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Ceilings & Interior Systems
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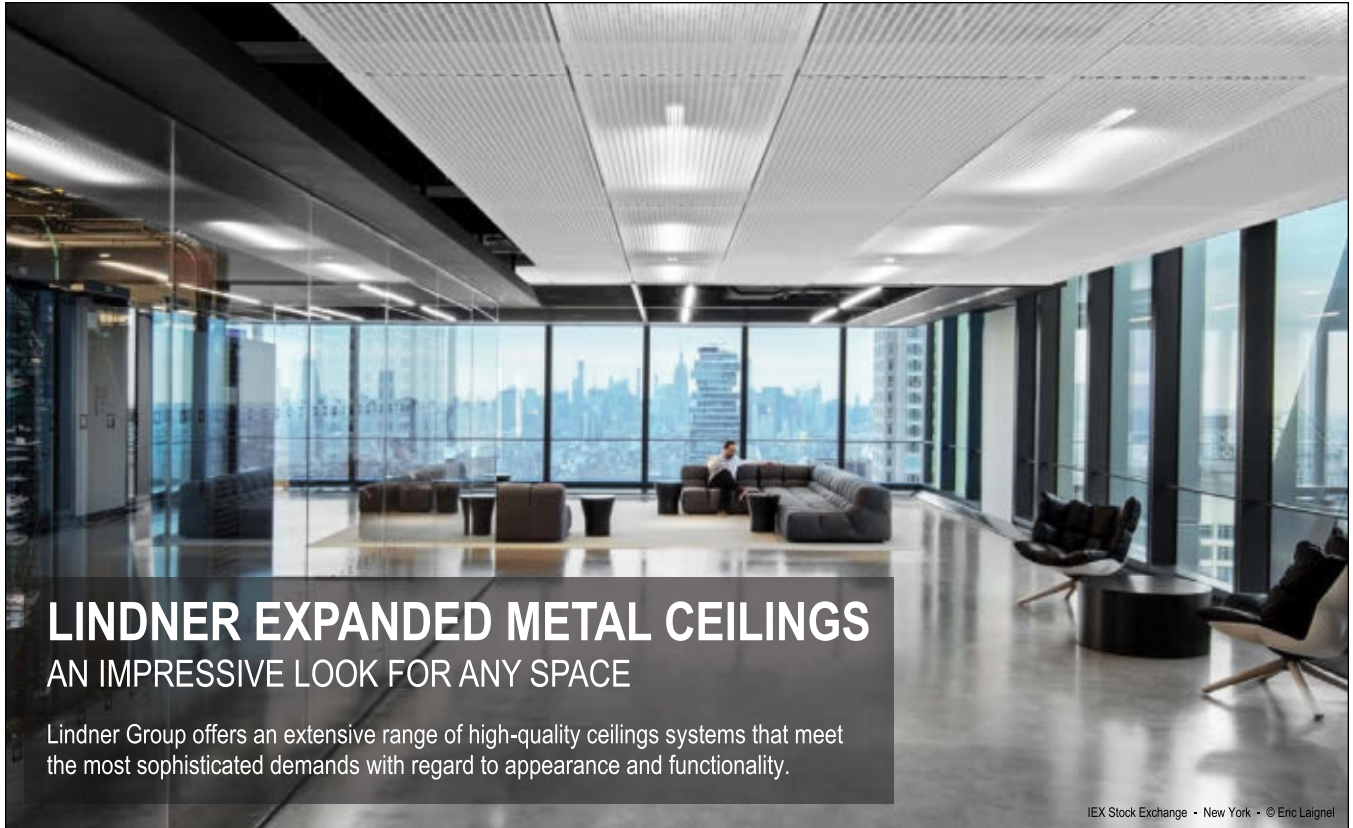
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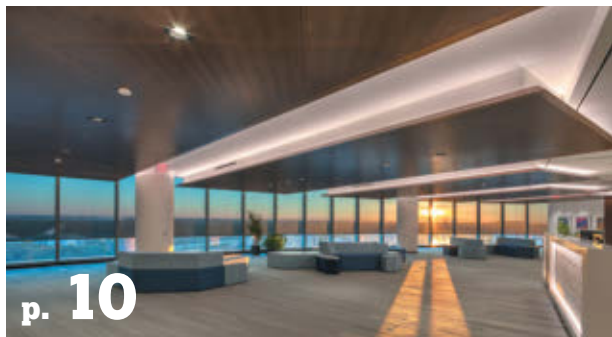
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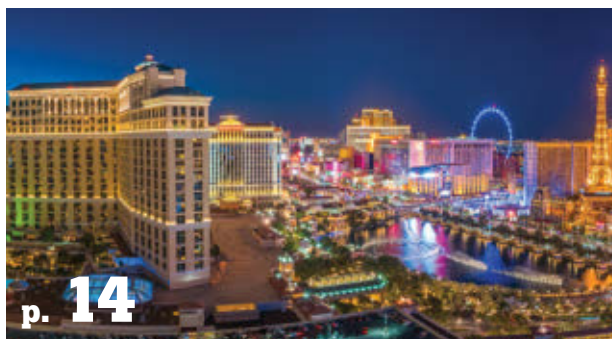
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PRESIDENT'S MESSAGE

The 2020 Convention has incorporated members' requests and included some outstanding educational sessions, a newly arranged schedule, and the ever-popular Economic Forecast.



BY KELLY JOHNSON, SPECIFIED., 2019-2020 PRESIDENT

A new year, a new beginning. Most of us take the opportunity to set new goals or resolutions for the upcoming year. Usually these goals or resolutions include some sort of change. You could say we got a jump start on these resolutions for CISCA starting early last year! There have been plenty of big and exciting changes behind the scenes here for the upcoming 2020 CISCA Convention.

CISCA is the one place that nationally we bring contractors, manufacturers, distributors and independent manufacturers' sales representatives together all in one place! The years of combined experience in the rooms are unmatched! It's guaranteed by attending you will make new relationships as well as gain knowledge exposure to all markets across the United States.

The committees and many individuals have been busy working on implementing great ideas and processes to further CISCA's success. The Events Committee has been meeting to create a very exciting CISCA Convention in Las Vegas this year. You've heard the term "work hard, play hard" — I couldn't think of a better location than Vegas for that!

The 2020 Convention has incorporated members' requests and included some outstanding educational sessions, a newly arranged schedule, and the ever-popular Economic Forecast. You can't turn on the TV these days without hearing the word, Economy — returning forecaster, Bob Treadway can hopefully provide insight into what we can maybe expect. The "Meet the Vendors" lunch is a great opportunity to have some one-on-one time with specific companies you may like to put a face with a name. We highly recommend attendance to our Education Seminars and Panel Discussions as this gives the opportunity for the audience to engage and share knowledge from different perspectives of our industry.

The Celebration Dinner and Awards Program is certainly the highlight of the Convention. Awards will include the 2020 DeGelleke Award, President's Award, and the Construction Excellence Gold Awards. It's a fun evening filled with applause and admiration over the year's hard work.

I encourage you to review the updated schedule that has all of the events with dates and times so you can lay out your agenda from Monday, March 23 to Thursday, March 26. You will find there is an event that suits your interests and certainly can help build your industry network and wisdom. This schedule can be found on the website and features our new banner to reflect the new theme and features of our CISCA organization. Don't wait! Registration is now open for the 2020 CISCA Las Vegas Convention, www.cisca.org.

A special thanks to our Membership, Communications, Finance, Events and Technical committees on their impressive developments this year. On behalf of myself and the Board of Directors, we look forward to seeing you and your team through the week in Vegas. ■

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CISCA STATEMENT



CORE PURPOSE

CISCA exists to provide the acoustical ceiling and wall systems industry with 24/7/365 expertise via diverse and state-of-the-art communication channels, interactive opportunities and regional and national events.

VISION

CISCA is the global premier authority for the interior construction and acoustical ceilings industry. CISCA fosters and enables professional development and exchanges for and between association members and industry professionals.

MISSION

Identify and address trends, diversity and growth of the industry and its members.

Communicate CISCA's vision to all members while fostering excitement and enthusiasm for a transformative, modern association experience. Offer a variety of collaboration and networking opportunities that will attract all CISCA audiences.

Create a structure within CISCA built on easy communication, visibility and accountability that allows volunteers and members to easily connect with the value of the association. Achieve standards of administration that are commensurate with the association's vision and focus on ensuring a positive experience for its volunteers.

Create modern two-way communication between CISCA audiences and the expertise of CISCA's members. Communication should be focused on education, current trends and the member knowledge base. Determine the next steps that allow CISCA to remain the authority in specialty interiors and acoustical ceilings using a modern mode of communication.



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BUILDING CREDIT

C.J. COAKLEY CO. HELPS CREATE STUNNING HEADQUARTERS FOR CAPITAL ONE

BY NICK FORTUNA

Given the ubiquity of Capital One's credit-card commercials asking "What's in your wallet?" perhaps it's fair to turn the question around and ask "What's in your building?" In the case of the bank's new 31-story corporate headquarters in Tysons, Va., the answer is a wide variety of high-quality ceiling and wall materials manufactured, distributed and installed by CISCA members.

Bragging rights go to Falls Church, Va.-based C.J. Coakley Co. Inc. for working on the tallest occupied building in the Washington, D.C., metropolitan area. At 470 feet, Capital One Tower is the second-tallest

structure in the D.C. area, trailing only the Washington Monument, at 555 feet, according to the real estate news website Bisnow.

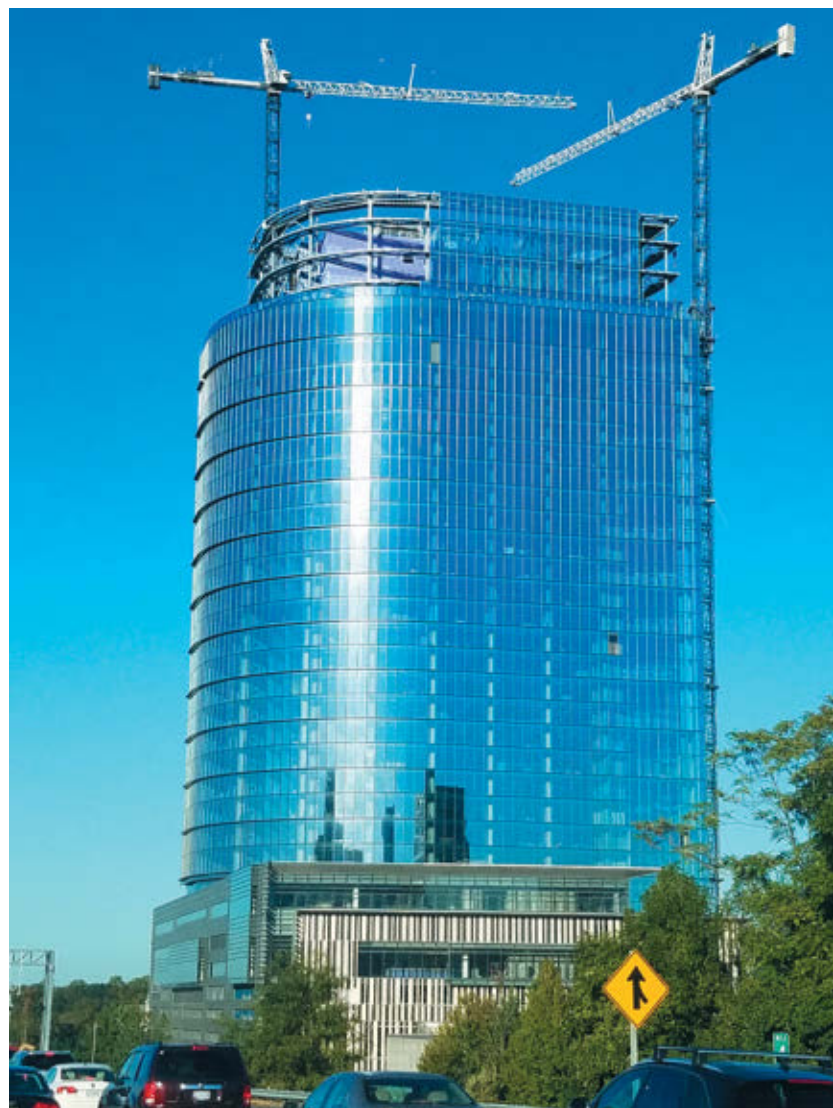
Capital One broke ground in November 2014 and held its grand opening in December 2018, moving in roughly two-thirds of the 3,000 employees expected to work there. The bank has big plans for its 24-acre campus, with about 5 million square feet of development at full build-out, including a 1,600-seat performing arts center, a 300-seat black box theater, an 80,000-square-foot grocery store, residential space, office buildings, retail space and a 1.2-acre



sky park with a beer garden, bocce courts and an amphitheater. C.J. Coakley was also actively working on this new phase.

