



CHIEF ENGINEER™

OCTOBER 2023

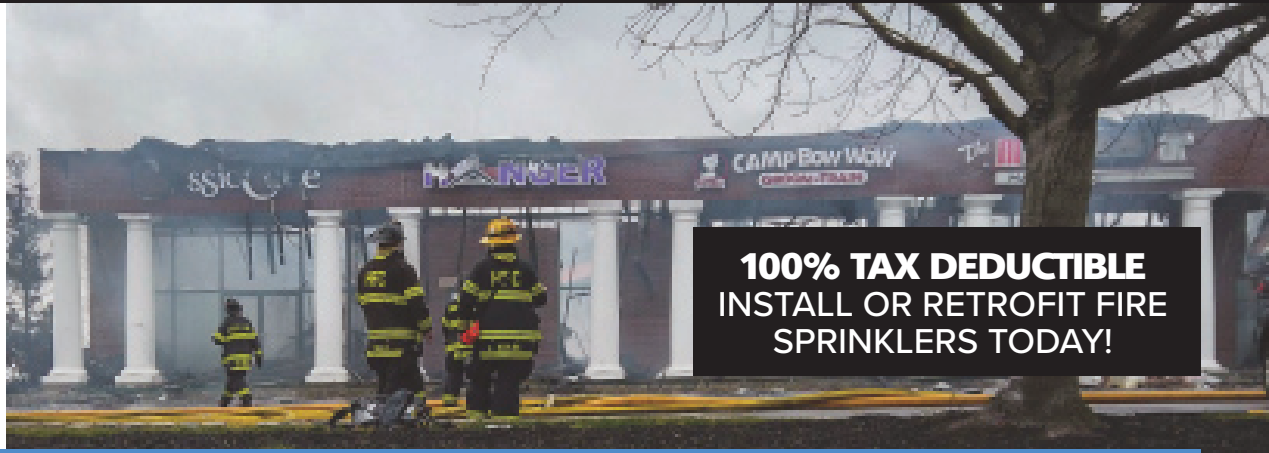
THIS MONTH'S ISSUE

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CARES ACT

The Coronavirus Aid, Relief, and Economic Security (CARES) Act closed a loophole that was included in the TCJA by making QIP 15-year property. This change made businesses of all sizes, regardless of the amounts spent on equipment, eligible to deduct the full cost of commercial fire sprinkler systems using bonus depreciation.

The time is now to upgrade your building's fire safety with a fire sprinkler system or a sprinkler retrofit. Under the new Section 179 guidelines, the one year deduction period phases out after 2022. Any new sprinkler system or retrofit completed between September 27, 2017 and December 31, 2022 will be able to be fully expensed in one year. After 2022, the allowed deduction percentage is as follows:

2021: 100%	2023: 80%	2025: 40%
2022: 100%	2024: 60%	2026: 20%

2027 and after: The depreciation schedule becomes permanently set at 15 years.

WHAT IS QIP?

The Tax Cuts and Jobs Act (TCJA), passed in December, 2017, gave small businesses the ability to deduct the full cost of Qualified Improvement Property (QIP) up to \$1.04 million in the year of installation using Section 179.

QIP is defined as improvements to the interior of an existing building that is not residential property. Commercial fire sprinkler systems, including upgrades of existing systems or retrofitting in existing structures, are considered QIP.

The Section 179 deduction is not phased out over time. However, there is a phase out of the amount allowed as a deduction based on a maximum spending amount of \$2.59 million on equipment in a year. Businesses that spend over that amount will see a dollar for dollar reduction of their eligible deduction. So a business that spends \$3.63 million or more on equipment in a given year would not be allowed any Section 179 Deduction.

WHAT HAS CHANGED?

Prior to the TCJA allowing Section 179 on qualified improvement property, including sprinkler systems, property of this type was only allowed a deduction on a straight line basis over a period of 39 years. In other words, a company spending \$390,000 on a commercial sprinkler system prior to the TCJA would only deduct \$10,000 per year for 39 years.

