

Ajax | BCCI | Govan Brown | Layton | LF Driscoll | Pavarini Construction | Pavarini McGovern | Structure Tone | Structure Tone Southwest

SMALL or LARGE, SIMPLE or COMPLEX

RELATIONSHIP CULTURE:

Adobe and BCCI Construction Company, **PG. 10**

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From doorknobs to headquarters A Message from *Jim and Bob*

STO BUILDING GROUP

is an employee-owned family of construction companies committed to excellence in everything we do. We believe in building lasting relationships and always putting our clients first.

The diversity of our clients, who range across sectors and geographies, fuels our drive to innovate and provides a powerful platform to leverage expertise and local market knowledge across our companies.

We honor the individuality and entrepreneurial spirit of all of our brands while providing support for collaboration, growth, and future success.

We are proud of our people.



At STO, relationships have been a hallmark of our business since our beginnings nearly 50 years ago. Over that time, we've had the good fortune to develop relationships with clients of all types and work on projects of all shapes and sizes, from high-profile, striking headquarters fit-outs to more routine upgrades and maintenance.

That "soup to nuts" commitment is the focus of this issue of *STO Insights*. We're well known as a leading construction management firm for large-scale fit-outs, impressive new buildings and expansions, and major renovations and upgrades. But we're just as engaged and dedicated to the smaller projects our clients need, whether it's replacing elevator doors or sprucing up a building's entry. We are looking to build partnerships with our clients and to help guide them through decisions related to their built spaces—no matter the scale. This issue showcases a few of many such examples.

ent base. Layton Construction officially joined our team in December, bringing proven experience in virtually every industry and expanding our locations throughout the US. Headquartered in Utah, Layton also shares our same culture of safety, integrity, and client devotion. Look for more about Layton in the next issue of *STO Insights*.

Best wishes for a safe and successful 2020. Enjoy!



We also have a new addition to the STO family who will help us build even stronger relationships across our cli-



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STO Building Conversations podcast: Best of 2019

A new year means new episodes, guests, and trends! But before jumping into 2020, check out the top podcast episodes of 2019.

- 1. Sustainable Building with Jennifer Taranto:** When did the AEC industry start paying attention to sustainability and wellness?
- 2. Data-Driven Design with Aaron Schiller:** What happens when weeks of robust research and data collection meet workplace design?
- 3. Tradeswomen the Trailblazers with Lorien Barlow:** Where do tradeswomen stand in their fight for gender equality on site?

CONTINUOUS LOGISTICS

Hildene Capital Management

Building trusting relationships and long-standing partnerships with their clients is a focus for Connecticut-based Hildene Capital Management. After relocating to a new, beautiful Stamford office, they have added another partner—Pavarini North East—to their impressive list.

Hildene is a fairly young firm who wanted to look “different” from a traditional investment company. Moving to a new space would accommodate their growing staff and reflect the fresh, creative approach they take to their work. Pavarini North East had worked in the building before and with the architect, Bavier Design, on fast-track projects, so they joined the team to realize the vision for the new office.



Above ▲

The millwork uses reclaimed wood from a New England barn

“Hildene wanted a warm, loft-like space that had character,” says Anne Bavier, principal and owner of Bavier Design. “However, the modern building was devoid of character and had low ceilings, so our design specified features to add it in, including white-washed brick, repurposed accent lights, reclaimed wood millwork and beams, polished concrete floors, and raw metal, as well as some colorful antiques and unique seating.”

Although it’s a somewhat small space at 6,400sf, the project was complex, right from the start. The striking design includes a number of features that require very specific coordination and an aggressive schedule, so planning and logistics became the team’s modus operandi.

“It was an effort of continuous logistics,” says Michael Donnelly, Pavarini project manager. “We had a plan in place and could start deploying each piece as soon as we were released on each key sub.”

THE FLOORS

The design called for polished concrete floors—no problem. The challenge, says Donnelly, came with the floor’s existing conditions, which required some intensive upfront work.

“The space originally had carpet throughout. The broker had removed the carpet and spread multiple layers of ARDEX over the remaining glue to help improve the appearance,” he says. “We spent over a month grinding it down to the original concrete.”

All photos these pages: ©2019 Michael Grant Photography

The team did all the grinding at night, so not to disturb the building’s daytime occupants. After Hildene and Bavier Design approved the appropriate stain and sheen, Pavarini pressed pause on the floors to focus on the rest of the space.

“We protected the daylighting out of the floors while we were working around them,” says Donnelly. “Once the glass partitions and ceiling work were completed, we finished them up with high polish and finish.”

THE CEILING

The ceiling, too, required a good deal of preplanning. The design included exposed ceilings with sprayed-on sound attenuation insulation. But once the insulation is installed, it can be easily chipped or damaged during the reinstallation of the duct work, cables, and other building infrastructure.

To avoid that potential damage, the Pavarini team laid all the systems out on the floor to reflect where they would be located on the ceiling before the insulation was sprayed.

“We used that map to rough in the connections and do all the drilling before the spray went on,” says Donnelly.

THE MILLWORK

Perhaps the trickiest element of the project to plan for was the wood for the millwork. The architect and millworker sourced an old New England barn to supply the wood, which required a number of steps before the wood was actually ready to install. They first

Project Details

Size:

6,400sf

Client:

Hildene Capital Management

Architect:

Bavier Design

Engineer:

Peterson Engineering Group

Sector:

Commercial

Completion:

October 2019

Project Highlights

- ✓ Reclaimed wood from New England barn
- ✓ 10-week schedule
- ✓ Polished concrete floors
- ✓ Exposed ceilings
- ✓ Detailed finishes such as hammered tin, split brick, wrought iron

had to purchase the barn and take it apart to determine which portions were usable. Then those pieces had to be acclimated to the right moisture content to ensure they won’t warp once installed.

“Timing, again, was of the essence,” Donnelly says. “If construction was going to begin on time, the wood from the barn had to start curing six to eight weeks ahead of time.”

Working as a team, Pavarini, Bavier Design, and Hildene were able to complete the complex space in just 10 weeks. At the same time, they formed a partnership they hope to maintain as the firm continues to grow.

“The team worked exceptionally well together to deliver this beautiful and unique space on an aggressive schedule,” says Bavier. “Hildene was very involved in the design, Pavarini took extra measures to ensure every detail was taken into consideration, and Peterson Engineering worked with the team to design an attractive duct work plan.” ◀



Projects with DMS range from HVAC system upgrades to full renovations



Hover over this page with the **STO INSIGHTS APP** to view the Florida DMS Capitol Garage in 3D

A STATELY RELATIONSHIP

Ajax and the Florida Department of Management Services

Ajax Building Company has been working with the Florida Department of Management Services (DMS) for over 30 years. In that many years of working together, they have seen it all—from simple waterproofing repairs to massive campus redevelopments.

DMS is essentially the business arm for the State of Florida, including managing the state's real estate properties. The Ajax team has not only managed some of DMS's largest projects in northern Florida—such as 260,000sf of expansion at the Capital Circle Office Complex in Tallahassee and the current Capitol Complex campus upgrade—but also dozens of smaller projects, such as elevator replacements and waterproofing efforts, under a continuing contract with the state.

"The most interesting part of the continuing contract is the range of projects that can result from some of the larger ones," says Allan Wooden, Ajax operations manager. "Sometimes a larger renovation causes unanticipated consequences to other facilities, and this contract allows us to move forward with those smaller projects to keep the larger one moving ahead."

One example is DMS's extensive Capitol Complex renovation project. Ajax was hired to manage those larger renovations but, as Wooden explains, "there were several systems running within the limits of the larger project that would be disrupted in order to accomplish the work." Some of the work associated with the parking garage necessitated modifications to the complex's medium-voltage distribution system, which then uncovered some issues with the 40-year-old switchgear system. DMS allowed Ajax to not only continue removing and replacing that system, but also reconfigure the heating systems in adjacent buildings so they could continue to function without being tied to the central plant. Thanks to the continuing contract, Ajax could continue managing those ancillary projects as the overall renovation continued.

"Most of these jobs were electrical in nature so we hired an electrical contractor," says Wooden. "But the contract provided the mechanism to get those projects done quickly so we could progress with the garage."

Similarly, the garage project also led to Ajax's involvement in one of the Capitol's largest projects—a \$55M redevelopment of the entire Capitol Complex site. While initially working on the garage renovations, the project team detected some water damage and deterioration. As the project progressed, the team discovered part of the deterioration was caused by the dense stand of trees above the garage that had grown much larger than originally anticipated.

At the same time, the state had issued a legislative mandate to create a "memorial park" on the Capitol grounds. Since the existing vegetation over the garage had to be removed to expose the structures for repairs, DMS took the opportunity to completely transform the campus into an open, bright, welcoming space designed to encourage visitors and employees alike to spend time outdoors and to serve as an outdoor function space for the legislature. The new park will include two main levels covered in a combination of precast pavers, granite clad panels, slate panels, and precast copings, with connecting stairs and ramps, plus extensive landscaping features and spaces to house monuments and memorials to be added over time.

“What was a smaller effort morphed into this larger, more complex project that will dramatically change what the Capitol Complex has looked like for the last 40 years," says Wooden. "It's one of the jobs at the end of my career that I will look back on and say, 'That one was special.'"**”**



The new Capitol Complex will create a more welcoming outdoor public space



- ### Ajax and Florida DMS Example Projects
- ✓ House Office Building parking garage fire sprinkler safety system replacement
 - ✓ House and Senate Office Building colonnade finishes and waterproofing repairs
 - ✓ Florida Department of Law Enforcement Regional Operations Center in Jacksonville
 - ✓ Security upgrades to the Florida Supreme Court
 - ✓ Various utility infrastructure upgrades
 - ✓ Various warehouse renovations
 - ✓ Crime lab renovation and reconstruction
 - ✓ Underground parking repairs



Above ▲ Ajax has worked on DMS projects across the Panhandle, including this complex in Southwood



3D wall art and graphics brand each floor of the office complex

FLYING HIGH: American Airlines' Expansive HQ

Averaging 6,700 flights a day that reach hundreds of destinations across the US, American Airlines is one of the nation's top choices when it comes to air travel—yet their headquarters hadn't been revamped in nearly three decades. Armed with a clear goal and 300 acres of land in Fort Worth, Texas, the company set out to build a cutting-edge campus for their global operations.

