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STUNNINGLY STUDIOUS

WHAT TO DO WHEN YOUR
CONTRACT DOES NOT HAVE A
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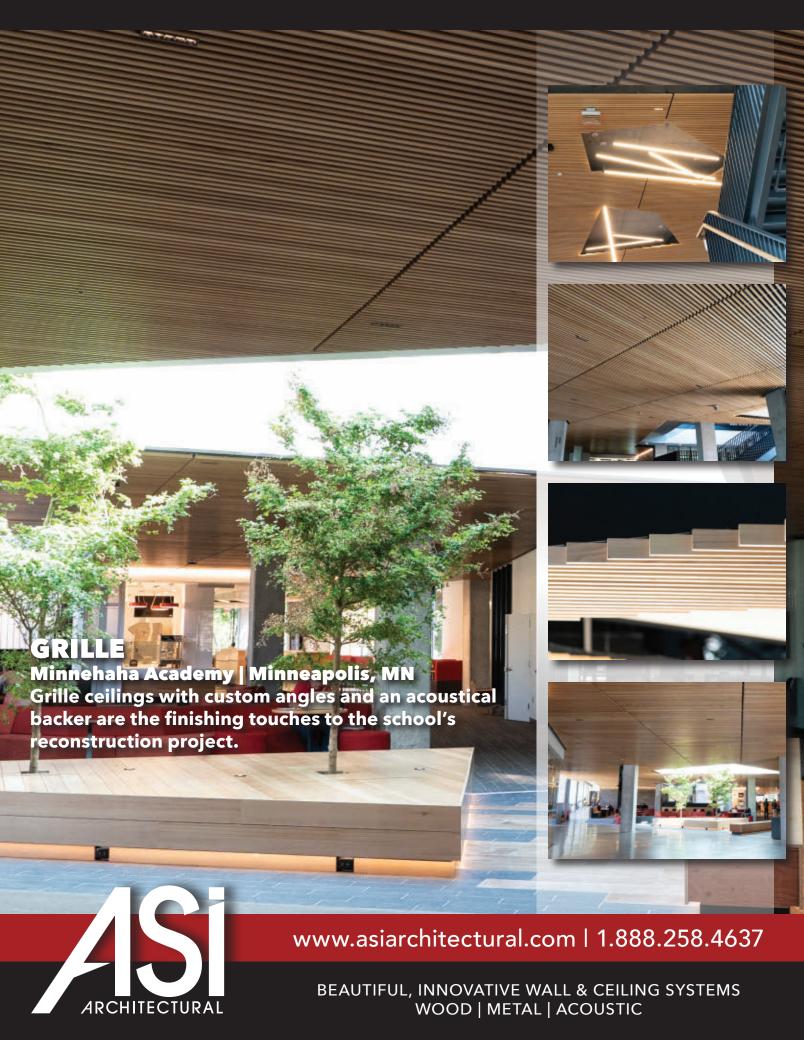
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COLUMNS

7 President's Message: Scott Turczynski

FEATURES

- Working Wonders with Wood: Rulon International Customizes Wood Panel Grille Systems to Make Retail and Office Spaces Stand Out
- 16 Stunningly Studious: Award-winning Charles Library at Temple University Serves as Central Hub for Students, Faculty and Staff
- What to Do When Your Contract Does Not Have a Force Majeure Clause
- **22** Two Tips to Consider When Installation Realities Meet Open Plenum Design
- 24 New Suspended Ceiling Technologies Can Help Limit COVID-19 Transmission: A Healthy Return to the Office Also Requires a Focus on Air Quality
- 26 No, You Can't "Do It All": 6 Tips for Better Time Management
- **28** New App Helps Construction Industry's Current and Next Generation
- **32** Adaptive Rebirth: Breathing New Life into Old Buildings
- **36** Firing Fails: 6 Common Reasons Necessary Employee Terminations Tank
- **40** Construction Firms Have Much to Gain as COVID-19 Drags Them into Tech Modernity
- **42** 3 Marketing Techniques That'll Carry Your Business Through the Pandemic
- 44 How Construction Leaders Can Improve the Customer Experience in 2021

IN EVERY ISSUE

46 Index to Advertisers

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BY SCOTT TURCZYNSKI, HEARTLAND COMPANIES, 2020-2021 PRESIDENT

t has been more than a year since we cancelled the 2020 CISCA convention. No one imagined that we would ever have to cancel one in-person meeting, let alone two more. If anything good has come from the past year, it is that everyone has adjusted their way of thinking about normalcy and that the unbelievable can happen.

During the past year, CISCA has been offering regular virtual events, which have been well attended. Two years ago, no one would have wanted to attend virtual training because education HAS to be in-person. We tested the membership's interest in virtual meetings by offering Town Hall Meetings and today have many virtual events:

Contractor Lunch and Learns — Looking for an opportunity to learn about industry products and do it from the safety of your desk? CISCA is offering a **Lunch & Learn Series** for you to learn more about the products that CISCA members manufacture and distribute. The series is for CISCA contractor members only and the presenting manufacturer will provide a FREE lunch delivered to your desk!

Webinars — Sponsored by Armstrong Ceiling Solution — We are presenting the education sessions we would offer during the fall conference virtually to allow more time in the schedule for networking and socializing. Check the CISCA website for topics and dates of the sessions.

I know you are all looking forward to meeting in-person just as I am, so the Events Committee has been working on a schedule for the Fall Conference, September 27-October 1, in Maricopa, Arizona. The awards (Construction Excellence and DeGelleke), Economic Forecast sponsored by USG, and some rep meetings will be held in Arizona. We have several networking and social events planned, as well as some thrill-seeking activities!

Normally, this would be my last article as your president, but I declared myself King of CISCA. Seriously though, due to COVID, the members present during CISCA's annual meeting in April agreed and voted that the officers should serve another year. I am very appreciative of the membership's confidence in letting the executive committee serve again, and I look forward to serving. Thank you.

Looking forward to sharing a toast in-person at our Fall Conference meeting. Cheers, my friends.





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WHAT IS CISCA?

CISCA is the leading, global authority for information on the interior construction, acoustical ceilings and acoustical treatment industry.

MISSION

To identify, communicate and address interior construction and acoustical ceilings industry trends to our membership through a range of interactive channels including regional and national events.

VISION

To further the growth and development of the interior construction and acoustical ceilings industry by providing a unique platform for members and industry professionals alike to make connections, ask questions and exchange ideas.

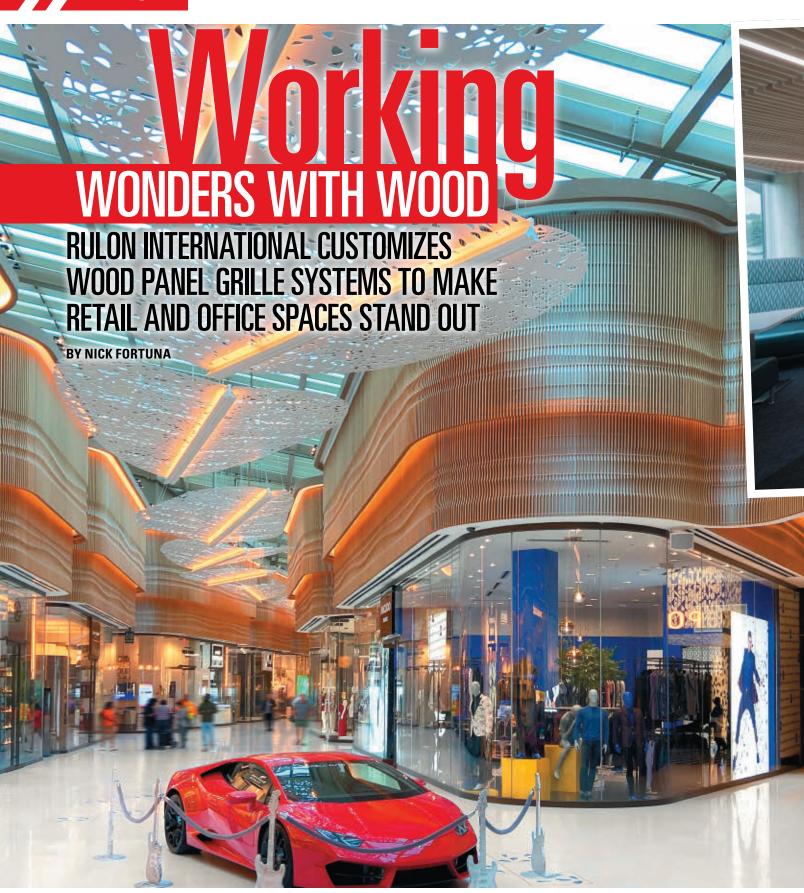


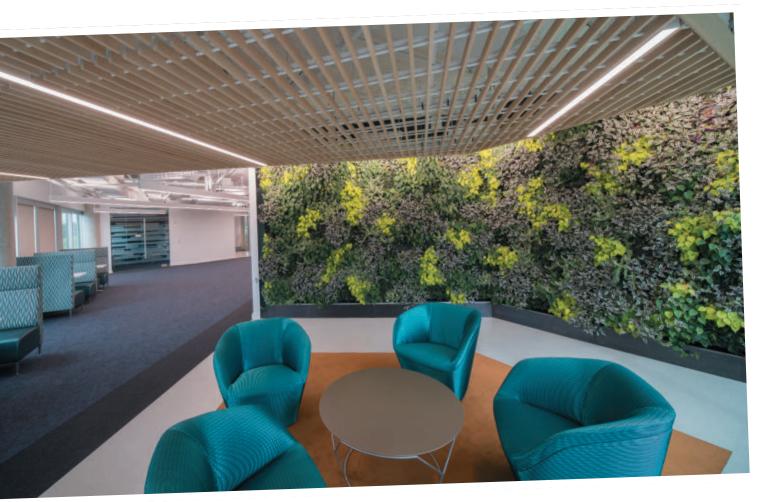
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t first glance, the two settings have almost nothing in common.

One is a popular tourist attraction in glamorous South Florida, the Seminole Hard Rock Hotel and Casino, featuring a stunning, guitar-shaped hotel tower that glows in the night and was showcased in a Super Bowl commercial featuring Jennifer Lopez and Alex Rodriguez. The other is markedly smaller in scale and in a locale many Americans have never heard of, a new office building for the multinational cybersecurity software company Trend Micro in Kanata, Ontario.

