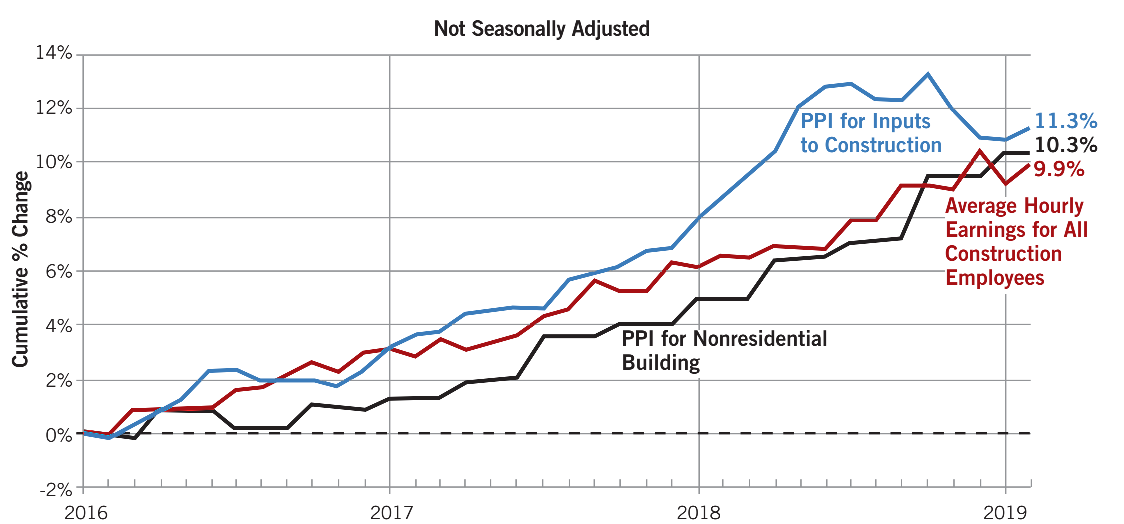
The Bureau of Labor Statistics (BLS) posts two sets of indicators each month that are helpful for tracking construction costs. The first, average hourly earnings, tracks wages and salaries for all construction industry employees. It's part of the employment report that appears on the first or second Friday of each month. Around mid-month, BLS issues producer price indexes (PPIs) for specific materials, weighted averages of all goods and services used in construction, and prices charged by contractors.

BLS creates the last of these, the PPI for new nonresidential building construction, by asking a fixed group of contractors each month what they would charge to erect the same set of buildings. The buildings are a mix of office, warehouse, school, industrial (manufacturing) and health care structures. (There are separate indexes for each building type.) The actual index value is arbitrary; the significance of the index is its change over a given period.

This index increased at an annual rate of only 1 percent or so throughout 2016 and the first half of 2017. In July 2017, the index jumped 3.3 percent from a year earlier. The year-over-year change continued to accelerate until it hit a peak of 5.3 percent in November and December 2018, before subsiding slightly to a 5.1-percent change for the year ending in February 2019.

The PPI for inputs to construction accelerated even more than the index for new buildings, climaxing in a 7.9-percent year-over-year increase between July 2017 and July 2018. Since then, the year-over-year change has cooled to a 2.4-percent rate as of February.

Cumulative Changes in Materials and Labor Costs vs. Bid Prices



Source: Associated General Contractors of America; data from Bureau of Labor Statistics

continued on page 12

continued from page 10

On a monthly basis, the PPI for new nonresidential buildings dipped 0.1 percent from January to February, its first decline since December 2016. Will this moderation last?

Contractors are Key

To get a glimpse of where bid prices may be headed, it is useful to look at contractors' costs. That's where the other BLS series are helpful.

The PPI for inputs to construction accelerated even more than the index for new buildings, climaxing in a 7.9-percent year-over-year increase between July 2017 and July 2018. Since then, the year-over-year change has cooled to a 2.4-percent rate as of February.

The outsized gains in the first half of 2018 reflected the imposition of tariffs on lumber, steel and aluminum, as well as sharp increases in the price of trucking services, petroleum products and gypsum products (mainly wallboard). The increases would have been even steeper if copper prices had not been plunging at the same time, reducing the cost of wiring, pipes and brass fixtures.

Prices leveled off once the market adjusted to the tariffs, while oil prices dropped sharply in late 2018. However, in the past few months, prices have climbed for petroleum products, copper, aluminum mill shapes, architectural coatings (paints) and insulation materials. Recent declines in gypsum and concrete products may reflect the slump in single-family homebuilding and will turn around if home construction picks up, as many analysts predict.

As for direct labor costs, average hourly earnings in construction had been rising faster than in the overall private sector. Construction wages and salaries averaged 9 percent more than the all-industry average at the beginning of 2016. By late 2018, the gap had grown to nearly 11 percent.

To meet these workforce challenges, contractors will either keep raising pay to attract workers from other industries or require more time to complete projects. Indeed, 37 percent of respondents to AGC's survey said they were raising bid or contract prices to cover higher labor costs, and 18 percent said they were quoting longer completion times.

Average hourly earnings in construction increased 3.8 percent from December 2017 to December 2018 before slackening to a 3.1-percent year-over-year pace in January and February 2019. As with the cost of purchased inputs, however, the recent tapering appears unlikely to last.

Labor Problems Continue

Contractors, even more than employers in other industries, appear to be having difficulty filling positions with experienced workers. The monthly Job Openings and Labor Turnover Survey from BLS reported that construction industry job openings at the end of February totaled 286,000, the highest total for that month since the series began in late 2000 and a 44-percent increase from the previous February. And a survey by the Associated General Contractors of America (AGC) found that 78 percent of the 1,300 responding firms had difficulty filling positions, with 68 percent saying they expect as much or more difficulty in 2019.

Meanwhile, the pool of unemployed jobseekers with recent construction experience has drastically shrunk. The unemployment rate for such workers in February was down to 6.2 percent, a decrease from 7.8 percent a year earlier and the lowest February rate in the 20-year history of that series. (Industry unemployment rates, unlike the "headline" rate, are not seasonally adjusted; thus, numbers for a given month should only be compared to the same month in other years, not across months.)

To meet these workforce challenges, contractors will either keep raising pay to attract workers from other industries or require more time to complete projects. Indeed, 37 percent of respondents to AGC's survey said they were raising bid or contract prices to cover higher labor costs, and 18 percent said they were quoting longer completion times.

The chart on page 10 shows the cumulative increase since January 2016 in average hourly earnings in construction and the PPIs for new nonresidential buildings and for inputs to construction. Until very recently, contractors' prices fell short of their costs for both labor and purchased inputs. Since late last year, the cumulative increase in bid prices has caught up with labor costs but not the cost of materials and services. If those costs reaccelerate, as currently appears likely, developers and investors should expect to see contractors' prices pick up the pace as well. ■

Ken Simonson is the chief economist for the Associated General Contractors of America. He may be reached at simonsonk@agc.org.

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STRONG GROWTH & MOMENTUM

Source: CoStar 2018

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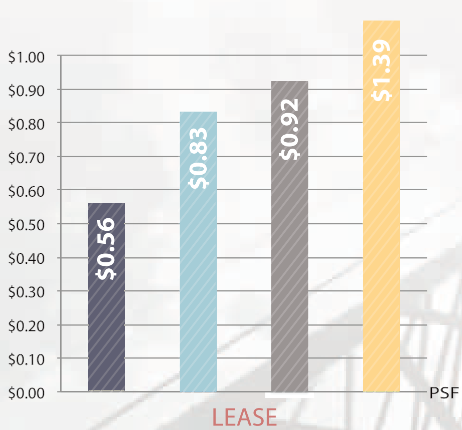
LESS EXPENSIVE REAL ESTATE

Source: CoStar, 2018



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Data Drives Decision-Making in Retail Real Estate

Analytics can guide store size and configuration, help save money and improve customer engagement.

By Stacy Engles Wipfler, Husch Blackwell

In an era of disruption and evolution, all retailers are looking for ways to improve customer experiences to drive sales. They're also looking for ways to cut costs. Maximizing real estate utilization through the use of data is a practical and measurable way of achieving both goals.

With the increased use of data, retailers are able to decrease the overall footprint of their stores, increase their sales floor by reducing back rooms and rely more heavily on an omni-channel sales strategy, which seamlessly allows customers to flow between online and in-store points of sale. Similarly, data helps retailers maximize their supply chains by allowing companies to become more efficient with warehousing and retail outlets. ***(See cover story, page 56.)***

Getty Images

Retailers can use big data to maximize sales per square foot. They can also use it to determine the best location for a store, as well as the optimal building size.

Stores are Getting Smaller and More Cost-Effective

Retail analytics promise retailers the ability to maximize sales per square foot, and they're using that information to come up with newer, smaller footprints for their store prototypes. Smaller footprints translate into lower rents and can reduce buildout costs, utility bills and common-area maintenance expenses.

In turn, many retailers are investing these savings into enhancing the consumer experience, as stores are no longer just spaces for displaying products. Special events don't have to be limited to offerings such as cooking classes in kitchen supply stores. Apparel companies are hosting yoga classes, microbreweries are sponsoring community events and shoe stores are installing nail salons. Retailers who embrace innovation and dare to try new concepts will succeed in this ever-changing landscape.

Retailers have also been opening smaller prototype stores, especially in densely populated urban areas. In suburban regions, for example, Target builds large single-story units with big surface parking fields. However, in cities such as Boston, which can command high rent, Target's urban prototype is a smaller multilevel store, which may or may not have adjacent structured parking.

Better use of space and improved in-store experiences for customers are not the only ways to use stores efficiently. Retailers are also using data to maximize their supply chains. As a result, they are able to shift more inventory storage from the backrooms of expensive shopping center space in densely populated areas to lower-cost warehouses in less densely populated areas. By decreasing the need for backroom storage, retailers are able to find additional rental, utility and common-area maintenance savings. However, the trade-off will be increased transportation costs because they're shipping goods more frequently and in smaller batches.

IKEA, known for its mammoth stores, is opening smaller urban units called IKEA Planning Studios. Shoppers will be able to select and order IKEA products from the Planning Studio for home delivery. The first IKEA Planning Studio in the U.S. opened in April in Manhattan. Ahead of the opening, IKEA also opened a distribution center in the much lower-cost New York City borough of Staten Island.

Retail analytics promise retailers the ability to maximize sales per square foot, and they're using that information to come up with newer, smaller footprints for their store prototypes. Smaller footprints translate into lower rents and can reduce buildout costs, utility bills and common-area maintenance expenses.

Influencing Inventory Levels

Better alignment between sales and inventories translates into lower inventory costs, freeing up capital for other purposes. This is not a new concept; as early as the 1970s, Toyota implemented an early version of just-in-time inventory management. What has changed is the power and sophistication of the enabling technology. Real-time sales data by product and location combined with historical data sets provide more accuracy than ever for sales forecasts. Additionally, in-store "heat maps" and website analytics allow retailers to see — again, in real time — precisely how customers interact with products and displays. Collectively, these data sets can transform retail operations, if embraced fully.

From real-time inventory updates at the cash register to robots and sensors determining if a shelf needs restocking, inventory can now be very closely monitored. That granular-level information allows retailers to ship goods from lower-cost warehouses to their retail outlets quickly to meet the needs of

New & Noteworthy

623,000 sq. ft.

Ridgeline Property Group's newest development, **Chariot Logistics Center**, will be a three-building, 623,000-square-foot **industrial project** in **Melrose Park, Illinois**. Scheduled for completion in the fourth quarter of 2019, it will offer 32-foot clear height, modern building designs, ample parking and flexible sizing. Buildings will range in size from 135,000 square feet to 252,000 square feet. The 42-acre site is just 7 miles from O'Hare International Airport and 13 miles from the city of Chicago. It has excellent access to I-290, I-294 and I-88. The leasing team anticipates strong interest from e-commerce, last-mile service providers, food/cold storage, manufacturing, warehouse and distribution tenants.

325,000 sq. ft.

Ware Malcomb recently completed construction on the **office and manufacturing facility** of **CGI Windows and Doors** within the Countyline Corporate Park in **Hialeah, Florida.** Ware Malcomb designed the new 325,000-square-foot concrete tilt-up building with a neutral color palette of warm tones and white. CGI Windows and Doors recently relocated to the new facility from a smaller location in Miami in order to accommodate the company's growth. Ware Malcomb previously provided master planning services for the overall Countyline Corporate Park project. The firm has since provided architectural design services for five of the stand-alone buildings within the park, including this facility for CGI Windows and Doors and a 473,000-square-foot build-to-suit facility for KLX Aerospace Solutions.

313,000 sq. ft.

Transwestern Development Co. recently completed **3400 at CityLine**, a 313,000-square-foot, **Class A office building** located within CityLine, one of the largest transit-oriented developments in the **Dallas-Fort Worth** area. 3400 at CityLine features fully structured parking within a connected, eight-level garage. The five-story building offers efficient floorplates and abundant natural light through 10-foot, floor-to-ceiling glass. Building amenities include a 1-acre outdoor event lawn, shuttle access throughout CityLine, deli with tenant lounge and a fitness center. The CityLine development comprises 2.5 million square feet of office space, 2,500 apartment units, multiple hotels and more than 25 restaurants anchored by a Whole Foods.

Real-time sales data by product and location combined with historical data sets provide more accuracy than ever for sales forecasts. Additionally, in-store "heat maps" and website analytics allow retailers to see — again, in real time — precisely how customers interact with products and displays. Collectively, these data sets can transform retail operations, if embraced fully.

customers. No longer is there a need to stock several of the same size, color and style of jeans in a store; when stocks run low, data in the retailer's inventory system will alert a distribution center that it needs to ship those particular jeans overnight to a retail location.

At Old Navy, for example, if a customer cannot find what he or she wants, store associates can retrieve inventory information on handheld devices. At Famous Footwear, if a particular store location does not have the size, color or style a customer needs, associates can immediately order the shoes. The customer can choose to pick them up at the store or have them shipped to their home. Best Buy allows a customer to order a printer cartridge from the comfort of his or her couch and then pick it up at any store location.

These are a few examples of how retailers are using data to enhance the customer's experience in a store, as well as seamlessly tie together the worlds of online and brick-and-mortar shopping to increase sales.

Data shapes real estate decisions. It is a driver in the supply chain, which correlates to how stores are stocked and ultimately how a store's space is used. By innovating and adapting to the consumer through the use of data, retailers can continue to remain relevant. ■

Stacy Engles Wipfler is a partner with the Husch Blackwell law firm.

Tee-Commerce: Acing the Golf-Course Conversion

With acres of open space in prime locations, abandoned golf courses can be ideal spots for infill warehouse and distribution facilities.

By Steve Kros, Transwestern Development Co.

Developers seeking to create industrial space within densely populated communities are increasingly unlikely to find suitable acreage as unimproved land. E-commerce firms and other industrial users seek proximity to consumers, but the infill locations they desire for distribution centers often require demolition and the removal of existing structures before new development can begin.

Steve Kros

Yet there is a sizeable supply of urban sites that offer developers a green slate of grassy meadows and gently rolling landscapes, often at the center of residential submarkets and along major transportation corridors. And in some cases, these large-acre tracts have reverted to lenders and may be available at attractive pricing.

This opportunity for developers lies in an ongoing correction in the supply of golf courses. The U.S. has 14,794 golf facilities, or 45 percent of the global supply, according to the National Golf Foundation (NGF), which tracks the industry. According to NGF, a 20-year run of construction of more 4,000 golf courses came to an end in 2006 when

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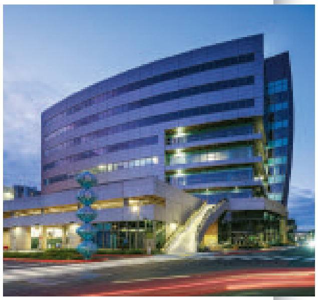
265,000 sq. ft.



Wareham Development has wrapped up construction of the 265,000-square-foot **EmeryStation West laboratory/office/transit project** at its EmeryStation research campus in **Emeryville, California**. The addition to Wareham's 2-million-square-foot EmeryStation research and tech campus was designed to meet LEED Gold standards. Its seven levels of laboratory and office space sit above a two-story transit center and 125-car parking podium. The new East Bay/Transbay transit center at the street level will serve Amtrak's Capitol Corridor commuter route from Sacramento to San Jose. Bus bays allow passengers to hop off the train and access last-mile transit options including AC Transit to the new San Francisco Transbay facility or elsewhere, to the free EmeryGoRound shuttle to BART and around Emeryville, or to taxis, limos, and car and bike shares.

250,000 sq. ft.

Cresa recently completed a new 250,000-square-foot **global headquarters** in **Boston** for **PTC Inc. (PTC)**, a software and services company. PTC relocated its headquarters from Needham, Massachusetts, to a newly constructed 17-story, 400,000-square-foot office building in Boston's Seaport District. To maximize views of Boston Harbor and downtown Boston, the open office design places conference rooms and meeting spaces around the building core on each floor, and arranges bench seating with ergonomic sit-to-stand desks in a radial fashion that aligns with the oval shape. More than 200 technology-enabled collaboration and huddle rooms support PTC's activity-based workplace, which has no private offices and no assigned seats, encouraging employees to work where they want.

Warren Patterson Photography

250,000 sq. ft.

Hines recently held a grand opening of the **Offices at Chandler Viridian**, a multitenant office building in **Chandler, Arizona**. It is a six-story, **Class A office building** with 250,000 square feet of leasable space located near the Chandler Fashion Center. The building features a large, open floor plan with 10-foot-tall ceilings, a lounge and a large courtyard. Hines developed the project in a joint venture agreement with New York Life Real Estate Investors, on behalf of its institutional client. The Offices at Chandler Viridian is integrated into the Chandler Viridian master plan development, a 25-acre mixed-use project which also includes a Cambria Hotel & Suites, Broadstone Fashion Center luxury apartments, retail offerings at Chandler Viridian PRIMEGATE and a pedestrian promenade to the Chandler Fashion Center mall.

The Bridgewater Distribution Center in Lakeland, Florida, is being built on the site of a former golf course. The location, roughly in the center of Florida, is within a day's drive of many prime markets in the Southeast.

closures began to outnumber new course openings.

More than 200 U.S. courses closed permanently in 2017 while only about 15 opened. NGF projected a similar trend in 2018, and the correction is likely to continue. Considering the average golf course comprises 150 acres of land, it's not surprising that developers of all property types, ranging from single-family and multifamily homes to mixed-use office and retail properties, are taking interest.

Yet in the current market, industrial is one of the strongest product types. And despite nearly 1 billion square feet of new inventory delivered in the past three years, according to Transwestern research, industrial demand continues to outpace supply.

From Golf Course to Distribution Center

One such site is under redevelopment in Lakeland, Florida, where Transwestern Development Co. and partner Crow Holdings Capital Real Estate are working on the largest speculative industrial project in the state's history.

Bridgewater Distribution Center will provide as much as 1 million square feet of space, beginning with a 713,000-square-foot building that broke ground in January. To put that in context, of the 3.1 million square feet of industrial projects currently under development in Central Florida, the average building size is 136,000 square feet, according to Transwestern and CoStar.

It's being marketed to e-commerce firms that can utilize the building's 36-foot clear heights for racking, large truck courts and access to 19 million consumers within a two-hour drive. Prior to 2014, only one lease in the area measured 600,000 square feet or more; in 2014 and subsequent years, Central Florida has seen eight industrial leases of that size, including six deals with e-commerce users, according to project research completed for Bridgewater Distribution Center.

With a 117 million-square-foot inventory of industrial space, Central Florida's vacancy rate at the end of 2018 was a scant 4.0 percent. That was unchanged from a year earlier but well below the 7.5-percent rate tracked in 2015. Limited availability has helped to support escalating rents: average rent in the area was $5.88 per square foot at the end of 2018, up 1.4 percent from a year earlier, and the average rent for new construction is $6.20 per square foot, according to CoStar.

The former Golf Club at Bridgewater was part of a massive mixed-use development, also called Bridgewater, and it rests on a reclaimed, open-pit phosphate mine that was filled in. A previous developer built the golf component in the 2000s to complement the high-end residential neighborhoods nearby. But after just a few years of operation, the course closed in 2009, soon after the financial crisis. Ownership of the 183 acres eventually reverted to the lender.

The site's proximity to an adjacent business park and excellent access to Interstate 4 made it a good candidate for industrial use. At roughly the geographic center of Florida, tenants will be ideally positioned to transport goods throughout the state. They'll also be within a day's drive of Charleston, South Carolina, Mobile, Alabama, and other regional destinations.

Transwestern's experience in shepherding the project through rezoning and redevelopment offers a case study in golf course conversion, and it provides investors and developers a look at the advantages and potential hazards they might encounter if they undertake similar projects.

Court the Community

Golf course conversions deserve extra diligence when planning and communicating with area residents.