With plenty of space and big ideas to fill it, American Airlines partnered with Crescent Real Estate to bring their vision to life. The plan for the company's international headquarters included the new construction and fit-out of four eight-story office buildings and two two-story buildings that connect to a central four-story amenity hub known as "Town Square."

BREAKING IT DOWN

1.3Msf altogether, this project required an extremely organized approach to meet American Airlines' quality standards and timeline. Selected to fit out all seven buildings and the amenity space, Structure Tone Southwest assigned a superintendent to each structure, while a general superintendent and more broad project management oversaw the project's overall progress.

"On a project of this size, the key is to break up the square footage into manageable chunks," says Gary Reed, Structure Tone Southwest account executive. "Once we assigned each building a super, they knew exactly what they owned and were able to execute."

The team worked closely with another general contractor, who was completing the core-and-shell work as Structure Tone began the interior. Every two weeks, two new floors were turned over to the interior crews, who then verified that all elements were in compliance with the scope—including the raised access floors, which house the buildings' air distribution, power, and data lines.

SCALING UP

While this staggered system allowed both construction teams to work in the buildings simultaneously, the sheer scale of American

Airlines' complex required lots of collaboration between all players. For instance, as more and more floors were turned over, Structure Tone Southwest kept adding people to their team. Where a typical project would only need about six staff members on site, this project required four times that amount—and the people they managed also grew in numbers as the project progressed.

"Between the other contractor's 1,200 laborers and the 600 people our team managed, there were around 1,800 people working on site at once," says Urmil Shah, Structure Tone Southwest project executive. "On one hand, we had to make sure our space and finishes didn't get damaged, but we also had to guarantee none of our team disturbed the hardscape or landscape."

To avoid any issues down the line, both contractors and the developer met weekly to discuss everything from safety expectations and logistical issues to general best practices when sharing a site.

INFORMATION OVERLOAD

Managing information was another challenge. Due to the size and complexity of the project, there were a lot of updates to the design to ensure American Airlines was completely satisfied with the finished space. With several structures under construction at once, the team relied on PlanGrid and Structure Tone's information management team to process and communicate each change, guaranteeing everyone on the project was operating off the most up-to-date information.

FINISHING TOUCHES

The size of the project did not discourage American Airlines from incorporating an abundance of detail into the headquarters' finishes. From wall graphics to sizable sculptures, every inch of the final product was designed by Gensler and their branding team to align with the airline theme and remind employees of the company's purpose.

Airline Art. Some of the iconic pieces featured in the new office—several of which were built by American Airlines' own maintenance staff—include reimagined landing gear, an engine cowling from an American Airlines' plane, a custom-made, oversized seatbelt, and a sculpture made entirely of aircraft safety cards. On nearly every floor of every building, graphics of airport maps and flight plans, as well as 3D wall art like painted wheel covers, enhance the open office environment.

AV Impact. The new space's communication technology is equally impressive. Nearly every corporate office needs high-end AV technology and equipment in conference rooms, but American Airlines kicked it up a notch by installing five 16ft-wide video walls throughout the buildings to more efficiently communicate with their 6,000 employees.

Amenities. In the center of the office buildings, the Town Square offers staff access to modern amenities, including 13 restaurants, dining areas, a marketplace, and a credit union. As the headquarters' main entrance for visitors, the hub also houses two game rooms, a travel desk, retail store, and a collaborative area known as the "Nav Bar."

As the interior spaces wrapped up, American Airlines was able to begin their four-month move-in process on the dates predicted eight months prior—something Shah is particularly proud of: "When you look at what we achieved, on top of so many RFIs and so many change orders, we managed through without pushing the schedule and without impacting any of the moves." Today, the airline's master-planned, global HQ—complete with 30 floors of premier commercial office space and over 200,000sf of specialty amenity space—is up and running.

"American Airlines is a fixture in Fort Worth, and this project sets the stage for their continued growth here," says Joseph Cribbin, president of Structure Tone Southwest. "We are extremely proud to be part of that."

Project Details

- Size:** 1.3Msf
- Client:** American Airlines
- Owner's Rep:** Crescent Real Estate
- Architect:** Gensler
- Engineer:** I.A. Naman + Associates
- Sector:** Commercial
- Completion:** September 2019

Project Highlights

- ✓ 7 commercial buildings
- ✓ Spanning 300 acres
- ✓ 5 16ft video walls
- ✓ 204,000sf of amenity space
- ✓ 30 floors of office space
- ✓ Targeting LEED® Gold

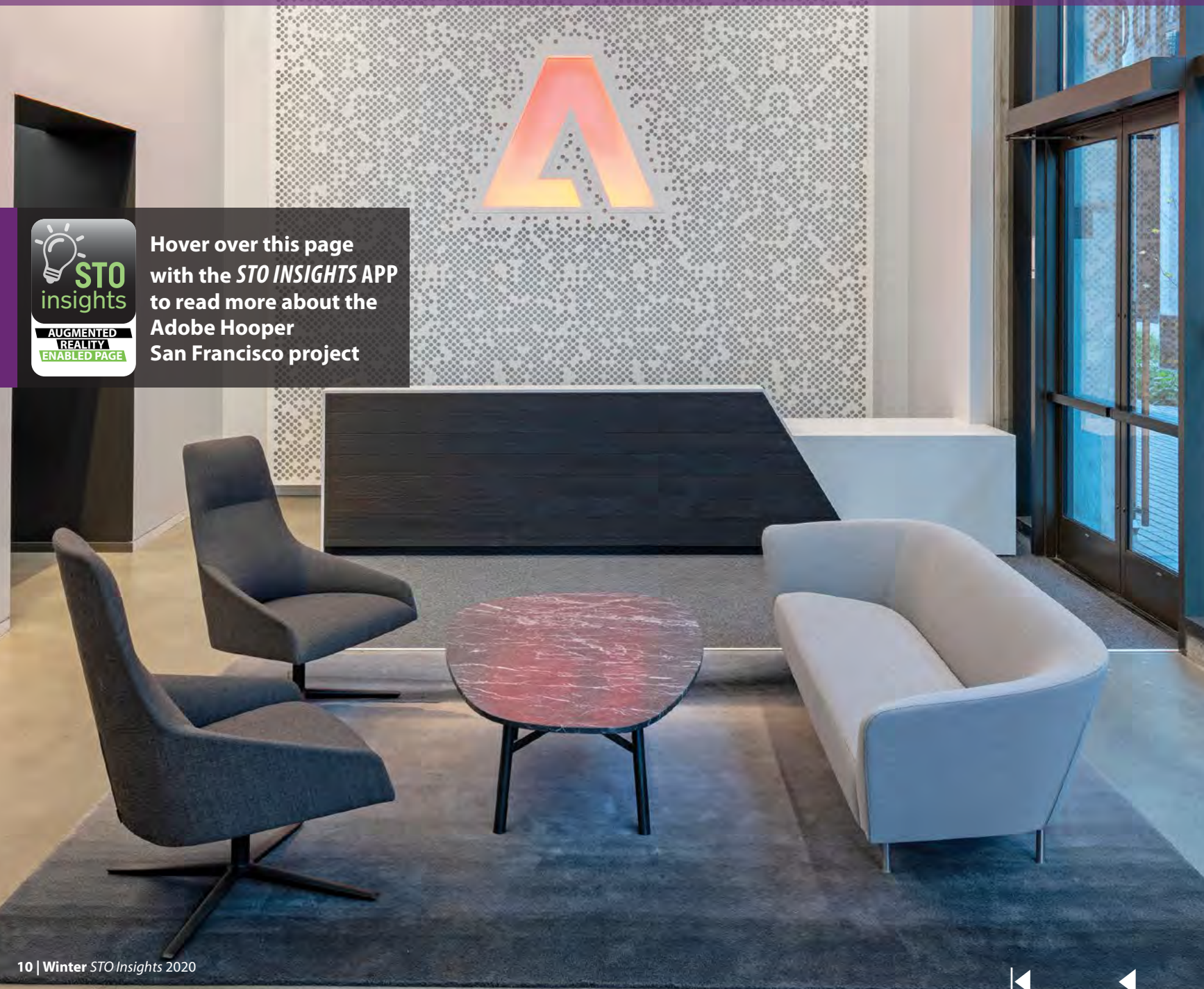


A central, four-story amenity hub connects the commercial towers

All photos these pages: Kevin Bowers Photography

RELATIONSHIP CULTURE: Adobe and BCCI Construction Company

Founded in 1982 in the technology hub of Silicon Valley, Adobe is one of the founding fathers of today's thriving tech industry. Since those early days, the tech industry has revolutionized the way we work, particularly when it comes to the workplace itself.



Hover over this page with the **STO INSIGHTS APP** to read more about the Adobe Hooper San Francisco project

In the early 2010s, companies like Adobe—who were still operating out of traditional, segmented offices—realized they needed to modernize their San Jose headquarters, not only to attract top talent in an increasingly competitive market but also to take advantage of the efficiencies and collaboration a more open floor plan had to offer.

STARTING AT THE TOP

Knowing the transition from private offices to a more open plan could be a difficult one for some employees, Adobe opted to begin with transforming the executive floors. They enlisted the help of Valerio Dewalt Train Associates (VDTA) and BCCI Construction Company for the design and build-out.