But in terms of interior design, these buildings share a significant trait: customized wood panel grille systems manufactured by Saint Augustine, Fla.-based Rulon International to give those spaces a distinctive look. Both projects were completed in 2019 and garnered CISCA Construction Excellence Awards for projects measuring less than 50,000 square feet.

BUILDING AN ELEGANT INDOOR MALL

At the hotel and casino in Hollywood, Fla., Rulon International's curved, multitier panel grilles line

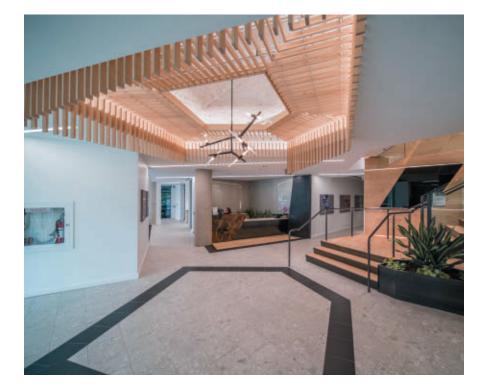
the upper half of the walls in the expansive shopping corridor. The Shoppes at The Guitar Hotel is a 26,000-square-foot promenade of high-end boutique storefronts situated along a marble-floored walkway leading from the Lucky Street Garage.

The shopping corridor incorporates cloud-like ambient lighting and Rulon International's panel grilles to evoke the imagery of organic sound waves, according to Aaron Journot, the company's director of marketing and sustainability. To achieve this look, the face of each vertical blade was machined to a specific profile that, when placed next to consecutive modules, creates the meandering, continuous lines that run throughout the space.

The installation consists of more than 15,000 square feet of wood grilles, with each module consisting of multiple blades assembled into a one-foot-wide section. The blades are an especially prominent design feature because they measure 10 feet in height, while the lower-tier portion of the wall, featuring entryways into stores with signage above, reaches only eight feet high.

Forty unique wood grille modules were produced — 20 left-handed and 20 right-handed for

FEATURE



opposing walls. They were redesigned with the assistance of the manufacturer to simplify both layout and installation.

The original design for the wall system included two offset layers designed to follow the curvature of the room while allowing for the vertical alignment of the solid white oak blades. Varying arc lengths for these offset layers posed a major challenge for the manufacturer: devising a constructible, budget-conscious system without comprising design intent.

Following extensive feasibility evaluations with the manufacturer, the system was redesigned to maintain consistent spacing between vertical blades, planned out to incorporate a set of interchangeable modules, and manufactured as a veneered system to achieve the highest level of consistency.

An inverted light cove was included between the systems to create a visual break and provide ambient lighting for the occupied space.

Site meetings were held to plan material staging, review crating and labeling strategies and work through mechanical, electrical and plumbing coordination details. Ceiling contractor Atlantic Interior Services, based in Tequesta, Fla., made quick work of installation, Journot says. The contractor implemented a two-crew, two-tier rolling tower scaffolding system that, in combination with the consecutive-panel packaging and labeling system, resulted in quicker-than-expected installation.

"Due to the high level of coordination and early design involvement with the manufacturer, this project was successfully completed on time," Journot says. "As far as staging was concerned, we just had to be sure that we provided the right panels at the right time in the right order so the contractor didn't have to go through them and figure out which panel went where. It was almost like a consecutive-panel install.

"When you have 40 different types of panels that interconnect, if you have one out of place, you have to take them all off to replace the one you've put in the wrong place, so our labeling technique and our staging technique were incredibly important."

Journot says the interconnected panels give the space a seamless look, and the white oak blades offer a different aesthetic feel than the other building materials used in the space, including stone walls, metal

"Those materials can seem very sterile," Journot says. "So, in this case, you have a lot of glazing walls on the first floor in front of the businesses, and then above that, you kind of gain the charm and craftsmanship of the space."

The shopping corridor was just one component of a \$1.5 billion expansion project that included constructing the property's iconic feature, its 36-story guitar-shaped tower, as part of a 3.2 million-square-foot master plan. There's a new performance theater, a separate eight-story hotel tower, meeting rooms, parking facilities, pools, villas, an energy plant and renovated restaurant spaces.

There's also a renovated and expanded casino featuring an additional 200 table games and more than 3,000 slot machines. Most visitors, of course, will leave with less money than they came with, but for those whose luck sticks around, the eye-catching shopping corridor offers plenty of opportunities to spend some winnings.

CREATING AN INVITING OFFICE SPACE

Although its name suggests otherwise, there's nothing tiny about Trend Micro. The cybersecurity firm has main offices in Tokyo and in Irving, Texas, with regional offices and research-and-development centers in Asia, Europe and North America. With a growing business spread out across the globe, it can be challenging to ensure that each facility fits in with the others and represents the brand consistently.

That's where Rulon International's national accounts department comes in, Journot says. This division of the company works with businesses operating multiple facilities to promote a consistent brand identity. The focus on this project was to create a warm, welcoming space, which is easier said than done at a cybersecurity business, where the sheer volume of computers and electronics can create a sterile, imposing environment, Journot says.

The wood grille system that accentuates the modern décor and living wall of this office space provides an excellent example of how wood, an ancient and highly traditional construction material, can also be used in a way that emanates modernism, Journot says.

"Wood adds a lot of warmth, but darker-colored wood can make a space feel more confined, especially when you're using full panels," he says. "Since it is a smaller lobby space, they wanted to make it feel more expansive but also have some wood elements in there to add warmth, almost like a craftsmanship feel. They went with a lighter-colored wood and used white dowels to really give it a lighter color and make the room feel larger."

Early involvement from the manufacturer allowed the design team a unique opportunity, according to Journot: the chance to imagine a wood grille system that would achieve the design aesthetic from the beginning instead of picking a manufactured product and trying to fit it into the designed space.

Wall panels were designed to incorporate full-cover, white-painted medium-density fiberboard backing panels to eliminate the need for dowels and to create the illusion that each individual wood blade is floating.

The centerpiece of the entry space draws attention to the plenum beyond the ceiling plane while also mirroring the custom tile pattern on the floor. A combination of individually suspended wood blades and panelized wood grilles creates this chandelier-like aperture, which provides most of the ambient light for the lobby.

Rulon International manufactured almost 1,500 square feet of wood grilles in two-foot-wide modules, and Cumberland, Ontario-based Soubliere Interiors assembled them in sequence to create the monolithic ceiling clouds in the public spaces.

Custom white dowels, full-cover backing panels and attachment clips were used to match the plenum color and blend in with the background, highlighting the natural features of the maple wood, which gives the space a strikingly modern feel.

Mechanical, electrical and plumbing integrations, including full-length light coves, were coordinated during the shop-drawing process to ensure that no on-site details were missed, Journot says.

The main challenges on this project were handled almost entirely by the installing contractor, according to Journot. Assisted by Rulon International's technical services team through installation guides and an in-house mockup to detail wall panel layout, installation was executed professionally and on time, he says. The owner was so satisfied that he says future renovations

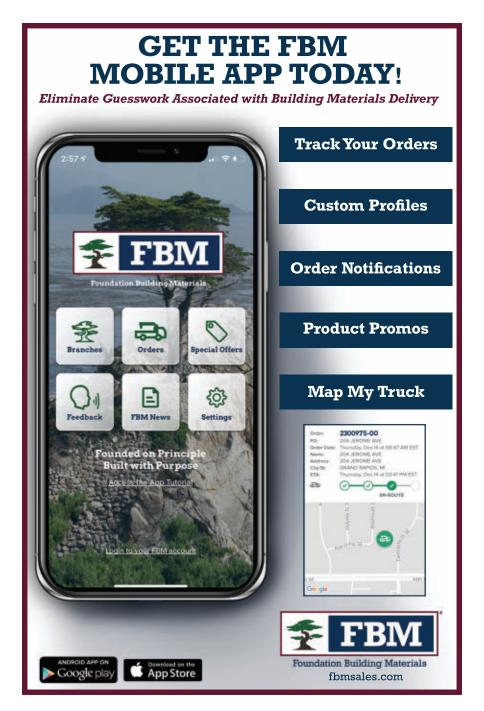
and new builds would be handled by the same team.

"This project required a lot of in-field fabrication — a lot of modifications to the panels we shipped out and the layouts — so the contractor really played a huge role in making sure that what we sent them was cut to the right size and installed in the right locations and at the correct angles," Journot says. "There were a lot of weird, complicated angles on this job. It would have been difficult for us to do in-field

measurements, so we coordinated with the contractor and had them do the in-field modifications."

Journot says the building's design affirms the belief that a clean, welcoming, ecofriendly environment promotes workplace cohesion and teamwork. The sharp-looking finished product also gives Rulon International some bragging rights.

"I think it looks great, and we feature it in a lot of our promotional materials," Journot says.



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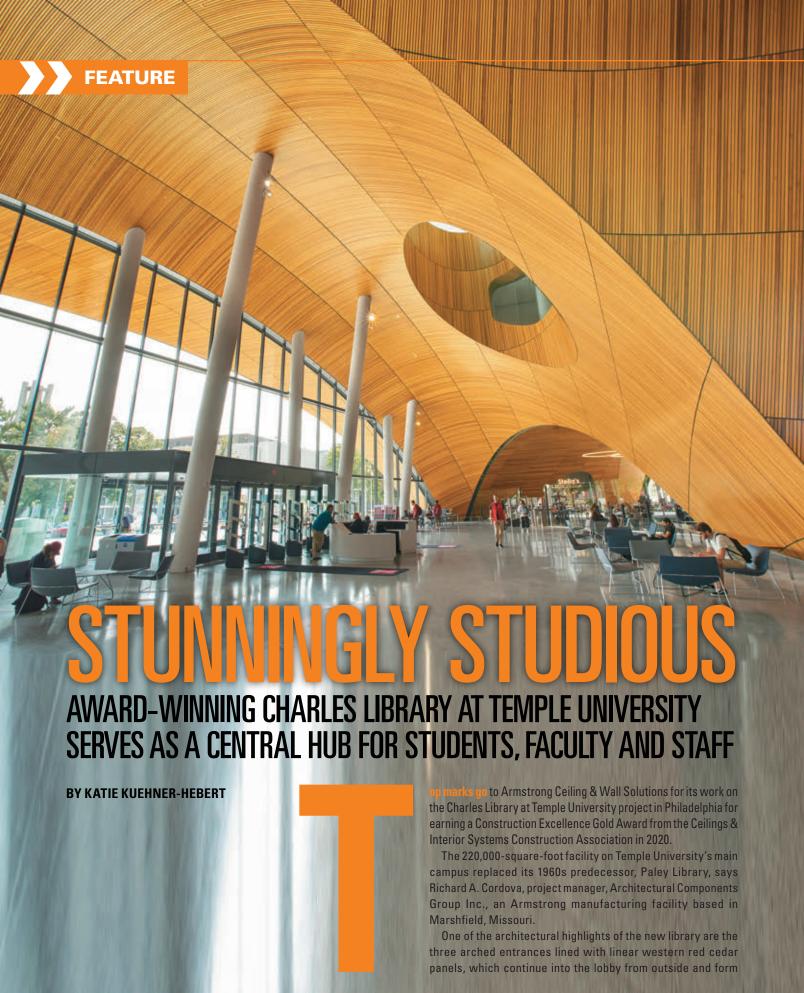
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a three-story domed atrium featuring a variety of different curves and intersections, Cordova says. The central dome in the atrium features a curved oculus that allows light to filter into the lobby from the uppermost floor.