But the jewel of the campus will always be Capital One Tower, a 1.7-million-square-foot building with a curtainwall façade and a steel-framed 70-foot curtainwall extension crown. C.J. Coakley was awarded the tenant fit-out for floors 9 through 29, a huge job that required approximately 23,000 man days and 1.2 million square feet of drywall. The end result is a showcase project that earned C.J. Coakley a 2019 Craftsmanship Award from the Washington Building Congress and a 2019 CISCA Gold award.

"It looks amazing," said Andrew Heinbaugh, salesman for distributor Capitol Building Supply Inc., which provided Armstrong



At 470 feet, Capital One Tower is the second-tallest structure in the D.C. area, trailing only the Washington Monument, at 555 feet, according to the real estate news website Bisnow.



Vector ceiling tiles for the job. “C.J. Coakley is an A-plus contractor, and their workmanship is fantastic. It’s a spectacular building.”

C.J. Coakley had to build or install multilayer drywall partitions between offices for sound proofing, wide drywall soffits with coves along the fronts of the offices, sloped and radiused perimeter soffits, USG Mars acoustical ceiling panels, metal tin ceilings, Decoustics Claro plank ceiling panels on every floor and Decoustics Solo-M wood ceiling panels on the unique 19th floor. Kamco Building Supply provided the USG drywall, finishes, insulation and metal framing, while L&W Supply provided the USG acoustical ceiling materials.

The 19th floor connects the low-rise and high-rise portions of the tower and features meeting rooms, lounge areas, a café, a FedEx Office business area and a Power Up bar for technology help.

There were expansive and diverse ceiling geometries, but nothing proved quite as challenging as the two “zipper walls.” Those areas, at the southeast and northwest corners of the building, are the showpieces of the project.

Shortly after C.J. Coakley was awarded the job, the chosen manufacturer of glass-fiber-reinforced gypsum backed out because the design was too complicated. C.J. Coakley then worked with the architect and general contractor on an alternate design that would make the featured walls more feasible.

The zipper walls got their name because of their alternating locations on the building’s floors. The design required a bespoke geometric feature that was derived from a binary randomized pattern. The walls vary in pattern from floor to floor and from front to back, making them unique.

The original design called for manufactured blocks to be installed on top of each other between steel tubes with light openings. C.J. Coakley was able to eliminate the steel tubes by providing engineered metal stud framing with plywood. Instead of making the panels out of glass-fiber-reinforced gypsum, C.J. Coakley chose to make molds and cast them in plaster.

C.J. Coakley installed a sublayer of plywood to allow workers to secure the panels onto any location. The panels also had to



There were expansive and diverse ceiling geometries, but nothing proved quite as challenging as the two “zipper walls.”

stack up precisely. Harry Blackmon, project manager for C.J. Coakley, described it as installing 2-by-4 plaster blocks on plywood and then having to conceal any attachment points and provide sharp edges. These panels were fastened to the plywood, screw holes were finished, and joints were caulked before the finishers diligently touched up every leaf and concealed the attachments.

Adding complexity to the job were randomly placed, clear openings scattered throughout the walls. C.J. Coakley used an installation matrix of panel types, location and placement for its installers. The team knew in advance that the zipper walls would have to be perfect to allow the unique geometry of the wall panels to interface with each other. Framing had to be precise, and due to the vertical lighting elements, the crew needed to hit custom framing patterns to align panel joints and light fixtures.

“It took a strong level of craftsmanship to complete these walls,” Blackmon said.

Large stairwells eventually would be built just inside the zipper walls, and those areas were left open for most of the project so workers could stock materials. Due to the alternating design, workers could only stock every other floor on each side of the building.

The general contractor, DAVIS/Gilford Construction, had material stocking issues onsite due to the building’s height, concurrent construction and the volume of manpower onsite. Only small materials could fit into an interior hoist, so to get the drywall and metal stud framing into the building, the team had to use a crane.

They developed a counterbalancing system using a wooden beam to feed

construction materials into the outer stairwell areas. Supplies were placed on one end of the beam, and a weight was placed on the other side to balance it out.

“A rope was located on one end of the beam to pull the beam and material into the building,” Blackmon said. “Once you take the materials off, you use the rope to help guide the beam so that the crane operator can pull the beam back out of the building and bring it down to pick up the next load. You used the rope to guide the beam out and prevent it from doing any damage.”

With no skin on the building, wind proved to be a real obstacle.

“We actually had to build some barriers using plywood on framing to try to keep the weather out because we were building the walls while those corners were open,” Blackmon said. “Of course, the higher up you go, the stronger the wind. On really windy days, we actually had some barriers blow down, so we had to beef them up with a heavier-gauge stud.”

C.J. Coakley had to install about 27,500 square feet of drywall ceilings and walls on each floor from levels 9 to 29.

“It moved really well after you got the first few floors under your belt,” Blackmon said. “I had an excellent foreman running our work, and he just kept things moving very efficiently.”

Blackmon said the Capital One Tower is the biggest project he’s ever been involved with.

“It’s very satisfying that it turned out so well,” he said. “I drive past it every day on I-495 coming into work, so I see it all the time. There are special lights recessed in the zipper walls, so at night, you can see these strips of light through the glass. It gives the building flair.” ■

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Fans of the celebrated 1996 comedy “Swingers” surely remember the sage advice to always double down on 11 when you’re at the blackjack table. That’s a key piece of knowledge to bring to the 2020 CISCA Convention in Las Vegas from Monday through Thursday, March 23-26, but attendees are sure to leave with a lot more valuable information than that.

This year’s educational sessions are aimed at helping members balance the demands of their work and personal lives, which can combine to leave hardworking professionals overwhelmed and overburdened. Tim Connor, Jeff Scanlan and Cindy Schwarz, motivational speakers specializing in leadership, communication and performance optimization, each will address the topic from a different angle.

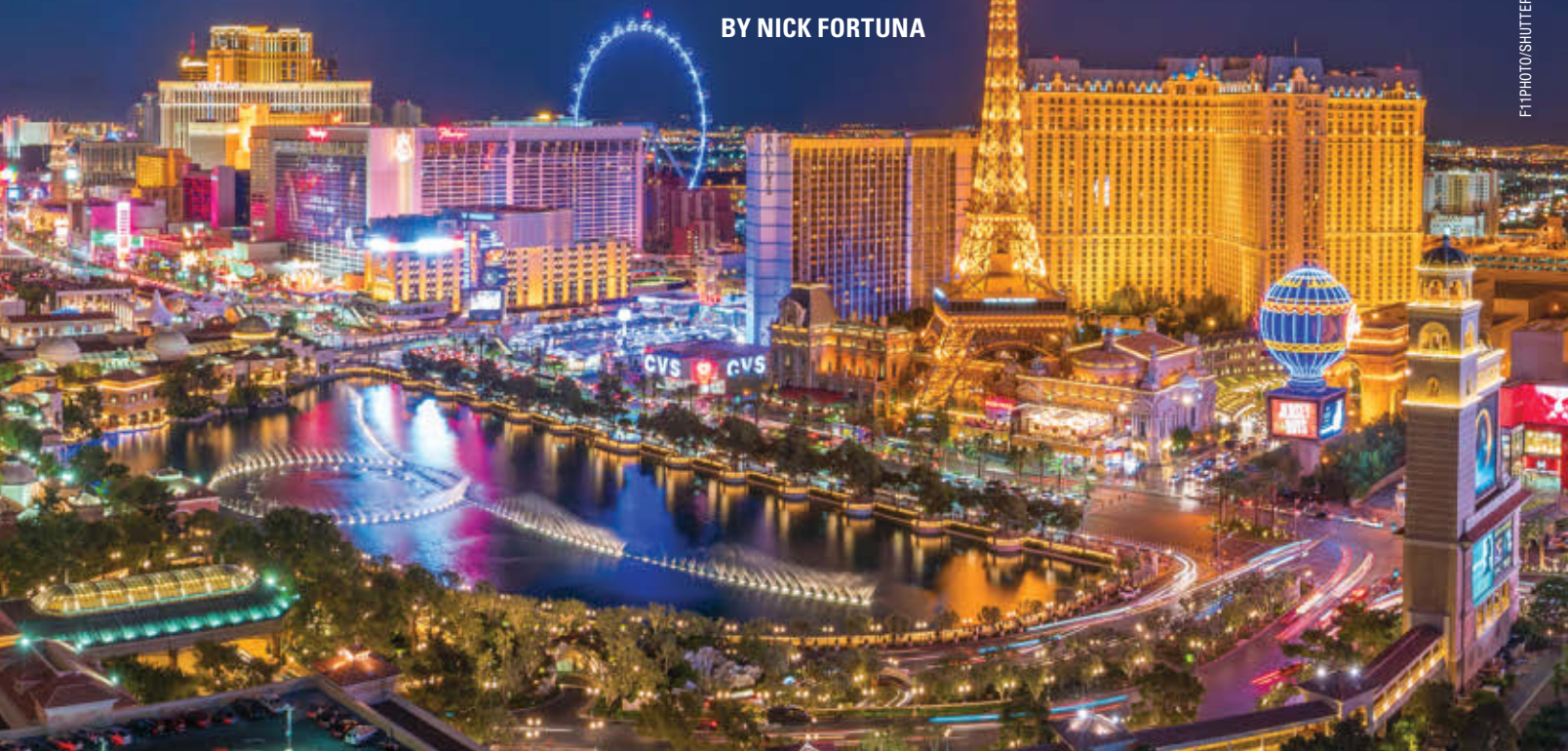
“At the convention, it’s a given that you’re going to have the INTEX show and you’re going to network, but that educational component is always important to get right,” said Jason Gordon, chairman of CISCA’s Events Committee and the president and chief executive of Heartland Acoustics & Interiors Inc. “We always try to get really strong speakers, and I’m excited about the lineup that we have this year. I think it will be a good mix of topics.”

The series kicks off Tuesday morning with Schwarz’s presentation, entitled “The Power of Feedback to Move Forward.” Schwarz said poor feedback and coaching skills can wreak havoc in a workplace that requires cooperation and communication, so her talk will explore how excellent coaching can be established to create a

THING *in Vegas*

2020 Convention: Winning Bet for Educational, Networking Opportunities

BY NICK FORTUNA



F11PHOTO/SHUTTERSTOCK.COM

culture of positive feedback. She said it's all about communicating not to be right but to get it right.

On Wednesday morning, Connor will address "Getting the Best of Stress: How Uncontrolled Stress Kills Productivity." Connor said uncontrolled stress is the biggest contributing factor to poor decisions, inappropriate behavior, inconsistent and confusing communication and poor productivity, so he will detail the major stressors that influence employees' behavior and how to reduce, manage or eliminate them.