While many believe that the intention of Congress was to make Qualified Improvement Property 15-year property, which would have made this property eligible for bonus depreciation, the TCJA left the life of this property at 39 years. So, a taxpayer who did not elect to use the Section 179 Deduction or who has that deduction phased out would have been left to depreciate the remaining balance of the assets over a 39-year period.

Neither of these deductions is currently available for fire sprinkler systems installed in residential high rises. The National Fire Sprinkler Association (NFSA) continues to fight to obtain incentives for residential structures.

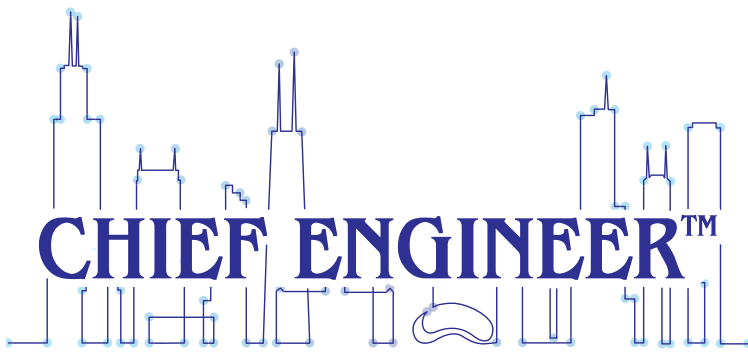
For more information on how these tax incentives might impact the business of your contractors, we would recommend that they contact their tax professionals, as situations differ based on the facts and circumstances for each business. As a general rule, we would not recommend that the Local provide tax advice to the contractors.



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Business and Editorial Office

22 W. Washington St., Suite 15112

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Phone: (708) 293-1705

E-mail: info@chiefengineer.org

www.chiefengineer.org

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Publisher

Tom Phillips

Editor in Chief

Karl J. Paloucek

Graphic Designer

Kate Slocum

Printing

Mike Lewis, D & L Printing

Accounting/Billing

Leslie Johnson

Publishing Committee:

Mike Collins – Chair

Ralph White – Co-Chair

Pat Biesty

Dan Carey

Brock Sharapata

Patrick Wawrzyniak

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CBRE’s Mike Kenzinger weighs in on negotiating when to repair or replace big-ticket items in your facility.

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20 A Natural Tendency: Meet a Chief Engineer Who Is Drawn to Taking on It All

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Dear Members,

Another Annual Golf Outing has come and gone. It's the biggest event the Chief Engineers hold every year, and I can't imagine a better way to start out the year than being out at Cog Hill with all of our fellow Chiefs. It's a huge undertaking that requires a lot of legwork by a lot of people, so I would like to single out a few for recognition – in particular, Kevin Kenzinger and Brandon Winters for taking on much of the heavy lifting of organizing the event and making sure it all comes together year after year. These two have been at the heart of this magnificent event for many years now, and I would like them to know that, on behalf of all the members of the Chief Engineers, we're grateful for their diligence and hard work every year. I'd also like to thank Alex Boerner for agreeing to come to work for us again for this event, bringing her organizational and other skills to bear on our behalf. You three are the best.



With another Golf Outing behind us, our next meeting is, of course, the annual Oktoberfest event. This year, we'll be meeting at Bridge 410 (Bridge 410, 410 N. Paulina St., Chicago) on Wednesday, Oct. 18, from 5:00pm to 8:00pm. The Oktoberfest meeting brings with it a special mood that the Germans like to call Gemütlichkeit. In addition to plenty of beer and wine, there will be a sumptuous Bavarian-style dinner and great company. Registration is open now, so please don't hesitate to reserve your place for this annual tradition.