"The unique geometry that characterizes each of the domes was achieved by gently bending the wood panels and installing them in a custom curved framing system," he says. "In the curved oculus, the panels are straight, and the curvature is provided by the backer."

The atrium was designed by Snøhetta, an architecture firm co-headquartered in Oslo, Norway and New York City, in collaboration with Stantec Inc., based in Edmonton. It was installed by Mason/Thomas Building Group in Newark, Delaware, using a custom WoodWorks® ACGI Panelized Linear System from Armstrong Ceiling & Wall Solutions.

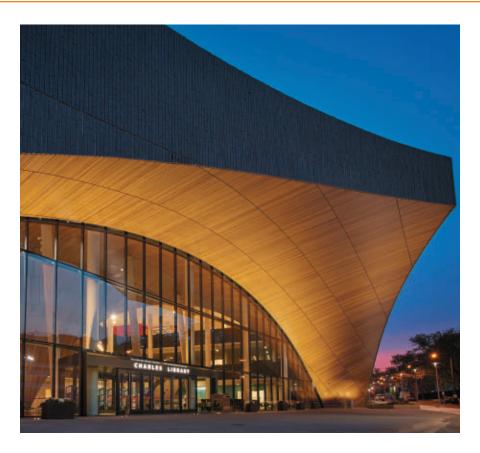
"The primary challenge was figuring out how we could construct the solid wood panels to be able to bend in two directions," Cordova says. "The ceilings in this particular library were actually dome shaped with seven different dome sizes."

The second challenge was attaching the panels to the substructure and keeping all the joints and panels aligned, he says. A third obstacle was lining the oculus, which was oblong and cone shaped at the same time.

"We had to conduct in-house testing to find out what was the thickest piece of solid wood that could be used to still provide rigidity, but was also flexible," Cordova says. "The material had to hold up and not snap as it was being bent. Every single panel had to have a small splay to it — one end slightly wider than the other — to account for the geometry of each particular dome size."

For the attachment to the substructure, the team had to ensure that the hat channel was curved and placed exactly where the backers were placed on each panel, he says. Each panel had to be flexed from side to side, attached to the hat channel at the bottom and bent as workers moved up each panel to directly attach to the substructure.

The oculus took several weeks of design, Cordova says. Several one-of-a-kind panels had to be constructed to account for the changes in plane as they moved up the walls.



"The most unique aspect of this project was wanting to install wood ceilings on domed surfaces," he says. "This challenged our team to provide solutions to overcome each obstacle as we ran into them."

The entire team — from the building owner, architects, general contractor and numerous other trades — collaborated together through the entire design process, Cordova says.

"Obstacles were tackled as a team and therefore solutions to unique issues were vetted together before moving forward," he says. "This by far has been the one project I always direct attention to when customers ask for examples of a unique project we have recently completed."

This project challenged the manufacturing company since the panels had very controlled coloration requirements, Cordova says. Construction of each panel had to be carefully monitored. Early preparation and review of the requirements with the team in the plant was key to meeting the visible expectations of owner representation.

"James Haworth was the primary designer on this project from beginning to end," he says. "His close attention to even the smallest details helped make this a complete success."

Located at the nexus of the public university's main campus, the new library serves as a central point of intersection between students, faculty, staff and the surrounding community, says Chad Carpenter, Snøhetta's project manager for the Charles Library.

"An early goal of the project design was as an organizing element and a way to pull students to the center of the library from multiple parts of the campus," Carpenter says. "The goal was also for the physical space of the library to be a collector and be a warm, comforting place that everybody would understand as the center of campus."

When designing the atrium, Snøhetta chose the panelized western red cedar panels because of their inherent flexibility.

"Western red cedar has three qualities that made a big difference in the domes," he says. "It's suitable for use outside, so the inside and outside can be the same wood. It's flexible, so it's not particularly hard to bend, and it has an incredible variation in color tone."

The unique geometry that characterizes each of the domes was achieved by gently

FEATURE

bending the wood panels and installing them in a custom curved framing system.

"The primary dome is a revolved ellipsoid, which allowed it to be made out of a limited number of different panels," Carpenter says. "The rest of the system was made out of single-curvature geometries, which allowed them to be made using the same shaped panel."

Key to the clarity of the ceiling design was the precision the ceiling manufacturer was able to bring to the panel manufacturing process.

Through careful coordination with the framing manufacturer and use of a robotic layout tool, Mason/Thomas Building Group was able to secure the framing at the different elevations and attach the custom 2' x 10' panels to the framing, says Gary Hastings, the contractor's field superintendent. The framing system was curved to accommodate the slight bend in the panels, but the panels had to be pushed into the framing to install them.

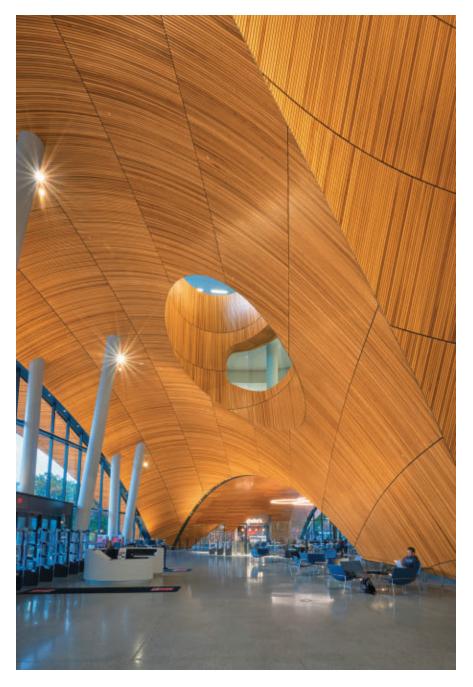
"It took two to three guys to do this," Hastings says. "The panel would take shape — no problem. But we had to push it to the metal in order to secure it."

The oculus is the only area of the ceiling where the panels are not bent, Carpenter says. It's the area where the curvature is the tightest in one direction but the planks themselves are all straight — the curvature is only in the backer. The installation of the oculus was very complex and required a high level of skill on the part of the contractor.

"If you were to point to a place where the contractor really leaned into the craft for that particular product, it would be right there," he says. "It looks really great."

Snøhetta is well-known for creating buildings that "intelligently engage their communities," such as the Bibliotheca Alexandrina in Egypt, the Central Library of Calgary Public Library in Alberta, Canada, and the redesigned Pavilion at the National September 11 Memorial and Museum in New York City, according to the university's Temple Now blog.

"One of the concepts that they [Snøhetta's architects] think through is the concept of library as stoa," Kate Wingert-Playdon, associate dean of architecture and environmental design, tells Temple Now. "Stoa



is a Greek concept, a place of interaction. So it works so well with this concept of the library as we move into the 21st century, where no longer are libraries places to store books, but places of action and many kinds of creative activities."

Seher Erdogan Ford, assistant professor of architecture in Temple University's Tyler School of Art and Architecture, adds that the Charles Library has put Temple's campus "on the map as far as architecturally significant campuses."

"The new library holds a prominent position, but it does so without being a dominating element," Ford tells Temple Now. "It is a neighborly gesture, because even though it is situated in the middle of the campus, it provides an inviting public face to the surrounding area. In that sense, I see it as a very successful addition to the campus architecture, and I think it will change the character of Temple's main campus in a very positive way."









WHAT TO DO WHEN YOUR CONTRACT DOES NOT HAVE A FORCE MAJEURE CLAUSE

BY LAURYN E. PARKS, MOMKUS LLC



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oon after the news of the coronavirus epidemic broke in 2020, the term "force majeure clause" became widely known as contracting parties began to scrutinize their existing contracts to determine if the COVID-19 pandemic would fall under the clause's scope. Force majeure clauses typically excuse the parties from performance where performance becomes impossible due to events beyond the parties' reasonable control, such as an "act of God." Depending on how a force majeure clause is drafted, COVID-19 might be deemed a "force majeure event" and non-performance by a contracting party will be excused.

However, many contracts do not have a broad enough definition of a "force majeure event" to encompass the COVID-19 pandemic, and many contracts do not have a force majeure clause at all. In such cases, the parties can look to other contractual clauses or legal arguments to see if performance may be excused. Some contracts spell out conditions or actions that must be met before a party is required to perform. In addition, the doctrines of impracticality, impossibility and frustration of purpose exist under both the Uniform Commercial Code (UCC) and common law and excuse performance where impossible or the purpose of the agreement has been frustrated. However, the application of these doctrines is fact-intensive and narrow and may also vary based on state law.

Condition precedent. Many agreements provide that a party's obligation to perform is partly or entirely contingent on the occurrence of certain events or facts, such as a third party giving consent or approval, or a third party completing certain work in advance. In such cases, the legal argument can be made that the party cannot be required to perform until the condition precedent is completed. The contract should be scrutinized in such a case to determine if the failure of the condition precedent should result in a delay in the party's performance, or whether performance is excused entirely.

Impracticality. Under the doctrine of commercial impracticability, a party's non-performance with regards to a sale of goods transaction may be excused under UCC Section 2-615 when non-performance results from conditions that were not foreseen by, or within the contemplation of, the parties when they entered into the agreement. This includes situations where there is a change in the governing law or regulation which would preclude performance. However, in such cases, the seller must notify the buyer of any delay in delivery or non-delivery. Furthermore, if the seller can partially perform, it must do so and allocate its production fairly among its customers.

Although contractual performance does not need to be strictly impossible, the mere fact of increased

difficulty, financial burden or the loss of a contracted-for benefit is insufficient to constitute impracticability. Contractual performance must be essentially changed by the unforeseen event such that performance cannot reasonably be required. Examples of an excusing circumstance include the failure of an agreed-upon supply source. Increased costs can also excuse performance if the resulting cost of performance would be prohibitive or highly disproportionate to the contract price.