Later that morning, Scanlan will give a talk entitled "The Five Reasons People Quit Too Soon." Scanlan will discuss how those five reasons show up in both our business and personal lives, and he'll share practical tools to work through challenges so attendees will stop quitting too soon and start achieving more than they thought possible.

"CISCA's educational sessions are an integral part of the convention," said CISCA President Kelly Johnson, founder and president of Specified. "The sessions provide members with ideas they can take back and immediately implement. CISCA volunteers select speakers and topics for education sessions based on member feedback."

Also on Wednesday morning, forecasting and strategy adviser Bob Treadway will deliver his annual economic outlook for the year ahead, providing insight into the construction market and the broader economy.

"I think the educational sessions are always a highlight," said Hunter Pope, a member of CISCA's Emerging Leaders Group and an independent sales representative at Architectural Finishes. "I think you always get a lot out of them. The speakers are very knowledgeable and have been in the industry for a while, and they definitely give a valuable perspective on the topics."



Still not sure whether to attend? Here are five more reasons to book your flight to one of the coolest tourist destinations in the country.

- **Networking opportunities** — Take your pick from the many fun opportunities to socialize with other movers and shakers in the industry. On Monday, the annual golf outing will be held at Bear's Best Las Vegas, featuring 18 holes selected by Jack Nicklaus from his 270 designs worldwide. The course is known for its manicured greens, challenging designs and pristine fairway and tee complexes.

Also that morning, members will tour the iconic Hoover Dam, the massive concrete structure built in the Black Canyon of the Colorado River, on the border between Nevada and Arizona. Afterward, attendees will have lunch at Boulder Dam Brewing Co., named the area's best brewery by several regional publications. The bar, restaurant and beer garden feature thousands of pounds of construction equipment used to build the Hoover Dam, and a wide assortment of beers is brewed onsite.

Monday evening will feature the welcome reception, which over the past few years has morphed into an opportunity for specialty manufacturers and smaller manufacturers to meet with CISCA's contractor members, Gordon said.

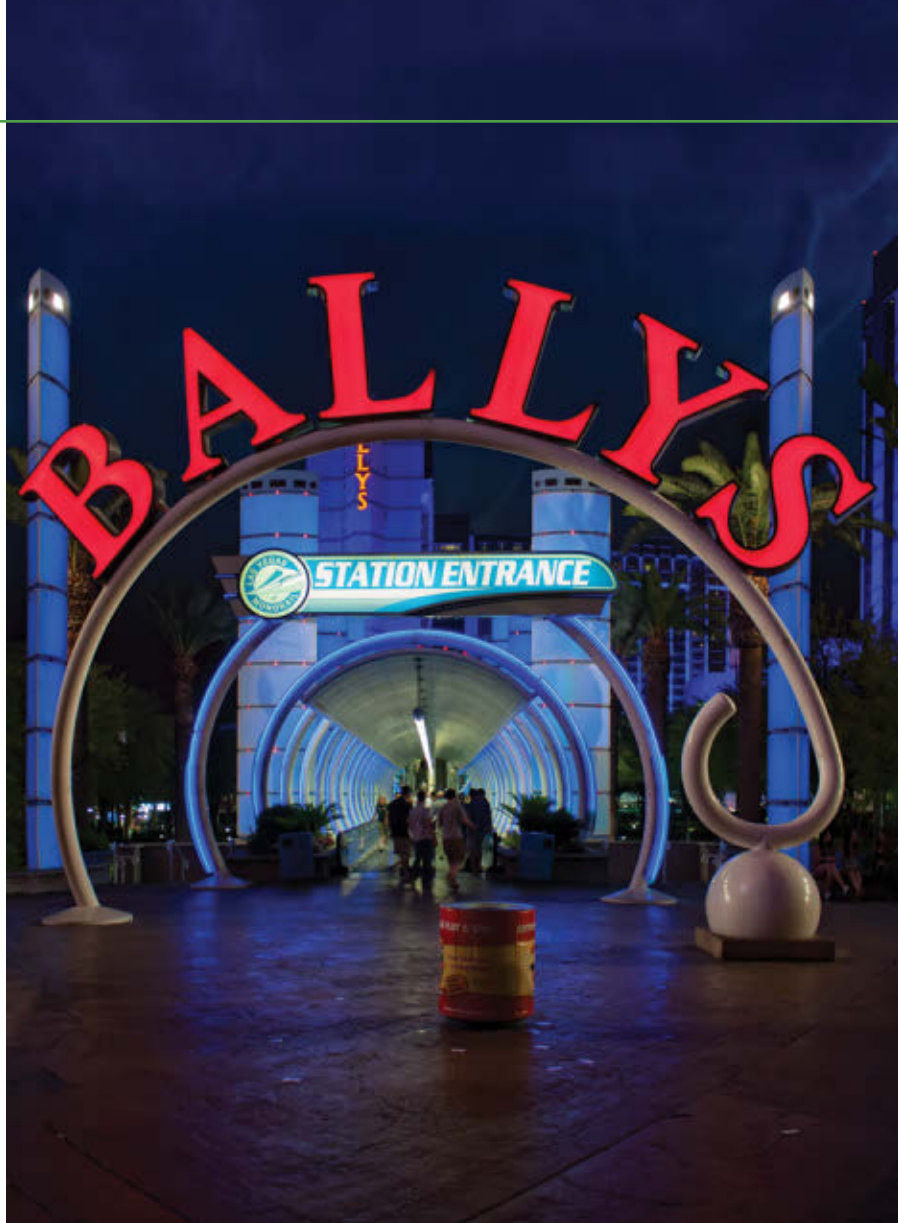
"The No. 1 reason members give us to attend is networking," Johnson said. "This is a great opportunity to meet others in the industry and expand your list of contacts. It is also a great opportunity for members to learn and have a good time."

- **Informative meetings** — Tuesday will feature individual group meetings for independent manufacturers' reps, small manufacturers, contractors and distributors. Wednesday will include meetings of the membership, communication, technical and wall and panel committees, and the Emerging Leaders will meet, kicking off a new year under the program's four-year structured curriculum.

Gordon said the contractors held their own group meeting for the first time in 2019, and it was well attended.

"A lot of people enjoyed that meeting, so I thought it was a success," he said. "My guys enjoyed it, so I'm taking my whole group, and I think it will be even better attended this year."

- **Awards gala** — In addition to the Construction Excellence Awards, the association will hand out its most prestigious honor, the DeGelleke Award, named for founding member Gerry DeGelleke. The award is given to an individual whose contributions to the industry and the association have been especially significant.



ROKA SHUTTERSTOCK.COM

"I'm definitely looking forward to the awards gala," James said. "It's always interesting to see which projects have won the Gold Award and the Founders' Award, so that's my favorite part."

- **INTEX Expo** — This is the largest trade show catering to the wall and ceiling industry, showcasing new products, services and solutions that help the industry thrive.

"All the manufacturers are there in one place, so by walking the floor for a few hours, you'll be able to learn about the latest and the greatest in the industry," James said. "You're able to speak with manufacturers and ask questions, and you're able to see, touch and feel the new products. It is definitely a worthwhile experience."

- **It's Vegas, baby** — CISCA holds its convention in Las Vegas every three years, and those events just happen to draw the biggest crowds, so bring a few rolls of quarters for the slots and take a chance.

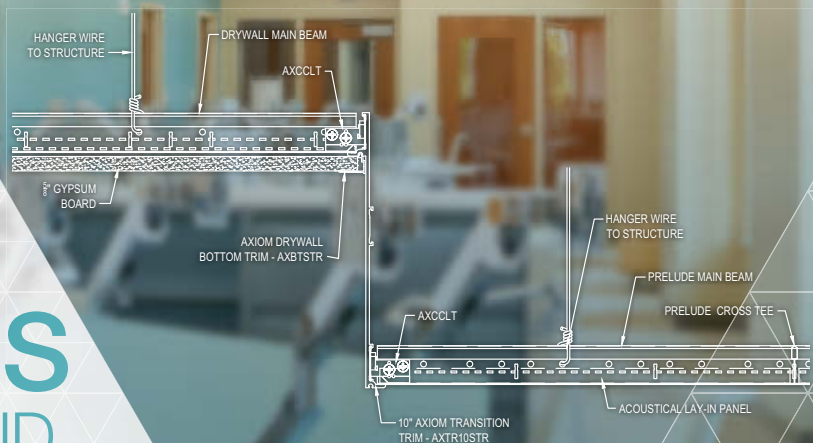
"Vegas is always fun," Gordon said. "Everyone loves the city, so we typically have our highest attendance at that venue. We're expecting great numbers and lots of energy and fun. I've been talking to quite a few people who are excited about going, so I'm looking forward to it. I'm taking a few people from all of my locations, so we're going to have a big showing this year." ■

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GDPR

A NEW EU REGULATION IMPACTS U.S. BUSINESSES

BY LAURYN E. PARKS,
MOMKUS LLC

In May 2018, the General Data Protection Regulation (GDPR) went into effect in the European Union (EU). The GDPR creates greater obligations for companies and organizations worldwide that process or control the personal data of individuals located in the EU. The GDPR also gives those EU-based individuals more control over their personal data, including the power to compel companies to delete, change or restrict the use of their personal data held by companies. While the GDPR clearly governs the conduct of EU-based companies, many U.S. companies are coming to realize that they can also be subject to the requirements of the GDPR.

The GDPR protects the rights of “data subjects” located in the EU whose personal data is controlled or processed in relation to offering goods or services to that person.¹ A “data subject” under GDPR law is a living individual within the EU whose personal data is being processed. A data subject within the legislation could therefore include a U.S. citizen living or traveling to the EU. The “personal data” of a data subject means any information that can be used to identify a person, including a name, an identification number or location data.²

Therefore, under the GDPR, a U.S.-based company that offers its services and products to persons located in the EU through its website, and which collects personal information about its customers, such as their names and addresses, is subject to the provisions of the GDPR.

The regulation exempts any business that gathers personal data of data subjects only because its website’s accessible to individuals in the EU. But a company that “offers” their

products and services to individuals in the EU with the intent to sell these products is subject to the GDPR and its requirements. Examples of “offering” products and services in the EU includes translating the website into a language frequently used in the EU, such as French or German, using an EU currency, or mentioning customers that are based in the EU. Where EU-based individuals are targeted in this way, any personal data collected about them becomes subject to the regulation.³

The regulation requires that companies that “control” the personal data of data subjects must ensure that any vendors they use to process personal data, such as external web-hosting companies, are also compliant with GDPR. This often means that companies must have their vendors sign agreements certifying their compliance with GDPR.⁴

The GDPR also grants to individuals in the EU the right to be forgotten by erasing their personal data and the right to portability of their data.⁵ Those rights also include the right to access and to receive a copy of their personal data, the right to rectification and restriction of processing, and the right to object to processing including to automated processing and profiling.

The GDPR also requires processors of personal data to maintain records of the personal data that it processes and its processing activities. Companies must document and record their processing activities and understand and document the appropriate legal basis for processing personal data.⁶ Where another legal basis does not exist, the company must obtain and document the affirmative consent of the data subject to have its personal data processed and collected by the company. Consent should be granular, specific, freely given by an unambiguous affirmative action and as easy to withdraw as to give.

Furthermore, if a data breach occurs which could affect the personal data of individuals in the EU, the company must report the event to the appropriate data protection authority within 72 hours of becoming aware of the event. Each EU member state has its own data protection authority that will be responsible for implementing the GDPR rules. If the data breach poses a high



Under the GDPR, a U.S.-based company that offers its services and products to persons located in the EU through its website, and which collects personal information about its customers, such as their names and addresses, is subject to the provisions of the GDPR.

privacy risk, then those customers must also be notified by the company.