In many instances, access to local golf may have influenced homeowners' choice of residence. If the same firm developed both the course and nearby homes, homebuyers may feel entitled to access the course as a promised amenity. Developers who take the time to learn how community members will likely react to a redevelopment proposal and take any concerns into account will have a greater chance of securing local approvals.

The U.S. has 14,794 golf facilities, or 45 percent of the global supply, according to the National Golf Foundation (NGF), which tracks the industry. According to NGF, a 20-year run of construction of more 4,000 golf courses came to an end in 2006 when closures began to outnumber new course openings.

For Transwestern and Crow Holdings, rezoning was top of the agenda after placing the site under contract. The team worked with the city of Lakeland to create a development that would satisfy city leaders and address neighborhood concerns. City staff proved helpful in anticipating citizens' apprehensions about the project and suggested compromises to help with the approvals process.

The final design included a number of concessions to the community, including wide setbacks and construction of a landscaped, earthen berm to shield residents from buildings and truck courts. City leaders approved the proposal and rezoned the site to a planned urban development for industrial use.

Look Beneath the Surface

Even a beautifully landscaped golf course can harbor environmental hazards sufficient to render a redevelopment infeasible. The longer a course was open, the more likely it was exposed to insecticides, fertilizers and other potentially harsh chemicals, which can linger in the soil.

Bridgewater only had a trace of caustic mineral deposits; if needed, they can

New & Noteworthy

215,495 sq. ft.

Cityview, a multifamily investment management and development firm, recently opened **The Pearl on Wilshire** in **Los Angeles**, a luxury **mixed-use development** featuring 346 apartment homes with a blend of studio, one- and two-bedroom units atop 8,300 square feet of carefully curated retail space. The 215,495-square-foot development provides easy access to a variety of entertainment, dining, recreation and shopping offerings in Koreatown. Some nearby hotspots include The Line Hotel, The Wiltern, Korean American National Museum, CGV Cinemas Movie Theater and Pharaoh Karaoke Lounge. Community amenities include a rooftop terrace with a fireplace and city views, Korean BBQ grills, dog wash and grooming stations for pets, three open-air lounge spaces with fire pits and a bocce ball court, a large pool deck with cabanas and lounge seating, a fitness center, meeting and event space, as well as a game and club room.

149,697 sq. ft.

C.W. Driver Companies recently completed Chapman University's **Keck Center for Science and Engineering** in **Orange, California.** The 149,697-square-foot **education and research facility** is the largest, most expensive and most technologically advanced project in the university's history. The center is home to the Schmid College of Science and Technology and Fowler School of Engineering. The total cost of the center is $130 million, $87 million of which was completed by C.W. Driver Companies. The Keck Center is comprised of three floors and divided into two sections: the Hall of Science and the Hall of Technology and Engineering, bridged by a grand arch that serves as the focal point of the building. In total, the center includes 18 teaching labs, 22 research labs, 47 faculty and graduate student offices, three multipurpose classrooms and six collaboration areas for students and faculty. The facility also features an 833-seat outdoor amphitheater/stadium and a 347-space, two-story subterranean parking garage.

132,450 sq. ft.

San Diego-based **Matter Real Estate Group** is building **Matter Business Park @ Warm Springs**, a 132,450-square-foot **light industrial office/warehouse project** in **Las Vegas**. The project is located on 10 acres with proximity to the Las Vegas Strip and the Summerlin and Rhodes Ranch communities. The two-building project will offer condominium-style units with flexible floor plans divisible to 6,000 square feet, with each featuring two dock doors and at-grade level, allowing easy vehicle access and loading from the street. Second-story mezzanine space and three doors — two dock and one at grade — are available in select units.

be removed without reducing the property's use. If a tract has high levels of certain contaminants, federal or state regulations could require more intensive remediation or deed restrictions to prevent uses such as daycare that might expose children to dangerous materials.

Soil can present other types of hazards that limit suitability for redevelopment. Topographic features built to support foot traffic and carts may not sustain buildings and vehicles. As in any industrial due diligence, a developer should conduct extensive geologic testing to determine soil composition and the expected cost of shoring up any weak spots to support anticipated loads.

As a former mining site, Bridgewater's base was fill dirt rather than original strata. Testing showed the resultant mix is more than stable enough for an industrial park.

Water features deserve careful attention. Ponds at Bridgewater are protected wetlands, and it took 16 months of filing applications and working with the Army Corps of Engineers before they could be disturbed. A comprehensive solution involved creating high-quality and better-managed wetlands elsewhere on the site and the purchase of mitigation credits that went to support off-site wetlands management.

While a golf course conversion can present unique challenges, patience and creativity pay off. With land in high-density metros in short supply, the acres of open land available at even a single golf site constitute a worthwhile opportunity for the innovative developer. ■

Steve Kros is executive vice president of Transwestern's Southeast logistics team.

Activating Public Spaces Can Attract Users, Create Community

A Nashville-area mixed-use development illustrates the uplifting potential of landscape architecture.

By Angelo Carusi, Cooper Carry

Mixed-use developers are devoting premium real estate to outdoor public spaces that invite the community to linger. These communal areas are continually being repurposed and reimagined through bold and creative design strategies.

The design for dynamic, open-air gathering spaces can be as important as the design for revenue-generating real estate products. Physical spaces that promote dwell time are increasingly appreciated by tenants and end users. Outdoor "rooms" where people pause to sit with a cup of coffee, watch their children play, respond to emails and texts or enjoy casual conversations are spaces where life, community, architecture and nature come together, allowing for meaningful experiences that encourage people to return to the property.

Landscape architecture should never be an afterthought. The curation of attractive, communal and functional outdoor spaces should be an integral part of the master-planning process.

Landscape architecture should never be an afterthought. The curation of attractive, communal and functional outdoor spaces should be an integral part of the master-planning process. This was the approach at Hill Center, a vibrant mixed-use, multiphase community situated on 16 acres in the heart of Brentwood, Tennessee's business and retail district.

In collaboration with H. G. Hill Realty Company, Hawkins Partners and TMPartners, design firm Cooper Carry created a master plan for Hill Center, giving rise to a walkable area that successfully bridges buildings and the public realm through a new and modern Main Street serving both office users and the residents of Brentwood. The master plan was finalized in 2015. The first phase called for 236,000 square feet of office space and 67,000 square feet of retail space. The next phase is under construction now.

By combining multilayered spaces with nodes of interest, connections to the surrounding community, flexible seating and sustainable amenities, the design team created a destination that reinterprets how developers can orient an office site around an active streetscape. This included demonstrating how the spaces between buildings could be leveraged into different "moments," some as perches looking down on the rest of the development, some more in the middle of the action.

New & Noteworthy

85,824 sq. ft.

CapRock Partners recently completed the repositioning of its **Old Grove** asset, an 85,824-square-foot freestanding **industrial property** located on a 5.4-acre site about 15 miles north of downtown **San Diego**. The property was in a functionally obsolete condition at the time of purchase and had never previously been available. CapRock Partners implemented a top-to-bottom renovation plan to improve the property and bring it to Class A status. The two-story building provides 61,838 square feet of warehouse and a total of 23,986 square feet of newly renovated office space, of which 10,850 square feet can be converted into a laboratory. The facility includes five dock-high loading doors and four grade-level loading doors with 30-foot clear heights.

55,000 sq. ft.

PMB will begin construction this summer on a new Class A, two-story 55,000-square-foot **St. Mary's Medical Pavilion** in **Tucson, Arizona**. Total project cost will be approximately $17 million. St Mary's Medical Pavilion will be situated in the heart of the St. Mary's hospital campus and within walking distance to the 400-bed acute care St. Mary's Hospital and its ancillary buildings. Carondelet Medical Group will anchor the building with a 23,000-square-foot multispecialty practice. The St. Mary's Medical Pavilion floor plates were designed to allow highly efficient clinical layouts that are conducive for the delivery of modern health care.

44,782 sq. ft.

Castle Development Group has opened the **Wise Health Surgical Hospital** in **Argyle, Texas**. The hospital provides Denton County residents and surrounding areas easy access to a dedicated surgical facility. The 44,782-square-foot single-story, ground-up **ambulatory surgery center** features an emergency department and full-service imaging including MRI, CT scans and X-rays. The hospital also provides six surgical suites and 12 patient beds and maintains a primary focus on orthopedics and spine surgery. Features include a drive-up porte cochere, an inviting, spacious lobby and reception area, a Fit-N-Wise physical therapy facility and other medical offices. ■

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.

The Hill Center in Brentwood, Tennessee, makes the most of open spaces to connect the retail core with the rest of the community.

Creating Nodes of Interest

Anchored along Franklin Road, Hill Center is adjacent to several other office parks, including Maryland Farms and CityPark, and allows pedestrians to connect to nearby amenities without having to hop in a car.

Each pathway throughout the property provides experiences and a level of connectivity that had been largely absent in Brentwood, a bedroom community about 10 miles south of downtown Nashville. A central spine buzzes with a variety of retail shops and restaurants on the street level below office spaces. A core open-park space and car valet with high visibility on Franklin Road pull people in, while cross-fingers of pathways link to other surrounding land uses such as local shopping centers, the Maryland Farms YMCA and the new Maryland Way Park greenway.

With sloping changes in topography, the site's main challenge was figuring out ways for people to walk along the retail corridor without feeling disconnected. Hilly sites require changes in grade, which in turn require stairs, walls and other elements. But each of those create obstacles for convenient pedestrian movement, and the trick is to accommodate those grade changes in a way that is still pleasurable for pedestrians. The differences in grade provided an opportunity, as the levels offer varied perspectives and sight angles, ultimately adding elements of visual interest. Curbs were intentionally left out in order to extend the street plaza and strengthen the overall pedestrian experience, while additional space along the street edge and landscaping help define the site's outdoor rooms.

To promote an ongoing sense of exploration and wonder, bronze wildlife statues were placed throughout the property. Additionally, the parking garage avoids utilitarian sameness by incorporating corbelled brick as an artistic element throughout the facade.

Offering Flexibility for All

Not everybody is seeking the same experience at a mixed-use development. While some people want to connect, others are seeking moments of peace and solitude. Hill Center Brentwood strives to provide both.

Flanked by restaurants, the core park transforms as days progress from morning to evening and from weekdays to weekends. With plenty of shade trees, movable furniture and Wi-Fi throughout the site, the area is activated even without formal programming such as festivals or concerts. Office users, shoppers and other visitors regularly congregate there.

With this in mind, broad platform seating was chosen to complement the overall architecture of the development. Unlike a traditional bench, a large platform encourages imagination. People might sit differently while eating ice cream than when they are on a conference call or writing a memo. Meanwhile, children can use the platform as a stage for dancing and playing.

Making Space for Sustainability

To ensure the development would endure for multiple generations, sustainability was continually prioritized in the master plan and landscape architecture. Introducing large shade trees along Maryland Way offered a compelling and attractive visual element that was important to the developer and created a sense of deep community roots. Brentwood is a mature city in a beautiful landscape defined by rolling hills, older trees and long vistas. The owner wanted to exceed the minimum landscape requirements. H.G. Hill wanted the project to appear as though it fits into this mature community by purchasing and installing larger trees throughout, but especially along the areas of major streets.

Additional sustainability features include native and adaptive planting, a green roof, the collection of rainwater for irrigation and pervious

To ensure the development would endure for multiple generations, sustainability was continually prioritized in the master plan and landscape architecture.

pavers. Considering the back of Hill Center is immediately adjacent to a single-family neighborhood, there was also an emphasis on creating a buffer of vegetation to manage stormwater and provide screening. Oaks, maples, redbuds and understory shrubs made up the bulk of the plantings.

The back of the development also ties into a new greenway trail. While an important part of the masterplan, the design was originally open-ended and only completed within the past few months after the greenway was approved. Residents will now be able to walk or bike to work, restaurants and shopping, creating a new element of connectivity that has been warmly received by the city of Brentwood.

At Hill Center Brentwood, the city takes a step toward capturing the endless benefits of community engagement through the integration of nature and thoughtful design. If the interaction of architecture and landscaping make a place, the collection of the many different places at Hill Center — and the people who enjoy them — offer a new idea for developing a mixed-use office community that successfully engages users and activates the streetscape through a holistic understanding of the natural built environment. ■

Angelo Carusi, AIA, LEED AP, CDP, CRX, is principal of Cooper Carry's Retail Studio in Atlanta.

Intelligent Security Strategies Can Support Smart Buildings

Interconnected security systems help make for safer, more efficient facilities.

By Hank Monaco, Johnson Controls

Systems integration is the technology trend that is expected to have the biggest impact on the implementation of smart cities and buildings during the next five years, according to Johnson Controls' second annual Smart Cities Indicator Survey. With benefits that include greater sustainability, mobility, accessibility, resiliency and transparency, smart buildings are taking center stage.

For many building and business owners, systems integration is a gateway into improved security strategies — such as more efficient surveillance, access control and asset monitoring. It's essential for owners to understand how connected technologies and applications, when properly implemented to help ensure more secure and efficient facilities for the future, can positively affect their properties and the people who live, work and play inside of them.

Smart Steps to Connected Buildings

To begin the systems-integration process, building owners should assess the foundational elements of their security and building systems to understand where connectivity can improve their safety strategy. In the planning phase, one common misconception is that developing a holistic approach to facility security by integrating formerly siloed building systems is too expensive. However, enlisting a systems integrator can make a connected building strategy a reality, all while staying within budget — and potentially even saving money in the long run.

A partnership with a systems integrator starts by conducting an audit of current infrastructure to gauge its efficiencies and areas that need improvement. Then, taking the unique needs, goals and budget restrictions of

For many building and business owners, systems integration is a gateway into improved security strategies — such as more efficient surveillance, access control and asset monitoring.

a building or business into consideration, the integrator can pinpoint the specific opportunities to consolidate systems and add new technologies if necessary. Once the integrator completes a project, the job doesn't end there. They also manage and maintain systems throughout their lifespan, relieving building owners of the responsibility.

The ability to analyze data more effectively is another benefit of proactively working with a systems integrator. As systems are connected, so are their unique sets of data, which were once siloed and not as useful to building owners. The integration of data from different building systems can help provide more actionable insights to help boost security within a facility, ultimately leading to a safer and more comfortable environment for occupants. *(See cover story, page 56.)*

The Role of Integrated Security Solutions

The 2019 Security Megatrends report, by the Security Industry Association (SIA), calls the creation of smarter environments one of the major trends in the coming year. Security technologies are expected to be a significant part of intelligent buildings, and systems integration plays a key role in gathering data to help ensure a building is safe and secure. Buildings that are outfitted with advanced security systems — like video surveillance, access control and occupancy sensors — can help increase operational efficiencies by using systems integration to collect data. Integration enables the systems to "communicate" and work in tandem to provide real-time insights.

For example, the integration of video analytics and access control can be used to monitor the flow of occupants within a building while preventing unauthorized access to restricted locations. Facility safety can be further enhanced when sensors are connected to emergency communications systems, alerting first responders to the location and helping them determine the fastest route to the threatened area through the facility.

In addition to assisting in emergency situations, the data compiled from advanced security technologies can be analyzed by systems integrators to help facility owners and managers better understand how their infrastructure is operating and make improvements based on the information gathered. If energy usage is rising, integrators can suggest fashioning video analytics and occupancy sensors to a building's lighting infrastructure and HVAC controls. It enables the lighting and HVAC controls to turn on or off in specific areas based on occupancy. This approach not only helps to ensure security throughout a facility, but also provides insights into how the building is being used to help save on energy costs.

Understanding the value of connecting different security systems, as well as how they can be integrated with other building systems, is a key component in developing a smarter, safer facility. Whether installing new solutions onto existing infrastructure or upgrading solutions to ensure compatibility, systems integration presents a variety of cost options to fit the specific needs of a building or business.

Understanding the value of connecting different security systems, as well as how they can be integrated with other building systems, is a key component in developing a smarter, safer facility. Whether installing new solutions onto existing infrastructure or upgrading solutions to ensure compatibility, systems integration presents a variety of cost options to fit the specific needs of a building or business. As the desire to create smart facilities continues to grow, it's crucial that building and business owners don't forget about their baseline systems; they can be a bigger help to developing a more intelligent building than some may realize.

Facilities that are successful in their smart-ready journey will be those that view building components holistically and enhance their efficiencies. ■

Hank Monaco is the vice president of marketing with Johnson Controls, Building Solutions North America.

The Future of 5G in the Commercial Real Estate Industry

A reliable cellular and data network will be vital for a wide range of businesses and other activities.

By Jeff Gudewicz, Wilson Electronics

According to the Pew Research Center, 95 percent of Americans own a cellphone, with 77 percent owning smartphones. As traditional broadband usage has dropped in recent years, keeping tenants connected through a cellular signal has become more important than ever for those who want to stay competitive in the commercial real estate industry. And with 5G on the horizon and poised to become a disruptive threat to traditional Wi-Fi and wired internet systems, as well as a key force behind the rise of smart cities, connectivity is going to become more integral to daily life than ever before.

Getty Images

5G wireless technology is on the way, but it will coexist with today's 4G LTE networks for many years.

What is 5G?

5G, or the fifth generation of wireless technology, is a standard designed to deliver data speeds greater than 1 gigabit per second and low latency of less than 1 millisecond. This means much faster data speeds (100 times the speed of 4G LTE) and less delay between the request for a data transfer and the start of the data transfer in a cellular environment.

In addition, 5G will provide the ability to connect many more devices at the same time — 100 times more devices than 4G LTE, to be exact. This functionality will enable an explosion in the internet of things (IoT) through the connection of technologies such as virtual reality, drones, smart devices, self-driving cars and more. ***(See cover story, page 56.)***

5G rollout is slated to begin as early as this year. Cell carriers have been preparing for several years, running trials, laying fiber and building the infrastructure needed to support a high-performance 5G network.

5G's Weaknesses

However, the advent of 5G networks does not mean 4G LTE will disappear. Instead, 5G will be built alongside today's 4G LTE network. 4G LTE will serve as a fallback network in situations where users are not covered by new 5G service. It's likely that 4G LTE service will be an important cellular network well into the year 2030.

Recently, GSMA, which represents the interests of cellular operators around the world, reported that 43 percent of all global connections today are 4G, and that will grow to 60 percent by 2025. Therefore, it's imperative for the commercial real estate industry to continue to invest in providing solid 4G LTE connections at its properties.

So why isn't 5G going to be able to cover everywhere and everyone? This has to do with cell signal attenuation, or amplitude reduction, to which 5G is particularly vulnerable.

As frequencies go higher, such as for the millimeter wave technology used by 5G, their propagation — or transmission through mediums — deteriorates greatly compared to traditional lower frequencies. This means that objects such as buildings, trees or foliage and even weather such as snow or rain will severely weaken 5G signals.

A weak cellular signal is nothing new. As commercial real estate investors know all too well, many buildings already experience cellular connectivity issues with 4G LTE. Unfortunately, this complication will only expand further as people begin to rely on the higher frequencies utilized by 5G. In order to work well, 5G requires many more antennas and boosters.

How to Fix the Connectivity Problem

In today's ultra-competitive business landscape and hyper-connected world, tenants have no patience for poor connectivity, whether it's in their apartment or office. And commercial real estate professionals face the added challenge of ensuring reliable service without overloading a building's data infrastructure in the process, which can result in dropped calls, lost signals, compromised cellular security, and consequently, unhappy tenants.

Thankfully, cellular signal boosters can help. Cellular signal boosters capture outdoor signals and bring them into properties, amplifying them as much as 32 times. Companies are developing boosters that will enable 5G to reach its full potential. And unlike active distributive antenna systems (DAS), which install high-capacity infrastructure for larger areas where thousands of users access the network in a small space (i.e. airports and arenas) and thus can be extremely cost- and time-prohibitive, passive

Know Your Terms

Here are some definitions related to 5G from a December 2018 article in Wired magazine.

The Spectrum. "All radio wave frequencies, from the lowest frequencies (3 kHz) to the highest (300 GHz). The FCC regulates who can use which ranges, or bands, of frequencies to prevent users from interfering with each other's signals."

Low-Band Frequencies. "Bands below 1 GHz traditionally used by broadcast radio and television as well as mobile networks; they easily cover large distances and travel through walls, but those are now so crowded that carriers are turning to the higher range of the spectrum."

Mid-Band Spectrum. "The range of the wireless spectrum from 1 GHz to 6 GHz, used by Bluetooth, Wi-Fi, mobile networks, and many other applications. It's attractive to carriers because it offers lots of bandwidth while presenting fewer challenges than the millimeter wave range of the spectrum. The catch is that the FCC needs to open more of this spectrum to carriers."

Millimeter Wave. "The range of the wireless spectrum above either 24 GHz or 30 GHz, depending on whom you ask. There's plenty of bandwidth on this relatively uncrowded chunk of the spectrum, which means carriers can achieve much faster speeds. But millimeter wave signals are less reliable at long distances."

