



THE PIPELINE

News and Information about the Eastern Massachusetts Plumbing Industry • December 2020

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–John Moriarty, JMA
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– Barry Keady, Local 12
Cover

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Sometimes, GBPCA contractors and the Local 12 members who work for them might think about the offices, condos, lab spaces, or other end uses that their hard work will make possible. Most of the time, however, the focus is on the day-to-day work at the job site. That’s not the case with the Hale Family Building, an 15-story clinical facility now under construction at Boston Children’s Hospital.

“Our team is taking this job to heart,” says Jim Bent, senior project executive for GBPCA contractor American Plumbing and Heating. The building will include a state-of-the-art clinical lab, a comprehensive

heart center, a re-imagined neonatal intensive care unit, and a number of other features. As one of the most respected and renowned pediatric hospitals, families from the region, the country, and around the world entrust BCH with the care of their children. The plumbers are acutely aware of the challenging cases Children’s takes, the critically important work it does, and the young patients it serves.

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Cautiously optimistic as industry copes with pandemic

When the first wave of the coronavirus pandemic began in March, Boston and other municipalities abruptly closed virtually all construction sites, along with a series of other preventative measures. Consequently, the unemployment rate for Local 12 members shot up to about 80%, and GBPCA contractors saw their revenues drop sharply.

As industry leaders gathered to discuss safety protocols in advance of restarting jobs in May, there was much angst about the impact on productivity and the general viability of projects. So, many months later, how are things going?

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We put the spotlight on John Moriarty & Associates. See page 2.



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He quietly builds signature projects and great relationships

IN A CULTURE THAT IS LARGELY OBSESSED WITH SELF-PROMOTION, THE CONSTRUCTION INDUSTRY GENERALLY REMAINS UNASSUMING. BUT EVEN AMONG CONSTRUCTION MANAGEMENT FIRMS, JOHN MORIARTY & ASSOCIATES (JMA) IS ESPECIALLY HUMBLE.

Although it is responsible for building some of the biggest, most complex, and most noteworthy projects in the region and beyond, people outside of the industry may not be familiar with the company.

“You’ll never see giant JMA banners at job sites,” notes Joe Valante, president of GBPCA contractor Valante Mechanical. His father first did work for JMA about 20 years ago and developed a great working relationship with its namesake founder and president, John Moriarty. To this day, many of Valante Mechanical’s largest projects are with JMA, and Joe has carried on the relationship with Moriarty. “His work speaks for itself. He prefers to be behind the scenes,” Valante adds.

But behind the scenes, Moriarty has made an indelible mark with marquee buildings such as 111 Huntington at the Prudential Center, the world headquarters of Novartis in Cambridge, and the 1.2-million-square-foot Atlantic Wharf high rise along Boston’s waterfront. And he’s

done it by being fair, by focusing on quality, and by developing relationships based on goodwill and mutual trust.

He diverged from his original path

Although he always enjoyed working with his hands and even built a few kitchens to make some extra dollars while he was getting his undergraduate degree, there was never any grand plan for Moriarty to go into the construction business. Instead, he had set his sights on becoming a lawyer.

Another way that Moriarty helped pay his way through college was by becoming a union laborer and working during school breaks. The experience opened his eyes and introduced him to the building trades. Deciding he wanted to take a break from his education, Moriarty deferred applying to law school and went to work for Turner Construction instead.

“It was supposed to be for one year,” Moriarty says about his commitment to the large Boston company. “But I fell in love with the business.”

He started as a field engineer trainee. Putting together intricate

deals, working alongside everyone from major bank presidents to union apprentices, and seeing projects go from ideas to architectural plans to humming construction sites to actual buildings all fascinated Moriarty. He quickly recognized and appreciated the importance that developing and maintaining relationships played in every aspect of the industry.

What was supposed to last one year turned into a 12-year tenure with Turner. Moriarty says that it was a great training ground, but he was itching to get out on his own. In 1985 he started JMA with “not a dime.” Luckily, he says, Boston Properties took a chance and hired his new firm to construct a major project. “Then we were off to the races.”