The requirements of the GDPR are complicated and difficult to navigate and can require affected businesses to restructure their data collection and management activities in order to come in compliance. Failure to comply can result in substantial penalties, so affected companies are advised to either invest in compliance or avoid targeting the EU marketplace. ■

ENDNOTES

- 1 www.privacy-regulation.eu/en/recital-23-GDPR.htm
- 2 www.privacy-regulation.eu/en/article-4-definitions-GDPR.htm
- 3 www.privacy-regulation.eu/en/recital-23-GDPR.htm
- 4 www.privacy-regulation.eu/en/article-28-processor-GDPR.htm
- 5 www.privacy-regulation.eu/en/article-15-right-of-access-by-the-data-subject-GDPR.htm
- 6 www.privacy-regulation.eu/en/article-30-records-of-processing-activities-GDPR.htm

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SALES COACHING: WORTH IT?

BY TOM WOODCOCK

I've been penning articles for this esteemed construction publication for years. My hope has always been that I help the industry move forward in regards to sales dynamics. Now, I speak of what I know best: sales training. Having trained tens of thousands of construction personnel over the years across the country, I've witnessed the value training brings. The companies that invest in training their people in regards to sales have definitive sales performance improvement. Those that don't often make significant mistakes in the sales process. They feel the results of that amateur sales approach in both revenue and profitability numbers. They are either frustrated with their sales team or blame customers and the marketplace for their failure. In reality, without training, what would they expect? Why doesn't the construction industry embrace training their people to sell?

There are several reasons. I'll try to outline the most prominent.

1 Performance Based Selling: Contractors historically have believed that they get the next project based on how well they performed on the last. If we do a good job, the client will use us on the next. This philosophy has long since faded away. Performance is the ante. It's expected by the client. Competitors tout their performance as much as you do. Throw in extensive contract language and litigation methods, and the project owner feels very insulated from poor performance. Sorry, not a sales vehicle in this day and age.

2 Price Selling: Price is the weakest sales methodology. It merely requires a calculator. Estimating to the point you make as little as possible on a project to win it is

a losing business format. The companies that function this way the most are usually the least trained in sales. They put little value on customer relationship and sales work. They also rarely have any sales or marketing strategy. Their close rate is meager.

3 Wrong Personnel Selling: It's rare when I find any contractor with a dedicated business development rep (sales person truth be told). They have estimators or project managers who excel in calculating and math principles, doing their sales work. Really? You're expecting a numbers person to have strong people skills? Owners of construction firms back off the sales effort as they begin to get work. Then they wonder why business tanks six months down the road. Have the right, trained person in place to get work will easily bring a great ROI.

4 Disrespect of Sales Trainers: This one hits close to home. The lack of respect of professionals that train people to sell is pervasive. The concept that they don't understand "your" sales situation is extremely shortsighted. If sales is the most important aspect of your business, and it is, professionals who focus on teaching sales are worth their weight in gold! Find the right one and use them!

Now, being a sales trainer you're probably thinking I'm being a bit of a homer. To be honest, I've actually toned down my perspective. I have worked closely with dozens of companies training their people and retooling their sales efforts. Those that implement the changes see success fairly quickly. The



ones that balk at change usually struggle in the same fashion they currently are. Often they'll increase spending on their marketing, buy a \$1,000 sponsorship at a golf tournament and not show up. They'll attend networking events with no clue how to work the event. Many can't even name their top 10 customers. They've set zero customer targets and hope the bid invites come in the mail. Amazingly, they refuse to train their people because of expense. I've seen marketing spending though the roof with no investment in training personnel to follow up on that marketing. May as well set the money ablaze!

Structuring a sales training program geared toward your personnel and specific trade is a must. Putting the proper sales format in place and diligently working it will produce. Targeting your top end revenue, profitability or both is the root of any training program. Reducing estimating time by raising your close rate allows you to sell more effectively. The process builds upon itself and your greatest challenge will be keeping up with the volume on the performance side of the business. Which hopefully, you've got down pat. I tend to be very selective with which contractors I do training. If you're not willing to incorporate the proper sales practices and implement an accountability plan, I'm not interested. Expecting a sales trainer to wave a magic wand and fix your sales dynamic is a bit pie in the sky. This is especially true when you've neglected doing any training for years. The good news is you can turn around a sales effort fairly quickly if you roll up your sleeves and get after it. The alternative is to continue to find excuses to leave your team untrained in relation

to selling. I hope my contractor clients compete against you if you choose the latter!

When evaluating which trainer to engage, there are some factors to consider. First and foremost, do they know the construction industry with its unique bidding dynamic? This is key as it is one of the areas that causes the highest level of objections in the sales process. A retail or real estate-oriented trainer won't cut it. You also want to consider the style of the presenter. It's called coaching for a reason. Is the presenter energetic? Do they lock in their audience? A lot of good information is wasted if the trainees are bored out of their mind. Finally, can the trainer provide support materials and follow-up opportunity? Having information trainees can refer back to is important. Especially with individuals that are newer to the role of sales. Access to the original trainer themselves is even more advantageous, whether in person or via video link. Most contractors will never hire a sales manager so having a trainer who can regularly address the sales team as well as evaluate performance can be priceless.

The point to take is that the construction industry is a sales industry. No project is ever built or supplied without first being sold. Even with the advent of sales technology, winning a project at a good margin still requires a true sales effort from an individual — especially in an industry that is building people's living, work and entertainment spaces. Such is the construction industry. A solid sales team that is trained and equipped is the most effective way to higher revenue and profitability. Period! ■



HOW PROMOTING EMPLOYEE HAPPINESS BENEFITS EVERYONE

Happy employees positively affect workplace operations. Statistics show that companies that foster employee happiness outperform their competitors by 20 percent. It's no surprise, then, that some companies are taking more active measures to promote positive employee experiences.

In 2015, Airbnb became one of the most notable companies to tackle the topic of employee happiness by hiring someone whose role was specifically dedicated to managing and improving their employee's experiences. At the time, they transitioned their chief human resources officer into their shiny new position, the head of employee experience.

The head of employee experience combines traditional human resources processes and the responsibility of focusing on their new initiative — the “workplace as an experience” vision. Airbnb worked to achieve this vision by creating a group of employees in most offices that worked as a “ground control,” focused on bringing the company's written culture to life.

So why are companies focusing so much on employee happiness and their experience at work? Beyond ranking well in Forbes' Best Places to Work List, there are a number of benefits that outweigh the cost of investing in employee happiness. However, most offices can't afford to hire a head of employee experience. Often, departments delegate responsibilities to a single person or a team of individuals to ensure that tasks don't fall through the cracks. At the end of the day, you want your employees to be both happy and productive. So, what are you doing to promote their happiness?

PRODUCTIVITY, HAPPINESS, AND YOUR BOTTOM LINE

A report titled “The Financial Impact of a Positive Employee Experience” dove into the correlation between financial returns and employee satisfaction in their current role. It was found that companies who ranked in the top 25 percent reported nearly three times the return on assets, and doubled their return on sales. These findings make it clear: Your employee's experience is not just tied to happiness, but also productivity throughout the workplace. You can drastically improve your company's bottom line by increasing your employees' experiences. A happier workforce is a more productive workforce, which in turn creates a more profitable environment.

If you notice that productivity is low and it seems you've done all you can do to promote employee happiness in the workplace, take a look at your hiring practices and see if there needs to be more precision when hiring. Sit down and take the time to assess gaps in your hiring process, and determine ways in which you can improve. Moving forward, this can tremendously impact your employees' future happiness and productivity.

A work-life balance is integral toward fostering a happy workforce. Being able to separate work and personal life provides untethered freedom, allowing employees ample time to unplug and recharge. Finding small, simple ways to promote a healthy work-life balance can help combat burnout and can help your employees feel as though work doesn't permeate every



Incorporate a suggestion box in your organization. Each month, choose one suggestion and utilize this as a way to improve your company, whether big or small. Your employees will not only feel heard and appreciated, but this is also a simple and quick way to increase employee happiness.

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aspect of their lives. When employees aren't having to worry about work outside of the office, it increases their drive. Allowing employees to recharge gives them the opportunity to come in with a fresh attitude instead of being bogged down. Having a clear break between life and work is an easy way to promote happiness.

ENGAGEMENT, HAPPINESS AND A RETAINED WORKFORCE

The average cost-per-hire for companies is \$4,129 per new employee, according to Hire by Google's latest research, and the cost-per-hire of executives is exponentially higher. Recently, the Work Institute looked at trends in employee turnover and predicted that in 2020, 1 out of every 3 workers will leave their current jobs. When it costs nearly a third of an employee's salary each time someone leaves their position, it is critical for companies to find ways to engage and retain their current human capital.

Employees are more likely to stay in an organization that offers them opportunities to develop in their professional careers and create meaningful relationships with their coworkers and supervisors. Developing and enforcing friendships can have a great impact on your organization. Work

friendships help employees to become more engaged and more innovative.

A highly engaged workforce has resoundingly positive effects on your company. Employees will have higher ratings of profitability, productivity and satisfaction in their roles. Additionally, a highly engaged workforce is 59 percent less likely to move onto a new role at a different company. Retaining your top talent will help your bottom line — rather than spending your budget on hiring and onboarding new employees, you can invest in your current workforce at a much more cost-effective rate. Take this cost-savings approach when it comes to factoring in your budget for employee happiness.

ASK YOUR EMPLOYEES FOR SUGGESTIONS

Your employees know what they want out of their employer better than anyone else. Take the time to ask why they enjoy their jobs, and what they would like to see changed. Doing so offers valuable insight that you can't gather anywhere else. The classic "suggestion box" isn't a groundbreaking tactic, but at its core, it opens up the discussions that are necessary to understanding the mindset of your employees.

Offering your employees the support and opportunity to ask questions and suggest improvements in your organization can serve as a big win for your company. This strategy allows your employees to tap into their resources, technical savvy and creative expertise. Their suggestions may highlight things you've missed in your organization, or uncover tools and resources that your employees need to become more productive and successful in their jobs.

By inviting employees' best ideas, you are continuing to foster and promote a more collaborative culture that sparks creativity.

It might be strange to envision happiness as something you can offer to your employees, but by tweaking different aspects in your workplace, you can find ways to both not only improve your organization and benefit employees. It's possible for your employees to be happy and productive in the workplace, and it all starts with active listening and ensuring that your employees feel engaged and valued. ■

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MANAGING INCENTIVES FOR BETTER PERFORMANCE

BY GERALD VOGL, PROJECT DIRECTOR, COGENT ANALYTICS

Incentives are meant to motivate employees and encourage desired behavior. However, implementation is key, and sometimes even the most well-meaning programs struggle.

Here's an example: A construction company that wanted to improve accountability, morale and labor utilization implemented a system of goal setting and created an incentive plan to help achieve those goals.

In an attempt to improve the company's overall performance, management and supervisors worked to make critical changes throughout the organization. Some of these changes included implementing job descriptions, establishing daily standard operating procedures (SOPs), improving motivational leadership skills and creating an incentive plan to help achieve company goals.

From the outset, the foremen received training on how to motivate their crews by establishing daily goals. They participated in morning meetings to determine objectives with their team while also comparing the previous day's performance against company targets. Additionally, upper management worked to improve communications with the foremen while also linking their compensation and the crew's compensation

to the results achieved. With this established, the company would experience higher productivity and increased commitment to achieving company objectives. Moreover, establishing an incentive plan would bring even more benefits and efficiency to the company, or so one might think.

A FLAWED INCENTIVE PLAN BREEDS MEDIOCRITY

- The foremen create an advanced report, providing insight for the following two weeks, which they will present to management. Management and the foremen discuss the report while also making changes and establishing bonus milestone targets. The foremen then use the milestones from the report to create daily and weekly productions goals for the crews.
- The incentive plan funding is determined based on achieving a milestone or completing a project. At the company's discretion, the financing is subject to postponement until the company receives payment for the work completed.
- The foremen hold daily morning meetings, where they provide insight into how the crews are performing against the

Rewards

Just ahead

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overall company vision as well as setting or reconfirming new daily goals.