Latency. "How long it takes a device to respond to other devices over a network. Faster response time is a big promise of 5G, which could be critical for things like emergency alert systems or self-driving cars." ■

As frequencies go higher, such as for the millimeter wave technology used by 5G, their propagation — or transmission through mediums — deteriorates greatly compared to traditional lower frequencies. This means that objects such as buildings, trees or foliage and even weather such as snow or rain will severely weaken 5G signals.

DAS technology utilizes existing cell signals by boosting them using antennas and amplifiers. Often, these can be purchased, installed and operated for less than 10 percent of the cost of a major DAS project.

However, the Federal Communications Commission (FCC) has not yet approved cellular signal boosters to operate on 5G millimeter wave frequencies. Companies in this niche are currently petitioning the FCC to allow for the development of new boosters to support these bands.

Once the FCC restrictions are lifted, signal-booster manufacturers will be able to take a crucial step toward the widespread adoption of 5G by applying research to the development of 5G-compatible boosters.

Expected costs for 5G booster installs are hard to predict at this time, but the commercial real estate industry can expect a larger number of them will be needed to ensure widespread 5G coverage due to 5G's greater attenuation vulnerability.

In the meantime, 4G LTE boosters have been fine-tuned and are available to support existing cellular connectivity needs.

5G will require changes in the commercial real estate industry. Cellular signals will have to be top of mind for all property developments as tenants rely more and more on cellular connectivity, a trend that's grown during the past few years and is likely to increase because of the enhanced capabilities and speed provided by 5G compared to Wi-Fi or wired internet service. ■

Jeff Gudewicz is the chief product officer for Wilson Electronics.

CEO on Leadership:
Mark Saturno, CEO, IDI Logistics

The leader of this Atlanta, Georgia, industrial development firm reflects on its purchase by two Canadian public pension funds and its strategy to develop logistics buildings in coastal and gateway markets.

By Ron Derven

Mark Saturno

"I am lucky to have had several great mentors and managers in my career. Early in my career, I was told if I couldn't explain a transaction on the back of an envelope, I didn't truly understand the opportunity."

— Mark Saturno, CEO, IDI Logistics

IDI Logistics is a leading investor and developer of logistics real estate throughout North America. During the past 30 years, it has delivered more than 200 million square feet of innovative warehousing, distribution and manufacturing facilities.

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

Mark Saturno: Total happenstance. I was an auditor and, long term, I didn't want to be an accountant. But I took a job in accounting at a large multifamily syndicator hoping to eventually move out of the accounting role. Over the next 10 years, I transitioned from accounting, to research and underwriting, to asset management and, finally, to the transaction side of the business.

Development: *Describe how the company managed its growth as a developer and investor.*

Saturno: For the first 25 years, IDI was owned by Kajima. Kajima is a Japanese construction company, and IDI was its first foray into the industrial real estate sector. As a foreign investor in the U.S., the financial and performance metrics were different from U.S.-based institutional investors. It took a long-term view of its investments; as a result, it developed large-scale, multiphase business parks. The investment strategy, coupled with the expertise of Kajima in the construction sector, made IDI one of the more prolific business park developers in the U.S. IDI has a long track record in Atlanta, Chicago, Dallas, Southern Florida, Cincinnati and Memphis.

From 2014 to the end of 2018, IDI was owned by a Brookfield Property-sponsored value-add fund. IDI went through big changes in its investment strategy and organization during this time. Brookfield had a shorter-term investment horizon and ultimately knew it would monetize its investment. Under Brookfield, IDI was also self-funding, which impacted its ability to grow. Brookfield sold IDI to a joint venture between Ivanhoé Cambridge and Oxford Properties in late 2018. Ivanhoé Cambridge and Oxford are the real estate arms of Caisse de dépôt et placement du Québec and OMERS, two of Canada's largest public pension funds. Combined, they have over $99 billion in assets under management. The IC/Oxford venture has a much longer-term investment horizon and capital to grow beyond its initial investment.

Development: *Where will you take it from here over the next five to 10 years?*

Saturno: The vision for IDI is to continue to develop best-in-class logistics buildings in coastal and gateway markets. Over the next five to 10 years, the company will also acquire assets when pricing for stabilized assets is more attractive. Ultimately, IDI will be a full-service investment manager capable of both acquiring and developing assets, and I wouldn't be surprised if we double our size. Ivanhoé Cambridge and Oxford bring broad commercial real estate experience, coupled with a desire to invest additional capital into the logistics sector. This is an exciting combination for IDI.

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Development: *What is your primary role as CEO?*

Saturno: A great entrepreneur, **Vince Nacarrato**, told me to focus on three "S's" — strategy, staffing and structure. Over time, I have changed the three "S's" to strategy, staffing and sales. "Sales" in our industry really means capital deployment and customer development. It is important to create an organization focused on delivering a positive customer experience. It's impossible to lead a company without a clearly articulated strategy and vision, and a plan to execute on the strategy. Staffing is critical to the execution of the plan, so one of my most important roles is ensuring we hire outstanding talent.

Development: *What qualities do you look for when hiring senior staff?*

Saturno: First, I look for a deep knowledge of the logistics sector or knowledge in their area of expertise. Second, I look for a cultural fit: is the person a collaborative, team-based decision-maker who objectively measures his or her contribution? Third, do they want to progress in their career and continue to learn?

Development: *What are some things you have discovered you are not very good at personally or professionally?*

Saturno: Often, I am too focused on short-term objectives and do not spend enough time focused on longer-term issues or strategic issues. Also, I could be a better public speaker.

Development: *When one of your employees makes mistakes, how is it addressed internally?*

Saturno: One of IDI's core values is transparency. I'd like to believe we provide direct, honest and timely feedback on how to correct the mistake in the future. We all make mistakes. How we learn from those mistakes is what makes the individual or the company stronger. I find no better way to deal with mistakes.

Development: *What was one of the biggest mistakes your company has made?*

Saturno: The biggest mistake the company made was not managing the balance sheet for a downturn. The company was sold, in part to Brookfield, because it did not have sufficient liquidity and too much land on the balance sheet. IDI was not the only company to make this mistake.

Development: *How is your company preparing to weather the inevitable economic downturn?*

Saturno: Our primary means of preparing for a downturn is managing the company's balance sheet and our overhead. Managing the company's balance sheet has been a priority for IDI since the Brookfield acquisition. Evaluating our exposure to land and development as well as market concentrations is an important part of our planning and investment objectives. The balance is to provide a pipeline of opportunities for growth and higher returns while not getting too far on the risk spectrum.

Development: *What advice would you give someone entering the commercial real estate industry today?*

Saturno: Creating and maintaining long-term relationships is important in our industry. In the commercial real estate sector, you are often two degrees of separation from a former co-worker, equity partner, lender or service provider. Changes in technology or investment strategies won't change that dynamic. I have been fortunate to work with people multiple times at different companies in my career, and I am always appreciative of the opportunity to work together again.

"It's impossible to lead a company without a clearly articulated strategy, vision and a plan to execute on the strategy."

— Mark Saturno, CEO, IDI Logistics

Development: *Did you have a mentor early in your career? If so, what did he or she teach you?*

Saturno: I am lucky to have had several great mentors and managers. Early in my career, I was told if I couldn't explain a transaction on the back of an envelope, I didn't truly understand the opportunity. I spent weeks modeling the development of a several-hundred-acre residential project in Florida only to have **Jerry Reinsdorf**, then the CEO of The Balcor Company, replicate my math on a legal pad and come to returns remarkably close to my weeks of effort. Later in my career, I learned the importance of evaluating decisions, whether staffing or investment decisions, in the context of the overall strategy of the company. **Hamid Moghadam** and **Gene Reilly** of Prologis instilled this discipline in me during my time at AMB.

Development: *How do you de-stress?*

Saturno: I am fortunate to have a wife who still enjoys spending time with me even after 25 years of marriage. We are avid tennis fans and play tennis individually and together. She also has me doing Pilates — but I think that might be more of a stress creator. ■

Ron Derven is a contributing editor for Development magazine.

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Coinsurance: The Misunderstood Property Insurance Pitfall

How often should you review your property insurance policy to make sure you're fully covered?

By James Eldredge

Most businesses carry some form of property insurance to cover significant damage or even a total loss. Coinsurance is one of the least understood areas of property insurance — and unfortunately, failing to understand it could lead to thousands of dollars in losses if catastrophe strikes.

What Is Coinsurance?

Coinsurance is an agreement between an insurance company and a business owner to share the cost of a claim. In other words, the policy holder is required to hold a high enough insurance limit to cover a percentage of the property value in order to receive full compensation if there is a loss or damage to the property.

Coinsurance functions as a percentage of the replacement cost of the insured property, such as 90 percent, 80 percent, 70 percent, etc. For example, say a company owns a building valued at $1 million and the coinsurance clause has an agreement of 90 percent. This means the property must be insured to at least 90 percent — or $900,000 — of the replacement cost.

An owner could face a big penalty if he or she decides to skimp on the insured value of the building or if the property value rises and the insurance amounts were not raised accordingly. Here is the formula for the penalty:

Coinsurance Formula

$$\frac{\text{Insurance Carried}}{\text{Insurance Required}} \times \text{Loss} - \text{Deductible} = \text{Loss Payment}$$

As an example, consider a $1 million building and a 90-percent coinsurance clause. Assume that the owner decides to insure the building at $800,000, instead of $1 million or the minimum $900,000 to meet the coinsurance. There also is a $10,000 deductible.

Now, imagine the building catches on fire and causes $300,000 worth of damage. At the time of loss, the owner's limit was $800,000. Unfortunately, there is not enough coverage because the owner was supposed to purchase at least $900,000 in coverage according to the 90-percent agreement.

The ratio of the amount the owner carried divided by the amount that was required ($800,000/$900,000) is .889. Even though the owner's loss was $300,000, the insurer will only pay $266,700 ($300,000 x .889) minus the $10,000 deductible, or $256,700. The owner must pay the remaining $43,300 out of pocket.

Why It's Necessary to Review A Policy

Property owners who want to make sure they have enough coverage are strongly encouraged to review their property insurance policy regularly, because it does not automatically increase along with the value of the property. If they are not proactive about adjusting it as the value of a property increases, owners may find themselves with inadequate coverage when an accident happens.

Here are several reasons why frequently reviewing a policy is a good idea:

- The value of a property could rise above and beyond the natural increase in property values in a geographical area.
- A single office that continues to accumulate space throughout the floor and/or other parts of a building, thus increasing the value of the property.
- As construction costs for labor and material goes up, replacement costs (which a coinsurance policy is based on) will eventually exceed market value.


James Eldredge

Waiving Coinsurance

Property owners may find it difficult to figure out if they have a coinsurance clause in their property insurance policy. But chances are, they do. In some special cases, it is even possible to get the coinsurance waived. If the property owner can have coinsurance waived and an agreed value of the property, then there is no coinsurance issue to worry about.

While insurance companies usually prefer not to waive coinsurance, it can be done. ■

James Eldredge is a Certified Insurance Counselor (CIC) and a construction risk insurance specialist with the Buckner Company in Salt Lake City, Utah.

Microsoft's Workplace Strategy for Sales Offices Evolves

Flexible space is now key for the technology giant, which recently overhauled the way it markets its products.

By Doug Lowrie, Microsoft

The priority for the Microsoft real estate team is designing workspaces to optimize employee experience. Much of what they provide is aimed at making Microsoft employees more comfortable, satisfied and productive, in areas from office temperature to food variety.

But how to design workspaces to best suit the unique needs of a worldwide sales organization?

It's the question that's arisen as lease renewals have come up on several Microsoft corporate sales offices across the globe. During the past three years, thousands of square feet of Microsoft sales offices — from Detroit to Dublin, from suburban Atlanta to downtown Milan — have been transformed into specially designed sales hubs.

Just as engineers require a certain technical precision in their work stations, salespeople bring needs of their own. Mobile technologies increasingly enable salespeople to work on the move, an evolution that has transformed sales workspace from offices with fixed work stations to flexible spaces with choices in seating.

Mobile technologies increasingly enable salespeople to work on the move, an evolution that has transformed sales workspace from offices with fixed work stations to flexible spaces with choices in seating.

A Changing Workplace

Across its global portfolio, Microsoft workplace design has evolved to accommodate this new flexibility, with space that is more accessible and seating choices that are more varied. Gone are the individual private offices that prove inflexible and isolating, in favor of team spaces with a mix of table seating, soft chairs, nooks for privacy and meeting places for collaboration. Less widely known, however, is the recent transformation in Microsoft sales methods themselves.

Three years ago, Microsoft's sales process shifted from enterprise agreements to a subscription-based sales model. This necessitated significant changes to the built environments of the company's sales force. No longer did they need multiple meeting rooms in which salespeople could deliver pitches to large groups, because no longer was sales a matter of merely

Microsoft

The Microsoft office space at Schipol Airport in the Netherlands is built for flexibility and collaboration.

Instead of spaces geared to high-powered meetings, the focus moved to spaces that were more relaxed and human-scaled.

presenting technology toward a goal of customers signing multiyear agreements.

Instead, collaborating with customers to enable solutions to their individual challenges rose to primary importance. That meant the salespeople needed physical environments where they could showcase and demonstrate Microsoft's products. Instead of large meeting rooms for big group presentations, smaller spaces with state-of-the-art AV equipment enabled more relevant one-on-one or one-on-two engagements where customers could really experience the technology.

Instead of spaces geared to high-powered meetings, the focus moved to spaces that were more relaxed and human-scaled. In accordance with Microsoft's Design Language — the set of design principles that provide a sense of aesthetic cohesion across all the global properties in Microsoft's portfolio — these smaller sales spaces were built to convey warmth, transparency and a sense of human connection, with their residential-like comfort and regionally relevant decorative motifs. Getting the right balance of human energy in a space was key. If there's not enough of a lively buzz, a customer will notice the lack of vitality. To solve for that among Microsoft's sales subsidiaries, and to support staff between customer engagements, elements of employee space were integrated into the customer space.

The Plan Into Action

How was this achieved? Microsoft has developed an internal tool that uses technologies most companies already

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have in place — internet connection, wireless infrastructure, security systems, employee data apps, building management systems — to gather data on how space is used in buildings across its global portfolio. Through an intricate choreography involving the cloud, machine learning, analytics and sociometric data — all anonymized to protect employee privacy — it is possible to learn which spaces are used and for how long.

Microsoft started building elements of employee space into the customer area, interspersing traditional work spaces with alternative seating arrangements and meeting spaces.

Armed with that knowledge, Microsoft started building elements of employee space into the customer area, interspersing traditional work spaces with alternative seating arrangements and meeting spaces. The company discovered that putting touchdown spaces, which are less formal than full-fledged work stations, into customer areas made those places more welcoming, and that collaborative work settings were preferred to traditional desks.

The result is customer space with the right balance of human energy: a baseline of lively buzz. With their high degree of mobility, salespeople touch down in whatever space suits them. If they're working and catching up on email between meetings, or having coffee and exchanging ideas with customers, good energy results. Customers are welcome to spend time at a work station or conversation room themselves.

And there's a valuable secondary benefit: Wherever Microsoft employees work in proximity to customers, demonstrations happen naturally. Bringing customers into the heart of Microsoft lets them see real work being done on the very products they're looking to acquire. What that provides is priceless: an authentic display of Microsoft's products, people and culture. ■

Doug Lowrie is global workplace strategist at Microsoft Real Estate and Security.

Some Property Owners Could Face Surprising Tax Bills

A drafting error in the recent tax reform law has the potential to take a big bite out of the bottom line for developers who renovate properties for new tenants.

By Dan Thrailkill, Ellin & Tucker

The ways we work, shop and live are changing at a rapid pace, and commercial real estate professionals have been forced to rapidly adjust how they are presenting, marketing and utilizing the spaces they own. E-commerce, coworking and urbanization are only accelerating these trends, and property owners can go from a consistent tenant relationship to a vacancy in short order.

E-commerce in particular has made a huge impact on the commercial real estate industry. Retailers small and large have closed their doors, and e-commerce giants are snapping up industrial space for last-mile deliveries and other uses.

As a result of a drafting error, property owners now must deduct the renovation costs over several years, not all at once. What was once a 15-year depreciable life is now 39 years under the current law — and the difference is jarring for property owners. In addition, many property owners are no longer allowed "immediate expensing" of many of their investments because of the technical error in the bill.

Qualified Improvement Property Bills Introduced in Congress

In the spring, lawmakers in the House and Senate took first steps toward mending the flawed QIP provision of the 2017 tax-reform bill.

U.S. Representatives **Jimmy Panetta**, D-Calif., and **Jackie Walorski**, R-Ind., introduced the Restoring Investment in Improvements Act. It mirrors an earlier bill introduced by Senators **Pat Toomey**, R-Pa., and **Doug Jones**, D-Ala., that would restore incentives for investments made by owners of commercial, restaurant, retail and other property types.

Congress had intended for the Tax Cuts and Jobs Act of 2017 (TCJA) to permanently shorten the cost recovery period for tenant leasehold improvements, now termed "Qualified Improvement Property" (QIP), instead of through annual tax extender legislation as had been done in the past. However, as a result of the drafting error in the tax reform bill, QIP investments must be written off over a far longer period than was intended. In some cases, property owners are being forced to spread these deductions out over 39 years.

Fixing QIP is a top legislative priority for NAIOP and its members. The association has been working with its allies in commercial real estate and other industry groups as part of a broad coalition advocating for technical corrections legislation to the tax reform bill. The introduction of these bills is an important milestone in that effort; however, it's unclear when they will come up for a vote.

In December 2018, NAIOP and the coalition sent a letter to leaders in the House and Senate urging the corrective legislation "in order to increase investments in communities, grow jobs and sustain businesses that are suffering losses." — NAIOP Government Affairs staff ■

For example, to cut costs and increase efficiencies, many big box tenants are reducing their square footage upon renewal of their lease. While it makes financial sense for the retailer, it often creates a problem for the owner of the property, who is suddenly left with vacant space that needs to be filled.

It is not uncommon for a store to change its footprint from 50,000 square feet to 30,000 square feet. The building owner must then find a use for 20,000 square feet of empty space. Additionally, that new occupant will most likely need major renovations to make the space work best for their business. An example would be a grocer moving into a former Toys "R" Us building who would need to install extensive refrigeration capacity.

The cost to attract, sign and retain a new tenant can be hefty. But because of a mistake by Congress in the new

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For example, if the owner of the building spends $1 million to retrofit the vacant space for a new tenant, the new tax treatment will put all $1 million on a 39-year depreciable life, only allowing for a deduction in the first year of about $25,600. Had the law met its intentions, these costs would have been eligible for bonus depreciation and a full $1 million deduction in the first year.

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tax law, property owners now have an even bigger problem on their hands.

A Costly Mistake

Prior to the Tax Cuts & Jobs Act (TCJA), which was signed into law at the end of 2017, the majority of the build-out costs for a new tenant were deemed qualified improvement property (QIP), which was eligible for a 15-year depreciable life and 50 percent bonus depreciation. Essentially, this allowed the owner to deduct the majority of the renovation expenses in the first year, which is certainly the most ideal financial situation.

While the intent was to keep these costs eligible for 15-year depreciable life and a potential 100-percent first-year bonus depreciation, the final draft of the law missed the mark badly. As a result of a drafting error, property owners now must deduct the renovation costs over several years, not all at once. What was once a 15-year depreciable life is now 39 years under the current law — and the difference is jarring for property owners. In addition, many property owners are no longer allowed "immediate expensing" of many of their investments because of the technical error in the bill.

How Big of a Bite?

For example, if the owner of the building spends $1 million to retrofit the vacant space for a new tenant, the new tax treatment will put all $1 million on a 39-year depreciable life, only allowing for a deduction in the first year of about $25,600. Had the law met its intentions, these costs would have been eligible for bonus depreciation and a full $1 million deduction in the first year. That's a stunning variance of $974,400 in tax deductions. It's understandable for commercial property owners to be concerned.

Congress fully recognizes the mistake and acknowledges the error, and while this was clearly not the intent of the legislation, the IRS must still follow the letter of the law and cannot independently change anything in TCJA. ■

Daniel J. Thrailkill, CPA, is a director in Ellin & Tucker's tax department.

The Hotel Sector Can Profitably Embrace Sustainable Development

Green practices aren't just for eco-hotels; all types of lodgings can benefit, too.

By Hyon K. Rah, RAH Solutions

The concept of sustainability, which encompasses economic, social and environmental prosperity, has rapidly gained ground in real estate development during the past decade. The hotel sector, however, has been slow to adopt sustainable development compared to other property types.

One reason is the perception that sustainability incurs prohibitive costs. There are also challenges specific to hotels, including constant operational demands, more frequent renovation needs from wear and tear and shifting market trends, and pressure to attract and retain guests who, at least in the short run, may appear to have little to gain from sustainability measures.