BCCI fully gutted the 40,000sf over two floors, reconstructing the space with an open floor plan, a new feature staircase, an executive briefing center, upgraded MEP systems, and a complex AV package. To balance the need for quiet, private space within the open work areas, the design incorporated private phone rooms, small video meeting rooms, and large video conferencing rooms, among other collaboration areas.

“They modeled what they were looking to roll out companywide with the reconfiguration of the executive floors,” says Wendy Peterson, BCCI account executive. “Eliminating private offices definitely set the example and eased the transition moving forward.”

TRUSTED PARTNERS

With those first floors successfully under their belts, Adobe continued with BCCI on the transformation, moving from floor to floor across their San Jose office towers. Over the last seven years, BCCI's team has renovated over 465,000sf of work space at Adobe's headquarters, comprising open office space, large and small meeting areas, and a 20,900sf wellness center.

In 2015, the team partnered with BCCI on the rehab and fit-out of Adobe's San Francisco offices as well, which included major building upgrades for a new café and fitness center in a 100-year-old historic building, and again in 2017, on over 250,000sf of lobbies,



Above ▲

The new workplaces features a state-of-the-art wellness center

collaborative workspaces, a kitchen and dining area, a roof deck, and a state-of-the-art fitness center in a new ground-up building.

BCCI also has a master services agreement with Adobe to help tackle small projects in both San Francisco and San Jose, from carpet and paint updates to reconfiguring a conference room to create smaller meeting rooms.

That focus on collaboration across all types of projects has been a key factor to the relationship's success, says Peterson. “They are very team-oriented at Adobe. We have always worked with them and our design partners from the very beginning to establish a plan that fits their budget and goals to create the most functional workplace.”

Some other secrets to relationship success that Peterson says have underscored BCCI's work with Adobe include:

- 1. Establishing expectations.** There is a learning curve when you are working with new people. Once the team is past that, everyone works together more collaboratively. “There's huge value to the client in that, and it makes the building experience more enjoyable and rewarding,” says Peterson.
- 2. Making quick decisions.** “Adobe's team is very good about making prompt decisions to avoid delays,” she says. When clients have clear and accurate information to make decisions, projects flow more smoothly.
- 3. Remaining flexible.** “When we come across a challenge, we always present

solutions and recommendations, and the Adobe team loves that,” says Peterson. “They are open to and appreciate new ideas that keep the project moving forward.”

- 4. Valuing the partnership.** Good relationships really come down to good people, says Peterson. “Adobe has a fantastic team culture, and it makes our team want to go above and beyond for them, including our subcontractors. That goes a long way towards achieving success.” ◀

San Jose Project Highlights

- ✓ 110 (including 21 corporate interiors projects, 89 service projects)
- ✓ Total size: 465,160sf
- ✓ Special features: Executive briefing center, interconnecting stair, wellness center, complex AV systems

San Francisco Project Highlights

- ✓ 20 (including 7 corporate interiors projects, 13 service projects)
- ✓ Total size: 312,500sf
- ✓ Special features: 2 commercial kitchens, 2 fitness centers, media rooms, games, virtual reality modules, roof deck

BUILDING RELATIONSHIPS:

Oxford Properties, London

As the real estate investment arm of OMERS, one of Canada's largest pension plans, Oxford Properties has become a leader in real estate investment, development, and management in Canada, the US, and Europe.



Above ▲
OMERS and Oxford Properties' London headquarters

When OMERS sought to establish its European headquarters in the famed Leadenhall Building in London, Structure Tone won the job competitively, thanks especially to their creative digital construction components. Since then, the team has developed a valuable relationship they have been able to leverage into several more successful projects together.

The OMERS project fit out 25,000sf over two stories of the building nicknamed "The Cheese grater" for its uniquely tapered design. The fit-out design, by HLW, included an intricate staircase, multifaceted, folded ceiling in the boardroom, and complex AV and MEP systems. Structure Tone employed digital construction techniques like BIM/VC as early as the tender stage, treating it like a live project to help resolve some potential challenges early and allow the team to hit the ground running.

Since the OMERS project, collaboration has continued to drive Structure Tone's work with Oxford Properties. Together, the project team has worked on a range of project types, from full office fit-outs to specific amenity enhancements:

- **OMERS:** Full CAT B fit-out with internal staircase. Completed in 2015.
- **Blue Fin Building:** CAT A fit-out to prepare two floors for tenants and extend the building's amenity area with a centralized coffee shop and restaurant, externally extended canteen, and events space. Completed in 2019.
- **Mid-City Place:** 6th and first floor CAT A fit-out with event terrace space. Ongoing.
- **84 Grosvenor Street:** Two floors of CAT A fit-out and one floor "plug and play" CAT B office space including furniture. Ongoing.



Above ▲
The view from the new restaurant in the Blue Fin Building

Structure Tone maintains the same key project directors across the Oxford Properties portfolios and the same delivery teams, where possible, to make sure each project continues to benefit from the shared experiences and lessons learned from the last and that "team" attitude extends to each new effort.

"The team ethic and Oxford's close involvement in our first project with them was consistent throughout and a key success factor," says Dean Manning, Structure Tone managing director. "That collaboration and lessons learned together are invaluable." ◀

Photo above left: "Oxford Properties

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GLOBAL PARTNERS

While STO has worked with clients across the globe nearly since the beginning, the company formally established a team to connect those managing national accounts so they could leverage each other's knowledge, expertise, and experience in different locations. **Robert Leon**, Global Services executive vice president, and **David McCormack**, vice president, are two such leaders in the Global Services team. Here they explain how this approach benefits our clients and strengthens relationships.

How would you describe your client base?

RL: Our client base is fairly diverse. We work with finance firms, insurance, marketing, and PR—all national or global corporations who have a real estate footprint in various locations.

What kinds of projects are typical for your team?

DM: We do hundreds of projects a year, which vary from a light refresh, to adding a small office, to multiphased renovations or brand-new fit-outs.

RL: We tend to work on projects where our clients are shrinking or expanding their footprint or going into cities where they may have a small office or no office at all. They look to us to drive consistency and quality, making sure everything looks, feels, and operates the same way in each location.

How do you manage a project in cities where STO doesn't have a presence?

RL: We have alliance partners and other third-party contractors in those locations. Our alliance partners are trained in our ethics and compliance programs, our safety practices, and our way of working so they can truly act on our behalf. We also assign a Global Services account executive and estimating and accounting teams to make sure everything goes smoothly.

DM: It's the same whether we work with a third party or hand the job to a team within our own company—we are embedded from start to finish. It maintains that consistency, and the learning curve is dramatically lessened.

How do you establish or build relationships with local partners?

RL: We choose our alliance partners very carefully to ensure a cultural fit. If we don't already have partners in a particular city, we work through our network, talking to architects and

owner's reps we know to help us identify who to reach out to. Then we get to know them to determine if we have a similar client base. We host an annual summit and have monthly calls with our alliance partners to continue to share opportunities and information about best practices.

DM: We want to help our partners be the best they can be. Their success is our success, and our client's. In doing so, that instills trust and a good relationship.

Does the size of a project affect how we approach it?

DM: People often assume our projects are cookie-cutter. But they really are not. They vary from building to building, in space size, in restrictions. It's our job to understand those variables and get in front of them no matter the size or type of project. Every project is important.

How does that consistency benefit the client?

RL: First, it maintains the high quality and standard of excellence the client expects from us

and provides a single point of contact across their portfolio. We don't want the relationship between us and our clients to be diluted by working with a multitude of contractors all over the world. We also understand their program and apply lessons learned and portfolio data to their benefit. We use the word "benchmarking" a lot, not just as it applies to their program but how we benchmark against similar clients in similar locations.

What do you like most about being part of the Global Services team?

DM: I enjoy the teamwork between STO, our design partners, and our client. I also like that from the highest levels of our organization, they recognize that these clients are important, even though the projects are small.

RL: I like that I get to work with clients at a strategic level. I can think about how to bring innovation and operations excellence to an overall program and not just a one-off project. I especially value how I've been able to develop relationships that have spanned years. It's very rewarding. ◀



Above ▲
The team helps clients manage office fit-outs and other construction projects in locations across the globe