- Should the forecasted project completion date or milestone accomplished date change, the foremen must notify management, and they must agree to the changes for the incentive to be funded.
- Upon achieving a milestone, the foremen make recommendations to management regarding each crew member's bonus as well as defending their request for a percentage of the pool, which is maxed out at 50 percent. Lastly, the foremen and management review the recommendation together, as the foremen are obliged to defend their recommendation.

This process may seem straightforward and, for the first few months, the company will experience success. Safety, quality, morale and labor utilization all improve, but it won't last. Here's how it is flawed:

- A significant component of the incentive plan involved the foremen receiving up to 50 percent of the incentive pool for a specific job. At the end of a job or identified milestone, the foremen submit a bonus payout recommendation to the owner. For example, higher payouts

for the crew members who demonstrate better performance, and a more significant percentage of the pool, up to 50 percent, for the foreman who is effectively using the incentive plan.

- During management's review of the incentive recommendations with the foremen, they need to hold the foremen accountable for the evaluations of their team members' performance. If they don't, the foremen's recommendations could mean that every crew member receives the same bonus, with the foremen *always* taking 50 percent. It is essential to understand that equally rewarding everyone promotes mediocrity.
- Those that worked harder, smarter and safer received the same bonus as those who only accomplished the minimum. The foremen received their bonus if the crew met the milestones, which were set to be more manageable.

Why would this happen, and how can it be avoided?

There are several common reasons as to why incentive programs become an "across-the-board" raise and are thereby disassociated from the actual performance.

1. Do the foremen associate themselves more with the crew rather than as part of the management team?



2. Is the company culture conflict-adverse?
3. Do the foremen spend most of their day with the crew (including non-working travel time) and so the crew is also considered the foremen's work family?

If any of the answers were yes, then it's easy to understand the emphasis that the foremen placed on getting along with the crew rather than managing the crew's performance. Therefore, the foremen were inclined to avoid any conflict that might have derived from evaluating a crew member's performance. To instill the desire for the foremen to manage productivity, it is crucial that they realize how doing so will benefit them. For example, associating a foreman's bonus to his or her observable performance may accomplish this. It also follows that if the company is experiencing declining productivity while continuing to pay incentives, then there is a flaw in setting the milestones. If the desired levels of productivity, quality and safety are poorly established, then the benchmarks, quality and safety standards are not being set high enough.

Management is promoting mediocrity by mismanaging the payments of incentive-based performance.

If management agrees with this analysis, then they should set more aggressive targets when establishing milestones while also adjusting the foremen's incentive payments based on their performance in motivating the crew. Management must directly associate the bonuses earned with the performance of the foremen. To transform the company, management must educate and set goals that meet the company's objectives and ensure exemplary behaviors are acknowledged, while also addressing lackluster performance.

TRAINING FOREMEN ON CREW EVALUATION

What sort of training would be sufficient to improve the foremen's ability to evaluate their crew members and promote the use of performance evaluations as a motivational tool?

One approach is to create an incentive program that provides a more substantial payment for a crew member who best exemplifies a particular behavior that

the company is looking to improve. For example, perhaps a company is looking to improve safety. Thus, the company would announce to the crews that, for February, the employee across all teams who best exemplifies safe working, and who has done the most to encourage other workers to be safety conscious, would receive a \$300 award (which would be deducted from the existing bonus pool to avoid any increased expense to the company). At the award announcement, specific, observable behaviors are identified. A few examples of these observations might be appropriate clothes for the weather, neatness of the work area, using the right tool in the right way, condition and use of personal safety equipment, actively assisting others to remedy potential hazards, etc. The foremen would be required to select an individual from the crews who will receive the award. This meeting provides an opportunity to coach the foremen on how to evaluate behaviors while also developing a culture where differentiating between, and rewarding, certain behaviors becomes the standard. Individual discussions with the foremen should occur weekly concerning

who on their crew is exemplifying the best practices that the company is looking for, as a team, and discussing potential candidates for the award.

Likewise, a company should also implement an annual review process where the foremen and management are collectively involved in providing performance evaluations for the crew members. This review process should stimulate an environment for coaching the foremen on evaluating performance. While this is a much bigger effort than implementing an employee-of-the-month incentive plan, it will provide significant benefits. ■

Gerald Vogl is a project director with Cogent Analytics, a business management consulting firm. He has helped many businesses in construction and across a variety of sectors achieve sustained profitability by implementing solutions specifically tailored to the situation.

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DEFUNDING FRAUD

Though Uncommon, Fraud Can Be Devastating When it Occurs

BY KATIE KUEHNER-HEBERT

W

hen it comes to employee fraud, contractor Carol Duncan has seen some doozies in her career.

Once during a peer review, Duncan discovered that the financial statements of the other construction firm were not being completed in a timely manner and “excuses were plentiful.”

“There was no cross training and things just didn’t feel right,” she says. “Upon further investigation it was discovered that the accountant was in fact embezzling. As is usually the case this was a trusted employee with a long history — not only with the company — but also with the owner personally.”

Duncan, CEO, General Sheet Metal Works Inc. in Clackamas, Oregon, says that fortunately, she has not encountered any major



fraud incidents at her own firm — though there have been minor experiences such as filling personal vehicles with company gas cards many years ago.

What does Duncan do to minimize employee fraud?

“Simple things — such as the person writing checks does not balance the check book,” she says. “The bank statement comes directly to me for review prior to going to accounting. Also, we cross train in all positions, and we make sure people

are taking a vacation so that others are touching different aspects of the accounting system.”

Fraud committed by individuals employed in the construction industry is prevalent, says Julia Johnson, a certified fraud examiner based in Austin, Texas and a research specialist for the Association of Certified Fraud Examiners (ACFE).

According to the ACFE’s 2018 Report to the Nations survey of anti-fraud professionals on occupational fraud, construction

fraud accounted for 3.3 percent of all reported cases. The average median loss in each construction fraud reported was nearly \$230,000.

“Although the instances of reported frauds are not as high as in other industries, frauds taking place in the construction sector can be especially financially devastating,” Johnson says.

One reason that fraud in the construction industry is a large problem is the high monetary value of the large-scale projects being undertaken, she says. The high number of parties required for one construction project to be completed also opens the door for fraud to occur.

“Individuals employed by the contracting firm or working as subcontractors may collude with other employees in schemes such as bid rigging, overbilling and kickbacks,” Johnson says. “The overall complexity of projects and the level of trust placed on construction employees increase the risk for fraud in this industry.”

One way that contractors can prevent fraud is by conducting due diligence when hiring subcontractors for a construction project, she says. Contractors can also create a code of conduct for their employees that defines fraud, waste and abuse and the related consequences for each.

“Having management review subcontractors’ plans and requiring more than one signature for large purchases related to a construction project may also help to prevent fraud from occurring in the future,” Johnson says.

Employee fraud in the construction sector is extraordinarily prevalent for a number of reasons, says Tiffany R. Couch, founder of Acuity Forensics, a forensic accounting firm based in Vancouver, Washington. Couch is a certified public accountant (CPA), certified in financial forensics (CFF) and a certified fraud examiner (CFE) who conducts fraud investigations on behalf of companies, including construction firms.

“For one, you’ve got the bidding process,” Couch says. “There are numerous schemes that can happen during that process, the most common of which is bid rigging.”

In construction companies, there is also a lot of money running through the accounts, even though not all of the money is actually

the contractor's money, she says. Often, the flow of money or the mismanagement of jobs can lead to theft of those funds. Contractors also have multiple remote jobsites where transactions and delivery of goods and equipment are not as supervised, and thus theft can often occur, unnoticed.

Overbilling schemes are one of the most common construction-related accounting issues that Couch is asked to investigate.

"Typically, we will see a general contractor, or one of the subcontractors, bill for goods or services not actually delivered to the job," she says. "Sometimes, we find bookkeeping errors — costs not properly allocated to a job. In other cases, we've seen such overbillings or alleged 'errors' to be intentional."

Construction companies whose employees get paid based on the profitability of a job or the company as a whole should be mindful of financial statement fraud — i.e. a scheme to make the outcome of the project or company look more profitable than it actually is, Couch says. Creating fake change orders or not appropriately applying costs to jobs can ensure that the CEO or CFO or project managers get raises, bonuses or stock options based on fraudulent accounting.

"Most times the employee committing fraud is the person the company would least suspect," she says. "My clients tell me how wonderful this person is, how loyal he is, the first person to work and the last one to leave. Everyone loves him or her. I hear that story every time. It's always the most trusted person — every time without fail."

What are the key measures contractors should implement to prevent fraud instances in the future?

"Oversight," Couch says. "I liken it to, when the kids are quiet, that's when they are getting into trouble. Companies, like parents, always have to have proactive oversight."

Contractors should get bank statements and cancelled checks mailed to them, so they can see if employees are writing checks to themselves inappropriately, she says. This is better than checking via online banking statements, because it takes a much longer time opening every single one of the online check images, compared to having all of the cancelled checks directly in front of them on their desk.



Although the instances of reported frauds are not as high as in other industries, frauds taking place in the construction sector can be especially financially devastating.

Contractors should also review invoices and ensure goods and services were for the benefit of the actual job, Couch says. Overall, they should ensure that the accounting for the projects and their company as a whole is accurate.

In terms of bill paying, contractors should make sure that the person who is preparing the checks isn't the one signing them or posting the checks, she says. Contractors should segregate these duties amongst all of those functions.

"However, smaller contractors don't always have the wherewithal to have all those steps segregated, so the most effective control is reviewing the cancelled checks," Couch says.

Ross Ginsberg, a partner with Weinberg Wheeler Hudgins Gunn & Dial, says that he advises clients that industry research has indicated that approximately 5 percent of revenue is lost to employee fraud or theft on projects.

There are various categories of employee fraud, Ginsberg says.

"Employees take materials for personal use or may set up fictitious vendors in order to divert money to themselves," he says. "Good inventory controls and appropriate accounting practices are important to preventing these types of fraud. Separating the ordering function from the invoicing function is one of these accounting practices."

Another type of fraud pertains to small tools and equipment, Ginsberg says. Contractors should keep an inventory to keep track of who is 'losing' them, to then

investigate if they are actually bringing them home for personal use.

Another opportunity for fraud pertains to vehicle and equipment maintenance, he says.

"Sometimes employees get their own vehicles and equipment serviced on the company's dime, so companies should also track maintenance expenditures, Ginsberg says. "Employees have also been known to use company gas cards for personal usage off the job."

Overtime abuse is another form of fraud, he says. This involves employees recording overtime hours that they didn't actually work. Contractors should implement overtime and productivity monitoring standards.

Finally, purchasing employees are in position to demand and receive kickbacks from vendors for selecting the vendor, Ginsberg says. A contractor might be paying more for a product than what is normally charged because of the payoff. For that, contractors will want internal controls to ensure those responsible are making use of multiple bids for vendor goods and equipment. "In general, all of these types of fraud can be mitigated through good project management, good accounting practices and by implementing systems of checks and balances," he says.

Judah Lifschitz, principal and co-president, Shapiro, Lifschitz & Schram in Washington, D.C., has been working with the construction industry for more than 30 years and has had a number of incidents where his firm has had to deal with fraud issues.

Lifschitz divides the fraud that his firm has dealt with into two buckets.

"One type of fraud is for someone's personal benefit," he says. "An employee charges for materials on a project that were really used to build an extension on their house. The funds would come from either their employer or the owner of the project, but either way, they are endangering their employer."