Partnership with labor and subcontractors

JMA quickly began establishing itself in the region. Among its more interesting and complex projects was a laboratory building for Millennium Pharmaceuticals in Cambridge. GBPCA contractor American Plumbing and Heating worked on the project for JMA. That led to buildings for other biomedical and pharmaceutical clients such as Takeda Pharmaceutical Company in Cambridge and Alkermes in Waltham.

“As the work became more complicated, it became obvious to me that I was the beneficiary of this fabulous workforce,” Moriarty says about the subcontractors and the union building trades workers they employ. “It’s really in partnership with them. I realized I could have the best plumbers and other trades. They can do anything.”

The workers are able to perform at such a high level because

SPOTLIGHT ON JOHN MORIARTY & ASSOCIATES

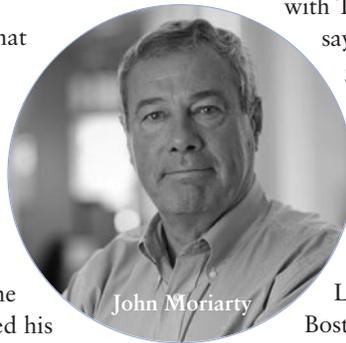
of the union, Moriarty contends. “We understand the Local 12 labor force. Most of the work we do requires their sophistication and the training they get. We’re never at a loss for qualified, competent labor even when we are busy as hell,” he says.

One of the reasons the building trades unions are able to maintain an exemplary labor force is because of their apprenticeship programs. According to Moriarty, unions and the subcontractors with which they work have a “miraculous relationship” with apprentices. “It’s an amazing thing,” he says in praise of the programs and the apprenticeship concept. “To this day it amazes me.”

Moriarty also understands it is more than just the training that distinguishes the organized building trades. “The reason it works is that the labor force has high paying jobs that come with excellent benefits, and the unions are extremely well run. The workers are highly motivated. It’s pretty terrific.”

Of course, it’s important for the unions and subcontractors to have general contractors like JMA developing projects and creating job opportunities. The system works because it is mutually beneficial for all parties. “We’ve always enjoyed a strong working relationship with John and JMA,” says Tim Fandel, Local 12’s business manager. “We are proud to work with him, and we are grateful for the work he and his company provides for our members.”

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Atlantic Wharf is one of JMA’s signature projects.

2020 will be memorable first year for apprentices

NO MATTER WHAT MAY BE HAPPENING OUTSIDE OF THE INDUSTRY, IT'S ALWAYS MOMENTOUS FOR APPRENTICES WHEN THEY JOIN LOCAL 12 AND BEGIN THEIR TRAINING.

Members likely have vivid memories of their first year in the program as they began to learn the trade and started on their journey in a new career. But for the thirty first-year apprentices who came on board in 2020 amid the height of the COVID-19 pandemic, their experiences will be especially memorable. The Pipeline caught up with two of them to learn about their path to Local 12.

Michael Alexander

As a third-generation Local 12 member, you might think that it would have been Michael Alexander's destiny to become a plumber and join the union. But that wasn't necessarily the case.

While he always liked putting things together and making things work, Alexander chose to study engineering in college. But when he joined the Army National Guard three years ago as a helicopter mechanic, he found his calling working with his hands.

"It was then that I knew the desk thing wasn't really going to be for me," says Alexander, noting that he enjoyed being in the field repairing and replacing helicopter parts. "That's when I decided I wanted to work in the trades."

As to what trade, his family provided inspiration. Alexander's grandfather, Ed Farrell, uncle, Brian Farrell, and cousin, Ryan Farrell, all joined Local 12 and pursued plumbing as a career. He sought the advice of his uncle, who helped convince him to follow the family tradition.

"Even though I had grown up hearing about the union, I didn't know much about it," Alexander says. "After my uncle told me about the high professional standards, the safety standards, the

wages, the benefits, and more, I decided to apply."

Alexander was accepted into the local in 2019, but duty called when the Army National Guard deployed him to the Middle East. Part of a heavy maintenance team, he serviced Blackhawk helicopters in his home base, Kuwait, as well as in Syria, Iraq, Jordan, and Saudi Arabia. Over the course of Alexander's deployment, which lasted through January of this year, his team supported 33,000 hours of combat flight time. "I knew that I had Local 12 to go home to," he says.