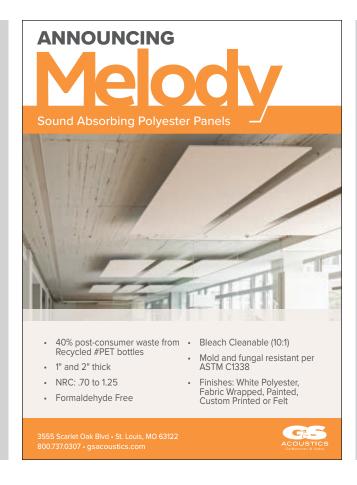
Impossibility. A party's contractual non-performance may be excused under the doctrine of impossibility if an unexpected supervening event beyond the party's control makes performance objectively impossible. The doctrines of impracticability and impossibility are similar, but the doctrine of impossibility applies when the agreement's subject matter or means of performance are destroyed. Additionally, impossibility exists where performance is prohibited as a result of a change of law. However, if the contingent event (i) was foreseeable, or was actually foreseen, by the parties, (ii) a risk that a party expressly assumed under

the agreement, or (iii) was the result of the party's conduct, it is unlikely that performance will be deemed impossible.

Frustration of Purpose. The doctrine of frustration of purpose may excuse contractual non-performance if, while performance remains possible, the party's reason for entering into the agreement is gone or substantially impaired, or the transaction no longer offer the anticipated value to the party. The circumstance that eliminated the transaction's value must not have been created by the affected party and must not have been foreseeable.1 For example, if a government mandate prohibits the owner of a venue from operating its business, the owner may be excused under certain equipment lease agreements because the purpose of the equipment — the service of customers at the venue — is now prohibited. However, frustration of purposes does not exist if there are merely changes to market conditions or a party's financial condition, a loss of profits, or increased difficulty or expense.

REFERENCE

1. Restatement of (Second) Contracts §265 (1981).



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ince its rise in the mid-twentieth century through its continued evolution today, the modern open space has become the go-to blank canvas in commercial applications for everything from corporate offices to hospitality spaces to retail environments. But for all the possibility open space conjures in the imaginations of architects and designers, it can present an equal number of challenges for ceiling contractors when it comes to actual fit-out.

Suspended ceilings have long been the most economical and installer-friendly solution for commercial spaces, particularly when the solutions require acoustical performance. But in today's construction industry, suspended ceilings are often not architecturally feasible or aesthetically desirable — especially when the design aesthetic is the open space itself.

With both new construction and adaptive reuse of historic buildings, open plenum ceiling design continues to push new installation boundaries with more intricate designs that combine unique visuals with enhanced acoustical performance to maximize the total experience for occupants. Unconventional formats,

new installation options, and even completely custom creations are becoming more common ceiling design practice in open spaces.

Fortunately, manufacturers are keeping pace with both the design trends and the installation demands that turn design goals into actual ceilings. And knowing what to look for in the process can benefit your workflow and the bottom line. Here are two practices to keep in mind when approaching open plenum ceiling installation.

DON'T BE AFRAID TO CHALLENGE THE SPEC

In any specification, owners, facility managers, architects and GCs each have their own stake in the process — and those stakes aren't always driven by the same motivations. However, none of them are as familiar with the details of ceiling products and installation techniques as a dedicated ceiling installer with years of experience.

Most architects and GCs first will turn to manufacturers with whom they have an existing relationship or are directly familiar, even if the products being

specified are brand new to them. There's comfort in the perception of known territory. The problem with this approach is that while the manufacturer might be known for its reliability, the product being specified might not be the best solution for the space and may not even be readily available.

On many projects — and especially projects involving open space design — there are multiple ways to achieve the initial ceiling design intent. And they don't all necessarily require adhering to original product specifications. Some products may, for example, offer easier field cutting, accessories that make an individual installer's work speedier, or higher durability for less product waste from damages incurred during installation.

Typically, a dedicated ceiling installer will have more experience with the innovations of one single ceiling manufacturer than any other party possessing a stake in the spec. This suggests that a spec change from a lead product to a comparable option that's more economical, faster to install, or in stock nearby may well pay huge dividends in installation time and, ultimately, the project timeline and budget.

Sometimes a simple spec change can mean the difference between a project that's completed on time while saving thousands of valuable budget dollars and one that suffers delays and/or places stress upon timelines and the bottom line.

LOOK BEYOND PRODUCTS

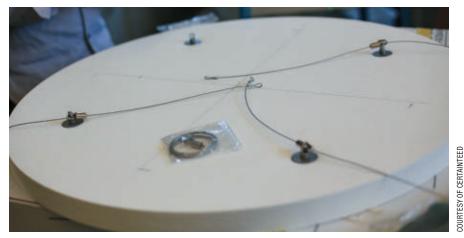
In some cases, it isn't the ceiling panel or suspension system specifically that can be the difference-maker. Sometimes, it's simply a manufacturer who listens to installers and applies that acquired knowledge to innovation, customer service and technical support.

Any ceiling manufacturer can design products in a vacuum and claim "faster installation than the competition." But perhaps the more thoughtful manufacturer brings contractors directly into the research and development process for new products and innovations. This seems more likely to yield solutions that better serve installers.

"When we create products, we're thinking about reducing the contractor's labor," says Tom Murray, the director of product management for panels and suspension systems at CertainTeed Architectural. "Our



Direct technical support from manufacturers results in projects completed on time and within budget that accurately reflect the original design intent.



Some open plenum ceiling products include out-of-the-box accessories, like screw-in anchors and easily adjustable hanger wires, that make installation faster and easier.

focus goes deeper than the products and centers on the ways in which they can make installation easier and more profitable for the contractor."

Equally important to innovation in research and development is direct technical support from manufacturers once products actually hit the market. Murray's team at CertainTeed Architectural, for example, sponsors on-site product overviews and installation training to help ceiling contractors become familiar with the details of new or enhanced products, as well as any time-saving installation tips associated with them.

"We want to be viewed as a trusted partner in the installation process," Murray

On the project site, "open spaces" can mean more significant challenges with suspension, configuration and integration with electrical and mechanical components

in the plenum. Some manufacturers offer a direct line of communication with their technical support team as a resource to help ceiling contractors solve specific installation challenges when needed.

Partnering with a manufacturer who actively engages the installation community to better understand installers' needs and solve on-the-job challenges is critical to saving time and avoiding headaches.

TAKE ADVANTAGE OF THE RIGHT RESOURCES

Depending on the space and ceiling type, open spaces can put greater demand on installers to meet strict timelines and tight budgets with more challenging installations. Using the right ceiling products for the space and tapping into support when needed can help projects run smoothly and efficiently.



NEW SUSPENDED CEILING TECHNOLOGIES CAN HELP LIMIT COVID-19 TRANSMISSION

A HEALTHY RETURN TO THE OFFICE ALSO REQUIRES A FOCUS ON AIR QUALITY

SUPPLIED BY ARMSTRONG CEILING & WALL SOLUTIONS



ince the outbreak of COVID-19, it is estimated that more than one-third of the workforce has shifted to a "work from home" environment. However, as questions arise about productivity, employers are anticipating a return to the traditional office space. A critical part of re-entering is assurance that employees are provided a safe, healthy environment. To that end, employers need to take precautions to comply with guidelines to minimize exposure to COVID-19.

OFFICE ENVIRONMENT CONCERNS

According to the U.S. Centers for Disease Control (CDC), COVID-19 is primarily spread between humans in close contact through respiratory droplets when an infected person coughs or sneezes. Wearing masks, social distancing and cleaning surfaces are strongly encouraged by the CDC. In October 2020, it updated

its guidance stating infections can also be spread by airborne transmission from smaller droplets that may remain airborne for three hours or longer, carry beyond six feet, and remain contagious.

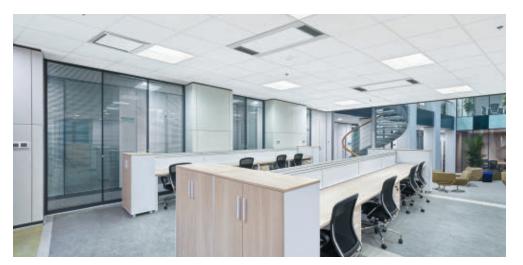
While additional studies are needed, it is believed initial exposure levels of COVID-19 coincide with the severity of sickness. If so, steps should be taken such as reducing aerosol contaminants that may linger in closed, inadequately ventilated spaces.

TODAY'S OFFICE ENVIRONMENT

With a better understanding of today's workplace, the challenges facing a return to the office are clear. Research from the World Health Organization (WHO) suggests environments heavily populated with poor or insufficient air flow raise infection rates. The WHO further encourages good ventilation in all closed settings.



Armstrong AirAssure ceiling panels easily retrofit into existing grid systems, incorporate a gasket in their design, and have been proven to increase the effectiveness of in-ceiling air filtration by up to 40%.



The VidaShield UV24 In-Ceiling Air Purification System from Armstrong helps neutralize harmful airborne pathogens using patented UV-C ultraviolet air cleaning technology to continuously reduce levels of viruses, bacteria, and fungi in a room's air.

Similarly, in May 2020, the CDC updated its "Guidance for Businesses and Employers Responding to Coronavirus Disease 2019" suggesting employers seeking to resume normal business operations improve the building's ventilation system.

HVAC RECOMMENDATIONS

In providing guidance on healthy workplace procedures for the return to offices, the CDC cites HVAC airflow recommendations from the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE). In its April 2020 "Position Document on Infectious Aerosols," ASHRAE states while ventilation systems cannot address all aspects of infectious control, "changes to building operations, including the operation of heating, ventilating, and air-conditioning systems, can reduce airborne exposures."

The document lists several recommendations employers should consider to reduce occupant exposure to infectious aerosols. Among them are strategies to improve ventilation through dilution, airflow patterns, filtration, and pressurization.

LEAKAGE CONTROL

An additional effective strategy is utilizing suspended ceiling technologies in combination with improved filtration. For example, specially engineered suspended ceilings are a proven technology in patient rooms, clean rooms and labs to help prevent the spread of contaminants. A gasket is often placed between the ceiling tile and grid to form a tight seal and prevent the spread of pathogens into the plenum and other areas of the building.

The tighter seal also helps reduce air leaks and increases the efficiency of HVAC

filtration. An efficient system allows more contaminants to be exhausted out of the room and into filters capturing and cleaning the air of pathogens.