Photo right: "2019 Garrett Rowland Photography

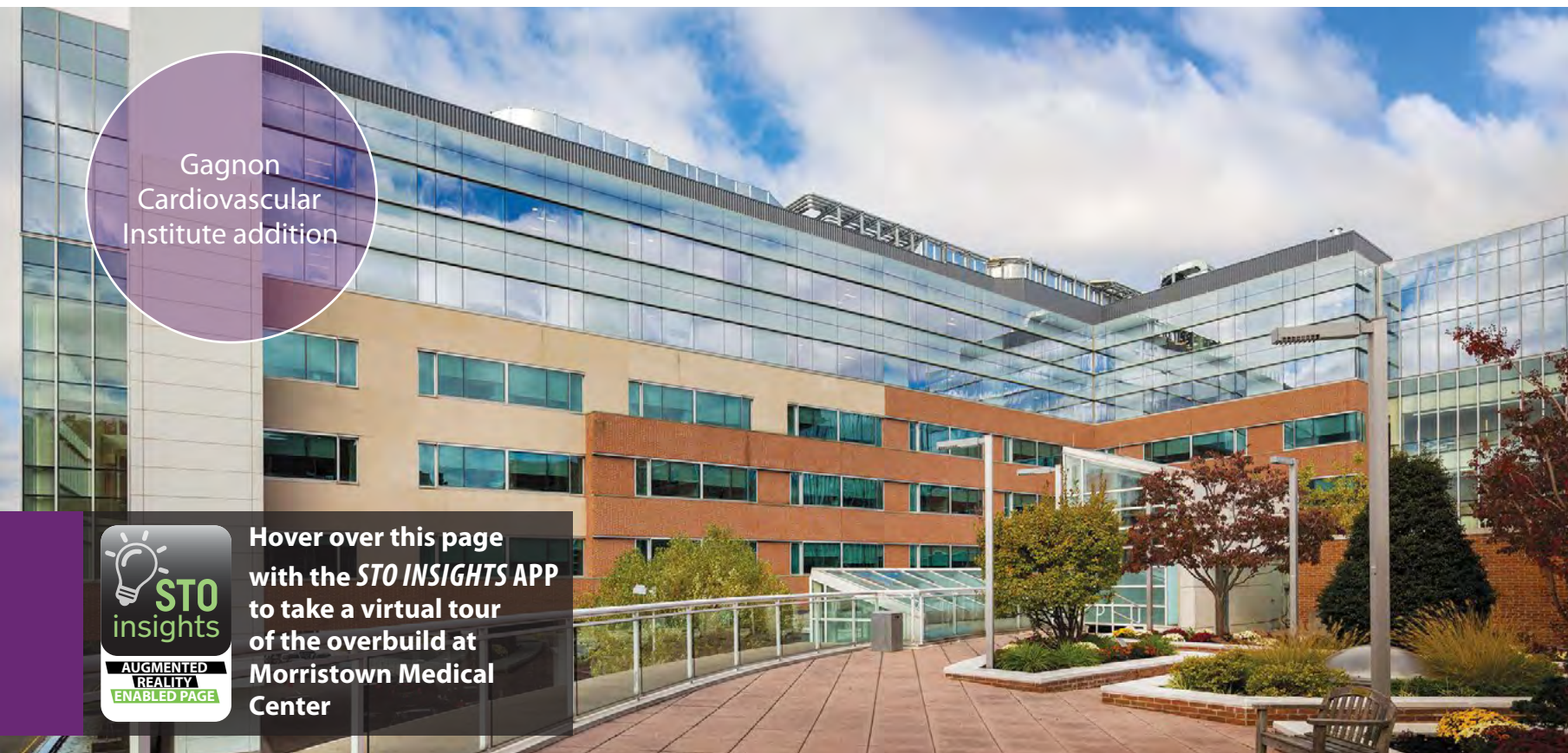
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UPGRADES, REPLACEMENTS, RENOVATIONS, RELOCATIONS

Atlantic Health Systems

Sometimes what seems like a small courtesy can lead to big things down the road. A few years ago, for example, Structure Tone's New Jersey team assisted Atlantic Health System (AHS) with some budgeting for proposed projects.



Gagnon Cardiovascular Institute addition



Hover over this page with the **STO INSIGHTS APP** to take a virtual tour of the overbuild at Morristown Medical Center

The team hit it off, and since that small effort in 2016, AHS has worked with Structure Tone on over 60 projects, from minor door changes and repairs to a \$38M overbuild.

"The first project we bid with them was their new pediatric center at Chilton Medical Center," says Joseph MacInnes, Structure Tone New Jersey healthcare sector leader. "After our performance successfully met their expectations, our opportunities with AHS have really taken off."

EVER EVOLVING

With five hospitals across its network, AHS is constantly working to ensure its facilities are up to speed with ever-evolving technologies and fully meeting the community's healthcare needs. One of the system's larger efforts to date is the expansion of the Gagnon Cardiovascular Institute building at Morristown Medical Center, which vertically added two floors of private patient rooms on top of fully occupied five-story cardiovascular patient floors.

Structure Tone managed the entire construction process, starting with an intensive preconstruction phase through to installing all the structural steel, curtainwall, HVAC systems, elevators and stairs, and interior fit-out.

"The project had many complexities, from keeping the building water-tight during steel and curtainwall connections to phasing shutdowns for HVAC work," says MacInnes. "We preplanned all of these core-and-shell items in detail with AHS and executed the plan successfully."

INSIDE AND OUT

Together, the combined team has also completed such significant projects as a new children's center at Chilton Medical Center and a new hybrid operating room at Hackettstown Medical Center, as well as dozens of upgrades, replacements, renovations, and relocations. Through these larger efforts and the smaller projects in between, they have become a unit of sorts and fully understand each other's needs and ways of working.

"We've probably worked in every different type of environment they have. At this point, they know how we operate, and we know what they are looking for," says MacInnes. "That collaborative trust and team approach is what they want from their project team."

On the Hackettstown operating room project, for example, the Structure Tone team had been working with AHS long enough to understand and recognize their typical approach to equipment and noticed that it didn't appear in line with that norm.

"We were reviewing the plans for coordinating the clinical engineering drops with the regular IT drops before roughing them in and noticed it didn't quite align with the changing technology requirements of operating rooms," says MacInnes. "We met with the design team and AHS to coordinate the

required infrastructure in the plans before rough-ins. We all look out for each other and the greater good of the project."

TRUE TEAMWORK

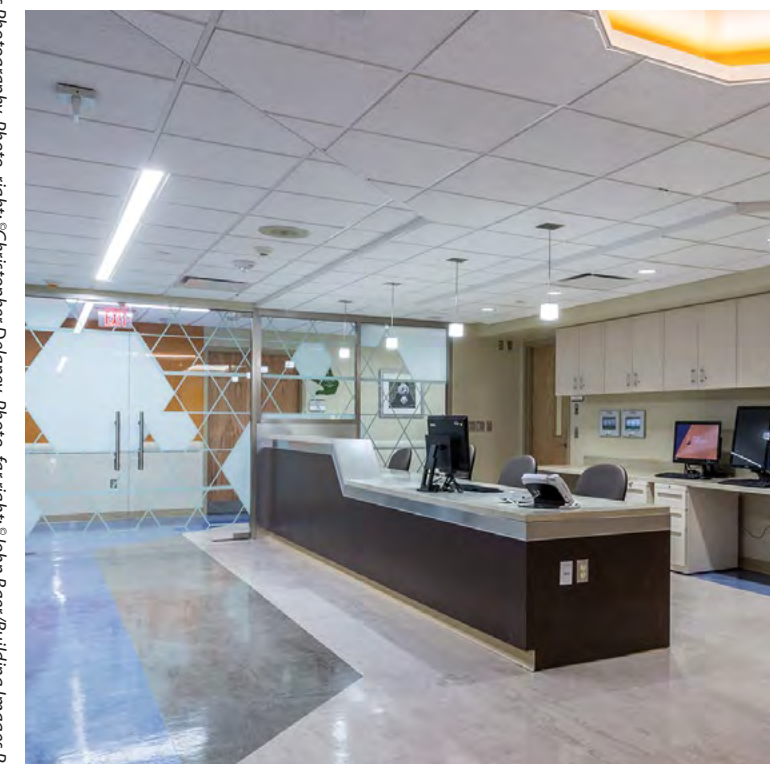
That sense of team among AHS, Structure Tone, the design teams, and subcontractors has bonded the group and developed an exceptional level of trust—which is why, in part, AHS continues to work with them.

"When we tell them we're doing something, we do it," says MacInnes. "They rely on us to use our expertise to be an extension of their construction department."

And it all stems back to that minor, initial budgeting effort.

"We recognize that oak trees come from acorns," says Erik Sletteland, vice president of business development. "If a developer client of ours is having trouble with, say, curtainwall on a project, we bring our internal experts into the discussion to help with solutions. As a company, we do whatever we can to add value, irrespective of the size of the opportunity." ◀

Photo, left: John Baer/Building Images Photography. Photo, right: Christopher Delaney. Photo, far right: John Baer/Building Images Photography



Above ▲ Chilton Medical Center - Pediatric Hybrid Emergency Department



Above ▲ Chilton Medical Center - ICU/PCU fifth floor renovation

STO Projects with AHS

- Chilton**
 - Pediatric center
 - X-ray room replacement
 - Lobby renovation
 - Breast center renovations
 - ICU/PCU renovation
 - MRI renovation
 - Pharmacy renovation
 - ED security booth
- Hackettstown**
 - Rehab unit relocation
 - Emergency room renovation
 - Psychiatric center bathroom renovations
 - LINAC replacement
 - Clean room pharmacy upgrades
- Morristown**
 - Gagnon Cardiovascular Institute overbuild
 - Cardio and pulmonary center rehab
 - Elevator equipment replacement
- Newton**
 - Nurse station upgrades
 - X-ray equipment replacement
 - CT scan replacement
 - Pysch ED restroom renovations
- Overlook**
 - Pharmacy upgrades
 - Master plan preconstruction
 - MRI replacement

SWEATING THE SMALL STUFF: STO Special Projects Team

As any property owner knows, improvement projects come in all shapes and sizes. A company may need a 250,000sf headquarters relocation—or simply to replace the carpet in their current space. That’s why STO’s New York office developed its Special Projects team, a group of seasoned construction professionals who tackle the often smaller, sometimes unique real estate needs of clients.

“We developed this team nearly 25 years ago to challenge the assumption that we will only do larger, high-end projects,” says Stacey Dackson, vice president and director of STO’s Special Projects team. “We still have the backing and resources of a larger contractor but can deliver the faster, smaller projects.”



Above ▲

“Some of our strongest relationships were built off of our smallest projects.” —Jim Donaghy, STO executive chairman

NICHE EXPERTISE ▼

One reason this team is identified by “special” projects rather than “small” projects is that while the size or value may be small, the projects are just as complicated—if not more so—than larger-scale efforts. For example, a small space with a complicated trading floor and SEC operating requirements takes quick decision-making and a thorough understanding of the technical needs of trading floor infrastructure.