Upon his return, Alexander went to work for Glionna Plumbing and Heating where he has remained. Not long after he started, the COVID-19 pandemic erupted. Alexander notes that there have been no reported virus cases at any of the job sites on which he has been working. He credits Glionna, the general contractors, and the safety protocols adopted by the building trades for helping to keep him and his coworkers safe.

Many of Glionna's projects are municipal buildings. Alexander, for example, has been working on new police headquarters in Belmont and Beverly. The crews are relatively small, which makes it easier to social distance.

He cites another benefit of working for a smaller shop. "My uncle was a foreman and ran a



lot of huge jobs. With Glionna, I get to do a lot more, because I wear many hats. I'm getting a lot of hands-on experience with a variety of things."

Alexander says that his military experience and regard for the chain of command has served him well at job sites. "It makes it easier for me to learn. I have respect for the journeyman and foreman above me," he notes. "You only have to tell me things once."

He also notes parallels between the military and the union. "With Local 12, there's strength in unity. We have each other's backs. We are part of something bigger than ourselves."

As for the benefits he is receiving, the 24-year-old says that he doesn't know anybody else his age with a health care plan, an annuity, and a pension. "It's pretty fantastic."

Jovai Taylor

She always liked working with her hands, but Jovai Taylor ended up with jobs at auto dealerships and a car rental agency. Tired of sitting at a desk and seeking a change, she thought about the things she liked doing and remembered how much she enjoyed working alongside her father helping him with home repairs and improvements. It's something Taylor carried with her throughout her life. She says that she always tries to figure out how to do things herself. She thought construction could be something to pursue.

"I wanted to get into the building trades for a long time," Taylor says. "But I just didn't know how to do it."

Then a friend who is a pipefitter told her about Building Pathways. The Roxbury-based pre-apprenticeship program helps prepare people, especially women, people of color, and others in underserved communities, for careers in the building trades. Local 12 is one of the unions that



Michael Alexander

works with and supports Building Pathways.

Taylor enrolled in the program in 2019 to begin her new career path. As part of the curriculum, participants are asked to identify two trades they would like to enter. She chose plumbing and pipefitting.

After graduating from Building Pathways, Taylor applied to some of the building trade unions. While she waited to hear from them, she took a job with a nonunion shop to get some experience.

Accepted by Local 12, the first-year apprentice says that up until recently, she didn't know much about unions. "Now, there is a sense of security. I understand that Local 12 has my best interests at heart and is looking out for me," Taylor says. "Unlike past jobs, it feels like a career for me now."

Having briefly worked for a nonunion contractor, she says that there is a big difference on the union side. "The way I'm treated, the pay, the benefits—it's all so much better."

As a woman working in the trades, Taylor says her gender has been a non-issue. Everyone has been accepting her.

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Children's Hospital project is enormous

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The job is particularly meaningful for a Local 12 member whose child had a heart-lung transplant at BCH. In honor of the child, workers inscribed his name, Ethan, on one of the beams at the site.

"We know how the facility will be used. It's not just another building," Bent adds.

Spanning over 590,000 square feet and costing \$1 billion to construct, the project is quite large. From a plumbing perspective, it is a particularly big and complex job. At its height, American had 80 workers on the job. "That's an incredible amount," says Bent. "We've never had that many people at one site before."

"It's the biggest job I've ever seen for plumbing," adds Barry Keady, Local 12 business agent. "It is a massive medical gas system."

At one point, American had 35 workers focused on medical gas alone. Among its highlights, the Hale building includes ten hybrid operating rooms, multiple pre-op exam rooms and recovery rooms, and a cardiac clinic with 21 exam rooms. The facility will also feature 96 private, inpatient rooms outfitted with medical gas.

It is a trend among hospitals to build single-bed instead of shared patient rooms. The configuration allows families to have more privacy, something they especially appreciate during difficult and often emotional hospital experiences. Even the neonatal intensive care unit will have 30 beds in private rooms instead of open bays.

It is unusual for hospitals to integrate patient rooms with operating rooms, exam rooms, and a host of other services in one building. The Hale will also include a radiology suite, pharmacy services, and a pathology lab.