An added challenge today is the trend of higher ceilings that expose duct and pipe work.

A metric used to measure the amount of air entering and exiting a room is air changes per hour (ACH). The incorporation of a suspended ceiling reduces ceiling height and thus the volume of air needing to be exhausted. Installation of a suspended ceiling increases ACH and lowers the time it takes to clear a space of airborne contaminates.

ARMSTRONG CEILING SOLUTIONS

To help ensure a healthier environment in the post-COVID world, Armstrong Ceiling & Wall Solutions offers a range of suspended ceiling technologies. These include the CleanAssure and AirAssure family of products, both of which easily retrofit into existing grids.

Smooth-textured CleanAssure ceilings can be cleaned by wiping, spraying, or fogging to eliminate pathogens. AirAssure ceilings incorporate a gasket in their design and have been proven to increase the effectiveness of in-ceiling air filtration by up to 40%.

In addition, Armstrong has partnered with Medical Illumination International (MI) and combined MI's VidaShield UV24 air purification system with AirAssure panels to produce a system that uses ultraviolet light to deactivate pathogens. Test results show it neutralizes 97% of infectious pathogens in aerosols during the first pass of air through the system.

As the nation reopens its economy, ensuring a safe and healthy environment is critical. The confidence of knowing systems and facilities have been implemented or upgraded to potentially reduce the transmission of COVID-19 is paramount before the return of employees and others exposed to public spaces.

The information above is drawn from a white paper prepared by the Thompson Research Group illustrating how air quality and suspended ceiling technologies can play an important role as stand-alone solutions or in conjunction with other products to reduce the spread of infectious aerosols. To view the entire white paper and learn how to create healthier spaces, visit armstrongceilings.com/healthyspaces.



unexpectedly, that strategy didn't work. While some stretch in goals is good, unrealistic goals inevitably lead to a predictable outcome: failure. The project was subsequently delayed twice before finally getting to market six months later. Was this result inevitable? Maybe, but the human cost was hardly worthwhile.

The lesson? You simply can't do it all. Good managers recognize this fact and manage their time and tasks, and those of their employees, with purpose and with the use of SMART goals.

The following list of guidelines, compiled from interviews with managers, entrepreneurs, customers and executives, can be applied together for maximum result or individually, depending on your needs and the degree to which you manage your time today. One thing is certain, though, as you review this list — your time is yours to allocate. Do so purposefully.

Prioritize tasks based on how they are aligned with your core values and business priorities. These values must come into play when you're deciding where to focus your time. Every week (Sunday evening or Monday morning) write out your tasks for the week. Do the same on the first of each month. Assign a category and a priority and work the list.

When I was the general manager for a large equipment dealership, my top priority was always employee safety, followed by customer and employee needs, personal items and miscellaneous tasks. My daily tasks were then prioritized accordingly. Here's a resource that I've found helpful to set up and use a bullet journal: https://bulletjournal.com.

Set SMART goals and refer to them often. Ask yourself daily: Is what I'm doing contributing to one of my SMART goals? If not, why am I doing it? If it's not SMART, it's noise.

Manage your energy levels. Energy levels vary throughout the workday and workweek. For a typical 8–5 workday, peak energy is usually 9–11 a.m. and 3–4 p.m. During the workweek, Tuesday and Wednesday are often the days where your energy and focus are at their peak. Schedule demanding or critical tasks during these periods, and conversely, sched-

ule tasks or decisions requiring less of your energy outside these core productive hours.

Manage your communication. The enemy of time management is distraction. Nothing disrupts your focus quite like a buzzing phone or an email pop-up when you are trying to get something done. One way to carve out a communication break is to set aside your mobile phone (or set it to do not disturb) and avoid checking email and social media during core productive hours or when you really need to focus on a specific task.

Make time for yourself. When you're an entrepreneur or manager, the demands on your time are significant, and I can state with absolute certainty that these demands increase the higher you climb the ladder of responsibility. Carving out time to unwind, decompress or reset is as important as the job you do every day. If you want to be better at your job (with less stress), you need an outlet of some sort. Get a hobby! In addition, it may be beneficial to take a personal retreat once per year to disconnect from distractions and focus on the things that matter most, both personally and professionally. I have found this helps immensely.

Take good notes. I was 10 years into my career before I settled on a note-taking format. I have experimented with engineering pads, pocket notebooks, bullet journals, Outlook calendar and task entries, OneNote and a variety of iPhone apps. You might think, with all of this experimentation, that I eventually found the perfect solution. In a way, perhaps. The perfect solution is the one that works for you... consistently. Pick something and go with it. For me, my primary note-taking tool is a bullet journal. I like to put pen to paper (or consider a hybrid approach: See remarkable.com).

Luke Sheppard is a former top executive at John Deere and Nortrax and Founder of Sheppard & Company, a consultancy that works with a variety of top businesses and organizations. His new book Driving Great Results: Master The Tools You Need to Run a Great Business is available now through all major booksellers.

NEW APP HELPS CONSTRUCTION INDUSTRY'S CURRENT AND IFXT GENERATION



THE NEW aQuiRe© **APP PROVIDES COMPANY-WIDE SAFETY** AND TRAINING

BY LISA KOPOCHINSKI

arley Hill has a long-standing history with the construction industry. Having grown up as a third-generation member of a family-owned heavy highway road and bridge company in West Seneca, New York, she spent every summer with her dad at work from as early as she can remember.

"We worked in the field doing everything from stacking cones to cleaning up dump trucks and learning the foundations of the industry," she recalls.

"From my teens to my early 20s, I was a laborer and carpenter's assistant. I worked in the field driving trucks, setting up traffic control, building forms, running machines and finishing concrete."

While in her 20s, Hill pursued a fine arts degree from the University of Buffalo and focused on public art for five years. She then returned to the family business where she worked on logistics, equipment mobilizations, resource management, and safety and risk management.

"I also focused on the political side of agency relations because our family worked for mostly state government and local agencies," she says.

"I heard a common message across the country about workforce shortages, challenges with training, and getting people who are experienced working in our industry."

Deciding it was time to find a solution, Hill designed a new tool that could address this challenge for everyone, no matter where they were located in the United States.

Enter aQuiRe®, an app-based e-learning platform she developed — through CaHill Tech Inc., a technology business she formed in Buffalo, New York — that provides company-wide safety and training for the construction industry.

"It's not only helpful as an onboarding tool, but as a refresher tool for your current employees. We put the training room right in the field, so it's a very cost-effective way for managing ongoing training needs for your current workforce."

Essentially, aQuiRe® is designed to appeal to the next generation of construction workers.

"There's this opportunity we are missing," Hill emphasizes. "As the gap widens between baby boomers, who are retiring — and the replacement generation coming in — you don't have the side-by-side mentorship relationship that historically is the way trades-based knowledge gets handed off. Our goal is to document the best practices, processes, and methods of working in this industry. We document and create microburst video learning."

aQuiRe® PLATFORM

Hill says one of the primary purposes of the aQuiRe® platform is to reenergize what it means to work in this industry.

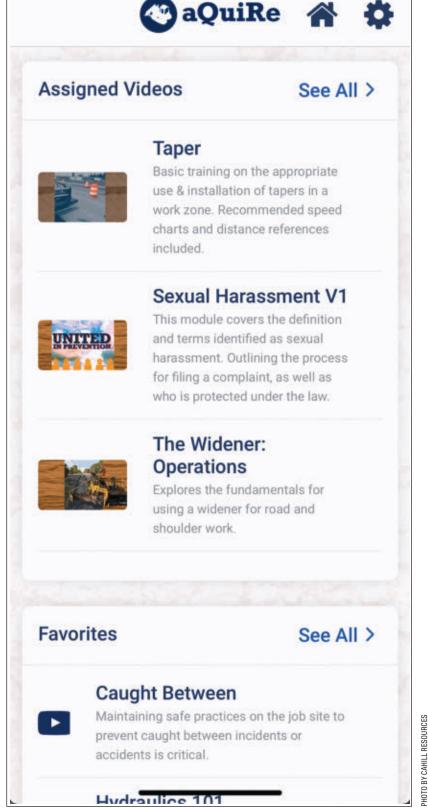
"There's a fair bit of disinformation and stigma associated with blue collar career choices when, in fact, they are emblematic of what makes this country great," she says.

"Grit, discipline, getting through challenges, ingenuity and working as a team — those are all qualities our system documents and then makes available for your workforce. It is what sets us apart from other training or LMS solutions. It's what truly keeps people in line, on track and operating in the way all good companies strive for."

Another reason this kind of platform is important is because our nation's infrastructure is the backbone of all communities. If this starts to crumble, so do opportunities and growth.

"As our population grows, this puts demand on our systems — whether it is utilities, the grid or roads and drainage systems. The foundations need to keep up with the pace of growth in our country," Hill says.

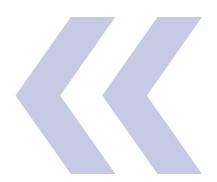
"It's essential that we invest in innovative methods that not only attract people to work in this industry, but also to keep them here. Retaining employees is a battle — whether it's your DOT maintenance



A screenshot of the aQuiRe® app, designed by Carley Hill, president and CEO of CaHill Resources, which is based in New York.



This kind of platform is important because our nation's infrastructure is the backbone of all communities. If this starts to crumble, so do opportunities and growth.



crews or your heavy and highway construction firms. All of those employees need to know they are being invested in and that their training and education really comes first for employers."

THREE-PRONGED APPROACH

When Hill started to design aQuiRe® she decided that "keep it simple" would be the mantra.

"There's no need for things to be fancy and have extra frills," Hill says.

"Essentially, aQuiRe® is three-pronged. First, the app — which is what the user has available to them on their phone or iPad — runs on iOS, Android, as well as Windows devices. Second is the company admin portal where an owner, HR representative, safety representative or superintendent is looking to see what certifications an employee has, or an owner who is looking to see what kind of activity a user has done in their app."

Everything a user does in their app reports back to the company admin portal. This is a major differentiator from other safety training apps.

"This allows HR/owner/safety depts to see who is going above and beyond, who has not done their assignments and also provides liability coverage to document what training has been completed," Hill continues.

"The admin portal allows you to 'push' specific training to folks across wide geographies and job types. And thirdly, we have our backend where we upload custom content for clients and create accounts."

All gathered information and data are stored in the cloud and hosted through Amazon Web Service (AWS) on very secure and stable servers.

Lancaster Development, Inc. is a construction company based in Richmondville,

New York, that started using the aQuiRe® app in spring 2020.