As a point of order, I would like to remind all of our Active Members that your presence is requested at the November meeting so that we can get a proper vote on the next slate of incoming officers. We would appreciate your cooperation, and I personally would like to thank you for allowing me to be your president these past two years. More on that in this space in the near future.

By now, most of you should be preparing your boilers for the upcoming colder weather, making sure they're clean and ready for winter. We may not always get the cold temperatures or heavy snow that we're often told to expect, but it's best to be prepared. And if your boilers need any outside servicing for maintenance or repair, remember to reach out to our Associate Members for help. Let's support the people who have supported us so well.

Once again, let's keep in mind all of those serving in our military and as first responders in our communities for their sacrifices on our behalf. We owe them our gratitude.

I look forward to seeing you at our Oktoberfest meeting!

Sincerely,



Ken Botta



CHICAGO

2024 WINTER CONFERENCE AND AHR EXPO

Register Now for 2024 ASHRAE Winter Conference in Chicago

Registration is now open for the 2024 ASHRAE Winter Conference, to be held from January 20-24, 2024, in Chicago. The conference will provide attendees with the opportunity to learn about the latest technology in the built environment, as well as network with other professionals in the industry.

In addition to the conference, registration also includes entry to the co-sponsored AHR Expo, which will be held from Jan. 22-24, 2024, at McCormick Place. The AHR Expo is the world's largest HVAC&R marketplace, featuring over 2,000 exhibitors and attracting more than 60,000 attendees from around the world.

"We are thrilled to host the 2024 ASHRAE Winter Conference and AHR Expo in Chicago," said 2023-24 ASHRAE President Ginger Scoggins, P.E., Fellow ASHRAE. "Chicago, with its rich history and vibrant communities, is the ideal location for these cornerstone events to the built environment industry. The Winter Conference and Expo provide a great opportunity for experts, innovators and professionals from around the world to explore new concepts and trends, exchange knowledge and continue our mission of shaping a sustainable future for all."

The ASHRAE Winter Conference technical program will feature more than 80 technical sessions. Tracks include:

- HVAC&R Systems and Equipment
- Refrigerants and Refrigeration
- Decarbonization and Climate Change
- Hydronic Systems
- Ventilation, Indoor Air Quality, and Air Distribution Systems
- Comfort, Indoor Environmental Quality and Energy Efficiency

- HVACR Controls
- Labs, Clean Spaces, and Mission Critical Facilities
- Tall Building Design

Attendees will also have the opportunity to earn professional development hours (PDHs) and continuing education units (CEUs) for attending technical sessions. The full technical program will be available later this year.

In addition to offering a number of social events, recognitions and networking opportunities, ASHRAE will conduct business, committee and technical meetings leading up to and during the conference.

President Scoggins will provide an update on the 2023-24 Society theme, "Challenge Accepted: Tackling the Climate Crisis."

The cost to attend the conference in-person is \$755 for ASHRAE members (\$1,010 for non-members, which includes an ASHRAE membership for one year). Early bird discounts are available for registrations completed prior to November 26. Company packages are available. Please check the conference webpage for additional pricing.

All registered attendees, both in-person and virtual, will have access to the virtual conference platform during the conference and 12 months post-conference.

To register, or for more information about the 2024 ASHRAE Winter Conference and to register, visit ashrae.org/2024winter.

Call for Winter Conference Volunteers

ASHRAE's Illinois Chapter is the host committee for the winter conference this year. The conference will be hosted at Marriott Marquis McCormick Place on Jan. 20-24th, 2024. If you are interested in being a session volunteer and getting a registration discount, signups are available at tinyurl.com/3ph7njw6

First-time monitors receive free registration to the full event. Returning monitors receive the reduced registration fee of \$195, which includes all technical sessions and recording for one year post-conference.

Signing up does not guarantee a spot. The host committee will email to confirm your volunteer spot. For more information, check out the Chicago Conference website at ashraechicago.com. For any questions, please contact meetings@ashrae.org.


Calling Young Engineers in ASHRAE!