Children's says that the building's all-inclusive design will enable it to offer more efficient, enhanced care as well as foster clinical collaboration. Neither patients and their families nor Children's caregivers will have to leave the Hale.

The job is unusual for American as well. While medical facilities are among its specialties, the contractor typically builds one type of feature at a time, such as patient rooms or hospital labs. But the multi-purpose Hale has the plumbers working on a variety of spaces at once. It calls on many different, specialized skills and requires a lot of coordination.

American started the pre-planning process in 2016, and on-site construction began in 2018. Just



In honor of a Local 12 member's son who was a patient at Boston Children's Hospital, workers inscribed his name on a beam.



All of the patient rooms in the Hale Family Building will be private.

before the pandemic forced the temporary closure of the job in March, the crew had completed work on most of the storm, sanitary, and water lines that run

through an existing hospital building.

The site, which reopened in May, was able to ramp up quickly, because while the Hale building will be connected to existing buildings, it is isolated from them during the construction process. The trades' workers, therefore, do not have to worry about social distancing is-

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The spirit of BCH's Prouty Garden lives on

In order to carve out a footprint for the Hale Family Building now under construction on the land-challenged Boston Children's Hospital campus, the organization decided to use the courtyard that had been the site of the Prouty Garden. The removal of the garden has caused controversy.

"The Prouty Garden has had a special place in the hearts of many families," says Barry Keady, Local 12 business agent. "Many patients would visit its tree during their stays and found comfort there. Some families would spread the ashes of their children in the garden."

When word got out that the hospital was planning to build over the garden, many supporters came forward to oppose the project. A group sued the hospital and asked for a court injunction to stop the clinical building from moving forward. The motion was ultimately denied.

In acknowledgment of its importance, BCH is honoring the garden in a number of ways. According to Jim Bent, senior project executive for American Plumbing and Heating, the GBPCA contractor working on the Hale job, the Dawn Redwood that stood at the center of the garden was sent to a mill, and its timber will be used to make benches and other items for new and existing gardens at the hospital.

"The spirit of the tree remains," Bent says. "The spirit of the garden will remain."

Also, families and staff members at BCH were able to take seeds from the tree to plant in their own yards. And soil from Prouty Garden was collected and will be transferred to other gardens at the hospital. Plants and statues, as well, have been or will be moved and showcased in other gardens.



Soil from the original Prouty Garden will be used in new and existing gardens at Children's.

Contractors and Local 12 are coping with the pandemic

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“I’m happy to report that we have over 95% employment among our members,” says Tim Fandel, Local 12’s business manager, adding that the rate is typical for this time of year. In other words, employment has more or less returned to pre-pandemic levels. “I’m pleasantly surprised,” Fandel adds. “After the depths of the initial shutdown, I wouldn’t have thought we would be where we are now.”

Contractors are also indicating that nearly all jobs have resumed, and that the industry in general has rebounded well. That’s not to say, however, that everything is exactly normal. COVID 19 has fundamentally changed many things and continues to present challenges.

Weathering a difficult storm

When projects such as Boynton Yards in Somerville and 325

Hale Family Building

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sues with patients, families, employees, and others at the hospital. Also, the plumbers got to return to the project first, because they had the responsibility of installing hand-washing sinks for all of the trades per coronavirus safety guidelines for construction sites.

The Hale building is located on what had been a central courtyard at the campus. In order to gain access to the site, an old granite building on Shattuck Street was taken down. It will be rebuilt at the end of the project. The courtyard had been the location of the beloved Prouty Garden, and its removal has caused controversy. (See related article in this issue.)

Despite the COVID-related shutdown, the project is slated to be finished on time with a planned opening scheduled for the third quarter of 2021.

Main Street in Cambridge halted in March, GBPCA contractor J.C. Higgins reduced the field work force of its plumbing division by about 80%.

“Those of us in the office went to a four-day work week to help reduce payroll,” says John Shaughnessy, VP of the contractor’s plumbing division and a 36-year veteran at the company. Among other mitigation strategies, some employees took early retirement. Through it all, J.C. Higgins was able to retain 90% of its office staff.