The second bucket of fraud occurs when employees defraud an owner of a project, whether as a result of executive direction or "an act of stupidity," Lifschitz says.

"Say hypothetically, a project manager worried about losing his job because the job is not going well, he may then submit fake invoices that make a \$10 change really a \$1,000 change," he says.

In order to reduce the opportunity for fraud, general contractors should review employment practices as well as their auditing and compliance procedures, Lifschitz says. It begins with the hiring process.

"When you're hiring people who have the ability to either spend your money or a project owner's money, action needs to be taken with respect to employee background checks and interviews," he says. "As a first line of defense, hire people who appear to have integrity and who don't have issues in their employment history that may be cause for concern."

Beyond that, employee training is critical. Lifschitz has seen many instances where employees didn't realize that what they are doing is wrong.

"For example, we had a client whose project manager submitted claims on jobs even though they didn't incur the cost," he says. "The employee included line items for the project manager's time, yet the project manager was salaried and therefore should not have been reported as an additional cost to the project. So, employee training is important."

Contractors should have checks and balances for all of their projects, Lifschitz says. They should not have the person in charge of disbursement also be in charge of billing because when one person oversees both, that creates the opportunity for fraudulent activity.

"Also, in most instances, avoid having the person who pays the bills be the same

person who handles deposits at the bank," he says. "Allowing one person to manage both functions, could create a situation where an employee could be stealing from you and you will have no idea."

Lifschitz stresses that while his firm has had to deal with fraud issues within construction client organizations, the number of times that he has confronted fraud is "a handful," relative to the millions of dollars

of construction work in which he has been involved.

"That's an important point: in the course of a normal day, I'm not dealing with fraud, but there are bad apples in every walk of life," Lifschitz says. ■

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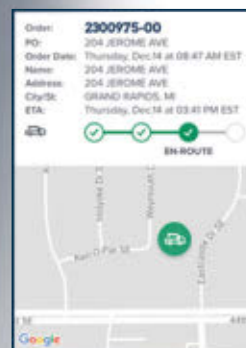
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UNDER ATTACK

Hackers Find Construction Data Attractive Target



BY STEVEN H. MILLER

There is an old adage concerning timely action about the uselessness of locking the stable after the horse is gone. It is, unfortunately, the story of many construction companies confronting the issue of cybersecurity. They never considered themselves a target until it was too late.

Many are surprised by how fast the future has arrived, but it is here now. From payroll and tool-tracking to 3D building models and as-built laser scans, a construction company's network is the conduit for increasing portions of its activities and is hosting an increasing number of outsiders and their devices. That is an attractive target for thieves, especially since the number of vulnerabilities in the network is growing. If the 'stable' in the old adage is your computer network with 250 doors instead of one and strangers going in and out, locking it up is not a simple task. To avoid becoming a victim, cybersecurity must be considered a top issue.

THE THREATS

A construction company's computer network is unlike the networks of many other types of businesses. It's not located in a single building, but often physically dispersed over a number of locations, including jobsite trailers. There are many mobile devices on the network. There are many devices from outside the company coming and going on the network, and bringing with them data in a broad variety of formats. It handles business information, financial information, communications, construction documents, the cameras monitoring the jobsite and laser scanners checking floor flatness. The company's day-to-day operations are deeply dependent on the network and the data to which it gives access.

According to James McGibney, senior director of cyber security and compliance for Bay Area electrical giant Rosendin Electric, construction data can be an especially attractive target for hackers.

"We deal with a lot of hacking attempts that come from China or Russia, and these hackers assume that because we're a large electrical contractor, that we would have the blueprints for the power grid in San Jose (which we don't), for example," McGibney says.

McGibney is a cybersecurity veteran, literally, having entered the field while serving in the U.S. Marines, including a stint at Marine Security Battalion in Quantico, Va.

From a hacker's point of view, the company's own data can be worth stealing, too, such as financials or employees' personal information (think identity theft).

Dan Hoban, strategy officer with Nuspire, a managed security services provider (MSSP) that works with numerous construction industry companies, points out that your data can still be vulnerable even if it truly is of no value to anyone but you. "Ransomware doesn't care," cautions Hoban. "It's trying to infect as many people as possible." If a hacker gains access to your system and locks it down under its control, you can't use your data. Then, its value to you becomes the issue. Companies have paid hundreds of thousands of dollars to get back into their own computer systems.

Hoban notes that, ironically, "a lot of these ransomware companies provide excellent customer service. The last thing they want is for word to get out that 'I paid these guys and they still didn't restore my data.' That ruins their entire business model. So when folks do pay them, they call back to make sure everything worked out accordingly and they're 'satisfied' with the result."

He also reports that, increasingly, there are hackers who simply steal the use of the network itself. "They don't have to steal information, they can steal resources." Hackers can use your network's computing power for activities like bitcoin mining. As the number of bitcoins in the world has grown, the amount of computing necessary to make new bitcoins — called mining — has increased so much that the cost of the electricity can be greater than the value of the bitcoin. Bitcoin mining is much more profitable if you steal the computing resources. The computer's owner is probably unaware of the bitcoin mining activity, but it can slow down a system enormously. "We have found it using up to 60 percent of their bandwidth. So now, connecting back to headquarters and pulling down some of these really big files is taking twice as long."

Hoban points out that, though the threats are varied, they have one thing in common for a construction company. "It's impacting their ability to do the job, to finish the job on time, and that's what matters to construction companies."

THE VULNERABILITIES

"The human element is what I worry about the most," confesses McGibney. "You get an email that appears to come from the CEO, and it says 'Hey, I need you to read this right away, click here.' You click on that link, and up comes a prompt for the username and password, and you're thinking, 'OK, I just need to re-authenticate for whatever reason,' and they put in that password, not knowing that they just gave that to a hacker. Now that a hacker has your user name and password on our network, they can easily see your entire email structure, and now they can start specifically targeting users like executives."

Hackers use human error to gain access to a network:

- By getting someone in the network to reveal their login credentials (username and password). It is often done via email, which might link to an app or website that appears to be legitimate and collects the information.
- By getting someone in the network to download/activate a malicious program that communicates with the hacker. This might happen from opening an attachment to an email, clicking a link in an email or text, downloading an app or other file from the web, or plugging in an infected memory device.

Physical security is also an issue. "If they can get access to your building where you have your servers," McGibney relates, "they can put a pi device on your network, and that device just sits there listening on your network. A hacker can create a clone wireless access point on your network: I see I have an access point, I connect to it, I log in thinking, 'it's in my building so it's got to be one of mine,' and then come to find out a hacker has put it there, and they have been harvesting credentials for the past few months."

Even if your network is secured to stop email phishing and physical hacking, people can bring in trouble from outside. "They have a laptop at work, everything's fine. Then they go home and their child uses it to play games online, and they download something... When they come in the next day with that laptop that is how a lot of companies get breached."

THE REMEDIES

Protecting a network and the data that's on it requires securing it against intrusion, detecting intrusion, and blocking it. Each step involves both technology and live humans.

"There are so many pieces," McGibney says. "You have to worry about the server side, the network, the end user computers, mobile, iPads, iPhones... Think about thermostats in a building, or lighting that is now controlled via software. A hacker can hack into your lighting environment which, for some companies, just happens to be on the same network as your servers." McGibney recommends putting those devices on a separate subnet.

Many of the endpoints have human beings connected to most of them. Securing the human element requires training. McGibney starts when an employee first comes to the company. "Day 1, the very first thing they do is they take a cybersecurity training course. If they are compromised later on down the line, we have them take an advanced cyber security course, more in depth, so they can see the anatomy of what happened when they clicked on that link and put in their credentials. That has helped curtail successful phishing attempts by 65 percent or more."

McGibney even stress-tests the human elements of his network. "We send out simulated phishing campaigns. I'll send one out that will look very realistic. I'll even spoof the Rosendin domain. It'll say, 'Your password is expiring within 24 hours. Click here to change your password now.' We then collect those statistics and we then reach out directly and have them take an advanced refresher course. It's gotten to the point where people won't click on anything — even legitimate emails that come in."

There are also a range of options to harden the network technologically, which will almost inevitably mean turning to third-party vendors. Security is all about limiting access. Networks are designed to enable access and generally include only the most basic functionality for limiting it. To detect and prevent today's cyber threats requires software and/or hardware add-ons and active human scrutiny.

BUILDING THE SECURITY SYSTEM

Should a construction company bring that expertise in-house? McGibney and Hoban both recommend having at least one staff IT/cybersecurity professional if a company is big enough to afford it. That



A construction company's computer network is unlike the networks of many other types of businesses. It's not located in a single building, but often physically dispersed over a number of locations, including jobsite trailers.

person will take the lead in creating and maintaining a security culture within the company, will be able to determine the security requirements, will identify and vet third-party vendors and will be the onsite resource to respond to any threats or breaches that are detected.

McGibney, who provides that in-house expertise at Rosendin Electric, says that the next step is to buy more expertise from third-party vendors, starting with a security audit of the company. "You might even do that before you hire that security person in-house," he suggests. "Then you'll have a list of everything that is wrong. When you're bringing that security person on-board, as part of their interview process, see what they find and compare."

Once you have found out "where the holes are," as McGibney puts it, you can look for security providers who can solve those issues. This could include software and hardware that screens email and downloads, watches all the traffic on your network and looks for unusual or suspicious activity. The software might learn the network habits of individuals in the company so it can detect anomalies. Human monitoring and human intervention to block attacks may also be valuable.

These types of protection are available in pieces or in packages. A company with an in-house security professional might have the expertise to shop around and put together effective protection from multiple providers. The other option is to buy a complete solution from a single MSSP, an especially attractive route for a construction company that is too small to have its own security team.

"We take the responsibility for managing and monitoring the security of our customers' networks," says Hoban. "Some folks use us just for monitoring and security expertise, some also have us deploy some of our own technology that will do the blocking. It goes beyond just providing technology and software, to having experts that are watching over customer networks, doing investigations, and responding to threats. We're monitoring all of the events that happen on that network."

HIRING HELP

Selecting the right third-party help is a job in itself, one that a security director or chief information security officer (CISO) is in a better position to tackle.

McGibney strongly recommends asking for customer references. "That's what Rosendin did. We went for the bigger players in the space, but even then, we asked for customer references. We reached out to those customers, and then to customers of those customers (they didn't know we were going to do that) just to see the trials and tribulations that they had. A sales guy will promise

you the moon, but he's not going to tell you the bad things. When we migrated to the cloud, I assure you that Microsoft never told us, 'Oh by the way, get ready for your phishing campaigns to quadruple.' You have to know in advance what you're getting into."

He also admits that nothing is bulletproof. "We block millions of phishing attempts that come in on a monthly basis, but you can't block every single one. In my opinion, hackers are some of the smartest people in the world, and if they want in, they'll try and figure out the best way to do so."

Security is a moving target, and a company that does not stay focused on it is more likely to become a victim. ■

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DRESSED *for* SUCCESS

Workers on Jobsites are Enjoying Greater Comfort Thanks to Technological Advances in Workwear Materials

BY AMY DREW THOMPSON

N

o suits or ties. No hose or heels.

Working construction frees its employees not merely from the fashion-based trappings of the cube farm, but the cube farm itself. Sunshine and fresh air abound. Along with the satisfaction of seeing your progress, day-in and day-out. Then, one day, there's a bridge you can cross, a hospital or school you can point at and think — I was a part of this important thing that serves our community.

Of course, it's not always sunny. Sometimes it's wet and cold. Other days, the sun and heat are oppressive. And depending on the job du jour the air could be hazardous.

And so — workwear.

It keeps the folks on the job safe. Helmets to prevent head injury. Gloves to prevent hand injury. Vests and boots and goggles, oh my.

And in the years since the very first hard hat — it was at first called a “hard-boiled” hat due to the steaming process used to make it in 1919 — great gains in its design and the materials used to make it have been made.