Other niche areas of expertise for the team include:

- Retail spaces
- Fast-tracking scheduling and pricing
- Tenant improvements
- Landlord services
- “Day 3” follow-up services
- Invisible imprint in occupied spaces

RELATIONSHIPS ▼

What this special brand of construction management comes down to is relationships. The Special Projects team serves as:

- the client’s go-to for a simple door hardware change or full fit-out
- advisors to the client team
- full-service analysts with the project team, including the landlord, architect, and other partners
- partners with subcontractors hand-picked for certain areas of expertise
- a bridge within the STO network to bring purchasing, legal, and other resources on board quickly

Given the tight schedules, unique circumstances, and special features of each project, Structure Tone’s Special Projects team really becomes a representative for the entire team to make sure the project is delivered as expected.

TEAM SKILLS AND RANGE ▼

That sort of agility is a hallmark of the Special Projects team—and a skill some may not assume a large firm like Structure Tone could be capable of. But the flexibility and adaptability of the team’s approach allows them to tackle these quick-turnaround types of efforts.

“We recently worked with Structure Tone on a project over the holidays. It was a very tight timeframe to deliver, with no room for error, and they accomplished it.” —Katy Cassel, Facilities Manager, Hiscox USA

The Special Projects team’s ability to think on their feet makes them a perfect match for the severely condensed schedules of what some may call “small” projects like power and data relocations, carpet replacements, conference room upgrades, or restroom renovations. At the same time, the team can tackle full-floor office fit-outs and densification efforts just as easily.

“We’re not as siloed on small projects as you tend to be on mid-size and larger projects,” says Marc DeLuca, Structure Tone account executive. “All activities are ‘critical path,’ so teamwork and good communication are essential.” ◀



“Many financial companies can’t pause a live trading environment. We’re especially skilled at moving quickly and imperceptibly to avoid any impacts to their operations.” —Anthony Mosca, Project Manager, Special Projects

“Structure Tone exceeded our expectations in terms of attention to detail, meeting our timelines, and hearing and addressing our specific needs,” says Wynne Comer, COO, AGL Credit Management. “They were patient and attentive and we truly felt they sincerely cared about the build-out and AGL.”

CAREER DEVELOPMENT: Indeed's Dublin HQ

US-based Indeed, an employment search-engine firm, put down roots in Dublin, Ireland in 2012 and hasn't looked back. After originally opening a small office at Sir John Rogerson's Quay along the River Liffey, the firm has continued to expand at an incredible rate, establishing Dublin as its HQ for operations in Europe, the Middle East, and Africa.

Indeed's Capital Dock office includes a new staircase and living wall

All this growth has meant a nearly constant need to expand and upgrade its workspaces. Structure Tone's Dublin team helped the company with one of its earliest offices and has become a partner in their growth ever since.

FROM THE SMALL...

Relationships are, in fact, what brought Structure Tone to Indeed in the first place when McCauley Daye O'Connell Architects (MDO) suggested Structure Tone for the Sir John Rogerson's Quay project. After that effort went well, Indeed enlisted the same team to expand to a 140,000sf space at St. Stephen's Green—and then some.

"The work at St. Stephen's Green was spread over several phases, with a few different design teams over the course of it," says Gary Harvey, Structure Tone senior surveyor. "We were the constant, which really helped us understand what they wanted and the kind of solutions they liked."

Structure Tone has continued to be that constant for Indeed, managing large phases of their fit-out at St. Stephen's Green as well as all the smaller projects they need to make the space work for their staff, from restacks to toilet renovations.

"They were growing so quickly that in the beginning they relied on us quite a bit," says Thomas Kennedy, Structure Tone senior project manager. "But as they have done more of these projects, they understand how a building project works, and we understand what they need."

... TO THE LARGE

Last year Indeed announced plans to expand even further in Dublin, increasing its workforce to 3,000 in a new HQ in the city's Capital Dock development. Given its size, Indeed tendered the first phase of the 235,000sf job. While it ultimately went to Structure Tone, the competition was stiff.

Project Details

Size: 235,000sf	Engineer: METEC
Client: Indeed	Sector: Commercial/Tech
Owner's Rep: KMCS	Completion: January 2020
Architect: RKD	

Relationship Highlights

- ✓ 1,000sf: Size of initial Indeed project
- ✓ €100,000: Value of initial Indeed project
- ✓ 9 completed projects
- ✓ 300,000 total square footage
- ✓ €44 million in total completed project value
- ✓ 2019: Capital Dock project was a Fit Out Award "Project of the Year" finalist

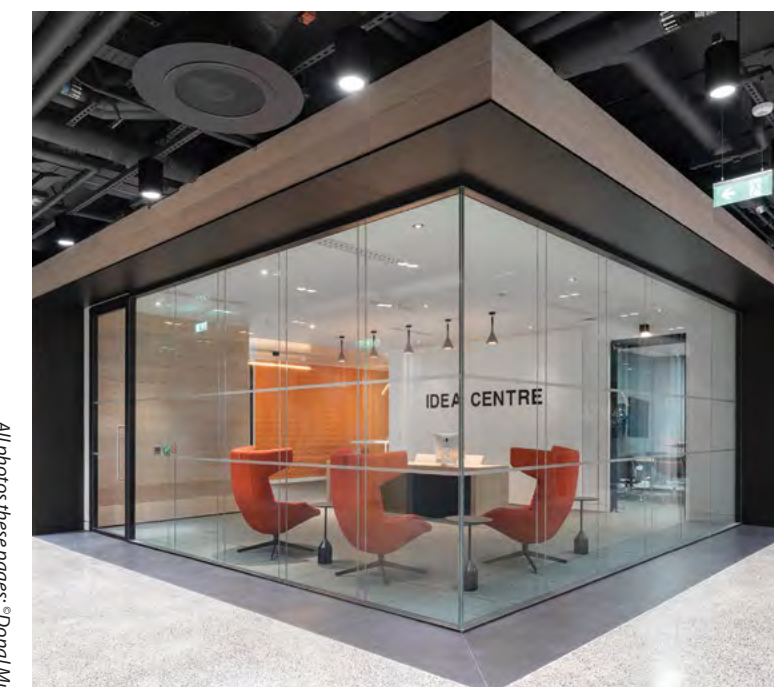
"We were competing against the incumbent core-and-shell contractor, who was very keen to stay involved in the development," says John Atkinson, Structure Tone project director. "What worked in our favour was the relationship we had established over the course of the previous projects and, ultimately, the trust they had in us to deliver."

Now completed, the eight-storey, three-phase project, designed by RKD, involved a number of unique and complex features including:

- Structural alterations and removal of large sections of floor slab for five new circulation staircases and a bleacher seating area
- Two high-end reception areas with a living wall
- Significant use of joinery including timber paneling and fins
- Abundant meeting spaces and collaboration areas
- Tea stations and a restaurant
- Roof garden terrace
- Complex IT and AV requirements, which involved extensive mechanical and electrical service adaptations

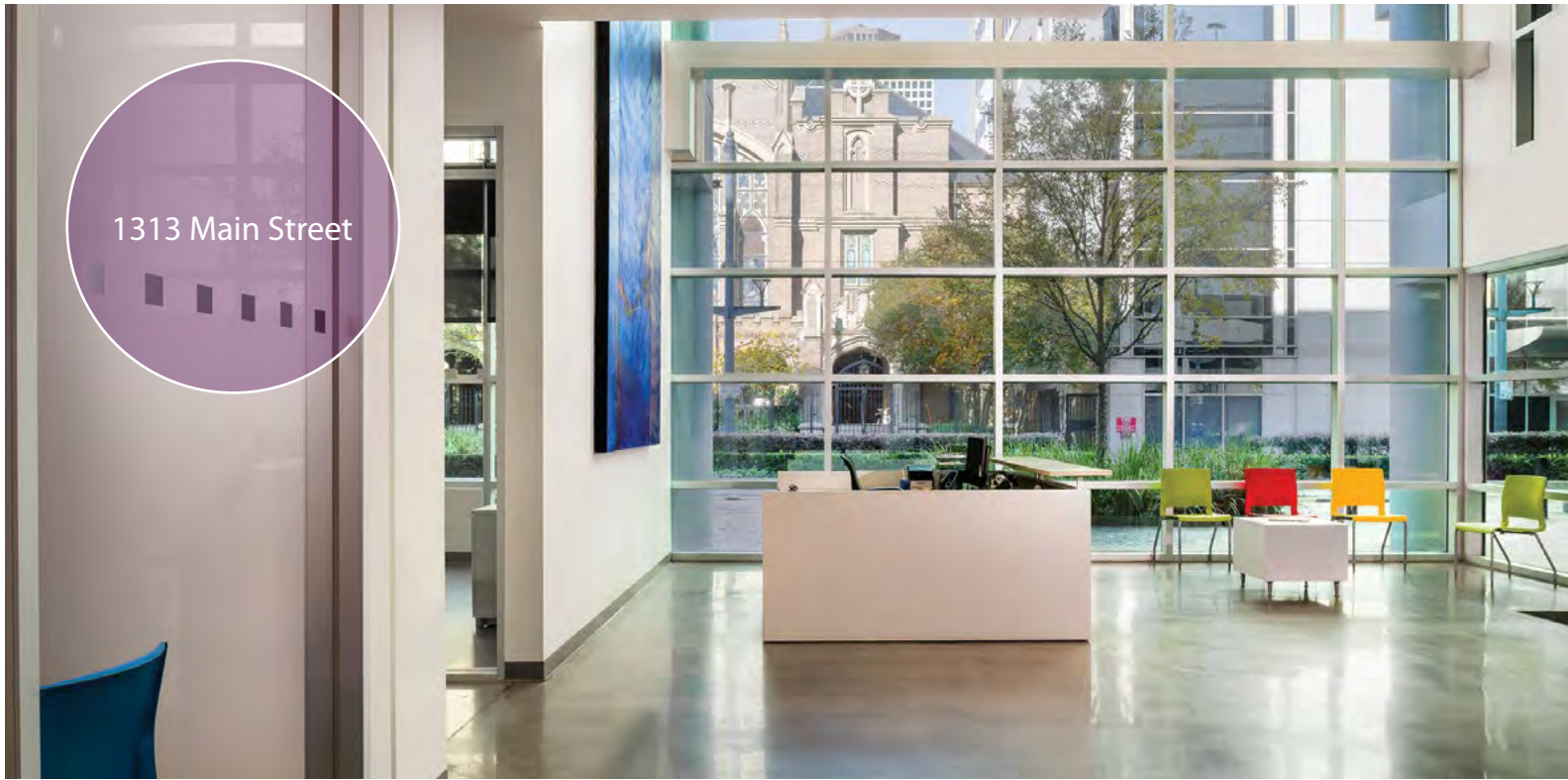
As the Capital Dock project has come to a close, Indeed continues to look toward the future, exploring further updates and expansions to keep up with the incredible pace of their growth. And the Structure Tone Dublin team is ready to support them, however they need.