"The technology appealed to us because it made training much more flexible," says Cindy Andrews, human resources manager at Lancaster Development.

"We have not been able to hold large meetings, so the aQuiRe® app was a life-saver in the sense that we were able to get mandatory state trainings done amidst all of the restrictions put in place this year."

Andrews says another benefit of this platform is that the company can place employees in groups according to their job duties and assign them training videos throughout the season, as well as in the off season.

"This gives them a refresher or just reminds them about safety issues such as working in certain weather conditions," she explains.

"The employee can now take the initiative and review training videos on other aspects of the business and this could be a motivator to the employee to seek further training so that he/she could move to a different position. Employees take quizzes at the end of the training videos to document their participation, and this is trackable and easily reported."

HOW aQuiRe® WORKS

Each aQuiRe® module is no longer than seven minutes. If it is a complex subject, the modules can be strung together in sequences.

"We work with subject matter experts — people directly from the field who have done the work for their whole careers and know what it's all about," Hill explains.

"There's a storytelling element to it, which is also a very common way of teaching. aQuiRe® is really designed for your blue collar, field-based employees. It empowers them to know what's going on, what the expectations on the job are, and what the trends and culture of your company might be. Many of our users have an introduction

video in their training library, which outlines the values and culture of an organization. The best thing about aQuiRe® is that you can customize it to your needs."

Andrews says Lancaster Development has been very satisfied with the aQuiRe® platform and would highly recommend it.

"The benefits of this product have been huge this year," Andrews says. "As [CaHill] works with other agencies to build their training library, this could be a great asset to the construction industry."

At present, there are more than 200 video modules included in the training library that CaHill has created for all users. Those training modules fit into four different categories: Safety, Iron, Site Ops (the how to portion of the app) and Comply. Each module consists of a video, a quiz, and additional resources.

"One thing that separates this training system from others is these "How To" videos," Hill explains.

"Workers can learn the basics for everything from paving and pouring concrete to setting rebar to stay in place form, setting curbs and installing culverts. We also added five new modules to the training library in late January having to do with GPS training on machines, a bridge build training video on measuring haunch depth, and three hazard prevention videos."

And, if that isn't enough, this spring, an OSHA 10 training course is being added where users can complete their OSHA 10 training on the app along with their refresher course.

"We update the app continuously and have big plans for 2021 and beyond," Hill adds.

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ADAPTIVE REBIRTH BREATHING NEW LIFE INTO OLD BUILDINGS

BY MICHAEL GIUSTI

mong the countless things COVID-19 is forcing people to rethink is how to best use existing buildings once they have outlived their original purpose.

From movie theaters to large retail spaces and from corporate headquarters to abandoned movie studios, property owners are now thinking long and hard about how their existing buildings will fit into the post-pandemic world.

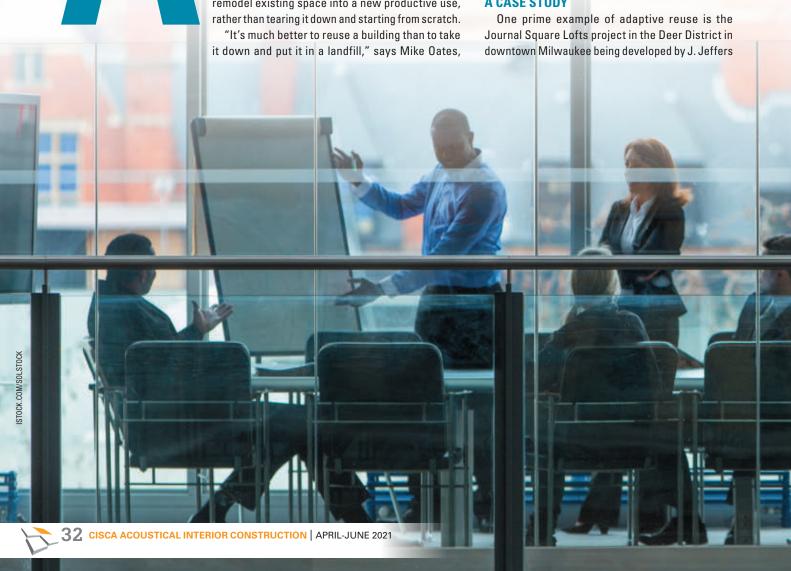
Enter adaptive reuse.

Adaptive reuse is the concept of finding ways to remodel existing space into a new productive use,

project manager for Milwaukee-based Eppstein Uhen Architects.

Reclaiming an old space and putting it to new, productive use, requires some unique thinking, said Ken Smerz, CEO of Phoenix-based 3D modeling firm, ZELUS. Smerz says that as the pandemic has changed buying and working habits, adaptive reuse is emerging as an increasingly influential aspect of the construction industry.

A CASE STUDY



& Co., along with general contractor CG Schmidt and Eppstein Uhen.

That project involves taking the retired campus of the Milwaukee Journal-Sentinel newspaper and giving it new life as a mixed-use residential and commercial space. Involving two historic buildings — a 1924 Art Deco building and another building erected in 1962 — the Journal Square Lofts presents both the opportunities and the challenges, of working within the footprint of an existing building.

Once completed, the development will be home to 141 apartments spread over five floors and will include 8,800 square feet of street-level retail space. Key to making the project work is a second element housed in the 1962 building, which will include 83 apartments that will be home to students attending several universities, including the Milwaukee Area Technical College and Milwaukee School of Engineering. Those student apartments will be priced below market rate.

"Once we were able to find that university partner, everything else fell into place," says Doug Geurts, director of development for J. Jeffers & Co. Though it was the decline in the newspaper industry and not COVID-19 that left the Journal-Sentinel site vacant, the opportunities to redevelop it were similar.

Beyond being prime downtown real estate adjacent to entertainment, dining, public transportation, educational opportunities, and employment opportunities, the building also has "good strong bones, a strong concrete structure and great architectural character," Oates says.

The ultimate reason that people should consider adaptive reuse is simple — return on investment, Smerz says. But simply leveling an old structure and starting from scratch could also net positive ROI.

Adaptive reuse goes further and also helps maintain the historic fabric of the community. For the Journal Square Lofts, keeping that historic status was important to everyone involved, though it did introduce challenges.

Because it was classified as a historic site, it qualified for a \$1 million incremental property tax revenue credit.

The drawback was that much of the exterior had to be preserved as-is, as well as

some internal aspects. That posed logistical challenges in the initial building and demolition process, as well as required that all ventilation be routed up through the roof rather than out through exterior walls.

"Working on historic projects is its own little animal. During every step you are making sure you aren't touching things you can't and saving all the important things but still making the building work," says Dan Duerrwaechter, senior project manager executive for CG Schmidt.

OVERCOMING CHALLENGES

Because you aren't simply building from the ground up with adaptive reuse projects, planning becomes especially important. Smerz says 3D models provided by ZELUS help architects, contractors and trades at every stage of an adaptive reuse project.

Using a LIDAR scanner, ZELUS creates a millimeter-accurate image of each room and then feeds that into Building Information Management (BIM) software.

Not only does this give highly accurate information for team members to work with, but it also allows contractors





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to prefabricate components and quickly install them, limiting potential downtime if the space is still in use.

Oates says having 3-D models is especially useful when it comes to working with stakeholders who might not be as versed in visualizing plans.

"We can use the software to cut a section through a building and easily convey ideas," Oates says. He further comments that the models help the contractors and trades better integrate the design as the project goes along.

Duerrwaechter says BIM software makes layout for projects go much smoother.

But even with the best technology available, the Journal Square Lofts had a few hidden challenges the team had to overcome, many of which stemmed from the old industrial use of the building.

For example, the basement used to hold the presses and is now a cavernous empty space, 30-feet below street level — a space considered part of the historic significance of the building.

The team decided to turn the space into parking.

The "mind-blowingly thick" floor plates presented another challenge. "One floor was 9 inches, while the other is 21 inches," Duerrwaechter says.

The logistical challenges didn't stop there.

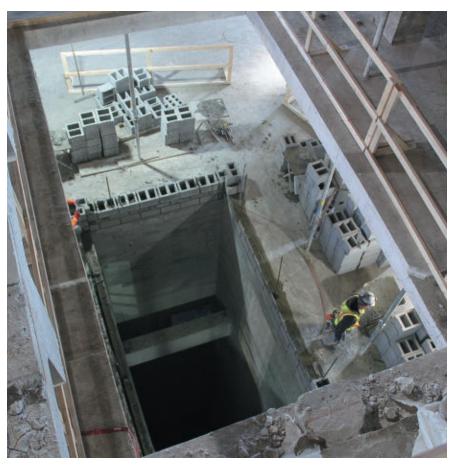
"When you are building a new building, it has no skin or roof," Duerrwaechter says."But we were dealing with floors, walls and ceilings all up, and we had to find creative ways to get materials into the building."

Duerrwaechter says they used an old freight elevator until that burned out, and then they had to resort to lowering material into odd spaces using a small crane.

With it being an older building, they also ran into a lot of asbestos.

"Demo is now a three-step process. We have to open the spaces up to get to the asbestos, then contain, then come back and get rid of everything else," Duerrwaechter says.

Another issue was that the dimensions of the building would have meant that interior apartments would have had no



New openings created within the existing building for new stair shaft; total of eight floors tall.

natural light. To overcome that, CG Schmidt cut a "light well" into the center of the building, creating a shaft to let sunlight in from above.

"Every project of this scale has surprises every day. That is what keeps it interesting," Duerrwaechter says.

FUTURE OF ADAPTIVE REUSE

Oates says that adaptive reuse will remain an important area of his practice and will likely be growing in coming years.

"I think we have all found that people can work remotely successfully, so I'm not sure if everyone will return to the office when this is over," Oates says. "I think that will mean there may be a lot of opportunities for adaptive reuse."

Bergner agrees, saying that as a company, they look for projects with transformative qualities that positively impact the entire community, beyond the four corners of a buildings.

"That impact can be through historic preservation, creation of housing opportunities, economic development, workforce development, educational support, or for us, often a combination of these qualities," Bergner says.

Smerz says that while repurposing office space and finding opportunities for distribution and logistics hubs will very likely represent an uptick in his business in the coming years, it might not be evenly spread geographically.

"There are certainly pockets across the country where there is more demand than others," Smerz says. "States like California and New York represent hotter markets for repurposing structures, while some of the other areas may take a while to catch up."