THE FABRIC — FOR THE FOLKS WHO BUILD SOCIETY'S FABRIC

Construction professionals, says Brian Ciciora, “are our country's industrial athletes.”

Ciciora, founder and president of Truwerk, a growing workwear brand based in Denver, says the company attacks its “mission to promote, protect and empower the workers we believe keep society functioning” not only by engineering technically advanced products, but

by giving its customers a voice through the Truwerk brand platform.

Ciciora compares the construction market to that of high-performance sports like rock climbing, or that for military wear.

"Construction is physically demanding and environmentally diverse," he explains. "Technical performance workwear should be required on all jobsites. Features like four-way stretch, waterproof breathable membranes, high-air permeability and UPF sun-protection should be standard. When workwear enhances mobility, regulates heat on cold days, helps with cooling on hot days and protects skin from harmful UV rays, you're helping to fight some of the most prevalent health and safety issues facing the construction industry, where there is no better investment than taking care of people."

Truwerk's customer environments are as diverse as the workers themselves — dry Arizona heat, cold Midwestern winters, even those who are in and out of their clients' homes. For the latter, an everyday workwear is ideal.

The right materials can help mitigate body heat or conserve it, depending on the environment in which an individual is working. Sunscreen, of course, is optimal — no matter the temperature. In freezing temps — especially at higher altitudes — the sun can and does burn.

"Skanska encourages employees to wear SPF 50 or higher to protect their bodies from UV radiation," says Elizabeth Locke, the company's communication manager Central/Southwest. "Light, long sleeves are suggested for wear to block sunlight. Skanska provides cooling rags or high vis moisture-wicking t-shirts, as well as dark sunglasses, for employees."

In cooler climates, the company recommends wool gloves, socks, shirts and coats.

"Wool is an insulating fiber," says Locke, "and best of all it continues to provide insulation even when wet. Employees are encouraged to cover their head, face and neck as much as possible without interfering with vision."

HANDS-ON

Construction is.

The desk bound worry about repetitive stress injuries — carpal tunnel syndrome in

the hands, perhaps. Those on a jobsite might worry about getting a nail through one.

Folks like Dan Duffey and his cohorts at Superior Glove are in the business of protecting from such punctures, among other things. And they've been in said business since 1910.

Duffey, western regional manager for the United States (Superior Glove is headquartered in Acton, Canada), sees his colleagues working with companies around the world, sharing information with their safety teams to help reduce hand and arm injuries.

OSHA stats from 2018 note that more than one million workers head to the ER annually due to serious hand injuries. This isn't isolated to construction, of course, but thinking in terms of lacerations, burns and broken bones, costs to the worker (medical bills) and employer (lost time and productivity) are vast.

Construction, oil and gas and manufacturing are among the biggest industries with which they work. Products include general work gloves, heat-resistant gloves, welding products, cut-resistant products and yes — even gloves that can prevent traumatic puncture.

"We recently developed a ballistic, armor-plating type of product to prevent nail guns from firing into people's fingers. We have a whole team that works on new products, many of which are developed at the request of our end-users."

When the company was founded, it sold five products. Today, they have more than 3,500.

"Everybody's looking for better protection and workwear that's comfortable," says Duffey. "And also, something that looks cooler than what they might currently be using. Nowadays, people want to look good — even in their work environment."

Companies ask for A2 protection — very light — and on up to A4 and A5, says Duffey. "But to stay ahead of the game, our research partners have already come up with some of the highest protection levels out there, A9 cut-resistant, for example, but they're still very comfortable to wear."

And as women have made their way into the hands-on construction workforce, companies like Superior Glove have had to adapt to the unique sizes they bring with them.

"Gloves that are too large aren't just difficult to work with," says Duffey, "they're unsafe." Tight-fitting gloves are essential. "You can't



PHOTO COURTESY OF SKANSKA

have that slack in there; it can get caught up in machinery or get stuck on something."

WEAR THAT WORKS FOR WOMEN

These are principles that run the gamut now that women are hard at work on jobsites too. And tailor-made personal protective equipment (PPE) for its female workforce isn't just about ensuring their safety, says Locke — though that does come first — it's about providing an inclusive environment that promotes women's wellbeing and success.

"This includes gloves and two vests that are custom-built based on the feedback from our own female employees."

The main differences in the latter, she notes, are in the tapering.

"The new vests are what our women in the field want and need," she says. "This includes a large, interior front pocket for storage of pens and field books and microphone straps. One vest is tapered similar to current vests, while the other is not tapered and has an adjustable elastic band that allows the wearer to tighten the vest around the waist."

Both are adjusted along the length of the back and sides to improve fit. Duffey's glove observations go double for vests.

"Long and baggy vests are more likely to catch or snag on handrails, doors and equipment," says Locke.

No matter a worker's gender, Ciciora notes that durability should be a given when it comes to workwear. Plumbers, carpenters, contractors — all have a diverse representation. The common denominator, he says, is comfort.

"When you're on the jobsite all day, you want to be as comfortable as possible, so your clothes should be the last thing you're worried about." ■

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Pain Relief

Opioids Should Not Be the First Tool When Addressing Pain and Discomfort

BY KRIS CORBETT, ATLAS INJURY PREVENTION SOLUTIONS

The odds of dying from an opioid overdose is greater than the odds of dying in a car crash.

That sobering news comes from the National Safety Council (NSC), which reported in January 2019 that for the first time on record, unintentional opioid overdose are 1 in 96, whereas the odds of dying in a motor vehicle-related crash are 1 in 103.

This news underscores the epidemic level that has become the opioid overdose crisis in the United States. In fact, drug poisoning now is the No. 1 cause of unintentional death, according to the NSC. "Every day, more than 100 people die from opioid drugs — 37,814 people every year — and many of these overdoses are from prescription opioid medicine," the NSC report states.

Efforts to limit prescribing and educate patients about the potential dangers of opioids may help. But they don't address the root cause at the heart of the problem, which is that too many Americans experience pain in the first place.

It's a sizable oversight. More than 30 percent of Americans have some form of acute or chronic pain. Among older adults, the prevalence of chronic pain is more than 40 percent. And while many factors have contributed to the opioid crisis, the role of workplace musculoskeletal injuries has been overlooked. The correlation between industries with high workplace injury rates and deaths from opioid overdoses is overwhelmingly supported.

WHERE IT BEGINS

Opioid abuse starts with pain. Unfortunately, nearly any job in any industry can be the source of discomfort or pain for workers. A warehouse worker gets caught between two pallets, a technician walks across the halls and slips on a wet surface, a construction worker bends over and his or her back seizes up. Work-related injuries are among the most common

reasons for chronic pain. And pain can come from accidents, ergonomic inefficiencies and overexertion.

The most common treatment for pain: opioids. Yet because of the addictive nature of the drugs, they can be a danger to both the injured workers and the workplace, particularly if the worker is operating any equipment or machinery.

Yet there's another way: Stopping the demand for opioids starts with preventing the need for them. That means preventing pain before it starts and preventing workers from being hurt on the job.

GETTING AHEAD OF INJURY

Companies are beginning to look at investing in ergonomics program, training, and at providing a resource that assists with early onset of musculoskeletal issues through early intervention. By establishing a system by which employees can report discomfort or potential signs of pain, such discomfort can be treated with first aid before the discomfort potentially develops into a recordable claim.

Early intervention programs emphasize the early reporting of soreness, discomfort and pain prior to a major dysfunction or documented injury. Quite simply, the strategy addresses an ache before it becomes a pain and a stress before it becomes a strain. Programs operate under the umbrella of "evaluation and first aid" as defined by the Department of Labor, Occupational Safety & Health Administration (OSHA), versus addressing the risk through traditional physician consultation. These programs are typically staffed by licensed physical therapists or certified athletic trainers.

First-aid care of musculoskeletal discomfort defined by OSHA includes ice or heat, over-the-counter anti-inflammatories, elastic tape or non-rigid splinting, postural balance stretching and massage. And for



By establishing a system by which employees can report discomfort or potential signs of pain, such discomfort can be treated with first aid before the discomfort potentially develops into a recordable claim.

nearly 95 percent of all reports of discomfort, these types of early intervention can effectively address the pain.

However, addressing symptoms alone may fail to address why the discomfort occurred in the first place. Having an early intervention resource that works to review work methods, identify the root cause of the discomfort, and provide the employer ergonomic guidance or the employee coaching on how to avoid further injury can help stop the cycle of pain — ultimately reducing the need for the opioids in the first place.

Addressing the opioid crisis by focusing on early intervention means changing the current methods of workplace healthcare practices. Reactive care and easy-to-employ remedies such as pills to reduce discomfort and pain will not keep injured workers healthy. Companies should consider changing current prescription practices and implementing an early intervention program that's safe and effective at reducing both injury and harm to the worker. ■

Readers can contact Kris Corbett, Atlas Injury Prevention Solutions, via email at kcorbetter@atlas-ips.com or phone at 616-607-6869. For additional information, visit www.atlas-ips.com.



PHOTOIR/SHUTTERSTOCK.COM

WHAT TO DO TO AVOID THE 5 BIGGEST MISTAKES THAT LEAVE YOU STUCK IN YOUR CAREER

BY DEBBIE PETERSON, BUSINESS KEYNOTE SPEAKER, CAREER GROWTH



MICHAEL D BROWN/SHUTTERSTOCK.COM

F **Feeling stuck in** your career or business is the worst kind of feeling. You don't feel like you're contributing at the level you should, and maybe you don't look forward to your work. Soon stress starts to play a very prominent role in your life every day. It's not like it happens overnight, or you wake up one day, deciding to be unfulfilled. It's a consistent erosion of your joy until the thought of doing anything is just too much effort. There are, however, choices that we make, maybe even without knowing it, that move us away from having a career or business that we enjoy and feel like we are

living up to our potential. Here are the top five mistakes that lead you quickly towards being stuck in your career and what to do about them.

YOU'RE NOT AUTHENTIC

Essentially, you are not being you. It sounds simplistic, but it's easy to be swayed by other people's opinions of us and what we should do in our career. We get persuaded by people who don't have good intentions, and also those who have the best in mind for us, like a well-meaning friend or family member. So, what should you do? First, get clear as you can about what you want for your career.



Your brain is wired to focus on and find what you are looking for, but we are responsible for giving our brain good instructions.

Get curious about what may be next or what interests you. If it excites you, then pursue it. Take a few steps to see what happens and then take a few more after that. You'll know if it's not a fit for you because it will turn you off. Second, get clear on why you want this, or why it's important to you. Identify what will it allow you to do as a result or become as a person. If that amplifies your feeling of excitement and you feel motivated, then you know you are on the right track. Keeping moving in this direction and create a barometer for decision making.

YOU LACK SELF-AWARENESS

If you do what you've always done, then you get what you've always gotten. Your success in career and business is predicated on developing or advancing in your profession. We all get into routines. It's the way our brains work. What we repeatedly do, whether it supports us or not, becomes a habit. What you need to look at are the habits that are undermining you professionally. Are you aware of how others perceive you at work? To create self-awareness, you have to be willing to take feedback and utilize it to improve. When you can look at your work and efforts with an unfiltered view, you can more easily see when your negative thinking and emotions are derailing you and focus instead on the logical steps that need to be taken to move forward. This can be tough to implement but will help you to build confidence as you move forward.