Yet for the developers and operators of hotels, paying attention to sustainable development in today's landscape may be a prescient move. This is an era of rising energy costs, water insecurity, consumer and regulatory trends toward eco-friendly approaches, and erratic and unpredictable weather patterns. In this context, sustainable development techniques can be an important tool for mitigating the challenges facing hotel developers and operators.

Bardessono Hotel & Spa

The Bardessono Hotel & Spa in Yountville, California, has a number of environmentally sound features, including rooftop solar panels and low-flow water fixtures.

The Cost Side of the Equation

In order to meet their mission to satisfy guests' demands 24/7, hotels require a lot of resources, including energy and water. The U.S. Green Building Council (USGBC) estimates the global annual energy use of hotels at around $4 billion. A 2012 dataset from the Environmental Protection Agency (EPA) showed that hotels are the second-most water-intensive building type in the U.S., surpassed only by senior care facilities. According to Energy Star, hotels in the U.S. spend an average of $2,196 on energy per available room per year. Energy makes up 60 percent of a hotel's utility cost, while water and wastewater services, on average, make up 24 percent.

There are numerous approaches to sustainability that can help hotels improve operational efficiency and reduce costs.

The price of water in the state of California has been increasing at six times the inflation rate, with the price of electricity rising at a similarly alarming pace. Napa Valley's Bardessono Hotel & Spa has been taking advantage of available environmental resources on site since opening its doors in 2009. It generates 50 percent of its own electricity with rooftop solar panels and uses geothermal energy for heating, cooling and providing hot water to its 62 guest rooms. The property also has low-flow fixtures and recycles greywater for non-potable use, saving 3 million gallons of water annually.

The estimated 5- to 10-percent premium included in the $46 million construction cost due to the green features may seem excessive at first, but not when the longer-term benefits are considered. The hotel, with its "eco-luxury" branding, charges $800 to $1,500 a night, a substantially higher rate compared to neighboring luxury properties.

The Fairmont Waterfront in Vancouver, Canada, has been saving enough energy to power approximately 7 average-sized Canadian homes a year since installing a heat-recovery system. It preheats incoming municipal water with the condensate captured from existing domestic hot water tanks. The hotel has reduced its annual water usage by 1.7 million gallons since installing low-flow toilet fixtures in 2014, a significant conservation of resources — and money.

In addition to these upgrades, the property implemented efficient cleaning practices that save 175,000 gallons of water annually. The hotel reports an annual operational savings of $200,000 from implementing the various sustainability features and policies.

InterContinental San Francisco strategically leveraged energy-efficiency retrofits with a regional utility's rebate programs to yield significant cost savings. In 2009, the hotel replaced all the metal halide lamps in its garage with compact florescent lamps (CFLs). With the rebate program covering $32,000 of the $45,000 capital cost and the CFLs reducing the hotel's annual energy cost by $35,000, the project paid for itself in five months. In all, the hotel saved nearly $200,000 in capital cost on sustainability retrofits with federal and regional sustainability rebate programs while lowering its annual energy bill by $150,000.

This is an era of rising energy costs, water insecurity, consumer and regulatory trends toward eco-friendly approaches, and erratic and unpredictable weather patterns. In this context, sustainable development techniques can be an important tool for mitigating the challenges facing hotel developers and operators.

The Revenue Side of the Equation

Beyond cost savings, adopting sustainability measures has been shown to increase the financial performance of hotels and boost their brand appeal to guests.

A 2014 study by Cornell University suggests a positive correlation between sustainable development and revenue for hotels, as the average daily rate per room increased by $20 in two years after a hotel gained its LEED (Leadership in Energy and Environmental Design) certification. A 2011 study conducted by Harvard University found that high-sustainability companies, which adopted a substantial number of environmental and social policies, significantly outperformed their low-sustainability counterparts over the long term (18 years) both in accounting performance and the stock market. The study covered a sample of companies from 29 sectors, including travel and leisure.

It is critical for hotels to be in tune with customer demands and market trends to secure customer loyalty and longevity. One increasing customer demand is sustainability. According to Nielson Global Study of Corporate Social Responsibility and Sustainability, 66 percent of its 30,000 respondents said that they are willing to pay more for products and services from companies committed to positive social and environmental impact. A survey conducted by Hilton reflects this trend in the hotel sector. One-third of almost 72,000 respondents said they would seek out a hotel's commitment on environmental and social sustainability before booking their accommodation.

These consumers look for shared values with the businesses they patronize. According to a study published in Harvard Business Review, 64 percent of consumers said their loyalty to a brand depends on this alignment in values. This is especially significant in light of Deloitte's 2016 finding that 1 in 4 travelers allocate more than 75 percent of their lodging budget to their preferred hotel brands.

The environmental conditions surrounding a hotel can have major implications on its bottom line. Some sustainable development strategies, especially related to energy and water management, can be particularly helpful for building operational capacity and independence for hotels in cases of disasters or outages.

Time to Act?

The window of opportunity may be narrowing for reaping the same degree of development incentives and branding benefits of pursuing sustainable development as the earlier adopters. Currently, many U.S. cities, including Chicago, San Francisco and Washington, D.C., offer financial and other incentives to promote sustainable development.

That said, a shift from incentive-based policies to regulations may be in motion. In late 2018, Washington, D.C., signed into law the Clean Energy Omnibus Amendment Act, which mandates stricter energy performance for all new and existing buildings 50,000 square feet and larger. By 2023 it will encompass buildings that are 25,000 square feet and up, then, by 2026, buildings 10,000 square feet or larger. This is a major step toward mainstreaming sustainable development across all property types.

When thinking about the timing and benefits of sustainable development strategies, resilience is a related issue that must be considered. As extreme weather events, including floods and storms, become more frequent, they are starting to influence regulations. Houston, for example, is considering raising the 100-year storm estimate for flood mitigation following Hurricane Harvey.

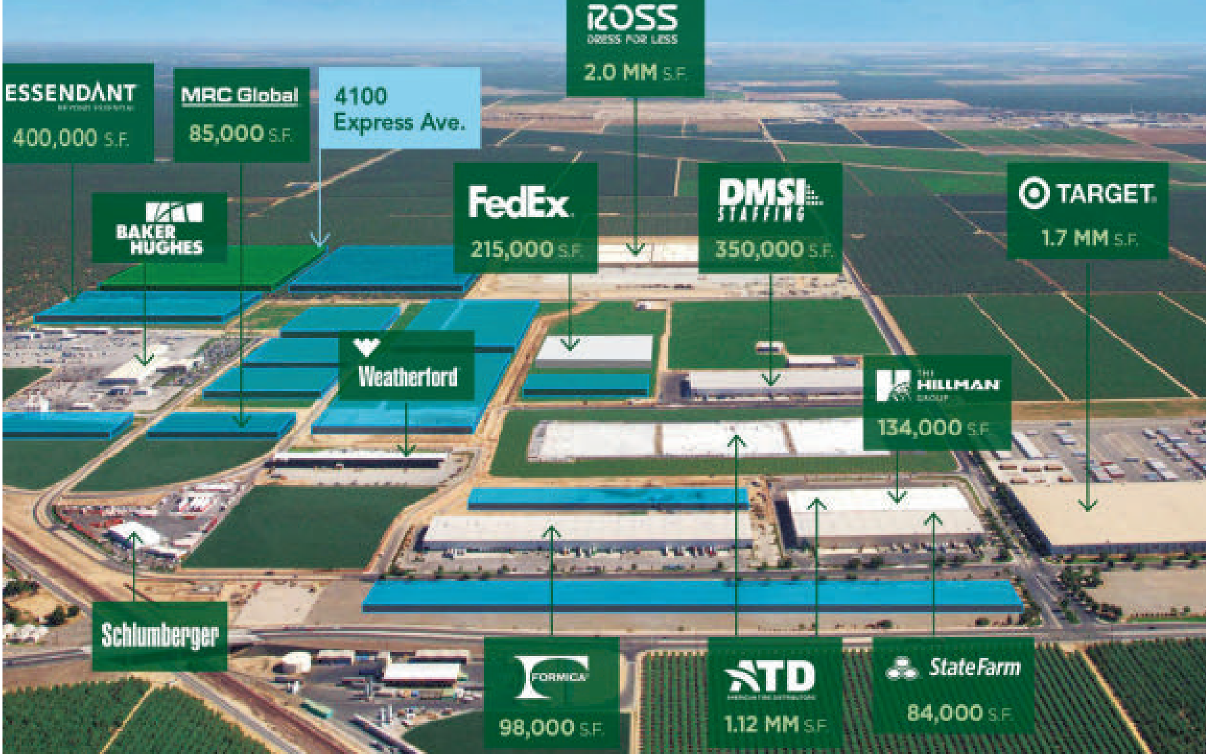
The environmental conditions surrounding a hotel can have major implications on its bottom line. Some sustainable development strategies, especially related to energy and water management, can be particularly helpful for building operational capacity and independence for hotels in cases of disasters or outages.

Finally, it is optimal to think of sustainability early, ideally at the pre-development planning stage. Some design changes cannot be reversed, and there are economies of scale to addressing multiple problems with one solution at the outset. That said, existing properties have incorporated sustainable development strategies with positive results, as demonstrated by several of the retrofit examples above.

Sustainable development in the hotel sector is not just about luxury hotels with rooftop gardens or an island resort with solar panels. It includes a vast range of solutions appropriate for various types of properties, from budget to luxury, small to large, urban to rural. Some solutions, such as replacing light bulbs, are simple and applicable to everyone. Other solutions require more planning and imagination.

At its best, sustainable development uses a holistic approach to find solutions that address multiple challenges at once. Regardless of whether sustainability is a part of their brand, hotel developers and operators can use it to multiple ends, including enhancing their bottom lines and improving guest experiences. ■

Hyon K. Rah, M. Arch, M.Sc., LEED AP, ENV SP, is principal of RAH Solutions, a Washington, D.C.-based sustainability and resilience consultancy, and an adjunct professor at the University of the District of Columbia.



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Blue, Green and Smart: New Land-Use Patterns Drive Modern Stormwater Technologies

As densities increase, environmentally advanced infrastructure and systems can help developers manage runoff in cities.

By Anthony Mayer, Hanging Gardens LLC

In the 1990s, urban planning and real estate professionals began to witness the advent of increased densities, mixed-use development and a renaissance in urban centers. Compact, walkable and diverse land uses were becoming favored, and this approach was a marked change from the low-density development that had characterized land use in much of the U.S. during the previous 30 to 40 years.

Higher-built densities also led to new ways to think about managing stormwater. More buildings and the resultant increase in impervious surfaces spurred new approaches. Examples include a renovated building owned by Coakley Brothers, a moving and storage company in Milwaukee, Wisconsin, which recently installed a below-grade collection system in a courtyard, and International High School in New Orleans, Louisiana, which in 2017 added multitiered smart stormwater management systems that run from the roof to a below-ground cistern.

Furthermore, as a result of regulatory changes, cities across the country now require property developers to manage a significant percentage of stormwater on site. And unlike suburban or rural regions where land is more abundant, urban areas generally can't depend on constructed ponds to do that.

Additionally, the cost of land in densely populated areas means developers must build the most efficient stormwater management systems possible. Downtown land values can be 4 to 30 times higher per acre in comparison to land 10 miles from a city center. In major urban areas, land costs can be exorbitant. According to a 2017 study on metropolitan land values, an acre of land in the center of New York City is worth about $123 million. In downtown Chicago, Washington, D.C., and San Francisco, this same acre is about $30 million. Even in the more affordable cities of the South and Midwest such as Houston or Minneapolis, prices of $3 million to $5 million an acre are common.

Hanging Gardens LLC

The hybrid roof at Brix Apartment Lofts in Milwaukee includes a green roof planted with grass and other vegetation, as well as a 6,000-square-foot blue roof system. The blue roof component increased stormwater retention to 7,710 gallons.

The Rise of the Blue Roofs

Green infrastructure integrated with smart stormwater systems can help protect developers' ROI by maximizing the building's footprint in proportion to the size of the parcel of land.

"A blue roof is an innovative stormwater management strategy for our region that makes sense for urban infill projects, as on these projects every square foot of space is crucial," said **Ben Ptacek** of DJR Architecture. The firm designed the JAX in Saint Paul, Minnesota, a conversion of an older industrial structure into an apartment building with a smart stormwater system.

A blue roof ponds water at the top level of a structure. It has a waterproof membrane system combined with smart valves that use sensors to control the pace and amount of stormwater released over time. The smart systems can be integrated into building management systems to continuously tabulate data. For ease of operation, they can also be controlled through cellular devices.

Green infrastructure integrated with smart stormwater systems can help protect developers' ROI by maximizing the building's footprint in proportion to the size of the parcel of land.

Consider a hypothetical seven-story multifamily structure near a major city's downtown area. Tenants demand amenity courtyard space with trees, patios and maybe a bocce ball court or dog run. The courtyard sits above a parking deck. Because the building footprint fills the entire site, there is no land left for managing the stormwater.

There is an ordinance in this city that requires the first several inches of stormwater to be managed on site. Adaptations to the building design are required. Now the developer's ROI is in jeopardy.

To overcome this problem, the developer converts half of a seventh-floor roof into a blue roof while still providing ample space for mechanicals. This blue roof is designed to pond 2 inches of water and will drain to the third-floor amenity courtyard. On this courtyard, there is about 3 inches of water-holding capacity. A smart valve system is integrated into all roof drains and scuppers. These roofs have smart stormwater systems that interact with weather satellites to maximize stormwater management based on predictions of rainy or dry weather, as well as a sensor-driven smart leak-detection system to prevent water intrusion.

Through these integrated systems, the stormwater-management requirements for this site can be handled efficiently and effectively. By strategically locating and moving stormwater based on the drawdown needs of evaporative irrigation and weather forecasts, the system knows when trees and plants need water or when it is best to take advantage of evaporation. It knows when there will be wet or dry patterns, sunny or cloudy conditions, and hot or cold temperatures.

Smart systems are able to manage two to three times the amount by volume of stormwater as static underground cisterns. More important to the ROI, in these urban settings, smart systems can cost half as much as comparable alternatives. As an example, if an underground infiltration or collection system costs about $5 per gallon of water managed, then a comparable smart system would cost about $3.75 per gallon. Consequently, for a blue roof, the incremental costs for smart system is about $2-$3 per gallon.

Looking Ahead

In most urban areas, where land comes at a premium, blue roofs and other smart systems will continue to gain prevalence in design due to the rapid evolution of the technology, the efficiencies it provides and ultimately its cost-effectiveness.

Green infrastructure and smart stormwater systems represent an opportunity to not just preserve but to amplify ROI and set the tone on how to meet and exceed the ever-changing stormwater-management requirements of the 21st century. ■

Anthony Mayer, LEED AP, GRP, is the CEO of Hanging Gardens LLC.

Parking Perplexities: Developers Face New, Growing Challenges

Shared parking paired with technology offers solutions for changes in building usage.

By Mark L. Elliott, David C. Kirk and Jenna E. Lee, Troutman Sanders LLP

Providing parking for commercial properties has always been a challenge for developers, but it's even more so today. Why?

First, no one really knows where parking needs and requirements are heading, especially for commercial office space. On one hand, there is the densification of work space, which has seen the square footage per employee decrease. According to research from Cushman & Wakefield, the national average in 2018 was 194 square feet per employee, which is down 8.3 percent from 2009. That suggests more parking is needed for office users and their buildings, which now have more people working in the same amount of space.

Getty Images

With structured parking now costing up to $25,000 per space to build, shared parking arrangements can be an economical solution for developers.

Less Need for Spaces

However, trends indicate that parking requirements and needs will be reduced.

Alternate travel modes such as mass transit, bikes and scooters, and ride-sharing services such as Uber, Lyft and Zipcar are making not owning a car a viable choice, especially for younger entrants into the workforce. There may be more people coming to the office, but fewer of them arrive in their personal cars and need a place to park.

The larger emerging trend that radically changes parking needs is the driverless car. If a vehicle can drop a passenger off at an office and go park in an area where the real estate is cheap, there is little need for onsite parking. The premium real estate will go to the human users, while the less expensive real estate will house the cars that take those users where they want to go.

What Can Developers Do?

These trends, along with municipal requirements and regulations, have developers in a conundrum. Some localities continue to require parking minimums while other areas ask for parking maximums. In rare cases, such as near some of Atlanta's core rapid rail stations, no parking is required by local ordinances, so parking numbers are driven solely by tenant demand.

The immense cost of building parking has created another vexing problem for developers. According to a recent report by Rider Levett Bucknall, structured parking can cost $25,000 per space or more to build, so finding a way to reduce these expenses has become critical. If these high costs cannot generate any return because the parking spaces are not needed at all, and the parking structure cannot be converted to another use, the danger of spending too much on a part of the project that has little utility becomes an even larger threat to a developer.

The Sharing Economy of Parking

To address this concern, developers should consider a shared parking arrangement with an adjoining use. A popular method is having an office share a parking deck with a use that does not need the spaces during the workday, but does need them at night and on weekends. Examples of commercial real estate uses that are harmonious with such time frames are hotels, multifamily developments, and churches or other places of worship.

Typically, the way these work is that some portion of the deck is dedicated to one use (an office), another portion is dedicated to the other shared use (multifamily occupants), and a third portion is shared between the two. This third portion is sized to meet the peak demand for each tenant, with the intention that there will be enough shared spaces to accommodate everyone who needs to park.

There are challenges with shared parking, especially if the different uses bleed into one another. For example, while office parking is generally needed from 8 a.m. to 6 p.m., it is not universally used in that fashion, and it's neither possible nor ethical to tow the car of every office user who does not

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leave by 6 p.m. The same goes for an apartment resident; they may generally only need a parking space from 6 p.m. to 8 a.m., but that also is not universally true.

The Technology Solution

Technology can ease the challenge of shared parking with sensors or counters. Counters are typically employed at the entrance gate to a parking deck or at gates internal to the parking deck that restrict access to certain reserved areas. These can give an overall view of parking availability for specific users but do not necessarily pinpoint the location of open spaces.

Technology can ease the challenge of shared parking with sensors or counters. Counters are typically employed at the entrance gate to a parking deck or at gates internal to the parking deck that restrict access to certain reserved areas.

Individual sensors on each parking space, while typically a more expensive alternative, can count exactly how many parking spots are open at any time, determine the location of these spaces, and then feed data to an overhead display sign that shows how many spaces are available on each level of the parking deck. That helps an entrant into the parking deck see where they can easily find a parking space. Such sensors have typically been deployed in mixed-used developments with high parking needs at various times and in large public decks, such as those at airports or major rail transit stations.

As technology advances and costs decrease, such sensors show promise for use by private developers seeking to "right size" their parking facilities and investment. ■

Mark Elliott and **David Kirk** are partners in the real estate practice at Troutman Sanders, and **Jenna Lee** is an associate at Troutman Sanders.

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Commercial Real Estate and the Big-Data Deluge

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The use of big data and other technologies including the internet of things (IoT) will help power the smart cities of the future.

Awash in granular digital information, companies are diving headfirst into high-tech solutions so they can make more deeply informed business decisions.

By Trey Barrineau

The technological advances shaking up nearly every aspect of modern life are starting to have significant impacts on commercial real estate.

"The biggest trend we're seeing is this whole digital disruption in our industry, from ubiquitous linked sensors to the technology that's going into smart buildings," said **Dale Dekker**, AIA, AICP, principal with Dekker/Perich/Sabatini, during a recent NAIOP event. "It's truly driving commercial real estate in a whole new way."

How fast is technology changing the industry? Dekker said in 2014, there were just 12 apps focused on commercial real estate. Today, there are more than 3,000. Additionally, research from CRETech, a media company that covers digital advances in commercial real estate, estimates that there are 4,000 startups working on high-tech products and services for the industry.

"Technology and data are changing more rapidly than ever before, transforming the commercial real estate practice at every iteration," writes CCIM Institute Chief Economist **K.C. Conway** in the institute's Commercial Real Estate Insights Report for the first quarter of 2019. "Far removed are the days of fold-out discounted cash flow analysis reports, maps plastered with rub-off decals and microfilm-powered due diligence."

Among the biggest challenges facing CRE professionals is figuring out how to turn the massive amounts

Research from CRETech, a media company that covers digital advances in commercial real estate, estimates that **there are 4,000 startups working on high-tech products and services for the industry.**

of data coming from a variety of sources into usable information that can guide decision-making.

"There is a lot of data available, but to enhance our ability to use that data to make better decisions, it needs to be put into solutions that provide better visualization and are easy to navigate, rather than working with multiple dashboards that aren't very user-friendly," said **Sara Shank**, managing director for Beacon Capital Partners in Boston, where she oversees portfolio management, including technology initiatives to improve the tenant experience. "As an industry, we need to continue increasing awareness among various constituents of the types of new technological solutions that are available and showcase how they can benefit the business."