“We lost the opportunity to generate much revenue during the three-month shutdown of the first coronavirus wave,” Shaughnessy says. “We are tightening everything where we can. We have been able to weather the shutdowns, but it has not been easy.”

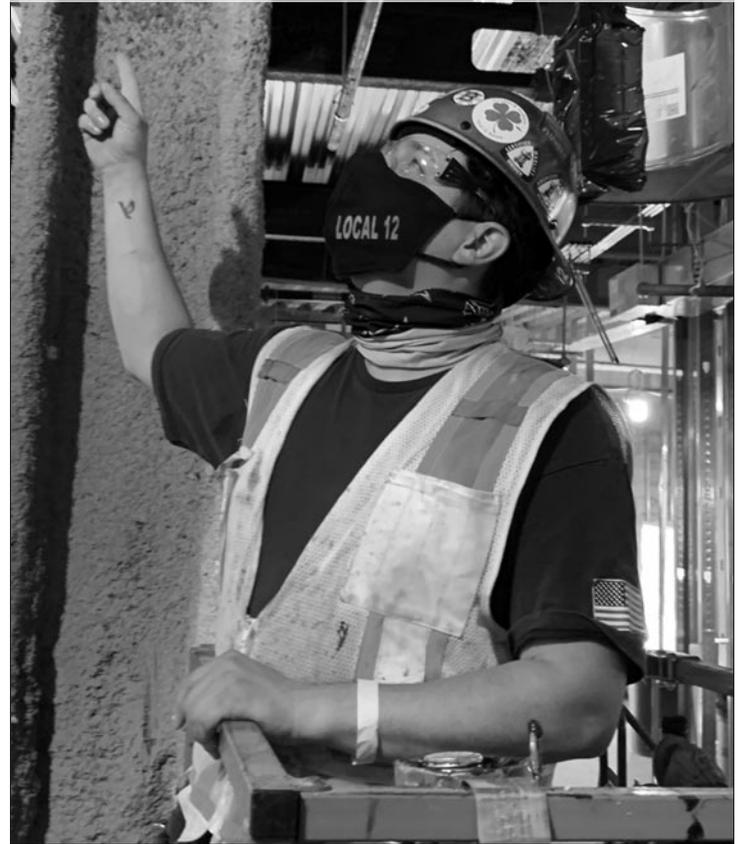
On the bright side, things have gone well since work resumed in May under “new normal” conditions. Company officials were trying to anticipate what might happen when practices such as social distancing and tool washing were introduced at construction sites.

“Would it cost us 20% of a day’s productivity? More? We just didn’t know,” says Shaughnessy. As it turns out, J.C. Higgins has seen that the impact has not been as severe as anticipated.

Local 12’s Fandel concurs. Workers quickly adopted safety precautions such as wearing face-masks and other PPE. And technology such as phone apps and QR codes were rapidly deployed to help streamline health screenings. “It’s become standardized,” Fandel says. “We incorporated new processes, made them part of our routine, and adapted.”

In-person instruction returns to training center

The pandemic has interrupted routines at Local 12’s training center. The school quickly pivoted to remote learning after it went into lockdown mode in the



spring. Apprentices and instructors connected online via electronic classes. When the fall session began in the new academic year, however, the training center reopened, and the day school program reverted back to in-person classes, albeit with a number of adaptations.

Perhaps the most significant change has been the reduction of class sizes. To accommodate social distancing, most classes have about ten apprentices, or about one-third less students. Because the class sizes are smaller, the training center will be expanding its schedule and presenting more classes.

All work areas are regularly sanitized, and the classrooms themselves are disinfected daily. The center installed many hand sanitizer stations, increased the airflow of its HVAC system to improve ventilation, and closed its break room. Apprentices and instructors are required to wear masks at all times. If team projects require participants to be closer than six feet, they wear clear face shields in addition to masks.

The modifications are not insignificant, and the conditions are not ideal, according to Rick Carter, the training center’s director. For example, it can be difficult for instructors and students to understand each other when they talk with masks on. But he says that the overwhelming consensus is that in-person classes are considerably better than the alternative, adding that there is no substitute when you’re trying to teach somebody a trade.

“Most of our apprentices are visual, hands-on, tactile learners,” Carter notes. “You can’t do that virtually.”