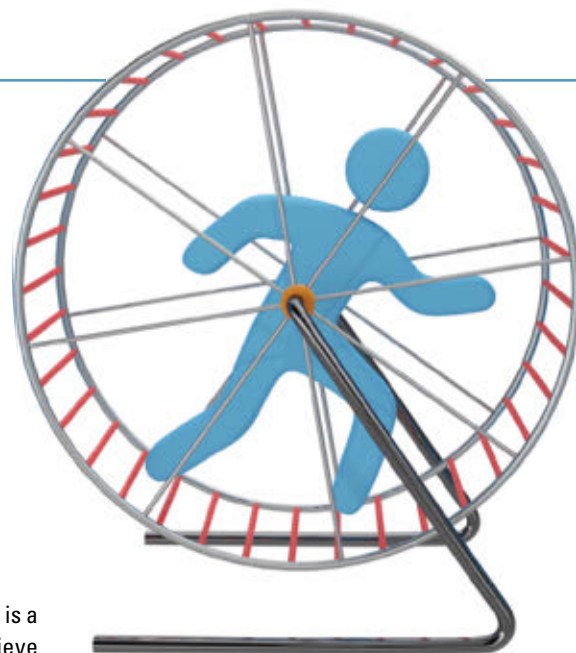
YOU DON'T HAVE A GOAL

Your brain is wired to focus on and find what you are looking for, but we are responsible for giving our brain good instructions. That happens with the thoughts we think

and the words we speak. Having a plan is a road map for your mind to help you achieve what is next for you in your career, but how can you achieve it if you don't even know what "it" is? If you have a plan, you'll know. Here are some questions to guide you. What do you want? How will you know when you achieve it? What does that end result look like? Can you break it down into measurable action steps? Meaning, you can say yes, I took that step, or no, I didn't? Your goal needs to guide you so that you are doing what you need to achieve it every day, week, month, quarter, or year. It's a system for success.

YOU HAVE NO SUPPORT

Figuring out what is next for you in your career, brainstorming how to get there, as well as the help you need to achieve it, happens with people. It is a deal-breaker to think that you will get to where you want to go all by yourself. Who are the people that you see that have the career or business that you want? How can you connect with them and get their advice or guidance? Who are the people that are working towards what you want? Maybe not in the same department or company, but the same industry? Who are the people that you know that get you and have your back personally or professionally? Who motivates you on the days where things don't go quite as planned. The speaking business is a very isolating business, even though we get on stage at conferences and speak and connect with hundreds or thousands of people at a time. If it weren't for the people in my personal and professional life, I wouldn't have my business. They give me feedback, ideas, love, hugs, cheers, and understanding. If you don't have that, then



you need to find it pronto. Your career or business is as good as the people with which you surround yourself.

FEAR IS HOLDING YOU BACK

There is a quote that I love that says, "Doubt kills more dreams than failure ever could." Even though technically, Fear and Doubt are different, they swim in the same pool, and many times your fear of change or the unknown can cause you to doubt yourself and your abilities. Mainly, your belief system about yourself and what you want for your career isn't supporting you. If I asked you what gets in the way of you taking action towards what you want, how would you answer? Those are the things that you need to focus on. What beliefs do you need to challenge? You know where you need to stop thinking and start doing and it's a matter of what you decide. Real fear is meant to inspire you to take action; what it takes to be safe. Your fear isn't keeping you safe; it's keeping you stuck.

Consider which one of these mistakes that might be holding you back and what you'll do differently going forward. I wish you the clarity of direction to have the career you deserve. ■

Debbie Peterson is a Business Keynote Speaker helping women and emerging leaders in financial services to get clarity on the direction of their career within their organizations. She provides programming that helps them to identify, reach for, and realize their career potential. Visit www.debbiepetersonspeaks.com.





INCREASING PROFITABILITY

THROUGH DRIVER ACCOUNTABILITY

BY BEN VANAVERY, DIRECTOR OF SALES AND MARKETING, ADVANCED TRACKING TECHNOLOGIES



For any company with a fleet of light- or medium-duty vehicles, increasing profitability often comes down to fostering an environment of greater employee accountability.

The concept of accountability is defined as “the obligation of an individual to account for his/her activities, accept responsibility for them and to disclose the results in a transparent manner.” Implied in this definition is the ability to verify tasks are completed as expected, on time, efficiently and per company policy. For fleet managers, this can be accomplished through real-time GPS tracking devices on all vehicles.

But accountability is not about discovering what a driver is doing wrong; it is actually more about what the driver is doing right. Even well-intentioned drivers may discover that there are areas of improvement and efficiencies that could make them more productive.

So, with a host of benefits for the employee, fleet managers who have avoided the leap to GPS tracking are missing out on a win-win scenario. After all, more accountable drivers lead to greater efficiency overall, which means increased profits. It's an argument that is hard to deny, particularly as GPS tracking continues to improve while the cost of entry plummets.

HOLDING DRIVERS TO A HIGHER STANDARD

Although GPS trackers have been around for some time, advances in the technology allows for more real-time tracking and simplified reporting. This means assigning the closest vehicle to a job, which expedites delivery and saves gas, labor and vehicle wear-and-tear. It also allows historical routing analysis, which enables even greater routing efficiencies to be determined.

However, the greatest improvements in fleet management occur when GPS tracking devices are used to hold drivers to a clear, unbiased standard to encourage better performance for the company and themselves.

Advanced GPS tracking devices provide real-time location updates every 10 seconds, as well as location, speed and idle time alerts if something is amiss. The data is transmitted via satellite and cellular networks to a smartphone or PC on a 24/7 basis.

Now fleet managers know exactly where their vehicles and drivers are in real time. They can spot check their drivers to make sure they are where they are supposed to be and not at unauthorized places. The system pays for itself in enhanced productivity.

On the plus side for employees, the use of such GPS tracking systems helps verify on-time arrival at job-sites. And automated reporting such as that provided by an advanced system can virtually eliminate the reporting burden for employee and employer in regard to driving logs. Automated exception reporting can also flag potential issues that need to be corrected, such as excess vehicle mileage or idling.

Drivers and the work crew know they are accountable for their actions. Using such an approach with advanced GPS tracking commonly improves productivity 10-20 percent while reducing fuel costs 10-15 percent, as drivers start to pay attention to their driving and work habits throughout the day.

The GPS tracking system puts vehicles on a map, so managers can see all of them at once. The view can be narrowed to any department or geographic area, as desired. It is so accurate that it lets managers see exactly where a vehicle is parked.

With the GPS system, managers are able to notice and point out that even five- to 10-minute stops between jobs each day adds up to a lot of lost productivity. Drivers get quite used to the system and even appreciate it when it proves that they are getting to and doing their jobs as required. ■

Ben VanAvery is director of sales and marketing, a 12-year professional at Advanced Tracking Technologies (www.advantrack.com), a Houston, Texas-based designer and manufacturer of GPS tracking products.



PRIORITIZING WORKER WELLNESS: COMBINING EDUCATION & TECH FOR INJURY PREVENTION

BY MICHAEL BLOOM, DIRECTOR,
PRODUCT MANAGEMENT,
CONSTRUCTION AND ANALYTICS,
TELETRAC NAVMAN

According to OSHA, more than 10 percent of workers in concrete manufacturing experience a job-related injury or illness every year. The construction industry overall is dangerous, and the aggregates, cement and concrete sectors each offer their own individual challenges.

Worker safety and wellness needs to be every company's top priority and must be addressed through jobsite safety precautions that tackle many of the top culprits: falls, struck by object, electrocution and caught-in/between. However, many of the basic daily tasks

performed on job sites, when done improperly, can also cause serious injury.

For workers, performing basic job functions and daily motions incorrectly — walking, standing, or lifting — can result in a serious or even life-threatening injury. Those working with cement and concrete, for example, are working with heavy tools and bags of cement, making correct lifting techniques even more important.

The perception of construction as a dangerous job is likely one of the reasons the sector is in a talent crisis. To protect existing workers, attract new ones into the field and protect themselves legally, construction businesses

need to put a public and explicit focus on safety. A dedicated wellness program, with an emphasis on physiologically-informed safety knowledge, is a smart effort for any construction organization. It helps with injury prevention and differentiating that company as an attractive employer. Here are the key elements a construction wellness program should include.

ANATOMY EDUCATION & PRACTICING THE RIGHT POSTURES

It's not a mystery why most construction workers have bad backs. The job is physical. But this issue is avoidable. Many workers either think "I know how to walk and carry — I've done it my whole life." Or they just started picking up tips by observing when they started in construction. But how many have actual training on anatomy?

Offering anatomy education — combined with physical practice of the right posture for tackling different parts of the job — is the cornerstone of a wellness program. It should be part of any new employee onboarding and offered regularly to retrain existing workers on best practices.

A key point to teach is proper lifting techniques to avoid compressing the spine or straining the lower back. Those manually mixing cement should keep good posture and slowly lift with the hips and knees, not the back. Another mindful lifting, climbing and walking — information on which muscles protect your back and techniques to appropriately safeguard it, such as ensuring three points of contact (two feet and a hand, or vice versa) when climbing into equipment.

Unless people have in-depth understanding of all this, they'll likely use their muscles wrong and injure themselves. And it's not just the informational education that's needed. Companies need to incorporate practice of these motions in a



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USING THE CORRECT TOOLS & EQUIPMENT

The construction industry requires use of the correct tools and equipment to ensure worker safety. Companies must ensure compliance with all regulations, especially hard-hat use and OSHA's crystalline silica standard.

According to OSHA, two million construction workers are exposed to respirable crystalline silica in over 600,000 workplaces, which can cause silicosis, lung cancer or other debilitating diseases with years of exposure. The standard requires employers to limit exposure and protect workers, including training employees on the health effects and ways to limit exposure, like using water to control dust.

During the installation, workers must wear protective boots if they're standing in concrete and gloves if they're handling and mixing bags of cement. Wearing shirts, for example, can prevent burning caused by flagstone. Companies must also ensure workers wear the proper equipment with

demoing concrete, like protective masks and eyewear.

FATIGUE AWARENESS & COMPLIANCE WITH BREAK TIME

Handling heavy equipment for long periods of time is not only physically demanding. It leads to mental fatigue too.

Companies need to educate workers on how to recognize signs of physical and mental fatigue: body temperature fluctuations, increased heart rate, lightheadedness, forgetfulness, inability to focus. These indicators of both physical and mental fatigue are often a precursor to the mistakes that often lead to a more serious injury and even fatality.

In addition to training on the signs of fatigue, ensuring worker compliance with breaks is critical. That may even mean putting a manager in charge of walking around and physically telling people to stop working if they aren't already doing so at the appropriate times.

Rest and relief time are central to overall wellness, and that requires a top-down commitment to prioritizing the time where workers can unwind physically and mentally.

INTEGRATING SAFETY TECHNOLOGY

Physiologically-informed knowledge is the basis for safety and wellness, but technology can be a big aid as well. Wearables are used in many wellness programs, often to keep desk workers active throughout the day, but can monitor vital signs for construction workers who perform physical labor in natural elements and intense weather.

Many organizations are also using GPS technology and geofencing to track safety hazards such as speeding (a major cause of "struck by" incidents) or equipment operating outside of its approved zone. They're also using technology to manage maintenance and inspection schedules and daily reports to ensure there are no outstanding repairs or dangerous equipment on site. Telematics can also ensure employers know where their assets are at all times, which is especially important for use of concrete mixers as workers often work in close proximity.

Monitoring the safe movement and operation of assets is critical, and that can't always be achieved on the construction site where it's hard to see everything going on. This is why technology that provides in-office management visibility and alerts to hazards has become so popular. Integrating it into a safety program greatly strengthens a company's safety results.

In the mix of everything that needs to be addressed, worker wellness often falls to the wayside. I've observed many companies who don't invest in physiology training and awareness at all, which undoubtedly leads to long-term damage and worker injury.

As an employer, not only is focusing on safety via worker wellness and supporting technology the right thing to do, it will also help prevent on-site mistakes and injuries, boost your reputation as an employer amid this talent shortage and create a more productive workforce that keeps projects on-track and completed with the highest standards of quality. ■

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