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GOMINION REASONS

NECESSARY EMPLOYEE TERMINATIONS TANK

BY ROXI BAHAR HEWERTSON, MPS, ACC

ISTOCK.COM/TOMMAS079

here is no question that firing or laying someone off is an onerous leadership task. Still, there are going to be times when it is absolutely necessary to terminate employment. The question is not if, but how and when, employers will bring that relationship to a close. When you're a leader, firing right is just as important a job as hiring right. And, yes, it's emotionally loaded, complicated and just plain uncomfortable to fire anyone, no matter the circumstances.

If firing were easy for leaders, it would happen quicker and more often. There will always

If firing were easy for leaders, it would happen quicker and more often. There will always be a few consistent underperformers and bad behaviors that arise in every organization, no matter if you are a leader in a tire factory or a place of worship. Since it isn't easy, there are a host of reasons that can cause a leader to hesitate at best and, at worst, fail to fire the person who needs to be let go. Here are six common blocks to firing, each with an antidote.

Arrogance. "I hired you, so I couldn't be, or don't want to be wrong." Another word for this is ego. No one is perfect and the hiring process is always going to be a measured risk. You have no control over the choices that lead to the behaviors and actions of another person. You can only do your best to set them up to succeed; you cannot make them succeed. If you've hired, onboarded and developed the right way, you've given it your best shot. The antidote to arrogance and ego is stepping back, applying objectivity, having the ability to admit mistakes, being open minded and paying close attention to both the data and your instincts instead of your ego.

Conflict or Pain Avoidance. This is about your pain, the employee's pain or both. It could be a reluctance to, or even fear of, engaging in a potentially tough conversation or conflict. Or, you might be feeling guilty that you hired someone into a job where they are unable to succeed, forgetting for a moment that they applied for and accepted that job. There may be an organizational culture, based entirely in myth, that by dealing directly and appropriately with bad behavior and/or poor performance you're not being inclusive of diverse people or ideas. You might think you didn't do enough to support this employee, or

you could be worried about doing damage to that person's future career or emotional state. Feeling guilty or letting conflicts escalate helps no one, including the employee. The antidote (situation dependent) is to summon the courage to have a very candid conversation about the situation. This will transform the conflict into positive action by the employee, or it will move your closer to an exit process.

Fix-It Syndrome: Most leaders know that providing appreciation, constructive feedback and development opportunities are all parts of the leader's job. However, when all the evidence tells us that an employee's ability to thrive in the job is just not there, prolonging the agony amplifies that employee's failure. No one can turn a pine tree into an oak and taking too long to recognize and address a mismatch is unfair to both the employee and the organization. Employee development does not replace employee responsibility, fitness or performance. It's good to offer development, but don't keep trying when it's getting you and the employee nowhere fast. There can be a misconception that more and more development is the answer to everything. It is not. No business can afford, or should "carry," marginal or underperforming staff. Trying to "save" an employee for too long, when it's clear this person is a mismatch for the job, is a mistake that can carry far-reaching consequences. The antidote to the fix-it syndrome is to perform due diligence, have direct and candid conversations and, if possible, support the employee in finding other employment options.

Image and Perception. There may be a fear of having your organization, team or even you as the leader perceived as being out of control or as bad decision makers; or that rumors will fly if you fire someone, particularly a highly visible, well-known employee. If you are concerned, keep in mind that it's far worse to ignore poor performance than it is to deal with it. You can't control rumors and gossip, but you can control communications and your own behavior and actions. The antidote to image and perception concerns is to be as transparent as possible in your communications without violating an employee's privacy.









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Fear of Loss. Leaders can get stuck, or frozen, with the fear of imagined or even real disruptions to operations if an employee who has a key role or is deeply embedded in positive relationships with external stakeholders (clients, customers, alumni, vendors, etc.) is fired. Other losses can drive a failure to act — loss of time, resources and the support of one or more of your stakeholders. There is a lingering myth we carry around about thinking some employees are indispensable. No one is, no matter how hard he or she may try to convince you they are. If they left on their own accord, you'd have to figure out how to replace them. While some of what that employee is doing could be mission critical, if they are doing real damage at the same time, you have a big problem. Justifying keeping someone because they are "so smart" or "know more than anyone about ABC" or are "loved by everyone" is not going to serve you or the organization in the long run. Customers, employees, and other stakeholders care more about getting the support or results they need than who, specifically, is providing for their needs. Stakeholders tend to have fairly short memories when they are satisfied. The antidote to fear of loss is having well-considered transition and communication plans that you can snap into place immediately without leaving gaping holes in your operations.

Fear of Litigation. Leaders, HR professionals and even legal counsel may avoid a firing, no matter how egregious the employee's behavior or actions have been for fear of being sued, or in the case of a union, going to arbitration. This is particularly true when an employee is in a protected class (e.g., gender, age, race, ethnicity, religion or disability). Tiptoeing around someone whose performance is problematic sends a message of weakness and uncertainty both to the employee and everyone else involved. While a full review of the facts and thoughtful consideration must be given, while ensuring bias isn't operating in your decision, fear of litigation must not stop a firing that needs to happen.

When you are confident that due diligence, fairness and objectivity (including



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documentation and discipline) have been addressed well, and you are certain that a firing is justified, the fact that someone can sue you or grieve a firing need not scare you. You don't know whether they will or not. Even if they do, they will rarely, if ever, win when you've executed your due diligence properly. There are two options frequently used by organizations when threatened by litigation or arbitration — pay the employee enough to entice them to go away or let the suit or arbitration proceed. You'd be surprised how many people back down when the employer lets the litigation or arbitration threat stand. Employees who sue generally have to pay an attorney and unions who expect they are going to lose will often try to negotiate a settlement rather than spend resources on arbitration. The antidote to fear of litigation is firing right in the first place, including completing your due diligence and being 100 percent aligned with your values.

Bottom line: If you employ anyone, besides yourself, at some point you will have to let someone go for some reason. Don't let these six blocks (or any others you come up with) prevent you from doing what you need to do, when you need to do it. And conversely, don't get trigger happy either and just fire away because you can. Take the time to fire at the right time, and in the right ways, so it's as clean as possible while you also are honoring the employee's dignity.

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ax machines, paper records, spreadsheets and landline phones are going the way of the dinosaur in most industries. Yet those and other outdated technologies have kept a stubborn foothold in construction, especially once you step down in size from the top-tier firms.

The family-run nature of many construction firms has contributed to the slow pace of change, with leadership often viewing IT as just a cost center rather than the driver of productivity and innovation that it can be.

A 2018 Harvey Nash/KPMG survey of construction industry CIOs found that just 23 percent had a "clear digital business vision and strategy" compared to 32 percent in other industries. A full 54 percent of construction firms entirely lacked such a strategy.

Document management systems at construction firms are often outdated and unwieldy, resulting in poor information-sharing and an over-reliance on one or two individuals. In the highway contracting space, for example, it's still common to see workers printing tickets at truck weighing stations and stacking up the papers, which eventually appear at headquarters a few days later.

Many firms have also been slow to embrace the advances in mobile technology that can lead to much faster, smoother communications between work sites and the office. Meanwhile, construction firms' IT teams tend to be small, often too overwhelmed to think strategically.

The good news is that there are signs of change. And with the industry so far behind in its tech adoption there's a lot of low-hanging fruit to be picked in terms of productivity and efficiency gains.

Even before the coronavirus pandemic, more construction firms were starting to see the light on technology. But the pandemic has turbo-charged the trend to modernize by exposing how poorly prepared their communication and information systems were for the arrival of remote work. Companies tended to have a heavy reliance on people coming into the office and lacked the necessary bandwidth and connectivity solutions to support a remote workforce.

There are several key areas where construction companies are moving to raise their tech game.

More companies are trying to consolidate their systems, servers and applications away from on-site infrastructure and into cloud solutions like Azure and AWS. This transition to systems from people often allows them to reduce IT and administrative staff costs.

While it takes an investment, the cost is often easier to swallow because cloud solutions mostly follow a monthly subscription model, allowing firms to scale their licenses up or down depending on their project flow.

Companies are also embracing better collaboration and communication tools. They're moving from basic, free file sharing tools to enterprise solutions with secure

portals that allow for superior real-time updates and collaboration.

The pandemic has prompted a big shift to remote-working tools like Zoom and Microsoft Teams that often require technical support and upgrades. Field operations are also benefiting from a bigger focus on technology as cloud-based communication systems offer workers the speed and connectivity they're used to in the office.

The data-driven journey is being increasingly prioritized by companies. With the increase in remote work, staff can no longer just turn and ask a co-worker about the status of a job or a delivery. This makes it critical to have trusted data and information easily available for decision making.

Moving up the technological food chain doesn't have to be hugely disruptive to construction firms, but neither is it something that can be done at the flick of a switch.

There are three key elements that companies need to consider before they embark on the journey.

- 1. Preparation and planning. Upgrading to new systems can be complex and requires getting a lot of moving parts aligned. So, the more planning and preparation that can be done in advance, the better. Leadership needs to have a full understanding and buy-in on the project costs and timeline.
- 2. Do you have the right IT team in place? The tiny, over-stretched IT teams found at many construction firms are unlikely to have the capacity, knowledge and/or skills to implement the transition alone. Consequently, you'll need to plan and budget for third-party support and/or additional hiring of IT talent.
- 3. Change management. Clear, consistent messaging from the top is vital to achieve the cultural shift that needs to go hand-in-hand with technological change. As well as buying into the change themselves, leadership needs to ensure that all staff are prepared for the change and understand the need for it. For industry veterans in particular, the pace of change in recent years may seem dizzying and can lead to resistance over losing tools they're comfortable with and embracing abstract concepts like moving to the cloud.

By preparing well and getting the right mindset in place, construction firms can significantly increase the likelihood that technology change will go smoothly and deliver the results they need for post-pandemic survival.

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THAT'LL CARRY YOUR BUSINESS THROUGH THE PANDEMIC PROACTIVITY IS KEY TO COMING OUT ON TOP WHEN THE PANDEMIC HAS PASSED

BY JEFF BRADFORD, PRESIDENT, THE BRADFORD DALTON GROUP

he COVID-19 pandemic has not been easy on any business sector, including the construction industry. Materials are expensive and in short supply, layoffs are prevalent, and projects are stalled left and right. In short, company leaders are left scratching their heads.

However, don't spend too much time trying to figure out what's happening, or you'll get stuck in a reactive pattern, unable to get in front of the message. Instead, you need to be proactive and kick your marketing efforts into high gear. A proven method for getting through any crisis, whether it's internal or a widespread phenomenon like this one, is to show that you know what you're doing and that you're confident you can overcome the challenges that have come with

COVID-19. You'll quickly leave the headscratchers behind.