While there are issues around awareness and adoption, data visualization and other technologies such as blockchain and augmented reality are starting to gain traction, and it seems likely that the commercial real estate industry will look radically different much sooner than most people can imagine.

What is 'Big Data' and How Is It Used?

Big data spans everything from leasing, financial and demographic statistics, to building systems information, to tenant movements inside of buildings. It can also include things such as social media and news feed monitoring. Much of this information is being gathered by sensors and cameras connected to the internet of things (IoT), which is the embedding of internet connectivity into devices and objects. It's a technology that Dekker said will soon be inescapable.

"If you think the internet has changed your life, IoT is about to change it all over again," he said. "We'll soon be living in a world of sensors. They have sensing elements plus processing capabilities, so they're essentially little computers."

By 2035, there will be 45 trillion connected sensors in operation in the built environment, Dekker said. That's 5,000 sensors for every human being on Earth.

"We're getting inundated with information," he said.

However, that data deluge is also providing a deep reservoir of actionable knowledge for those who know how to use it.

During a recent NAIOP event, **Donna Salvatore**, the CEO of Megalytics, Inc., a Chicago-based data and analytics firm that focuses on the commercial real estate industry, gave examples of practical applications for analyzing data from nontraditional sources.

Why Visualization Matters with Big Data

During NAIOP's CRE.Converge, held in October 2018 in Washington, D.C., **Charles Rath**, the CEO of management consultancy RS21 in Albuquerque, New Mexico, said there are four factors that prevent organizations from making the best use of big data:

- A lack of expertise about using big data.
- Bad data-processing tools.
- Bad data or data that is poorly formatted.
- The inability to create intuitive visualizations to make data available to those who need it.

According to Rath, a 10-percent increase in data use can result in an increase of more than $65 million in net income for a typical Fortune 1000 company. Additionally, retailers who leverage the full potential of big-data analytics can optimize their operating margins by approximately 60 percent. ***(See story on page 14.)***

"You could have the best data in the world, but most decision-makers want to be able to dive into that information, understand it inside and out, and interact with it in a meaningful way," Rath said. "So you really need to be able to pair the data science with the data visualization to be able to drive meaningful outcomes." ■

By 2035, there will be 45 trillion connected sensors in operation in the built environment . . . **That's 5,000 sensors for every human being on Earth.**

Salvatore said one of her clients was looking to acquire a retail shopping center. Basic demographic research, which was focused on a five-mile radius of the location, showed that the median household income in the area wasn't as high as the client would have liked. However, after Megalytics used data gathered by geofencing, a virtual geographic boundary line, to ping cellphones and track vehicular and pedestrian traffic at the shopping center, it turned out that the actual income of people going to the mall was almost $60,000 a year higher.

"That gave the clients a whole different viewpoint, and they realized that it would make a good acquisition," she said.

According to the Pew Research Center, more than 95 percent of Americans now own cellphones. That means geofenced data can be mined almost anywhere. While Salvatore said the results are anonymized to ease privacy concerns, the demographic information is still extremely detailed.

"It can be very granular," Salvatore said. "The data goes down to the ZIP code and Census block."

It can also scale up impressively. She said geofenced data could cost-effectively monitor up to 50 potential shopping center acquisitions over a four-month period or longer to determine trends, and it can be done simultaneously to compare market data.

In another case study, Salvatore showed how traffic can be tracked with artificial intelligence and facial recognition technology. A client wanted to measure pedestrian movement along a specific section of State Street in Chicago, a busy retail corridor in the city's downtown area. In one week, the technology tracked 2 million people who walked along that stretch of the street. Megalytics plans to compare this information to satellite-based GPS data to develop a model for this area, then use scaling factors to model the pedestrian traffic for 300 shopping corridors in Chicago in order to determine where the foot traffic is and which way it is going.

Adoption Rates are Improving — Slowly

Recent studies and surveys show that while adoption of new technologies is accelerating, companies and investors could be doing more.

"It's still early stages," said Shank. "Commercial real estate had lagged other industries in developing new technology, and for a long time venture capital didn't signal much interest in investing to develop the technology the industry would embrace."

For example, KPMG's 2018 Global PropTech Survey found that 66 percent of real estate decision-makers say they have not implemented a digital and technological innovation vision or strategy at their firms.

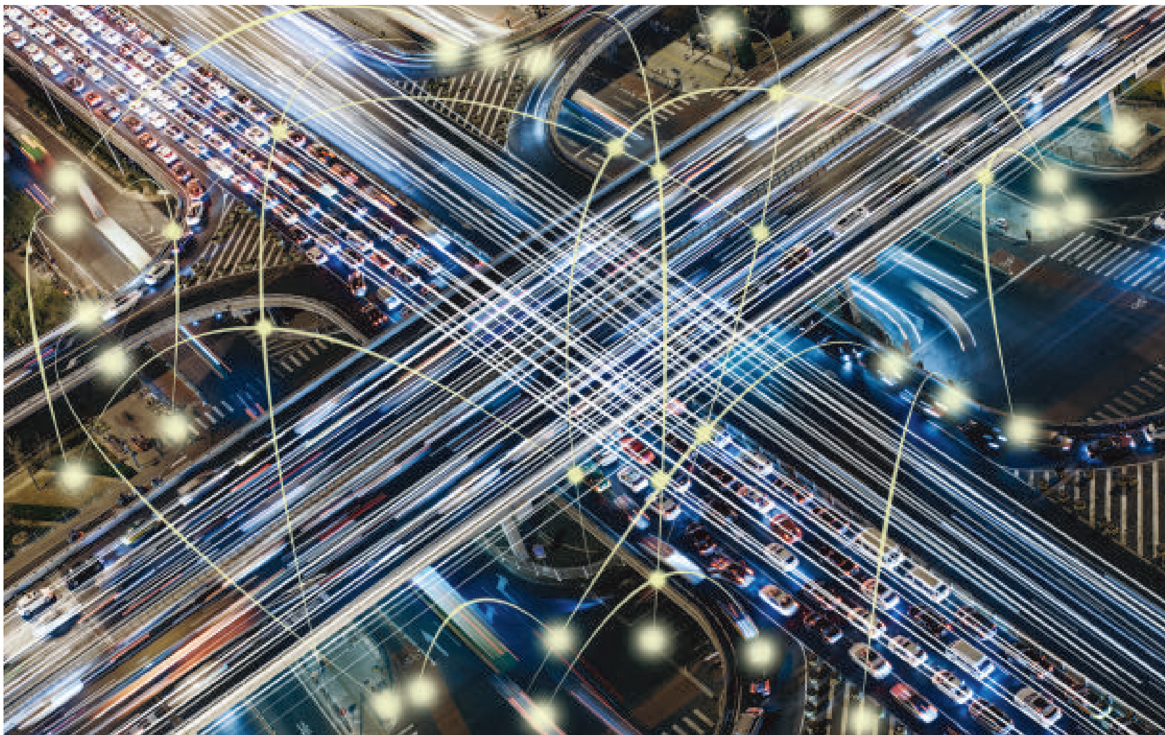
One reason for this relatively slow pace of change might be the speed at which technological advances are coming. The National Association of Realtors' 2019 Profile of Real Estate Firms found that 44 percent of commercial real estate companies said keeping up with technology was one of the biggest challenges they will face in the next two years. The only factor that ranked higher was local or regional economic conditions (46 percent).

"In some ways, we're being bombarded with new ideas and offerings, experiencing piloting overload, all of which can be overwhelming," said Shank. "Companies should be judicious about when to pilot new technologies so as not to overwhelm their employees with too many pilots at one time."

A January 2019 report from the Altus Group found that commercial real estate firms around the world have dramatically accelerated their use of technology during the past two years. However, the report also noted that the industry could be doing more in areas such as automation, artificial intelligence and machine learning. Additionally, the survey found that 60 percent of executives said their firms still use spreadsheets instead of software as their primary tool for reporting.

Challenges around the adoption of technology can affect commercial real estate companies regardless of size.

Kevin Danehy, the global head of corporate development and executive vice president with Brookfield



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Around the world, big data is generating the equivalent of 250,000 Libraries of Congress each day, according to "The Office Property and Big Data Puzzle: Putting the Pieces Together," a NAIOP Research Foundation white paper.

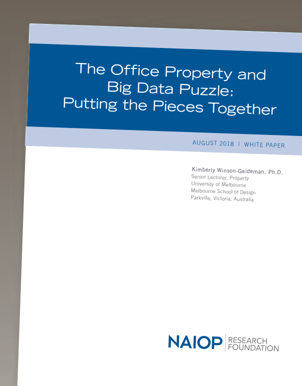
Properties, which manages more than $188 billion in assets across five continents, said his company's technology infrastructure was once like many others in the industry — decentralized and fragmented.

"Although we have massive amounts of data, a lot of it has been captured in Excel spreadsheets and different accounting systems all over the world," he said, adding that Brookfield's North American office building portfolio alone had 22 different accounting systems in place in 2018. "I'm guessing that we're not alone in real estate companies around the world that have that level of fragmentation in their data."

However, he said Brookfield began work to improve operations in 2017 by implementing Yardi, an enterprise resource planning (ERP) system for the commercial real estate industry. (Software maker Oracle defines ERP as "the systems and software packages used by organizations to manage day-to-day business activities, such as accounting, procurement, project management and manufacturing.")

"What we're really seeking to do is operate in improved ways so we have better control over data that's both proprietary and publicly available," Danehy said. "The best companies and best people have great imaginations to anticipate where growth is going to happen, and then invest in tangible assets so they can take advantage of that growth. That's what we're in the business of doing."

Get the Report



The Office Property and Big Data Puzzle: Putting the Pieces Together

AUGUST 2018 | WHITE PAPER

Kimberly Winson-Geideman, Ph.D.
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Melbourne School of Design
Parkville, Victoria, Australia

NAIOP RESEARCH FOUNDATION

To view and download "The Office Property and Big Data Puzzle: Putting the Pieces Together," visit www.naiop.org/bigdata ■

While there are issues around awareness and adoption, data visualization and other technologies such as blockchain and augmented reality are starting to gain traction, **and it seems likely that the commercial real estate industry will look radically different much sooner than most people can imagine.**

The long-term goal for Brookfield is to integrate Yardi with two other systems the company relies on — Honest Buildings, a capital planning and project management platform designed for real estate owners, and VTS, a leasing and asset-management platform.

"We're going to have a larger dataset than we've ever had of our own financial information relative to running a portfolio," he said. "We'll be able to access real-time data about sheetrock costs or the costs of engineering and different trades."

What About Blockchain?

Blockchain has been a hot topic in commercial real estate in recent years, even if many in the industry aren't yet rushing to adopt it.

For example, a January 2019 survey from the Altus Group found that respondents ranked blockchain lowest on a list of technologies for both future impact and adoption, with nearly 56 percent of executives saying it will have minimal to no impact on the industry. Adoption of blockchain was also the lowest; more than 21 percent of firms say they have no plans to use it.

"Blockchain sounds great in theory, but there are a fair amount of structural changes necessary in how the industry operates before it can be fully implemented," said Shank. "In the longer term, it should be able to help with a variety of transactions, including sales, contracts and leases."

According to **Greg Ceton**, director of strategic initiatives and special projects for the Construction Specifications Institute, blockchain enables witnessed, verified transactions via two technologies — peer-to-peer sharing and encryption. In a blockchain, peer-to-peer sharing provides the "witnesses," called nodes. Encryption provides the digital thumbprint that confirms data hasn't changed, and it makes the details of any transaction or record as confidential as needed. Each block is linked together in a chain. The structure is relatively simple, Ceton said; there are only a few elements to each block.

Ceton said real estate is perfect for blockchain because it's all about sharing information (MLS data, title records, etc.) quickly and efficiently.

"In its most basic form, blockchain makes it possible for people and companies to conduct transactions without going through an intermediary," said **Dustin C. Jones**, the NAIOP Research Foundation's Boyd Stofer Distinguished Fellow and the director of the Baker Program in Real Estate in the SC Johnson College of Business at Cornell University. "In real estate transactions, intermediaries like brokers, law firms, title companies, banks, escrow officers and governments can make transactions expensive, slow and illiquid — at the same time that investors are demanding greater speed and transparency."

Questions for CRE Leaders

Deloitte's 2019 Commercial Real Estate Outlook, titled "Agility is Key to Winning in the Digital Era," offers several key questions that commercial real estate leaders need to be asking inside their organizations.

If You Don't Have a Digital Strategy …

"Are you able to prioritize relevant technologies?"

"How are you thinking of strengthening the core IT infrastructure and its compatibility with the latest technologies?"

If You Do Have a Digital Strategy …

"Which technologies and applications do you plan to adopt to enable better information management and advanced analytics?"

"Which external and alternative data sources are you planning to leverage to unearth newer insights?

"How could better information and new insights drive value?" ■

A January 2019 report from the Altus Group found that commercial real estate firms around the world have dramatically accelerated their use of technology during the past two years. However, the report also noted that the industry could be doing more in areas such as automation, artificial intelligence and machine learning.

Ceton thinks MLS and transactions will provide the first widespread uses of blockchain in CRE.

"Those two seem like easy problems to solve compared to title," he said during a recent industry event.

However, Ceton said title record will be the "big win" for blockchain — if administrative obstacles can be overcome.

"It will require concerted efforts with authorities who have jurisdiction — state or county governments, for example," he said. "It's more of a policy discussion than the other two."

Despite slow adoption, there have been a few notable uses of blockchain in commercial real estate.

The office of the Recorder of Deeds in Cook County, Illinois, one of the largest land records offices in the U.S., recently launched a blockchain pilot program. In March 2018, the town of South Burlington, Vermont, announced that it had completed the nation's first completely blockchain-based real estate deed transaction.

Augmented Reality

Another technology that is starting to affect commercial real estate, especially for showing properties, is augmented reality.

According to Augment, a company that specializes in augmented-reality solutions for customers in many industries, augmented reality (AR) is "a technology that layers computer-generated enhancements atop an existing reality to make it more meaningful through the ability to interact with it. AR is developed into apps and used on mobile devices to blend digital components into the real world."

Karson Kopecky, the cofounder and project manager at Cviker Corporation in Reston, Virginia, said AR can allow potential tenants to see what their specific space will look like when it's finished.

"There is a strong need to visualize large buildings, bridges or changes to the landscape before construction starts," he said. "This is not the kind of visualization experience that the printed renderings or clever physical models can provide. It is an experience that lets you walk through the project in its real size and in its actual location, as if it were already built, using nothing but a phone or tablet. With this literal visualization, developers can make informed design decisions based on the real size of the project, reducing the need for physical mockups."

Kopecky said Cviker recently put AR technology to use for a high-profile project — the huge Amazon HQ2 development that's coming to Arlington, Virginia, directly across the Potomac River from Washington, D.C. The company visualized the entire development to show how it will affect the region and its citizens. In January, Cviker's 3-D model of HQ2 was featured at CES 2019 in Las Vegas.

> ### Get the Report
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> **To view and download** "Beacons and Sensors in Commercial Real Estate: Networked Digital Sensors Signal Change," visit www.naiop.org/Research/Our-Research ■

However, Shank doesn't believe AR and related technologies will fully replace in-person property visits.

"People still want to actually walk the space," she said. "So no matter how good the technology is, it won't replace the desire to conduct physical tours. That's more of a mind-shift, and we're not quite there yet." ■

Note: Some information in this article is from sessions at NAIOP's CRE.Converge, held in October 2018 in Washington, D.C.

Trey Barrineau is the managing editor of Development magazine.


Building the Future of Commercial Real Estate
As a long-time and trusted member of NAIOP, Wipfli helps commercial real estate investors, owners and developers maximize their investments and leverage the right technology to achieve their goals.
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An Ohio Suburb's Strategy to Win

New Albany, Ohio, features a walkable central business district called Village Center that's filled with shops and restaurants.

Business Investments

New Albany, about 15 miles northeast of downtown Columbus, maximizes the planning process to beat major cities in the development sweepstakes.


Jeffrey T. Horvath

By Jennifer Chrysler

In the region around Columbus, Ohio, suburbs like New Albany are attracting a remarkable range of businesses, from Fortune 500 headquarters to highly advanced data centers. The 11-county area is one of the most dynamic and diverse metropolitan regions in the United States. In fact, no single industry sector represents more than 18 percent of employment, resulting in a stable economy.

Centrally located between Chicago and New York, the Columbus metropolitan area is within a 10-hour drive of 46 percent of the U.S. population. With nearly 60 colleges and universities nearby, the region produces 20,000 annual graduates and has become a magnet for millennials, a coveted demographic for any workforce.

The success of the 4,200-acre New Albany International Business Park is no accident. This suburb of 10,000 residents successfully competes against major cities thanks to a master plan that leverages public-private partnerships to prioritize the services and amenities that enhance quality of life and quality of work. Updated with input from residents, businesses and other community stakeholders, the plan provides a predictable, prescriptive path forward that helps protect residential and business investment for the long term.

Mastering the Planning Process

Since the city's first master plan was adopted in 1998, New Albany has created a strong work-life balance with pedestrian-friendly amenities, mixed-use environments, versatile residential choices, quality architecture and ample green space.

Updated every five years, the strategic plan evaluates the existing conditions in the city, identifies developing trends and suggests appropriate land use, transportation and sustainability strategies that allow the city to grow while preserving its character. The city tries to consider every element of the physical environment, from the integrity of the design to visual cues that create a sense of place. The plan also pays close attention to elements that promote human interaction, from neighborhood pocket parks and leisure trails to pedestrian-friendly amenities at its Village Center.

Working closely with MKSK, one of the region's leading urban planning and design firms, the months-long process entails roundtable discussions with community stakeholders that include residents and neighborhood groups as well as major land holders, civic organizations, businesses, young professionals, chamber members, real estate agents, city staff and elected officials.

Early in the process, a speakers' series helps build an understanding of the importance of community planning and the specific issues that drive it. At various stages, public workshops, neighborhood gatherings and surveys enable the city to get input and feedback from individuals in the community. Focus groups on specific issues allow planners to drill deeper into attitudes, needs and motivations.

Strategic planning allows New Albany to prioritize community needs, guide public and private development, and allocate city revenue to support service and infrastructure needs while fulfilling the community's shared vision for the future.

Quality of Life Attracts and Retains Top Talent

From its pedestrian-friendly Market Square with restaurants, cafes and shops to its 45-plus miles of leisure trails and the Heit Center for Healthy New Albany, a state-of-the-art health and wellness center, New Albany appeals to companies that need to attract and retain a skilled talent pool.

Since 2000, the city has grown from 3,700 residents to more than 10,000. Meanwhile, employment at the business park has grown to 15,000. Community planning has played an essential role in managing this growth while staying true to an original vision of a planned community that seeks to employ the best practices of communities like Cotswold, England, while avoiding the pitfalls of post-World War II suburban sprawl.

Additionally, New Albany's four pillars — education, culture, health and the environment — are reflected in its planning. New Albany's Village Center is built with important civic amenities, including the library, the New Albany Plain Local Schools' 200-acre Learning Campus and the McCoy Center for the Performing Arts. Rose Run Park, a new civic green space slated to open later this year, will serve as a "Central Park" that connects the community's cultural, educational and commercial centers.

This suburb of 10,000 residents successfully competes against major cities thanks to a **master plan that leverages public-private partnerships to prioritize the services and amenities that enhance quality of life and quality of work.**

CIty of New Albany

Aetna employs more than 1,300 workers at its facility in the New Albany International Business Park.

Planning Promotes Collaboration, Cooperation

In contrast to typical nondescript suburban office buildings that are surrounded by parking lots, New Albany's holistic approach ensures that office development preserves open spaces, wooded lots, ponds and other natural features. It also seeks to promote high-quality design and development.

Master planning isn't a new concept for U.S. business parks. However, the role of business in the strategic planning process has done more than affected the physical space. It has led to a high degree of business connectivity and collaboration that strives to deliver continuous improvement in services by anticipating what businesses will need to succeed in the future and collaborating with them to deliver those services.

For example, New Albany has saved millions of dollars by leveraging public-private partnerships to promote business investment. One prominent example of these collaborative partnerships is the agreement with American Electric Power (AEP). The company originally built its mission-critical transmission center in New Albany, which allowed the city to lease the company's advanced fiber optic network instead of building its own. Now, the business park is able to offer one of the most advanced fiber optic networks in the country. As AEP continues to build capacity for its customers, the city can offer new businesses the energy and reliability of AEP's triple-feed electric capabilities, a major competitive advantage in attracting business.

AEP's robust, high-speed fiber optic network not only helped the community save $7.5 million, it also resulted in a carrier-neutral fiber infrastructure that was among the primary reasons Nationwide Insurance and TJX Companies selected New Albany for their mission-critical facilities after considering other sites across the country. Both companies also received 15-year, 100-percent real property tax abatements.