To illustrate the point, he says that he presented the math for a project during a class, and one of the apprentices was having trouble understanding it conceptually. When they built the project together in the shop, however, it all came together. “She did a great job with it and immediately got

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MWRA is tracking COVID-19 in wastewater



Deer Island Treatment Plant

THE CORONAVIRUS PANDEMIC HAS PRESENTED MANY CHALLENGES. It has been difficult, for example, to accurately track the presence of COVID-19 as well as to predict and prevent outbreaks in communities.

Given current clinical screening processes, it is costly and impractical to conduct large-scale testing of individuals on a regular basis. Compounding the problem, many people who contract the virus are asymptomatic and therefore remain undetected if they have not been tested. They are nevertheless capable of infecting others and causing outbreaks.

If only there was some relatively simple, cost-effective way to identify rising infection levels in an area before the virus has a chance to spread. It turns out there is: by analyzing wastewater.

Researchers have discovered that before they show symptoms, infected people shed the virus in their stool. Scientists in the Netherlands first reported that they were able to detect the genetic signal of the virus in wastewater samples. Cambridge-based Biobot Analytics was the first in the United States to trace COVID-19 by using wastewater samples from the Deer Island Treatment Plant in Boston.

Subsequently, the Massachusetts Water Resources Authority (MWRA) awarded a \$200,000 contract to Biobot in June to conduct a pilot study of wastewater at Deer Island. The study's data, which is collected three times a week, serves as an early warning system for Eastern Massachusetts. It can predict infection upticks, transmission rates, and other

trends one to two weeks ahead of more traditional clinical diagnoses. The MWRA makes the study's data available on its website: mwra.com/biobot/biobot-data.htm.

Wastewater from Boston and 42 other communities flows through Deer Island where it is treated and then discharged through a 9.5-mile, 24-foot-diameter outfall tunnel under the harbor and into Massachusetts Bay. The plant's 130-foot-tall, egg-shaped anaerobic digesters, which treat sludge and scum that is extracted from sewage, are a distinctive and prominent sight in Boston Harbor.

Pandemic continues to present challenges

Continued from preceding page
it. We couldn't have done that online," Carter says.

Fandel says that he is hopeful that the center will be able to continue to offer in-person classes, but notes that much is dependent on conditions outside of the school's control such as rising infection rates in the community.

With a wobbly general economy, the trustees that oversee the training center decided to reduce the size of the incoming class by about half to 30 apprentices. Should conditions warrant it, Fandel notes that the school could open its enrollment later.

Looking to the future

How might conditions evolve in the construction industry? In the near future, Shaughnessy and Fandel believe that the unprecedented boom times that have prevailed over the past few years will mostly continue. Not only have nearly all existing jobs resumed, but owners and developers of many major

The MWRA was formed in 1985 in response to federal environmental regulations and a court order to address the wastewater that was polluting Boston Harbor. To comply, the agency rebuilt the Deer Island facility, and GBPCA contractors and Local 12 plumbers played an important role in constructing the massive project. It is one of the largest wastewater plants in the world.

According to Mike Perrotta, estimator and project manager at GBPCA contractor Harding and Smith, the Biobot study is not able to trace virus rates at a city or town level. But it is able to track the virus coming from a

cluster of communities in Boston and north of the city and another cluster of communities south of the city. That's because influent arrives at the plant from two regional pumping stations: Nut Island in Quincy to the south and the Chelsea Creek Headworks in Chelsea to the north.

"I find it amazing that it's possible to pinpoint levels of COVID based on wastewater," Perrotta says.

Harding and Smith, which specializes in providing process piping for the waste and water treatment industry, has worked

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new projects that had been in the pipeline have indicated that they will be moving forward with their plans. These include the massive Suffolk Downs development and Mass General, which has a \$1-billion, 1-million-square-foot expansion on tap.

Some sectors, however, are shaky. Shaughnessy says that the city's previously red-hot condo market might be taking a bit of a hit in the near term, noting that a residential project in the Seaport switched to lab space (for which there is continued huge demand). And some spec jobs that developers were building without tenants in place have been put on hold. The dicey economy has dealt a blow to retail and restaurant projects as well.