“*We're excited to continue helping them expand, upgrade, fit out—whatever they need,”* says Atkinson. *“It's become a truly collaborative and trusting relationship.”* **”**



All photos these pages: ©Donal Murphy Photography

Above ▲
The Capital Docks office features a new "Idea Centre"



Below ▼

1313 Main

BUILDING TOGETHER: Joining Forces at GreenStreet

From retail and entertainment areas to top-tier dining and office space, GreenStreet—a mixed-use destination located in the heart of Downtown Houston—truly has it all. But with a variety of tenants and patrons to consider, construction within this four-city-block development is bound to run a little smoother when it's familiar territory.

BRING IT ON

Owned and operated by Midway, a Houston-based real estate investment and development firm, GreenStreet is comprised of 300,000sf of pure entertainment space, 430,000sf of collaborative office space, a 223-room luxury hotel, prime shopping and dining, and "The Lawn"—a green space that offers the public free recreational events all year long. Over the last five years, Midway and several of GreenStreet's tenants have partnered with Structure Tone Southwest to complete projects small and large. Ranging from 3,000sf to 60,000sf, each build-out provided the STSW team with a new opportunity to learn the ins and outs of this bustling location.

Tricky timing. Home to a variety of tenants operating at all hours, Structure Tone Southwest's team has to be strategic when building anywhere within this Houston hotspot.

Typically, when working in an occupied commercial building, office hours are from 7:00am to 6:00pm," says Michael Neary Jr., project manager at Structure Tone Southwest. "But when the building is located in an entertainment district, sometimes those hours extend to 10:00pm or later."

This makes for some odd construction hours, particularly when it comes to loud, invasive work. To avoid disturbing GreenStreet's tenants and their visitors, the project team factors this time constraint into the projects' schedules, restricting disruptive construction to carefully coordinated windows during the day and night.

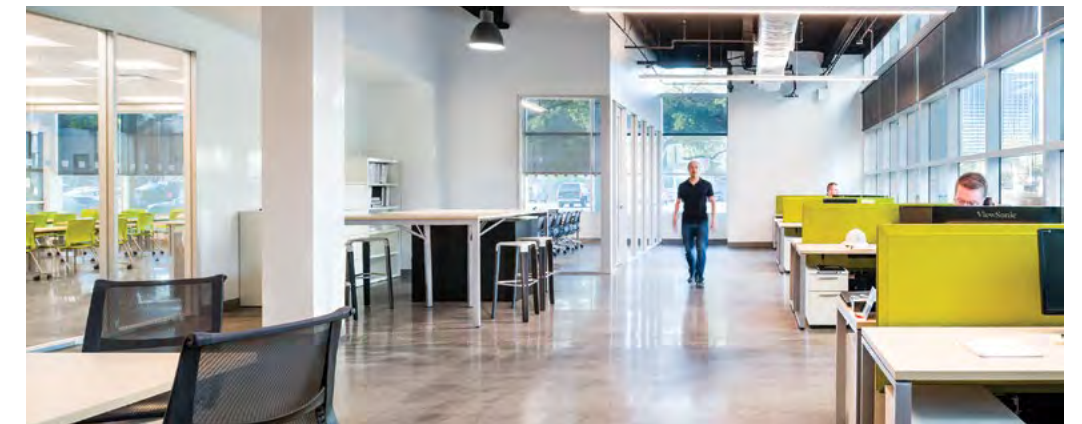
At a crossroads. Intersected by three main roads, portions of the second floor of GreenStreet's facility are actually built directly over Fannin Street and San Jacinto Street—meaning any work in and around those areas require coordinating safe road closures and proper traffic signage with the city. "Midway understands that safety is the core of a project's success," says Chris

Talley, Structure Tone Southwest's regional vice president. "Planning and building safely around their tenants, the public, and our workforce has been a cornerstone of our mutual success." Structure Tone Southwest's knowledge of those processes recently came in handy, as the Southwest team began preparing for their next project at GreenStreet: transforming three floors into a coworking environment for IWG's Spaces.

For the record. Since Structure Tone Southwest started working with Midway at GreenStreet, the Houston office has developed a system to ensure no information slips through the cracks. As each project wraps up, the team records key contacts, the construction challenges, and their solutions. "In reality, we may learn things through word-of-mouth or face-to-face meetings, but we always capture those nuances in a lessons learned document so the next project team working at GreenStreet can refer to it," Neary says.

BALANCING ACT

In addition to the knowledge gained over years of experience, Structure Tone Southwest's success at GreenStreet can surely be attributed to the team's approach to working with both Midway and the development's tenants. For the project team, building at GreenStreet has always meant



balancing the client's vision, budget, and timeframe with Midway's overarching goals for the property. "Since the beginning of our relationship with Midway, we've always seen ourselves as guests at GreenStreet," says Justin Goodman, director of business development at Structure Tone Southwest.

Andrew McKinney, general manager of project operations, joined Midway's GreenStreet team several years ago and has worked closely with the Structure Tone team on three major build-outs. He agrees that Structure Tone Southwest's consideration for Midway's needs as the landlord has really made all the difference.

"In addition to working well with our tenants and their project representatives, we're very fortunate that the STSW team really values their partnership with us as the landlord,"

McKinney says. "They understand we have a property we're managing, and we have to be able to do that in concord with any build-out that might be happening elsewhere on the property."

With such a strong working relationship, both Structure Tone Southwest and Midway are excited to continue their partnership on IWG's Spaces 60,000sf space—GreenStreet's next big build-out. ◀

Structure Tone Southwest Projects at GreenStreet

- ✓ 9thWonder
- ✓ AT&T office
- ✓ 1313 Main Street
- ✓ Root Sports (now AT&T SportsNet)
- ✓ IWG's Spaces



#STOCares

900
gifts donated
in 2019



5,200
gifts collected
since 2010

40
families on
average served
by the program
each year

of STO's participation. "It's really special to be able to see the impact it has on these children and families."

CCB shares thank-you notes from recipient families each year, which express how much these donations mean to them.



Thank you very much for making my son's first Christmas one that I will never forget," says one mother. "Much love from a very thankful first-time mommy trying to make ends meet all on her own for her baby boy."

Strengthening Families in Massachusetts

Nearly 150 miles west of Boston is Berkshire County, Massachusetts, a picturesque mountain community and frequent tourist destination. But without an urban center nearby, jobs can be hard to come by, as can resources for struggling families.

That's where Child Care of the Berkshires (CCB) comes in. Providing much more than just child care, this nonprofit organization was founded in 1969 to strengthen Berkshire County families through high-quality child care, education, support services, and advocacy. Every holiday season, CCB hosts a toy drive for the especially needy families they work with. They look to corporate sponsors to help supply toys for the drive, and in 2010, Structure Tone answered the call.



Above ▲
The team has donated over 5,200 gifts since 2010

CCB staff selects families for the program based on exceptional circumstances and collects their children's lists of needs and wishes. The Structure Tone team then spends the weeks leading up to Christmas gathering the items on the list—plus plenty more.

This past year, the team outdid themselves, collecting over 900 gifts for over 40 families. Since 2010, they have gathered more than 5,200 books, toys, and clothing items.

"I love the commitment our employees have to this drive. It's a beloved tradition for many of them, and they get just as invested as they do giving to their own families," says Ann Vanderperre, Structure Tone Boston executive administrative assistant and organizer



Above ▲
Each child's gifts are packed into personal gift bags

Winter Jobsite Safety

Blizzards always remind us that significant snow brings significant hazards—especially on site. Nothing emphasized this more than the New England Blizzard of 2015. After nearly 25in of snowfall in Boston, site crews had to contend with completely obscured walkways and concrete depressions—not to mention the utility stub-outs, rebar, and other hazards that were invisible underneath the snow. Site roadways that were usually easy to navigate became a dangerous trek when drivers couldn't see the path or the surface changes below. Outward-swinging doors were blocked by snow, even though proper overhead protection was in place. Exposed stair towers and handrails froze over with ice, snowblowers were damaged by unseen objects beneath the snow, and drains were quickly blocked by snow causing backups and pooling. Fences were toppled due to high-speed winds and snow sticking to the scrim. Ramps and stairs were shoveled, but soon covered again with snow and ice—a slippery proposition at best.

Large amounts of melting snow and ice dropped from building canopies high above. Roofs had to be cleared due to the hazardous weight of the snow. Pooled water froze over as temperatures dropped. There were few places left that we could put the snow we were removing and finding additional generators, gas, plows, and ice melt was nearly impossible.

The lesson here is snow can be dangerous. Even the slightest bit on site or on the road can turn to ice and become deadly in an instant. The best way to stay safe is to have a plan in place, communicate with your crew, and proceed with thoughtful caution—always.