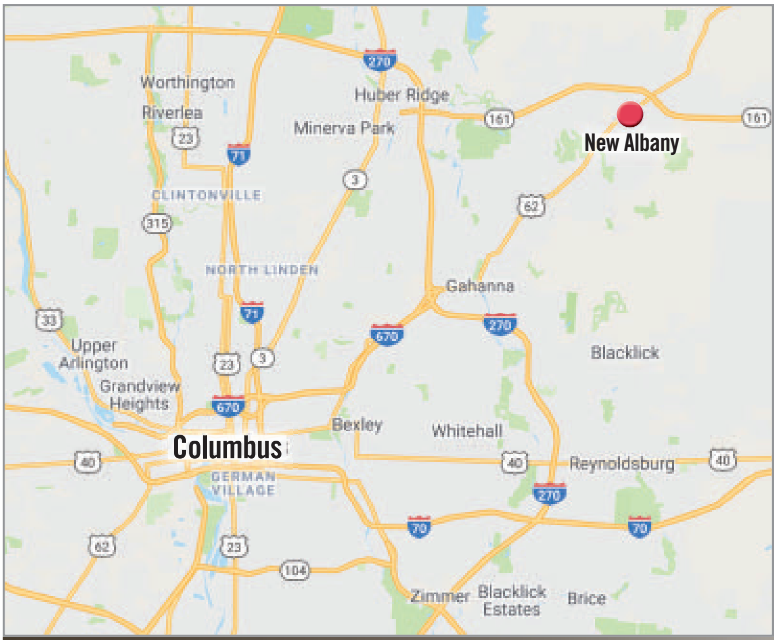
With the infrastructure and support services needed to help companies grow and expand, New Albany's business-centric model provides a roadmap for other similar-sized communities looking to attract businesses.

Success Breeds Success When it Comes to Attracting Investments

Since 1998, New Albany has attracted more than $4 billion in private investment, resulting in more than 10.7 million square feet of development, 15,000 jobs and more than $100 million in income tax revenue, according to the New Albany Finance Department. The business park continues to experience growth through business attraction, retention and expansion.

New Albany's plan and approach to long-term, sustainable development attracts a diverse mix of investment.

For example, Facebook announced plans in 2017 to invest $750 million to construct a technologically advanced, 970,000-square-foot data center powered entirely by renewable energy. A 2017 U.S. Chamber of Commerce study estimates that building a data center of this size will employ up to 1,688 local workers who will receive up to $77.7 million in wages. The construction project will produce $243.5 million in output along the local economy's supply chains. Once construction is completed, the facility could inject up to $32.5 million into the economy each year.



New Albany is conveniently located approximately 15 miles northeast of downtown Columbus, Ohio's state capital.

Now, Google has committed to investing $600 million to build a 280,000-square-foot data center on a 447-acre site.

After building its transmission operations center in New Albany, AEP also invested more than $19 million to complete a 195,000-square-foot transmission headquarters in the park. Aetna, one of the park's first tenants, announced plans last year to open a second New Albany office and add 350 employees to its current workforce of 1,300. After a nationwide search, Post Consumer Brands decided to keep its newly acquired Bob Evans prepared-foods division in the park. The success of the Personal Care and Beauty Campus has led many of its initial tenants to expand.

Moving at the Speed of Business

Thanks to New Albany's technology- and shovel-ready commercial sites, fast-track permitting, dedicated weekly open office hours and building walkthroughs, development planning is streamlined.

New Albany's Community Development Department brings together economic development staff, private developers, construction companies, utilities and other stakeholders to ensure that businesses with aggressive timelines can meet them. It builds a schedule for every project so companies know what will happen when and who is responsible, providing both accountability and predictability to the process.

The department dedicates Wednesday mornings to developers and contractors who are at various stages of project implementation, permitting and construction. Having all disciplines available enables companies to get the answers they need quickly and avoid costly delays.

On Thursday mornings, development staff is available to conduct commercial construction walkthroughs and reviews to identify problem areas and provide end users with feedback long before the project goes to final review when

Facebook will invest $750 million to build an advanced, 970,000-square-foot data center in New Albany that will be powered entirely by renewable energy. It's expected to produce $243.5 million in output along the local economy's supply chains.

delays can derail timeframes and budgets.

According to Ohio State Code, municipalities have 30 days to complete the building permit and review process. New Albany has devised an efficient planning process that completes permitting in less than 21 days — 25 percent faster than many competing communities. The department has condensed the annexation, rezoning and incentives process by nearly two thirds. What previously took nine to 12 months is now accomplished in three and a half months.

In addition to expedited permitting, the city offers sites that are prezoned for commercial use. By working closely with its primary developer and land owner, The New Albany Company, thousands of acres owned by the company have already gone through zoning review, public hearings and city council for approval. This competitive efficiency provides companies with a selection of sites that will not require a lengthy approval process. With zoning in place, The New Albany Company can safely invest in infrastructure and technology even before there is a buyer.

Creating Clusters of Commerce

Another advantage is New Albany's targeted investment in innovation clusters and campuses. These attract industry leaders seeking an environment that keeps pace with their energy, technology and logistics needs, while creating opportunities for collaboration among park neighbors. The International Business Park features five innovation clusters — Personal Care and Beauty, Information Technology and Mission Critical, Corporate Office and R&D, High-Tech Manufacturing and Logistics, and Healthcare — which help spur partnerships, discovery and commerce.

These companies and the clusters they form represent a major investment within the community. For example, the park's Information Technology and Mission Critical cluster, which includes Facebook, Google, Discover, Nationwide Insurance and TJX's Technology Center, accounts for $2.8 billion in private investment alone.

Updated every five years, this strategic plan evaluates the existing conditions in the city, identifies developing trends and **suggests appropriate land use, transportation and sustainability strategies to allow the city to grow while preserving its character.**

The first of its kind in the nation, the Personal Care and Beauty Campus has quickly attracted global industry leaders by offering turnkey product design, manufacturing, packaging, labeling and distribution within a 200-acre campus. In fact, 15 companies have built nearly 3 million square feet of space at the campus since 2011. New companies like Mast Global–Bath & Body Works joined the campus in 2015, while existing organizations like Axium Plastics have doubled their presence on the campus.

Community Profile: New Albany, Ohio

Population: 10,718

Median Age: 38.6

Per Capita Income: $76,811

Households: 3,242

Average Household Size: 3.16

Median Household Income: $187,200

Median Housing Unit Value: $495,800

Residents with bachelor's degree or higher: 76 percent

Location
- 10 minutes to John Glenn Columbus International Airport
- 15 minutes to downtown Columbus
- 20 minutes to Rickenbacker Foreign Trade Zone No. 138
- Within 10-hour drive of 46 percent of U.S. population

Business Park Profile
- 15,000 employees
- 4,000+ acres
- 10.7 million square feet of development
- $4.5 billion in private investment
- Region's only master-planned business park

Infrastructure
- Technology- and shovel-ready sites
- High-speed, carrier-neutral fiber optics
- Triple-feed electric capabilities
- Four highway interchanges

Business Incentives
- 100 percent property tax abatement
- Ohio Job Creation Tax Credit
- Workforce development/training grants
- Green building incentive
- Infrastructure loans and grants
- Quality-of-life amenities ■

Figures are from March 2019
Source: New Albany Economic Development

Currently, tax revenue from the business park generates more than 80 percent of the city's general fund revenues that support services including police protection, road maintenance, leisure trails and snow plowing. **Commercial development in the business park has generated $70 million in tax revenue for the award-winning New Albany-Plain Local Schools.**

The Benefits of Big Business for Suburbia

Residents continue to benefit from a diversified tax base thanks to the businesses that invest in New Albany. Currently, tax revenue from the business park generates more than 80 percent of the city's general fund revenues that support services including police protection, road maintenance, leisure trails and snow plowing. Commercial development in the business park has generated $70 million in tax revenue for the award-winning New Albany-Plain Local Schools. Although New Albany has a smaller residential population, local businesses help alleviate some of the tax burden for residents without affecting the quality of services. Businesses in the community have also generously supported civic institutions, including a performing arts center as well as a health and wellness center.

New Albany's long-term, sustainable plan for investment and development has positioned it to successfully adapt to changes within the modern economic landscape. For other communities hoping to replicate this model, strategic planning, strong public-private partnerships and a collaborative approach to continuous improvement in service delivery are all core components of this living case study. ■

Jennifer Chrysler is the director of community development for New Albany, Ohio.

Two Summerlin:

Two Summerlin, which recently opened in the corporate master-planned community of Downtown Summerlin near Las Vegas, is the local headquarters of The Howard Hughes Corporation, a national developer of residential, office and retail properties.

An Office Building with a Unique Exterior Skin

Photographer Michael Tessler

Custom precast panels and energy-efficient elements help set this award-winning project apart.

By Lori M. Lea, AECIndustryPro.com

A recently finished six-story, 153,000-square-foot Class A LEED Silver office building in Nevada incorporates a pioneering exterior design process.

Two Summerlin, located in the corporate master-planned community of Downtown Summerlin, serves as the local headquarters of The Howard Hughes Corporation, a national developer of residential, office and retail properties. Downtown Summerlin is one of the company's developments, and Two Summerlin is the next element of its corporate master plan build-out for the community.

The Howard Hughes Corporation solicited Two Summerlin's design through a request-for-proposal process and a design competition that attracted national and local architecture firms. The winning design, by Nevada-based Ed Vance & Associates Architects (EV&A), offered high-design yet budget-conscious construction along with knowledge of the area. **Matthew Burns**, EV&A's project manager, was responsible for design, construction administration and commissioning.

EV&A Architects, founded in 2006, is the architect of record

EV&A Architects

A BIM illustration shows the inside of Two Summerlin, including space for tenants and the location of elevators and other mechanical elements.

for hundreds of Howard Hughes Corporation projects. These include the award-winning Aristocrat Technologies headquarters in Las Vegas, the majority of the industrial buildings in the Hughes Airport Center industrial park located near McCarran International Airport in Las Vegas, as well as more than 100 tenant improvement projects for other Howard Hughes Corporation properties.

VCC Construction of Irvine, California, was the general contractor and the construction manager of the project, which began in June 2017 and was completed in August 2018.

"There were some challenges for the project including an aggressive schedule and need for early tenant turnover," said **Ron Giebels**, vice president of VCC. The project needed to be completed as soon as possible because the owner, The Howard Hughes Corporation, was paying high rent in its existing leased space and wanted to vacate.

Because of that, the VCC team coordinated advanced release of critical trades for the project such as precast, glass and steel to address the client's goals.

"It takes close collaboration between the architect and contractor for a successful project," said Giebels. "EV&A has been a partner throughout each phase of this project and has been very helpful in problem-solving. There is a true team atmosphere working with them."

VCC is a U.S. Green Building Council member and employs numerous LEED Accredited Professionals. It has completed more than 20 LEED projects and built the first green-certified town center in the U.S., Northfield at Stapleton in Denver, Colorado.

Two Summerlin offers much-needed corporate office inventory for the Las Vegas Valley and was 80 percent preleased prior to its opening in August 2018. Building amenities include state-of-the-art technology such as a water-cooled, variable-volume self-contained mechanical system that produces high-efficiency cooling and heating, LED lighting and high-speed wireless technology. Fourth- through sixth-floor balconies provide views of the Las Vegas Strip and the Red Rock Canyon mountains.

The Design Process

According to EV&A project designer **Kevin Welch**, the design approach considered many factors, including the building's orientation relative to the harsh desert sun, to reduce cooling costs and increase tenant comfort. An early concept had a precast concrete exterior screen

Precast concrete panels were used for the exterior of Two Summerlin. According to The Howard Hughes Company, it marked the first time this application has been used in Nevada.

that hung from the slab edges with floor-to-ceiling glass set back behind it. While this approach was well-received by the client, it was not within the budget. However, it did inspire the idea of utilizing a precast concrete exterior skin.

The design progressed using a formliner product to mold the surface of the precast skin, which produced variations of texture, color and sheen in the exterior finish while staying within the aesthetic of the first proposed concept. The facade breaks up the mass of the overall form through a series of intersecting boxes. They fit in with the surrounding buildings, including the Downtown Summerlin Shopping Center, the City National Arena and One Summerlin office building. That was important, because the town of Summerlin has design requirements and a rigorous design-review process.

The design progressed using a formliner product to mold the surface of the precast skin, which produced variations of texture, color and sheen in the exterior finish while staying within the aesthetic of the first proposed concept. The facade breaks up the mass of the overall form through a series of intersecting boxes.

EV&A Architects

A section of the precast concrete panels for Two Summerlin is moved into place at the job site.

The structural design with the custom-molded formliner precast panel system was cost-effective without decreasing the design aesthetic. In fact, the custom aspect of the panels became one of the building's most notable exterior design features and represents the first time this application has been used in Nevada.

"The design team found a cost-effective approach that offered a nice-looking building for the client," said **Steve Schiller**, president of John A. Martin of Nevada, which provided structural engineering services for the project.

EV&A selected US Formliner to provide custom designs for the 223 panels of various sizes that were used in the project. **Ronda Gilbert**, Western Regional sales manager for US Formliner, noted that the company sent out a partial shipment of molds to accommodate the accelerated construction schedule. The first shipment went out 21 business days after receiving the order, with the remainder sent five business days later.

"The contractor was extremely pleased with the formliners in regard to ease of use and timeliness of delivery, allowing the contractor to maintain the project schedule," said Gilbert.

Western Pacific Precast manufactured the panels at its plant in Sloan, Nevada. Every formliner size was mapped out digitally to ensure proper orientation. All of the concrete had to achieve proper strengths and the design pattern had to achieve the proper setup from the molds for acceptable levels of quality. The structural system required that these panels tie into each other to create the outer exterior.

To support the precast panels, the firm delivered a steel frame structure that carries gravity loads with the panels attached to the steel frame. Inserts in the panels and rods in the inserts tied the concrete together.

"A fair amount of coordination was required between the design team and the steel and precast fabricators to maintain tolerances," Schiller said.

Green Elements Inside and Out

Designed to receive LEED Silver Certification, the project is highly energy efficient.

"Sustainable features such as building orientation, recyclable materials, energy efficiency above code standards and drought-tolerant landscaping play an important role in the project," said Burns.

EV&A Architects

The precast concrete panels at Two Summerlin are attached to a steel frame structure. Inserts in the panels and rods in the inserts tie the concrete together.

Coda Group, Inc., a Nevada-based architecture and sustainability consulting firm, worked with the design team to achieve LEED Silver status. The company's **Jennifer Turchin** helped facilitate decisions such as specially designated parking spaces for low-emitting and fuel-efficient vehicles, plumbing fixtures designed to conserve water, and material selection that focused on regional and recycled content. The project also achieved sustainable sites category points for its location in a primarily suburban area that has many urban amenities, including access to public transportation and development density.

Coda also assisted with construction policies addressing waste management and indoor air quality.

As part of the effort to receive LEED Silver certification, the project team also sought Materials

The structural design with the custom-molded formliner precast panel system was cost-effective without decreasing the design aesthetic. In fact, **the custom aspect of the panels became one of the building's most notable exterior design features and represents the first time this application has been used in Nevada.**

& Resources Credit 2: Construction Waste Management. To achieve this credit, Coda worked with VCC, the general contractor, on recycling and/or salvaging nonhazardous construction and demolition debris and implementing a construction waste management plan that at a minimum identified the materials to be diverted from disposal and whether they would be sorted on-site or commingled. Calculations were done by weight or volume, and they had to be consistent throughout the project.

The selected waste management provider was required to provide documentation to VCC on a monthly basis. This included a summary log of all construction waste generated by type, the quantities of each type that were diverted and sent to a landfill, and the total percentage of waste diverted from landfill disposal. The waste-management provider was also required to provide waste-hauling tickets for each load removed from the project site.

Coda Group also assisted VCC in creating an indoor air quality management plan. Construction was sequenced in such a way that porous building materials were protected from exposure to moisture and stored in a clean area prior to installation. This was accomplished by the use of temporary enclosures to protect the material from moisture, the timing of applying fireproofing to prevent unnecessary moisture exposure, and the use of a temporary vapor barrier such as

Project Summary

Project Location	Las Vegas, Nevada	
Project Name	Two Summerlin Class A Office Building	
Type of Site	Suburban	
Development Type	Ground up/new development	
Transportation Modes	Car Transit Pedestrian (sidewalk) Bicycle (bike path or lane)	
Uses	Office Common space	153,000 sf
Number of Floors	6	
Parking (Type of Parking)	Structured, Surface	
Major Tenants		
The Howard Hughes Corporation	(Floor 1) - 14,600 RSF	
WeWork	(Floors 2-3) - 49,876 RSF	
Aritocrat Technology	(Floor 4) - 13,541 RSF	
JRS Hospitality	(Floor 5) - 8,152 RSF	
Greenberg Traurig, LLP	(Foorl 6) - 16,361 RSF	
Leasing Rate	$3.10-$3.20/RSF/Month	
Site Dimensions		
Total Acreage	8.71 acres - 379,490 sf	
Total Sq. Ft.	153,000	
Development Team		
Developer	The Howard Hughes Corporation	
Project Architect	EV&A Architects	
Interiors Architect	EV&A Architects	
General Contractor	VCC General Contracting	
Leasing Agents	**Randy Broadhead**, SIOR & **Amy Lance**, CBRE	
Timeline		
Land Acquisition	The owner has owned the land for over 30 years	
Project Completed	August 2018	
Development Cost	$30 million	

Photographer Michael Tessler

The executive office balconies at Two Summerlin, located on the fourth through sixth floors, offer views of the Las Vegas Strip and the Red Rock Canyon mountains.

single-ply roofing, which could later be incorporated into a final roof system. In addition, the general contractor ensured other areas maintained compliance including HVAC protection, source control of emitting products and equipment, pathway interruption and housekeeping.

"Even with a complex building program and desire to achieve LEED Silver Certification, this team was able to meet the client goals and deliver a successful project," said **Kent Bell**, president of Harris Consulting Engineers, the mechanical, electrical and plumbing consultants who performed the energy modeling.

NAIOP's Southern Nevada Chapter recently recognized the project with the 2019 Spotlight Honor Award in the Spec Office Building category. ■

Lori M. Lea is the owner of AECIndustryPro.com LLC

Coda Group, Inc., a Nevada-based architecture and sustainability consulting firm, worked with the design team to achieve LEED Silver status. The company's **Jennifer Turchin** helped facilitate decisions such as specially designated parking spaces for low-emitting and fuel-efficient vehicles, plumbing fixtures designed to conserve water, and material selection that focused on regional and recycled content.

NAIOP's National Forums: The Power of Relationships

Five members of the association's Deal and Investment Concepts Forum tell how members bond through relevant, in-depth conversations in a noncompetitive setting.

By Rich Tucker

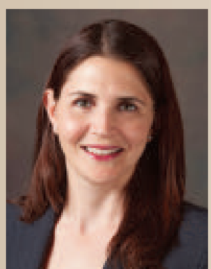
NAIOP's National Forums Symposium brings together prominent industry professionals from across North America to share best practices, strengthen relationships with fellow Forums partners, and identify how to capitalize on business opportunities. In 2011, NAIOP launched its first Forum for Developing Leaders for members who are 35 or younger.

That group has seen many changes in the years since, especially as members aged out of the Developing Leaders (DL) program. But the Forum is growing stronger because of those changes. In fact, the Deal and Investment Concepts Forum, which contains almost 20 members, is among the strongest and most dynamic of NAIOP's Forums. Development magazine spoke to several members to determine what gives the group its staying power.

Development: *Initially, what did you hope to get out of the National Forums Program?*

Matt Watson: My involvement with National Forums has been interesting. I was part of the Young Professionals Forum program (the precursor to the Developing Leaders Forum program), and in 2008 during the recession, I was the only member to renew. NAIOP was very helpful and got me involved with another Forum, but that group had been together for years. The group as a whole was very welcoming, yet I felt as if trying to gain long-term relationships in an already established group could be difficult. So, when I was asked if I wanted to join a new group that was being created, I thought it would be a better opportunity to establish long-term, national, professional relationships in our industry.

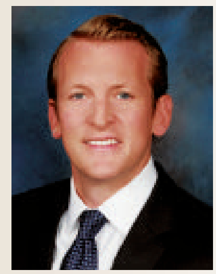
Meet the Forum Members



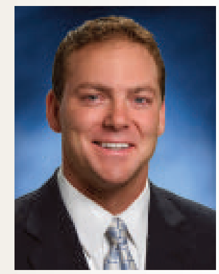
Rivka Altman
Associate Portfolio Manager
Invesco Real Estate
Dallas, Texas

Kate Bryden
Vice President Development
MRP Industrial LLC
Baltimore, Maryland

Lex Rickenbaker
Executive Director – Investments
USAA Real Estate Company
Atlanta, Georgia



Robert Stofer
Vice President
PCCP, LLC
New York, New York



Matt Watson
Vice President
CBRE | Capital Markets
Tampa, Florida

Robert Stofer: I wanted to expand my network in the commercial real estate industry at a deeper level than what you're able to do by simply attending panels and networking events.