But Fandel points to the many engines that undergird the Boston area's resilient economy and support the construction industry, including its universities, hospitals, research and development, and biotech. "It's a testa-

ment to the region," he says.

Post-pandemic, Shaughnessy remains upbeat. "In a year or two, I expect that there will be many new projects that we will be bidding." He adds that, in his opinion, office space will remain an important part of new construction. "Offices will not become obsolete," Shaughnessy says. "I don't think people will work from home forever. I believe we are very social and want to join together in workspaces."

Regardless of what the future holds, Jeremy Ryan, executive director of the Greater Boston Plumbing Contractors Association, says that contractors are up to the task. "The pandemic has presented a new type of challenge. There is still so much uncertainty as to how everything will shake out, but our contractors will remain nimble and continue to evolve."

Shaughnessy says that he's "cautiously optimistic. J.C. Higgins and the industry will persevere."

Harding and Smith keeps the water infrastructure flowing

“PEOPLE MAY TAKE FOR GRANTED THE LUXURY OF WATER COMING INTO THEIR HOME AND WASTEWATER LEAVING THEIR HOME,” says Mike Perrotta, estimator and project manager at GBPCA contractor Harding and Smith. “But there is a lot of work going on behind the scenes.”

He should know. Harding and Smith (H&S) is one of the Boston-area shops that specialize in process piping for the water and water treatment industry. While most plumbers tap into existing water and sewage systems to build projects, the Local 12 plumbers that work for H&S build and help maintain the water supply and wastewater plants that are at the heart of the systems. It is important, if often unheralded infrastructure work that is essential to the lifeblood and wellbeing of communities. It is also unique work that involves

massive-scale piping and requires highly skilled plumbers.

Dating back to 1975, H&S initially focused on water and wastewater piping, including the makeover of the Deer Island Sewage Treatment Plant that serves Boston and 42 communities in Eastern Massachusetts. Perrotta says that he was an apprentice when the project started and remembers the prison that used to sit among the rolling hills on the island. Many GBPCA contractors worked on the huge job. H&S, Perrotta says, was instrumental in a lot of the project’s work.

Apprentices

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Since joining Local 12, Taylor has been working for GBPCA contractor TG Gallagher at 51 Sleeper Street in Boston’s Seaport District. The mixed-use building, which dates back to 1924, is being renovated and converted into new office and lab space.

While the class sizes are smaller than usual at Local 12’s training center, and everyone is wearing a mask along with other safety measures, Taylor says that as a first-year apprentice, she has nothing to compare it to. Her experiences in the classroom and the center’s shop have been great, she notes. Taylor is especially looking forward to learning more about welding and brazing.



A Harding and Smith crew works late at night on a project at the Deer Island Treatment Plant.

Tracking COVID

Continued from preceding page
extensively at the Deer Island plant and is currently working on a project at the Chelsea Creek Headworks.

Biobot is now partnering with 43 states and provinces in North America and 182 local agencies to test wastewater for COVID-19 using samples from 360 wastewater facilities. The company told the Boston Globe that “wastewater offers the opportunity to provide near real-time trend data to evaluate the impact of policy making, early warning for second waves, and the opportunity to mass-test the U.S. population on a regular basis at a fraction of the cost of clinical testing.”

The MWRRA’s pilot program with Biobot extends through the end of 2020. The agency says that at the conclusion of the period, it will likely develop a long-term testing program that will continue into 2021 and beyond if the pandemic has not abated.

“The scale of the Deer Island rebuild was massive,” says Perrotta, noting that some of the pipes were ten feet in diameter, and the plant’s outfall tunnel, which extends over nine miles, was 24 feet in diameter. “It was a major engineering feat.”

So how does a crew approach projects that involve such huge

piping? “A lot of it is upfront pre-planning,” according to Perrotta. Instead of cutting pipe in the field, H&S prefabricates it using computer-aided design to ensure that the pieces fit together properly. On site, the plumbers need to use special hoisting and heavy rigging procedures to handle the piping.