Safety Tips



Safety Tip #1: If you're in a cold climate, prepare your car for winter! Temps are dropping, which means it's time to test your car's battery, check your wiper blades, and put your snow tires on.

Safety Tip #2: Before removing safety signage and barriers, double check with your safety team to make sure construction is completely finished in that area.

THE VALUE OF PARTNERSHIP: Q&A with Iron Mountain

Iron Mountain Incorporated (NYSE: IRM) is a global business dedicated to storing, protecting, and managing physical and digital information. It does business with over 95% of the Fortune 1000 and has over 120,000 clients worldwide. With its headquarters in Boston, the company serves clients through 1,450+ facilities—over 88Msf—across more than 57 countries. How do they manage such a large portfolio? **Sarah Abrams**, senior vice president of global real estate, and **Doug Berry**, vice president of project delivery, shed some light.



Above ▲
Sarah Abrams, senior vice president of global real estate



Above ▲
Doug Berry, vice president of project delivery

Do you have a global approach to real estate management or is it more locally handled?

Abrams: On the operating side, we deliver in two models. The first we call direct delivery. This is where Global Real Estate is directly responsible for the management and maintenance of facilities. We deliver this model to over 77% of our worldwide portfolio. For the balance of the portfolio we use a “center of excellence” approach in which local teams are responsible for facility maintenance, but we have global policies that they must follow.

Berry: For capital projects, we have a project delivery lead in each of our major regions who are responsible for capital project delivery. Each of these leaders leverages outsourced partners as project managers given the huge geography each is responsible for. We have global performance specifications we provide to any developer or landlord we work with to ensure they understand our requirements.

How do you choose your design and construction partners?

Abrams: Initial selection is usually through a competitive process. We are really looking to select partners. We like to work with people who learn who we are and what we need. We work with different partners on different types of jobs depending on the type of expertise we need.

Berry: In North America, once we have those partners on board, we work with our procurement organization to create a master scope so we can make a call anywhere in North America and start work with a simple

document because the full contract is already in place.

Why do you like having consistent partners?

Abrams: Speed, work quality and the fact they come to learn our requirements and needs—not just physical specs, but also around financial reporting, project reporting, etc.

Berry: We have also found that firms resource and service repeat clients better than a client that is only a one-off.

What are the biggest challenges to managing corporate real estate? How do your partners help you solve them?

Berry: Budgets and schedules are so critical. Structure Tone has an excellent estimating group that helps us value engineer right from the beginning. Understanding costs and being able to control them is really important for us and Structure Tone is really good at helping us do this. Also, we know that when we work with Structure Tone anywhere, we can count on Kristin Poulin to ensure that the team in that city understands our expectations and our requirements. She educates them so we don't have to. For example, we're kicking off a project with Structure Tone in Dallas and we're seeing the results of her involvement now in the schedules they're putting together. I don't worry about the CM process at all because we know it's handled at a high level in the organization.

Abrams: We like that we have a high-level, single point of contact for all of STO in Kristin. No matter where we're doing a project, we can make one call. ◀



TECH TOWN: Govan Brown Opens New Kitchener, Ontario Office

You might not know it, but a small city in Ontario, Canada is rapidly becoming a mini Silicon Valley. About an hour and a half west of Toronto, Kitchener is seeing an influx of investment by technology firms. In fact, in the 2019 Deloitte “Technology Fast 50” list, the three fastest-growing Canadian tech companies are all from the Waterloo/Kitchener Region.

Canadian interior construction leader Govan Brown noticed this shift in the market and took action, opening an office in Kitchener last fall to support the construction needs of these growing companies and the expanding local commercial real estate industry.

Located at 87 King Street West in the city's commercial core, the new office brings Govan Brown's 25-year history of construction management and general contracting expertise closer to its clients in the Kitchener area.

“While we have been working with clients in the Waterloo/Kitchener area for years, we really wanted to have a permanent home here to even better serve our clients on projects of all types and sizes,” says Joseph Kirk, president of Govan Brown. “We're also able to leverage our wider network of resources if needed, which we think is a win-win scenario for our clients, our subcontractors, and our project teams.”

In fact, as the Kitchener office began taking shape, the Govan Brown team was already in talks with both existing and new clients about their upcoming projects so they could hit the ground running. In just a few months, they have begun projects for such clients as Marsh & McLennan Companies, Waste Management, Gowling WLG, and Deloitte, among others. What's more, the western expansion has allowed the team to work for clients even further west, in cities like London, Ontario.

“We wanted to be closer to our clients and to the local trades and architects,” says Kirk. “It's a huge benefit to have an actual, brick-and-mortar home base and to officially be part of the innovative and dynamic Kitchener community.” ◀



The LFD team is relocating 10 patient bays to make way for a bridge connection to the Pavilion

A Lifetime of Quality Care

One of LF Driscoll’s long-term clients is Penn Medicine, which oversees a system of six acute hospitals and hundreds of outpatient centers across the greater Philadelphia region. Decades of experience working on their facilities has allowed LFD and Penn Medicine to forge a trusting partnership that helps them achieve their goals.



A tunnel to the Penn Pavilion will connect to HUP through its basement

TRUE PARTNERS

LF Driscoll began working in the Penn Medicine system in 1985 when they were brought in to manage some ancillary renovations as another contractor wrapped up construction of the Founders pavilion at the Hospital of the University of Pennsylvania (HUP). The success of that fast-track effort led to more projects, which ultimately evolved into a regular partnership on projects across several Penn Medicine hospitals.

“At first we were renting temporary space near HUP, but as we became integrated with their facilities department, they provided us with some space in their building,” says Raymond McDonald, general superintendent for healthcare at LF Driscoll. “We’ve been holding our weekly coordination meeting there every Wednesday since 1990.”

In those 30-plus years, LF Driscoll, Penn Medicine, and their regular team of design, subcontractor, and consultant partners have helped enhance and expand Penn Medicine facilities in both small and large ways. Their over 945 Department of Health-approved projects together at HUP alone span everything from elevator door replacements, to CT scan installations, to a new MRI building, not to mention supporting the PennFirst team (which LF Driscoll is part of) as they build the adjacent, \$1.5B Penn Pavilion tower.

“A job of \$60,000 has all the same requirements and attention as a \$1B project. That’s important to us and Penn Medicine,” says Charles Steiner, LF Driscoll project director. “Because we’ve worked together so many times before and know each other’s strengths, we can get started on jobs faster and more efficiently.”

INSTITUTIONAL KNOWLEDGE

That institutional knowledge has proved to be invaluable in responding quickly to emergencies and solving challenges during new projects. For example, when Penn Medicine was preparing to renovate a patient area of the Silverstein Building in HUP, the LF Driscoll team was able to offer history of conditions from

other projects that helped inform the planning and design of the upcoming renovation.

“We were able to point out some floor slab cracking conditions between columns, perimeter fire-safing requirements, design standard deviations, and other issues ahead of time so they could work those repairs into the bids. That way they didn’t come as a surprise or lead to change orders later,” says Steiner. “The selected design team hadn’t worked in the building before so they wouldn’t have known.”

Similarly, when the PennFirst team had to redesign a bridge connection from the pavilion to HUP West due to a height requirement change, they came to Ray McDonald to tap into his long-time understanding of the building’s composition. McDonald was able to point out some discrepancies in the building documentation that ruled out certain design alternatives.

“The first two floors of HUP are not original to the building, so there is a transfer beam there now that wasn’t documented,” he says. “One of the bridge options would have basically had the ceiling only 1.5in from that beam, which wouldn’t have worked.”

LIFELONG LEARNING

That kind of sharing and learning goes both ways. LF Driscoll has become a leading healthcare contractor in large part due to lessons learned in decades of building Penn Medicine facilities. With help from Penn Medicine and project partners, LF Driscoll developed their industry-leading ICRA plan, their Healthcare Center of Excellence program, and other best practices that have benefited all involved.

HUP was also the first construction site in the City of Philadelphia to obtain OSHA “STAR VPP” Voluntary Protection Program status in 2005, which was recertified through 2025. At HUP, LF Driscoll developed the Safety 360^o program that is now standard practice throughout the STO Building Group. In essence, the teams working on these projects have accumulated a lifetime’s worth of healthcare understanding.

“Medical knowledge has been an amazing byproduct of what we do,” says McDonald. “How many construction professionals can tell you how proton therapy works?”

As all healthcare institutions must, Penn Medicine continues upgrading and building new facilities to ensure their patients receive leading-edge care. And LF Driscoll is ready and able to continue helping them achieve that goal, with several large and small projects in the works.

“We are uniquely qualified at this point,” says Steiner. “We’ve developed a true team mentality with shared goals and we challenge each other to be better together.”