Here are three marketing strategies that'll not only get you started but also carry your business into the "new normal":

COMMUNICATE. COMMUNICATE.

In a crisis, there is usually no such thing as "overcommunication." In fact, studies show that stakeholders would prefer more communication during tough times because it's reassuring to know that there is a plan in place to lead them through. Recognize that the people who have put their



trust in your business — be it investors, employees or customers — may need more guidance right now. Offer that to them as best you can.

Do so by not only communicating the overall plan, but by sharing your progress every step of the way. This may sound like too much "hand-holding," but the extra transparency will make sure that everyone is on the same page.

In addition, when sharing your company's plan and marketing your services, be sure to do so with empathy. Many people are anxious right now and need reassurance. Rather than the usual messaging that touts your products and expertise, stick to empathic messages, such as:

"Safety is of the utmost importance to us"
"We understand times are tough"

"We're grateful for the support of our stakeholders"

"We will get through this as a company"

SHARE YOUR EXPERT PERSPECTIVES

While the focus should not be as heavy on the "bells and whistles" approach to marketing, it is still important to establish your expertise within the industry. You can do this tactfully through what's called "thought leadership" in the marketing world. This generally refers to the strategy of talking about what you know in a way that your audience will understand, in the hopes that they'll profit from your experiences.

This is where traditional PR and marketing tactics come into play, such as writing blogs, setting up interviews with relevant media, publishing original articles that tell a meaningful story, podcasting and more. Be creative in your approach and your messaging, and you'll get some heads nodding.

RAMP UP BRAND AWARENESS

Hand-in-hand with thought leadership is "brand awareness," meaning that your audience knows who you are, what you do, and most importantly, what you're about. After all, your values are what drive every decision you make for your company, so they will be even more integral at a time when external challenges abound. But don't just use those values for your own guidance; share them with your audience as well.

Some of the tactics overlap with thought leadership as every piece of content, in a way, expresses the point of view of your brand and helps to boost it to top-of-mind for your audience. But other tactics that can prove helpful specifically for brand awareness are:

Social media — This is the place to show your character. Share day-to-day milestones, employee stories and project news. Don't be afraid to get creative and use the many tools that the platforms offer, including sharing visuals, live streaming and even advertising.

Digital advertising — If it's in the budget, keep placing ads in all relevant places online. Don't think you need to "go off the radar." Also make use of pay-per-click (PPC)

advertising to target proactive searchers and maximize your ad spend when marketing money is tight.

Search engine optimization (SEO) — Another way to maximize all your marketing efforts, follow best practices to create quality content that will be indexed more favorably by search engines, such as using keywords, shorter sentences and link-building.

And no matter which tactics you ultimately choose, be sure to keep the messaging consistent and continue to lead with empathy.

The idea behind these strategies and tactics is to keep your company at the forefront of the market during the pandemic by building trust and authenticating your knowledge and quality of service. It's not just about making yourself a household name. It's also about making a genuine effort to connect with your audience and showing them that you care about them and are worth the investment. Accomplish this, and you'll be a force to reckon with when stalled projects come back online and the industry starts piecing itself back together.

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HOW CONSTRUCTION LEADERS CAN IMPROVE THE CUSTOMER EXPERIENCE IN 2021 * *

BY MIKE MERRILL, CO-FOUNDER, WORKMAX

fthere's one thing that determines if a client will return or recommend your construction business, it is whether your company lived up to its overall expectations. And in the construction business, expectations are high. That's why more and more firms are putting the customer experience, also known as CX, front and center of their priorities — and it's why you should, too.

CX reflects your customer's perception of their experience with your company. It's not enough for a project to be on time; you need to send your customers updates before they ask. Not only should you be staying within scope and budget, but you should also proactively share where you're saving them money. Fortunately, a live field data tracking solution can help you stay on top of projects so you can streamline communications and improve customer service with valued clients.

Here are three ways live field data can help improve your CX in 2021 and beyond:

PRIORITIZE JOBSITE TRACKING AND MEASUREMENT

Start by gaining an understanding of how your client will be assessing the project's success. What is their desired outcome? What is their budget? What is their timeline? What level of detail do they want from their project status reports? From there, evaluate the project as it currently stands. Once you have a handle on where the project is and an understanding of where it needs to be to meet their expectations, you can schedule periodic check-ins to address your client's primary points of interest and concerns. And that's where live field data comes in.

By continually collecting data from employees on your jobsite, you'll be able to measure the critical factors that determine a project's success — and what improves the CX. A mobile workforce platform collecting live field data makes it easy to track labor hours, equipment usage, safety reports, productivity and more in real-time with photos and videos from an app downloaded to your employees' smartphones. As they enter updates, the information flows in from the field and gets stored in an all-in-one platform in the cloud, which means you'll never have to wait to have complete visibility into a project. No matter where you are, what time it is or what device you're on, you can access critical jobsite data. Automated reports can include photos and videos to help the client clearly see what is happening on the jobsite without having to take the time to

do an actual physical walkthrough. This is not only helpful in getting a birds-eye view of a project's status, but the data will also illustrate where a project is veering off course, ensuring that costly mistakes or delays can be avoided.

COMMUNICATE EFFECTIVELY AND OFTEN

Surprises in the construction business usually stem from mistakes or delays — and they don't improve your CX. To give your customers the best experience, set a schedule of touch-points throughout the duration of the project so they can stay abreast of how the project is progressing. It also gives them the opportunity to address concerns and ask questions in advance while ensuring you're both on the same page. But scheduling time to connect isn't enough; it's about the quality of insights you can share to make them feel more confident in the work being done. R.J. Wolfarth, Vice President of Service Electric and Control, Inc., reported having difficulty in getting accurate information passed from the field, to the office, and up the chain of command, using paper forms without photos, videos, sketches, or photos with markup.

"We received inconsistent information from the project managers on a daily basis because we weren't getting the information directly from the source." Wolfarth said. "We eliminated the need for a project management role on all of our smaller-scale projects. We found that the project managers actually hindered our job-specific milestones due to inaccurate information regarding overall progress. Our mobile forms now answer all of the questions before they are asked and deliver the information more accurately than we have ever seen previously."

A live field data solution makes it easy to collect and analyze data from the jobsite, as well as convert the information into timely reports for the client. Thanks to a one-stop platform, you'll be able to craft customizable reports at a moment's notice, specifically tailored to your client's needs. Photos can be used in the reports to show the client the progress on the project. It also makes it seamless to answer their questions by tapping into



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areas where they have questions, as well as sending messages to the field in case the client needs to make quick changes. These reports can give the client everything they need to see the progress and have faith in the project's success. If done correctly, the client can feel connected to the project without extra meetings except for situations where cost or schedule are affected. Like with any successful working relationship, your CX will improve when they feel they're your top priority and that their needs are being heard and addressed.

BE ACCOUNTABLE AND ADDRESS NEGATIVE EXPERIENCES

A customer's impression of your business is formed with every interaction, from a project's beginning to its end. And while expectations are high, very few clients expect a construction project to go perfectly. But what they do expect is transparency in the process. Construction projects, especially

as they grow in size, are bound to have unexpected costs or delays for one reason or another. But ignoring these changes in the present and taking your customer by surprise later down the line is a surefire way to tank how they perceive your business. That's why live field tracking is key in staying accountable.

In a recent episode of the Mobile Workforce Podcast, KPost Roofing's Keith Post discussed the opportunity to improve your CX by going above and beyond when addressing project mistakes and mishaps. He explained that by calling out when and where things went wrong, clients will respect your taking responsibility and not minimizing the error. It also gives you the chance to review your live field data to see if there were any red flags and give you a reminder to connect with your crew to share feedback and improve upon future projects. Remember, it's not always about delivering positive experiences. Improved

CX also stems from how you manage and move past the bad ones and turn them around.

If you haven't spent time considering how your customers view your business or how you would like them to view your business, make it a priority in 2021. By putting the customer first and leveraging live field data to improve how you conduct business, the way your customers perceive your company will improve. A positive CX leaves lasting impressions that lead to return business and new client referrals, something every growing construction business wants more of in the new year.

Mike Merrill is co-founder of WorkMax by AboutTime Technologies and host of The Mobile Workforce Podcast. Mike has been an entrepreneur and business owner in the construction and technology industry for nearly three decades.

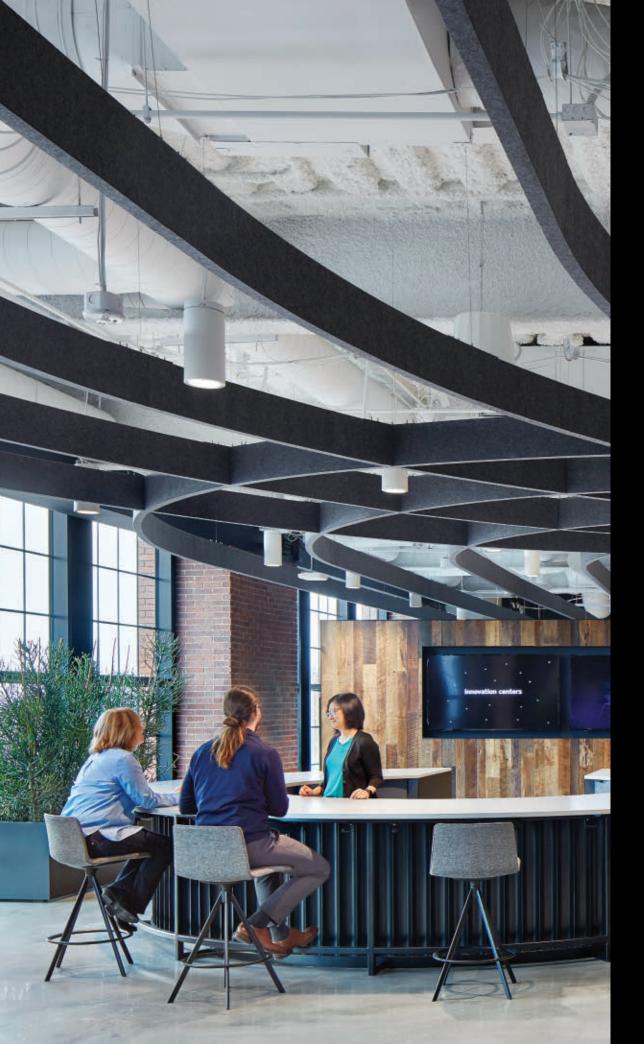
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