“It’s the hands-on work that is really important,” says Perrotta. There are heavy tools involved, as well as large flanges and bolts. Plumbers need to carefully calculate the piping’s center of gravity before moving it. “It’s a unique skill,” he says and adds that H&S does a lot of in-house training by pairing older, veteran plumbers with younger ones—in the industry’s longstanding tradition of

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The spotlight is on John Moriarty

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Cooperation and collaboration

Moriarty says that much has changed over the 47 years he has been in the industry, especially the incorporation of computers and digital processes. But the one thing that has remained constant is the need to nurture and sustain relationships. He says that people think that construction is a litigious business and that everyone is always fighting one another. While Moriarty allows that the business used to be more combative and that groups don't always see eye to eye on everything, he's proud of the fact that JMA has never gone to litigation in its 35-year history.

That's probably largely due to his demeanor, attitude, and leadership. "His word is his bond," attests Joe Clancy, president of American Plumbing and Heating, referring to Moriarty. "A handshake is all you need to know a deal has been made. That's quite a rarity in today's world."

For his part, Moriarty says that project owners, contractors, sub-

contractors, and others involved in the construction of the kind of large-scale projects that is JMA's specialty "should be enabling each other to be successful. Cooperation and collaboration is how you get the best possible result."

JMA does not solicit multiple bids so it can award subcontracting jobs to the lowest bidders, according to Moriarty. Instead, he prefers to work with a handful of shops that have a proven quality history and in which he has confidence. Again, it's about relationships.

"Besides being excellent subcontractors, I'd like to believe that we also think of each other as friends," adds Moriarty.

In addition to its Boston-area headquarters in Winchester, the company has expanded to Connecticut, the DC area, and Florida. Among current JMA projects is One Congress, the stylish anchor building at Bulfinch Crossing in downtown Boston that will be the new headquarters for State Street Corp. Another signature project is Boston Landing along the Mass. Pike in Brighton, which includes New Balance's headquarters and training facilities for the Celtics and the Bruins. Valante Mechanical has done much of the work on the multi-use campus.

Now 70, Moriarty says that he has had a good run and considers himself lucky. Not that he or his company are showing any signs of slowing down. After all, there are more signature buildings to be built and more relationships to be forged.



111 Huntington in the Prudential Center is another JMA project.



Harding and Smith has done work at the John J. Carroll Water Treatment Plant in Marlborough.

Harding and Smith's massive piping

Continued from preceding page
apprentice training. "We have to get it right. Safety is the top priority," says Perrotta.

More recently, H&S has been using a lot of fiberglass-reinforced plastic for piping. Among the projects on which the shop is using the material is the MWRA's Chelsea Creek Headworks pumping station. Perrotta explains that the shop builds the fiberglass out until it is the right thickness.

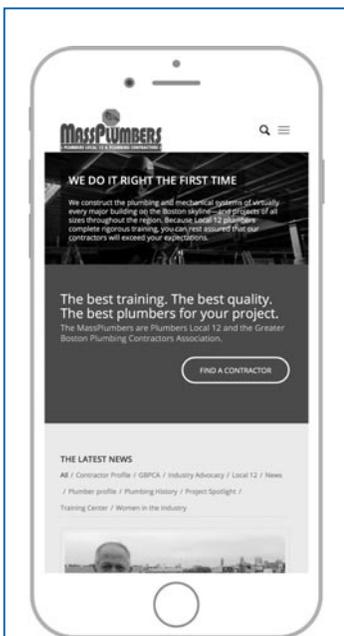
H&S does work on smaller-scale water projects for municipalities as well. It recently replaced the pump system for the water plant operated by the town of Ipswich, for example.

Because communities cannot function without water and wastewater systems, Perrotta says that a lot of the work H&S does is performed on a tight schedule. Often, its crews will work through the night with the goal of bringing everything back on line by the morning. It takes a lot of forethought and careful planning.

While water and wastewater plants remain one of the core specialties of the mechanical contractor, H&S has expanded its services and capabilities through the years. It also handles instrumentation and control systems, for example, and does work for the power and biotechnology in-

dustries among others. In most cases, however, the shop is still working with large-scale systems and pipe.

Other projects on which H&S has worked include drainage piping systems for Fore River Bridge in Quincy, standpipe work for the MBTA's subway system, and a new pumping system for the Department of Transportation's O'Neill Tunnel in Boston.



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