Example Projects

- Backfill renovations at Founders, Rhoads and Perelman buildings
- Silverstein 2nd floor renovation
- Founders MRI building
- Silverstein cooling tower
- Substation upgrade
- Campus arc flash protection
- Global pneumatic tube system installation
- Roof replacements
- Façade restorations
- Founders preheat glycol pumps
- Silverstein 1 bed management
- Perelman CT and SPECT CT scanner replacements
- Rhoads and Ravdin elevator restoration
- Silverstein 1 Guest Relations
- Smilow 1 UPS Pharmacy
- Smilow 8 Vector Production
- Supporting bridge connections to new Patient Pavilion

Relationship Highlights

- ✓ 945 DOH-approved projects with no failures
- ✓ 2.5 million “labor days”
- ✓ 55,500 campus utility shutdowns
- ✓ 25 active projects



UPDATING AN ICON: 1735 Market Street

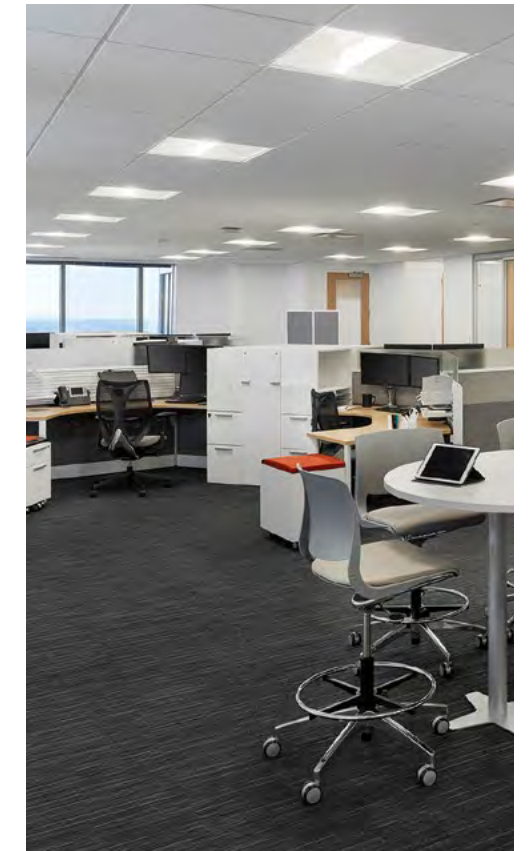
With 54 stories conveniently located in Philly’s central business district, Silverstein Properties’ 1735 Market Street is the perfect home for any high-end corporate office—and in the last eight years, Structure Tone Philadelphia has fit out quite a few. From 12,000sf showrooms to 100,000sf office spaces, Structure Tone’s Philly team has transformed 19 floors within this popular high-rise.

IN THE KNOW

Topped with an iconic pyramid crown, 1735 Market Street is a treasured part of the Philadelphia skyline, but when it comes to must-have modern design features, the 30-year-old structure requires a little extra attention during construction. Thankfully, Structure Tone Philadelphia’s presence in the building year after year has supplied the team with a true understanding of the building’s intricacies—and it shows from the very beginning of any job.

Whether they’re collaborating with a design team or interviewing for a future project, the Philly team’s intimate knowledge of the building gives them a leg up when it comes to anticipating potential construction conflicts. With just a schematic drawing of the client’s plan, Structure Tone experts can pinpoint which portions of the design might pose a construction challenge.

“Depending on how the client and their designers want to lay out the space, we can foresee the constructability of their plan based on what we already know,” says Luke Thomas, director of operations at Structure Tone Philadelphia.



Photo, above, opposite page, and top two photos on right: Jeffrey Towner, Photo, above, left: Aret & Associates, Design Firm, Paul Blenbergh, Photographer.

Above ▲
L to R: Boston Consulting Group, Carpenter Technology, PFM Group

For example, the steel sizing, structural elements, and wind bracing systems that any 1735 Market Street tenant has to work around depends on how high or low their floors sit within the structure. The lower the floor is to the ground, the more substantial the structural supports have to be and the higher the floor, the more wind bracing is needed. “We know from experience that we’re going to run into certain issues on the lower floors that we won’t on the upper floors and vice versa,” Thomas explains. “So, when it comes to coordinating the MEPs, it’s not a one-size-fits-all solution.”

CREATIVE SOLUTIONS

After delivering several spaces between the ground and 43rd floors, Structure Tone’s team is well-versed in devising one-of-a-kind solutions for each client’s needs. So, when Boston Consulting Group’s (BCG) design called for the maximum ceiling height the space would allow, Structure Tone Philadelphia’s team was ready to get creative.

1735 Market Street’s standard ceiling height matches the building’s window mullions: 8ft, 8in. “It’s relatively easy to match the ceiling height to the window mullions on the ex-

Project Highlights

- ✓ PFM Group 72,500sf
- ✓ Boston Consulting Group.. 52,000sf
- ✓ Barclay’s Capital 10,000sf
- ✓ Alliance Capital Management 8,000sf
- ✓ Global Furniture USA 12,000sf
- ✓ JP Morgan Chase 8,000sf
- ✓ Goldman Sachs 12,000sf
- ✓ Carpenter Technology Corp. 22,000sf
- ✓ Spectrum Furniture 12,000sf
- ✓ BNY Mellon 52,000sf
- ✓ Willis Towers Watson 97,000sf
- ✓ Fidelity Investments 25,000sf

terior,” Thomas says. “For anything beyond that, you’re going to have to create a more dramatic effect in the space, and we know how to handle that.” To achieve the lofty feel BCG was looking for, the team factored in light fixture depths and boxed around the beams, wind bracing, and structural elements as tightly as they could—down to the quarter inch—to deliver the absolute max ceiling height throughout the office. The finished space definitely hit the mark with its

high-end finishes, airy ceilings, and grand, floating staircase.

SHARED LOGISTICS

Structure Tone Philly has worked on a few projects simultaneously at 1735 Market Street and even assigned a common superintendent to guarantee the logistics of each job were working together, rather than against each other. “Our teams are very comfortable communicating with one another and are truly invested in all of our projects,” Thomas says. “They know exactly who to contact with an issue and are always willing to work towards a solution together.”

This level of teamwork continues when the team starts a new project within the building as well. In addition to lessons learned files, Structure Tone’s general superintendent and staff with experience working in the building attend project kick-off meetings to communicate previous challenges and solutions in-person.

After eight years of project experience spanning nearly 20 floors, Structure Tone’s Philadelphia team is excited to continue their partnership with 1735 Market Street’s building management team and their tenants. ◀

The reimagined building will offer bright, modern office space



Tribeca Transformation

Since it was built over 100 years ago, 15 Laight Street in NYC's Tribeca neighborhood has housed just about everything, from warehouse space and fashion studios to the Tribeca Film Festival's original headquarters. Now the building is being reimagined yet again as a Class A commercial building to bring high-end, tailored office space to the resurging area.

The reconstructed building will ultimately offer 115,000sf of open, flexible, bright, and modern office space across eight floors. Vanbarton Group brought in Pavarini McGovern to help determine how to realize that vision without significantly altering the building's existing footprint. Together with Gensler, the project team devised a two-phase approach that split the project between its foundation work and the new construction.

"The two-phase approach we developed is somewhat unique and was crafted to preserve and brace the existing building while a new foundation was installed to support the building's ultimate redevelopment,"

says Jeremy Sedrish, a managing director at Vanbarton Group. "Once that work was complete, the building's top floors were demolished to make way for a rebuilt, modern upper-floor structure. This approach maximized the building's redevelopment potential, allowing us to deliver true Class A space with wide open floor plates, minimal columns, and floor-to-ceiling glass on three sides."

LAYING THE FOUNDATION

The first phase could be summed up in one word: support. To prepare for the new stories to come, Pavarini McGovern first shored up existing walls to preserve the upper floors as they constructed a new mat slab foundation

and supporting structures. Underpinning, wailers, rakers, and other supports were strategically placed throughout the cellar to allow the team to excavate and lay the new foundation while maintaining the floors above.

Striking a balance between supporting the building and constructing an all-new foundation was key.

"Shoring the foundation walls and footings that support the building had to be carefully coordinated while we worked on the new foundation," says Henry Klion, PMG project manager. "Then we had to carefully align the new structure with old one before we could remove it."



Above ▲

The team is completely rebuilding the upper floors on top of a reconstructed foundation

MOVING ON UP

Once that foundation was ready, PMG got to work on phase two: the new floors. The team again returned to demo, taking the building down to the second floor before the new steel-and-concrete superstructure could start moving up.

The building design includes a long continuous shear wall that supports the steel framing of the building. The inherent challenge with that design was, yet again, balancing the order of that progression.

"Building the shear wall is required for the steel to advance, but the steel is required to advance the shear wall," says Klion. "It's like a chess game. We work on the concrete in one area while the steel moves forward in another."

The team is also using a "shotcrete" technique—spraying concrete at targeted spots from a special hose—to keep the schedule moving forward. The idea is to save time on the concrete process, as the stripping of formwork is eliminated with the shotcrete process, says Klion. "Using the shotcrete technique saves a few days with the concrete operations."

TIMING IT RIGHT

As the team moves up the building, another challenge is installing the distinctive unitized curtainwall panels. "We were inspired by the local neighborhood, and endeavored to reinterpret those classic façades with a more modern sensibility with an expansive, sleek glass façade to the north, and a gridded façade on the west and east," says Anne-Sophie Hall, senior associate at Gensler.

Hall and the Gensler team reimagined the textured cast iron and gridded façades of Tribeca by enlarging the openings of the grid pattern to take advantage of the expansive views and allow for more natural light. The enlarged openings necessitate large panels, which have been tricky to deliver given the building's dense location just outside of the Holland Tunnel.

"We can't hoist the panels to each floor due to size constraints," says Klion. "So we deliver them on a truck and use an engineered crane to install them on the same day. Everything has to be ready for these panels exactly as planned."

Project Details

Size:
115,000sf

Client:
Vanbarton Group

Architect:
Gensler

Structural Engineer:
Silman

MEP Engineer:
Syska Hennessy Group

Owner's Rep:
Lehrer Cumming

Sector:
Commercial

Completion:
2020

Project Highlights

- ✓ Unique two-phase approach
- ✓ Shotcrete technique used for concrete portions
- ✓ Targeting LEED Silver
- ✓ Terraces, bay window boxes, and balconies provide access to the outdoors and amazing views

As of the beginning of 2020, the project is moving along on schedule. The superstructure is about halfway up the building, staircases are being installed, and utility and MEP work is underway. And that progress is largely due to the integrated teamwork from day one.

Thanks to Vanbarton's decision to engage PMG and all design consultants at the beginning of the design phases, the design and construction of the project has been a very collaborative and informed process," says Hall. ◀



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