Rivka Altman: I was a late addition to the Deal and Investment Concepts Forum, as I was nominated by a friend who was an existing member. I was hoping to make professional connections with a diverse group of individuals that spanned the commercial real estate spectrum and country.

Kate Bryden: When I first joined the Forums program, I assumed it would be a more in-depth networking experience, and I did not have expectations for it beyond that. Due in large part to the diversity of experience within my Forum and the candor of our members, it has been substantially more rewarding than a traditional networking experience.

Lex Rickenbaker: A chance to expand my network on a national level and to further my involvement with NAIOP, which had previously only been at the local chapter level.

Development: *How has being a Forums member benefited you professionally and personally?*

Matt Watson: Strategically, NAIOP was able to put together individuals who were young, but very well-established in their careers. Our group as a whole had very similar personalities and we all bonded immediately. There is no value that can be put on the personal friendships that have come out of being a member of the Deal and Investment Concepts Forum. We are all from different parts of the country and all do different aspects of our industry. Financing, brokerage, development, investment sales and more. We spend a great deal of time when we meet on what we are working on and general market updates. I get more real-time information in our two days together regarding market trends from all across the country than I could in reading 10 newspapers.

"I wanted to expand my network in the **commercial real estate industry at a deeper level than what you're able** to do by simply attending panels and networking events."

— Robert Stofer, PCCP, LLC

> **“**First and foremost, a successful Forum will have members who commit to it the same way they would commit to a job. Each member has to be willing to show up, be an active participant in the conversation and be willing to help their fellow Forum members. **Second, just like a company, the culture of the Forum is important to the retention. If this is established early on, alongside a vision and goals, I think the rest will fall in place.”**
>
> *— Rivka Altman, Invesco Real Estate*

Robert Stofer: I have learned a great deal from many talented and intelligent real estate minds within our Forum. Personally, I've made new friends that I love to see each meeting, if not more frequently. So it's a win-win.

Rivka Altman: I have worked on transactions with at least 50 percent of my Forum members whether through an acquisition, disposition, financing or connection to someone in their respective market. The depth of talent, accessibility and desire to help one another has paid dividends. I personally look forward to each Forum meeting that I attend because I thoroughly enjoy spending time with each of the members. We have fun together, whether it is in the meetings, at dinner or during a breakout session. Over the course of the five years I have been a member, our group has gone through a variety of life cycle changes, both good and bad, and our Forum has been there for support, encouragement and inspiration.

Kate Bryden: I've developed great friendships among our Forum membership, and those relationships have led to some deep conversations about personal lives, professional goals and other topics. Our Forum often acts as a sounding board for the issues each of us is facing in our careers — providing really valuable feedback about how to approach obstacles and how to plan for advancement. Additionally, the case studies presented by fellow members (usually informal narrative project introductions) have caused me to consider different design and development strategies that I've applied to active projects.

Lex Rickenbaker: The intimate and confidential nature of the Forum has provided a relaxed environment for peers to discuss challenges and case studies and learn from them. I have developed relationships with individuals I would likely have never met. In addition, as each member's career has developed, some personal relationships have provided business opportunities as well.

Development: *Is there a particular meeting that stands out? A gathering that drove home the value of Forums for you?*

Matt Watson: In 2011, we held our first meeting. Going back to Scottsdale, Arizona, a second time two years ago, and seeing that 99 percent of our group was still together, showed me that everyone gets something out of our meetings.

Robert Stofer: Each meeting has been unique, and we continue to learn how to make our time together most efficient and rewarding.

Kate Bryden: We've had a lot of memorable gatherings. We had amazing dinners at the best restaurants in each city with incredibly lively conversations about project and market challenges, as well as daytime meetings discussing specific pro forma details of our members' projects. Because everything is kept confidential, we've established a great level of trust within the group, so a lot of unvarnished information is shared. It's different from any other NAIOP or professional group experience I've ever had. It's always thought-provoking and rarely superficial.

Lex Rickenbaker: The initial meeting (2011) stands out. Each member was fully willing to participate, and since each member was new, the Forum started with a blank slate to create our own dialogue and direction.

Development: *How is the voicing of differing viewpoints encouraged, and how do you select topics to discuss?*

Elicea Andrews, ISHOT.CA

NAIOP National Forum attendees take in an educational session during the symposium held in Vancouver, Canada, in April. Learning about and discussing industry trends is a crucial aspect of the Forums experience.

Matt Watson: A great deal of our time together is spent on market updates. Everyone has the spotlight for a period of time. Outside of our market updates, we always ask the group prior to meeting what topics we would all like to hear about. Usually one or two people from our group will have some knowledge of a topic and volunteer to present. We have never had a problem finding a volunteer or a topic.

Robert Stofer: At this point, it's just natural. Our Forum is very respectful of one another, and we always make sure to hear everyone's "update" on their markets and careers (and personal lives).

Rivka Altman: I don't think the changing industry has altered the topics that we discuss because of the diverse membership in our Forum. Our Forum solicits ideas two to three months prior to our meetings, and generally we talk about topics that are relevant to current trends. For example, as we began our agenda creation for the Vancouver Spring Forum, we focused our attention around Opportunity Zones and coworking models.

Kate Bryden: There are usually many different viewpoints expressed on almost every topic we cover. It's a group full of confident and talented individuals — a lot of dominant personalities. And while some are more outspoken than others, there's a lot of intrinsic respect for each other. We have a roundtable conversation at the start of each meeting that usually lasts several hours where each person provides an update on their activity and market — and that spurs a

"I get **more real-time information** in our two days together regarding market trends from all across the country **than I could in reading 10 newspapers.**"

— *Matt Watson, CBRE*

> **"Each member has to participate ... Each person is working on unique projects and deals.** People want to chat about obstacles and challenges and to receive peer feedback."
>
> *— Lex Rickenbaker, USAA Real Estate*

good amount of discussion and participation itself.

Lex Rickenbaker: Each member has to participate. That can be through presentations, opening and leading dialogue, market tours, case studies and so forth. Each person is working on unique projects and deals. People want to chat about obstacles and challenges and to receive peer feedback.

Development: *How has the industry changed during your time in this group?*

Robert Stofer: For me, it's been a bull market since my first day in the Forum. It will be very interesting to see how our conversations shift during the next downturn.

Rivka Altman: Industrial has become the darling of the industry. Retail has become the head-scratcher. Real estate is not your standard four food groups. "Self-Storage," "Data Center" and "Senior Housing" have each taken a seat at the table. All of the sectors have become intertwined with each other. There is more of a customer-centric focus when developing or repositioning assets, whether it is through hospitality-like amenities in office buildings, coworking space in apartment buildings or last-mile delivery in a retail center.

Kate Bryden: We've been on a bit of a roller-coaster ride as an industry since joining this group. When we first got together, almost every market and every product type felt like it was in some level of distress or depression. It's been interesting to see which product types and markets have come back fastest. Industrial, which has always been my focus and passion, was not the industry darling it is today. It's been interesting to see that shift, though it hasn't materially changed the conversations of our group. The market has driven changes and driven our conversations, but I'd say our evolution within our own careers has had a greater impact on the discussion topics. We have spent a fair amount of time acting as a sounding board for each other's career goals and paths.

Development: *How much communication is there among group members outside of meetings?*

Matt Watson: There is always some sort of contact throughout the group. We use an app called GroupMe where we all communicate with one another. There are deals being shared, or people trying to connect the dots on a relationship, or just joking around with each other.

Robert Stofer: Any time someone has a question or news to fill the group in on, we reach out to each other. There are also always side conversations going on between different members who are perhaps looking at a deal together or helping each other out with market intel.

Rivka Altman: We're in constant contact with each other as we view our Forum as a support network and sounding board. If someone hears about something interesting in the market, needs a company contact or help with deal structure, a question is distributed on the listserv.

Kate Bryden: There's a fair amount of conversation outside of the meetings — some actually real estate-related.

Development: *What's the secret to staying together for so long?*

Matt Watson: To be able to get 20-30 random personalities to mesh as well as we do and stay together is no easy task. Our meetings are informational and engaging. There is something for each of us to take away from our meetings that you didn't know prior.

Robert Stofer: We feel lucky, but we have also had fairly good attendance at the twice-per-year Forum meetings since I've joined, so that certainly helps.

Rivka Altman: First and foremost, a successful Forum will have members who commit to it the same way they would commit to a job. Each member has to be willing to show up, be an active participant in the conversation and be willing to help their fellow Forum members.

Want More Information?

To learn more about NAIOP's National Forums program, contact **Bennett Gray**, vice president for National Forums and Research Foundation, at gray@naiop.org, or **Susan Bornt**, National Forums and Research Foundation administrator, at bornt@naiop.org.

You can also learn more by following this link: www.naiop.org/Connect/National-Forums ■

Second, just like a company, the culture of the Forum is important to the retention. If this is established early on, alongside a vision and goals, I think the rest will fall in place.

Kate Bryden: We have a great group chemistry that is due in part to how NAIOP — really **Bennett Gray** — handpicked each of us. The strong mix of geographic areas, product types and professions within the industry has kept us interesting to each other, I think. The market/product overlap we do have has helped bring a few deals together. We have a great time together but also really lean on each other for advice, connections and perspectives. It would be hard to get as many insightful, informed and simultaneous perspectives on an issue you wanted to bring to the table anywhere else.

Lex Rickenbaker: A relaxed but committed approach. Each meeting is planned and focused on both member updates, presentations and dialogue. But we also want to have fun, and so we organize additional dinners, happy hours and so forth in and around the meeting. These allow us to enjoy some camaraderie outside of the meeting room.

Development: *What advice would you have for NAIOP members who are considering joining a Forum?*

Matt Watson: First of all, I highly recommend joining a Forum. After that, be prepared to commit. Joining NAIOP or the Forum is the same. You will get out of it what you put in. If you don't want to travel or can't commit to the meetings, then it isn't for you. Life happens, and you will miss a meeting here and there, but the nice thing is that they are scheduled way in advance. You have time to work around your schedule.

Robert Stofer: Go in with an open mind, but do your research ahead of time. Try and meet some of the existing members in the Forum first.

Rivka Altman: Prior to joining a Forum, I would try to understand what your personal goals are for membership and what you hope to get out of it. A Forum is only as good as the participation, attendance and meaningful conversation created at these meetings.

Kate Bryden: If you have the time to commit to it, being in a Forum is really the greatest way to leverage your membership in NAIOP. Most of us already actively network within our markets, but would be reluctant to share professional challenges or case studies with those same peers and competitors knowing that our candor might leave us exposed on a future deal. Real estate is equal parts art and science, and the only way we can learn the art of it — and see opportunities others may not — is to get exposure to more than just our own deals. To use a somewhat overplayed adage, you don't know what you don't know. We all need to find ways to learn as much as we can in the shortest time possible so we have time to capitalize on that knowledge and create opportunity. Being on a NAIOP Forum is inimitable professional development and access to a personal board of directors, but a board that can't fire you! ■

> **"We have a great time together but also really lean on each other for advice, connections, and perspectives.** It would be hard to get as many insightful, informed, and simultaneous perspectives on an issue you wanted to bring to the table anywhere else."
>
> *— Kate Bryden, MRP Industrial LLC*

Rich Tucker is NAIOP's director for public policy communications.

Industrial Sector to Remain Strong in 2019 as Economy Steadies

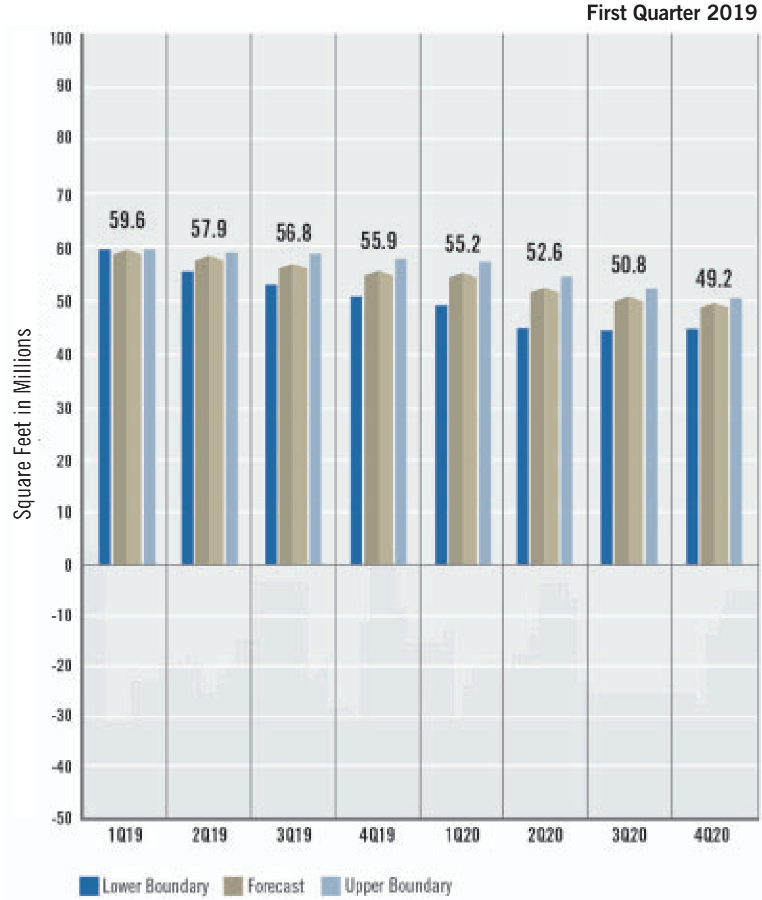
The NAIOP Industrial Space Demand Forecast sees few changes from 2018.

Table 1

The NAIOP Industrial Space Demand Forecast With 70% Confidence Intervals

U.S. Markets, Quarterly Net Absorption

First Quarter 2019



By all accounts, the industrial development sector remains robust. E-commerce is spurring demand for sortation hubs, distribution centers and cold storage facilities, and vacancy rates hover at all-time lows.

Findings by researchers **Dr. Hany Guirguis** of Manhattan College and **Dr. Joshua Harris** of New York University predict demand will remain at approximately 57 million square feet per quarter for 2019. That is unchanged from the average actual 2018 quarterly absorption of 57 million square feet. Industrial absorption in the final half of 2018 came in slightly above expectations due to higher consumer spending and retail sales, which were buoyed by a strong job market.

Industrial demand will be off to a strong start in 2019 with a potential tapering off into 2020 as rising interest rates moderate the economy's growth rate. At present, the risk of a downturn in the industrial space market appears slim as the nationwide vacancy rate sits at a historically low 7.0 percent. Further, gross and net asking rents are at all-time highs, indicating that the market supply continues to tighten at a steady rate.

A Strong Economy

While data are somewhat suppressed due to the U.S. government shutdown that took place from December 22, 2018, until January 25, 2019, economic indicators point to moderate growth. The Federal Reserve Bank of Atlanta's most recent GDPNow estimate of fourth quarter 2018 GDP growth is 2.7 percent, a decline from the robust 3.4 percent growth experienced in the third quarter.

Overall U.S. economic activity will remain steady in 2019, with annualized rates of GDP growth in the mid-2 percent range. Steady growth is the biggest factor keeping the industrial demand forecast stable. The labor market and overall consumer confidence are also expected to grow for the year, with industrial space demand increasingly influenced by consumer spending. However, there is concern about declining business sector investment, which the Federal Reserve Bank of Atlanta cites as a key explanation for the lower fourth-quarter GDP growth expectation.

The Conference Board's Measure of CEO Confidence™ fell 13 points in the fourth quarter of 2018 to a level of 42, indicating more pessimism than optimism (any reading above 50 indicates growth). However, the Purchasing Managers' Index (PMI), shown to be far more indicative of future industrial space demand, rose in January to 56.6 percent. That indicates improving and growing conditions.

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At present, the risk of a downturn in the industrial space market appears slim as the nationwide vacancy rate sits at a historically low 7.0 percent. Further, gross and net asking rents are at all-time highs, indicating that the market supply continues to tighten at a steady rate.

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'Healthy and Stable'

Overall, the U.S. industrial real estate markets appear to be healthy and stable. It is the asset class that is potentially in the best position to weather any macroeconomic downturn that may come in the next several years. The areas of instability, which in recent months have driven stock market volatility and the decline in CEO confidence, are due to international market concerns. In the U.S., manufacturing activity and employment appear to be poised to continue growing in 2019 and beyond due to structural factors such as new technology and willingness to reshore foreign manufacturing operations. Similarly, online shopping activity set records this past holiday season, which only fuels the need for more warehouses and distribution centers in additional markets.

Although it got off to a slow start during the first half of 2018, the industrial market ended 2018 by performing closely with the previous forecast of net absorption. In 2018, 229.5 million square feet of industrial space was absorbed, in line with the forecast of 222.2 million square feet. ■

Get the Report

To view and download the NAIOP Industrial Space Demand Forecast for the first quarter of 2019, visit: www.naiop.org/Research/Our-Research

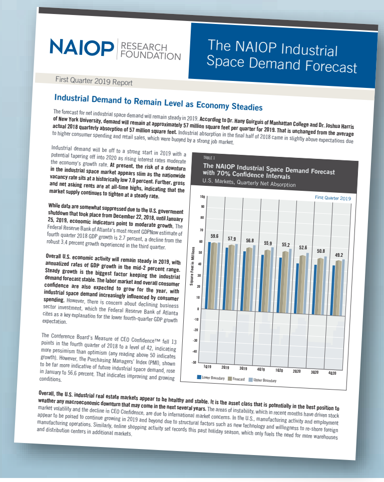
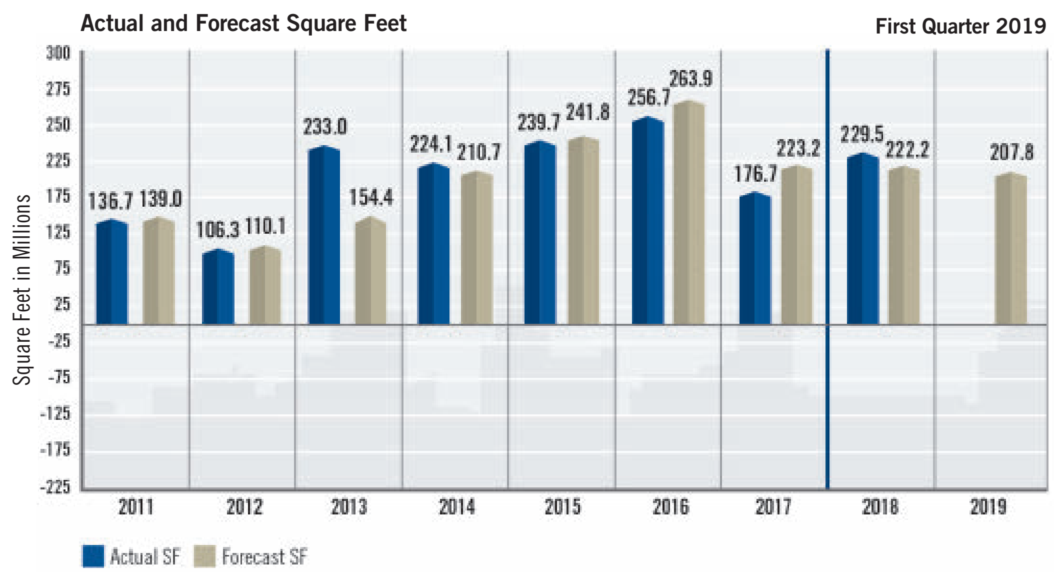


Table 2

The NAIOP Industrial Space Demand Forecast
U.S. Markets, Annual Net Absorption



The Northern Influence of Commercial Real Estate

The industry's impact on Canada is the focus of a new NAIOP research report.

By Rich Tucker

Many commercial real estate professionals won't make a deal unless they can pencil it out on a single piece of paper first. That means they require access to accurate information — about property values, tax rates, interest rates and much more. But in a world of instant (and sometimes incorrect) data, accurate information is becoming even more vital.

Every January, NAIOP releases "Economic Impacts of Commercial Real Estate," a report by **Stephen Fuller**, Ph.D., of George Mason University in Arlington, Virginia. It has become a reliable resource for CRE professionals as well as policymakers in Washington and state capitals who use it to understand the contributions commercial real estate makes to the U.S. economy. It provides a state-by-state look at the number of jobs generated and supported by the CRE industry.

Now, NAIOP is turning north of the border to provide a similar service for the Canadian economy.

Canadian Commercial Real Estate Creates Thousands of Jobs

A recent report, prepared by the Conference Board of Canada for the NAIOP Research Foundation, estimates the impact of commercial real estate development along three measures of economic activity in that country: gross domestic product (GDP, or value-added), employment and labor income. The Conference Board of Canada does not lobby for specific interests and is funded exclusively through the fees charged for services to the private and public sectors.

The report finds that in 2017, commercial real estate investment in Canada totaled $38.6 billion. That money supported:

- $40.2 billion in gross domestic product (GDP)
- $25.2 billion in labor income
- $10.1 billion in government revenues

In Canada, spending on CRE also supports more than 400,000 jobs, roughly three percent of the population.

In a similar vein, every $1 million spent on commercial real estate nationwide supports 10.8 workers. Of course, the value on investment varies by province. In Alberta, a total of 8.5 jobs are supported across the economy for every $1 million invested. Further east, in Quebec, every $1 million spent on commercial real estate generates 12 jobs.

The majority of CRE investment is in building structures. Actual construction costs account for more than 60 percent of commercial real estate spending, some $25 billion nationwide in

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2017 (the most recent year for which full information is available). "Soft construction costs account for the next highest share at $5.3 billion, followed by interior buildout ($4.9 billion), and site development and infrastructure ($3.7 billion)," the report adds.

'Clearly Positive'

The trend in CRE investment is moving strongly in the right direction, and far outpacing the overall rate of growth in the Canadian economy. "Growth in commercial real estate spending was exceptionally strong during the mid-2000s but has slowed somewhat in recent years. However, the long-term trend is clearly positive, with aggregate commercial real estate spending rising by 36 per cent, or $10 billion a year, since 2007," the report found.

Meanwhile, the overall economy is thought to have expanded just 2.0 percent in 2018 (final numbers are not available yet). That growth rate is a drop from 2017's 3.0-percent expansion. Looking ahead, the report projects only 1.8-percent expansion in each of the next two years. Thus, CRE should remain a bright spot in the Canadian economy.

One place the country has room to grow is outside its major cities.

"Together, Canada's six largest cities, or census metropolitan areas (CMAs), accounted for close to 60 per cent of all commercial real estate spending in the country in 2017," the report finds. "The largest city, Toronto, accounted for one-fifth of total commercial real estate spending alone." The other CMAs are Vancouver, Calgary, Edmonton, Ottawa-Gatineau and Montreal.

But the report adds that some economic activity does tend to spill across provincial borders, highlighting the "truly national impact that commercial real estate makes on the Canadian economy, regardless of where the investment actually occurs."

Not surprisingly, the provinces that spend more on CRE tend to see a greater impact. "Consequently, approximately 40 per cent of GDP and labour income accrues to Ontario, followed by 18 per cent to both Alberta and Quebec, and 11 percent to British Columbia," the report finds. This tracks with their overall provincial investment in CRE.

Get the Report

To download "Economic Impacts of Commercial Real Estate in Canada, 2018 Edition," follow this link:

www.naiop.org/canadiancontributions2018

The report is sure to become a must-read on Parliament Hill in Ottawa and throughout the provinces as well, where it can help NAIOP's Canadian chapters in their meetings with policymakers. To help provide a steady stream of information, NAIOP plans to publish a similar study every two years going forward. It will be interesting to watch the impact of CRE across time and across borders. ■

Rich Tucker is NAIOP's director for public policy communications.

Chapter Profile: NAIOP Wisconsin

Foxconn has grabbed a lot of headlines, but that's not the only thing going on in commercial real estate in the Badger State.

By Trey Barrineau

Jim Villa, the CEO of NAIOP Wisconsin, is one of three chapter leaders recognized as a 2018 Chapter Executive of the Year by NAIOP. He shares some insights into what is happening in the commercial real estate industry in his home state.

Development: *How are the market conditions for member companies in your chapter?*

Villa: The market conditions in Wisconsin are still strong for the real estate industry. The Goldilocks conditions here (i.e. "Never too hot, never too cold") have kept our member companies optimistic about 2019 and beyond despite caution by some lenders/investors in the urban multifamily and hospitality sectors. These two sectors have seen tremendous growth in Milwaukee throughout the last 10 years and have sparked concern about overbuilding in a slow-growth market.

Aerialscapes.com

As this aerial photo from January shows, development is well underway at the Foxconn site in southeastern Wisconsin. It's one of the largest corporate attraction projects in U.S. history.

"Our chapter champions thriving communities in Wisconsin through successful real estate development. To be successful, developers need an economic and regulatory climate that invites investment and growth. To this end, our top legislative priorities are focused on economic development, regulatory reform and taxation."

— Jim Villa, CEO, NAIOP Wisconsin

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

Villa: When Democrat **Tony Evers** succeeded Republican **Scott Walker** as governor earlier this year, it marked a dramatic change in political leadership after eight years of single-party control, and this has resulted in divided government in Wisconsin. This has introduced some uncertainty with respect to taxation, economic development and natural resource regulatory policies. NAIOP Wisconsin, as always, works to educate policymakers to ensure they understand the impact commercial real estate development has on the state's economy, and therefore minimize any potential damage to the market's momentum.

Development: *What are the big opportunities in commercial real estate in Wisconsin right now?*

Villa: While the labor market is tight all around the country, Wisconsin has a long history of training workers for, and attracting, manufacturing jobs. In fact, the state passed the nation's first modern apprenticeship law all the way back in 1911. We've seen many new companies move into Wisconsin over the past decade to take advantage of a well-trained workforce known for its work ethic. The direct benefit is obviously in the industrial market, but this indirectly affects the retail, housing and hospitality sectors as well.

Development: *Can you discuss the impact of tax incremental financing (TIF) on Wisconsin's real estate industry?*

NAIOP Wisconsin At a Glance

Year founded: 2003

Number of members: 390

Number of companies represented: 183

Website: www.naiop-wi.org

Villa: TIF, which is a way to allocate a portion of property taxes in a certain area to finance economic development or capital improvements, is one of the few tools Wisconsin municipalities, small and large, have to invest in their economic development. Since 2000, 447 TIF districts have successfully closed, adding nearly $9 billion of new value to the tax base. Gov. Evers, in his first budget, proposed placing a cap on how much a developer can receive in a direct grant from a municipality. This would dramatically limit the program and municipalities' ability to partner with developers to make possible projects that simply wouldn't otherwise happen and/or incorporate public space and infrastructure needs.

***Development:** What are some of your other legislative priorities?*

Villa: Our chapter champions thriving communities in Wisconsin through successful real estate development. To be successful, developers need an economic and regulatory climate that invites investment and growth. To this end, our top legislative priorities are focused on economic development, regulatory reform and taxation. Key initiatives include maintaining maximum flexibility in the TIF program, preserving historic tax credits at current or higher levels, increasing the number of liquor licenses available to retailers so they can stay competitive with online sellers, developing smart strategies for workforce housing needs, fighting increased taxes that negatively impact the business climate, and standing against attempts to weaken property rights in areas such as eminent domain.

Development: *What are some notable projects going on right now in Wisconsin?*

Villa: In Milwaukee, where the Democratic National Committee will host its 2020 convention, Northwestern Mutual recently completed the construction of a $400 million office tower, followed by a $100 million luxury apartment building. The completion of the all-new Fiserv Forum, home to the NBA's Milwaukee Bucks, has been a catalyst for continued downtown revitalization in the state's largest city, resulting in hundreds of millions of dollars in new investment. Foxconn continues to construct its $10 billion facility in Mount Pleasant, but also is about to acquire office and research properties in Eau Claire, Green Bay and Madison. In Madison, post-recession development of the Capitol East Corridor, an area previously full of empty industrial buildings, has resulted in hundreds of millions of dollars in investment along East Washington Avenue by small and large developers alike. Additionally, fueled in no small part by NAIOP Wisconsin's advocacy for increases in state historic tax credits, downtown Main Street development/redevelopment continues to modernize towns, villages and cities across the state.

"NAIOP Wisconsin was an instrumental leader in the coalition that successfully persuaded the legislature to approve the 'pay as you grow' incentive plan to bring Foxconn to the state. Under 'pay as you grow,' Foxconn is required to create jobs and invest capital in Wisconsin before it is eligible for any part of an incentive package that totals around $3 billion."

— Jim Villa, CEO, NAIOP Wisconsin

Development: *Obviously, Foxconn is a major news item in Wisconsin. Can you talk about the changes to the project? Additionally, what role did NAIOP Wisconsin play in helping secure Foxconn's initial commitment to come to the state?*

NAIOP Honors Outstanding Chapters and Individuals with Annual Awards

In early 2019, NAIOP honored 11 chapters and eight individuals with the association's coveted Chapter Merit Awards.

Recognizing the best in education, special events, membership, legislative advocacy and more, the Chapter Merit Awards are presented annually at NAIOP's Chapter Leadership & Legislative Retreat in Washington, D.C. Recipients are selected by a voluntary committee of their peers.

Chapter Executive of the Year

Small chapter: Pat Fogelman, NAIOP North Carolina Piedmont Triad

Medium chapter: Jim Villa, NAIOP Wisconsin

Large chapter: Kathie Barstnar, NAIOP Colorado

Chapter Volunteer of the Year

Medium chapter: Paul Silverman, NAIOP New Mexico

Large chapter: Taylor Arnett, NAIOP SoCal

Chapter President of the Year

Small chapter: Paul Williams, NAIOP North Carolina Piedmont Triad

Medium chapter: Joe Rossi, NAIOP Central Florida

Large chapter: Jim Camp, NAIOP SoCal

Chapter of the Year

Small chapter: NAIOP Northern Nevada

Chapter of the Year *continued*

Medium chapter: NAIOP Wisconsin

Large chapter: NAIOP Greater Toronto

Education

Small chapter: NAIOP Northwest Florida

Medium chapter: NAIOP New Mexico

Large chapter: NAIOP Georgia

Legislative Affairs

Small chapter: NAIOP Northern Nevada

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Large chapter: NAIOP Colorado

Membership

Medium chapter: NAIOP Wisconsin

Large chapter: NAIOP Maryland

Special Event

Small chapter: NAIOP Northwest Florida

Medium chapter: NAIOP New Mexico

Large chapter: NAIOP Colorado ■

Villa: NAIOP Wisconsin was an instrumental leader in the coalition that successfully persuaded the legislature to approve the "pay as you grow" incentive plan to bring Foxconn to the state. Under "pay as you grow," Foxconn is required to create jobs and invest capital in Wisconsin before it is eligible for any part of an incentive package that totals around $3 billion. The company continues to evaluate the project's mix of advanced manufacturing and the innovation/research center models, but it has remained steadfast in its commitment to the facility and job creation. Foxconn has served as a catalyst, resulting in numerous additional development projects along the already strong I-94 corridor between Milwaukee and Chicago.

***Development:** Education is an important part of NAIOP's mission. Have there been recent educational sessions specific to Wisconsin or your chapter that NAIOP Wisconsin has presented recently?*

Villa: Our chapter is focused on providing educational and professional development programs that help industry professionals at every step of their career. Our All Star Program for Developing Leaders hosts quarterly "CRE 101" sessions to provide basic industry knowledge about the different components of the development process. Recent programs included "Development 101," "Real Estate Legal Landmines" and "How Does Your Capital Stack?" The chapter also hosts a CRE Executive Forum. This interactive platform fosters discussion on top industry issues such as a recent conversation on practical ways to put Opportunity Zones to work for you. ■

Trey Barrineau is the managing editor of Development magazine.

Diversity and Inclusion: 'You Have to Have This Conversation'

Industry leaders share advice on how to turn lofty ideals into concrete plans for action.

By Trey Barrineau

It's no secret that the commercial real estate industry has some work to do before it truly reflects the full range of diversity within North America.

For example, Deloitte's 2019 Commercial Real Estate Industry Outlook reveals that 93 percent of pension funds and 95 percent of hedge fund investors don't think the industry is prepared to recruit, engage and retain Millennial and Gen-Z workers.

Additionally, the report finds that "CRE companies should become more intentional about improving senior leader and board diversity, with specific targets to recruit women and minorities."

During NAIOP's Chapter Leadership & Legislative Retreat, held in February in Washington, D.C., a panel discussion highlighted notable efforts by three NAIOP chapters to promote greater inclusivity in the workplace.

Dennis Brack

Cindy McSherry of NAIOP Chicago, left, makes a point during a panel on diversity at NAIOP's Chapter Leadership & Legislative Retreat. The panel also included Debbie Koenig of NAIOP Georgia, center, and Rocale Timmons of NAIOP Washington State.

CRE Summer Camps

Expanding the pipeline of talent into the commercial real estate industry has long been a concern, said **Debbie Koenig**, executive director of NAIOP Georgia, and it's important to reach potential employees when they're young. But that hasn't always been easy.

"Not many people in high school say, 'I want to be a broker,' unless CRE is part of their family," she said.

To address the pipeline problem, NAIOP Georgia launched a groundbreaking program in 2017: a two-week summer camp for high school students that's focused exclusively on the commercial real estate industry. CRE Experience, which was held at Georgia State University in Atlanta, was developed by NAIOP Georgia and the university in partnership with Nexus Programs and the Real Estate Executive Council.

"These are young people thinking they want to be lawyers, doctors or other things," said Koenig. "But we bring them to Georgia State to immerse and expose them to the numerous opportunities in our industry. However, you have to make it applicable to the students, and it also has to be intriguing to the parents. You won't find many parents who will let kids go to CRE camp unless there's a scholarship or SAT prep available."

Twenty-seven teens from six states participated in the program, "which included an SAT prep course, advanced software skills development, self-discovery exercises and presentations by a variety of guest speakers," according to an article on the camp from the Summer 2018 issue of Development magazine.

Koenig said when camp graduation rolled around, many students were visibly excited about opportunities in the industry.

"The students were so enthusiastic about what they had learned and say things like: 'I can be an international lawyer in commercial real estate!' Also, there were students who absolutely changed their major because of this camp," she said.

Koenig added that it might take a while before NAIOP Georgia knows how many students go into commercial real

continued on page 100

"The students were so enthusiastic about what they had learned and say things like: 'I can be an international lawyer in commercial real estate!' Also, there were students who absolutely changed their major because of this camp."

— Debbie Koenig, NAIOP Georgia

continued from page 98

estate because of the camp. However, she thinks seeds have been planted in the minds of many young people who took part in the program.

Georgia State was so impressed with the camp that it moved it to the honors campus for the second year in 2018. NAIOP Georgia was more prepared the second time, too; the chapter had a task force working on the camp six to eight months ahead of time.

That readiness requires a lot of work, though — along with a lot of outreach.

"This may be the most volunteer-intensive endeavor your chapter can carry out," she said. "It takes a lot of time and a lot of planning ahead. Be prepared for changes when working with different entities and be prepared to be flexible. Don't wait to get started. Get a tight group of people willing to get started. Reach out to local commercial real estate legends in your area."

Young Weekend Warriors

SECO Development, Inc. Senior Vice President of Planning and Development **Rocale Timmons**, membership chair of NAIOP Washington State, described her chapter's success with a condensed CRE camp. In November 2017, the chapter brought together 20 teens for its first weekend immersive experience, which was held in collaboration with the University of Washington.

Development also reported on the camp in the Summer 2018 issue.

"The program's hands-on experience provided a brief introduction to careers in the built environment, with a focus on negotiations between brokers and sellers, architecture and mixed-use development," according to the article.

"We know teens have short attention spans," Timmons said, making the shorter program perfect for young minds. "Getting them exposed to different places in the industry that they can intersect was extremely valuable."

So what made the program successful? Timmons said corporate sponsors like Amazon, as well as contributions from chapter volunteers, certainly helped. But offering a program that generated interest among young people was far and away the most important element.

"You have to have something teenagers want to work on," she said.

However, Timmons said it's an expensive effort for an individual chapter.

"We set aside $50,000 for this weekend," she said. "It was certainly a worthwhile investment, but it's not as sustainable as we would wish. So we're seeking partners."

The weekend CRE camp also motivated NAIOP Washington State to add a standing diversity and inclusion committee.

"We decided it was necessary," Timmons said. "We've dedicated at least one event per year to diversity and inclusion. We're also looking to draft a white paper for best practices when it comes to hiring or diversity programs."

Finally, she said it's important to define "diversity" in a way that's relevant for the market served by a NAIOP chapter.

"We have started to go down this path where we also created a task force of members to figure out what diversity and inclusion means for our chapter," she said. "We're diverse in terms of product types and gender, but not so much on the cultural and race front. We needed to identify our blind spots. There is a business case for diversity of thought. Make sure everyone in your community is represented."

A Woman on Every Panel

Cindy McSherry, executive director of NAIOP Chicago, said a comment during a board meeting about including a woman on every panel discussion or presentation that the chapter puts on

"There is a business case for diversity of thought. Make sure everyone in your community is represented."

— Rocale Timmons, NAIOP Washington State

led to an initiative that has generated tangible, positive results.

"People noticed that little, teeny tiny step," McSherry said.

McSherry said she realized that the lack of women in the industry unintentionally caused her to set up panels that were almost exclusively male.

"You go to what's easy when you're putting together a program, and often you know mostly men," she said. "You have to be a little more thoughtful."

NAIOP Chicago also launched a scholarship program to boost diversity with an equally simple decision — shifting proceeds from a chapter gala into real estate-related scholarships at DePaul University, Marquette University and Roosevelt University. (The latter has a strong program for people of color.)

To mark the fourth year of the program, NAIOP Chicago put together a video to challenge the city's commercial real estate industry to be more inclusive.

McSherry said messages promoting diversity can be powerful, but she stressed that the topic must come up more than once or twice a year. She urged NAIOP chapters to create a position on their boards focused on diversity and inclusion.

"You have to have this conversation at every single monthly board meeting," she said. "It may not solve every issue, but it has to be on the agenda." ■

Trey Barrineau is the managing editor of Development magazine.

A version of this article originally appeared on NAIOP's Market Share blog. For more posts on a variety of CRE-related topics, visit blog.naiop.org.

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** This is a listing of NAIOP members who are mentioned in this issue, as well as paid advertisers, which appear in bold.*

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Positive Themes Continue to Shape CRE

We're halfway through 2019, and the general outlook of our members remains positive as the industry and economy continue to operate on all cylinders. According to NAIOP's twice-yearly Sentiment Index, our members largely believe that CRE conditions will be the same or better during the next 12 months. This is good news for an industry that has seen a longer-than-usual sustained period of growth.

Greg Fuller

The result of all this technology is an endless pile of data that must be sorted and understood before it can become useful knowledge for space planning and decision-making. It's no wonder that industry job titles and expectations are undergoing changes.

I've enjoyed traveling to several chapters this year. While the chapters and the markets run the gamut from small to large, what I've found interesting is that no matter the size, these four themes are consistent:

- Deals are hard to come by.
- Capital structures can be complicated.
- Politics is creating uncertainty.
- And no one knows what inning we are in!

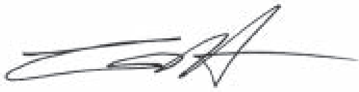
These views are underpinned by refrains that reverberated throughout 2018 and are continuing forward into this year, including:

Capital – There continue to be increased capital commitments for commercial real estate, and much of it is in North America. Agile operators are garnering the most attention and capital. Everybody is trying to figure out how to capitalize on Opportunity Zones. The potential consolidation of REITs is driven by public companies wanting to propel investment value and increase efficiency in management and operations through larger firms and portfolios.

Technology – Artificial intelligence, augmented reality, virtual reality, predictive analytics and other types of "proptech" are being woven throughout the tenant experience. The result of all this technology is an endless pile of data that must be sorted and understood before it can become useful knowledge for space planning and decision-making. It's no wonder that industry job titles and expectations are undergoing changes. Select Leaders, an online career center that partners with NAIOP, recently reported on the new job title of "occupancy planner." These jobs require skillful use of technology for workplace planning, relocation and build-out, as well as understanding of 3-D modeling software to allow users to visualize and customize space layouts. ***(See the cover story on page 56.)***

Real estate – The core product of real estate is transforming as tenant preferences change how physical space is consumed, from flexible workspaces in an office to experiential retail settings. During the April meeting of the NAIOP Board of Directors, we heard from three experts in the Vancouver market who shared insights into the unique aspects of this region. In short, space is at a premium everywhere: the market's industrial vacancy rate stands at 1.9 percent, fueled by e-commerce, television production and demand for port facilities. Net rental rates for Class AAA office space will exceed $70 per square foot for the first time in Vancouver's history. The Port of Vancouver has one of the lowest land availability rates in North America, and the need for expansion will likely drive multistory development.

I have found NAIOP to be the best venue for staying on top of news and trends that help my business adapt in our ever-changing industry, and I look forward to connecting with many of you at our two I.CON industrial conferences, as well as our annual fall conference, CRE.Converge 2019 (October 14-16 in Los Angeles). ■



By **Gregory P. Fuller**, President and Chief Operating Officer, Granite Properties, Inc.
2019 NAIOP Chairman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