And speaking of subgroups within the Illinois ASHRAE, if you are an ASHRAE member 35 years old or younger (except student members), why not get involved with the Young Engineers in ASHRAE (YEA)? Members host several opportunities to get together with other young professionals to socialize, network, learn, and to tour interesting project sites. For several years, our YEA members have planned and conducted the Illinois Chapter's excellent Spring Conference, usually held in March. The YEA committee is chaired by Paul Borchert and Kevin Schlotman. Reach them at YEA@illinoisashrae.org. To find out more about YEA, visit illinoisashrae.org/YEA_Membership.

Meeting/Event Information

The ASHRAE Illinois Chapter usually meets once each month, August through June, on Tuesdays. The Chapter's annual golf outing and fundraiser always takes place in September. Generally, 70 to 80 members gather at monthly meetings, which makes them an excellent networking opportunity for members interested in meeting and developing other contacts in the industry.

The State of Illinois requires professional engineers to complete 30 PDHs (Professional Development Hours) of training for license renewal. The Illinois Chapter ASHRAE offers educational programs with more than enough PDHs to help engineers satisfy this requirement.

The Illinois Chapter of ASHRAE stores past presentations for member access on its website. Presentations from previous Chapter seminars and meetings may be downloaded after logging into the Member area. If you are not yet a member, sign up today at illinoisashrae.org/join.php or contact the chapter through illinoisashrae.org/contact.php for more information. 



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2024 ASHRAE Winter Conference and AHR Expo

Jan. 20-24, 2024

Marriott Marquee Chicago and McCormick Place
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Find inspiration, answers, networking, and the latest industry trends at the 2024 ASHRAE Winter Conference, taking place Jan. 20-24 in Chicago at the Marriott Marquis Chicago and McCormick Place, just a skybridge apart from the AHR Expo. See what's planned and register by Nov. 26 to lock in early bird rates.

A plenary will take place on the first day of the conference, Saturday, Jan. 20, at 3:15pm, and will feature keynote speaker Chris Turner, a well-known figure in Canada for his expertise on climate change solutions and the global shift towards clean energy. Based on his extensive research and reporting on renewable energy, cleantech and urban design, Chris provides a compelling vision of a sustainable future. He has written several best-selling books, including *The Patch: The People, Pipelines, and Politics of the Oil Sands*, which won the National Business Book Award, and *The Leap and The Geography of Hope*, which were both National Business Book Award finalists. His latest publication, *How to Be a Climate Optimist: Blueprints for a Better*

World, was released by Random House Canada in 2022.

The Technical Program at the ASHRAE Winter Conference will be robust and dynamic as usual, with conference tracks including, among others:

Fundamentals & Applications

Fundamentals are the foundation for understanding applications in engineering. Key components of ASHRAE fundamentals include thermodynamics, psychrometrics, fluid and mass flow. This track provides opportunities for papers and presentations of varying levels across a large topic base. Concepts, design elements and shared experiences for theoretical and applied concepts of HVAC&R design are included.

HVAC&R Systems and Equipment

HVAC&R systems and equipment are constantly evolving to address the changing requirements of the built environment. Papers and programs in this track focus on the development of new systems and equipment, improvements to existing systems and equipment and the proper application and operation of systems and equipment.



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Decarbonization and Climate Change

Jurisdictions globally are confronting climate change and recognizing that building decarbonization is an important component in their efforts. The worldwide building sector accounts for about 40 percent of energy-related carbon emissions and buildings remain a major sector that lacks sufficient mitigation policies. As the standards authority for energy usage in buildings, ASHRAE recognizes that our long-standing initiatives in energy efficiency should be expanded to building decarbonization. This track seeks papers and programs that demonstrate the industry's decarbonization efforts.

Hydronic Systems

Many different hydronic systems are used in the built environment. This track looks at heating hot water, domestic water, chilled water, condenser water, etc.

Comfort, Indoor Environmental Quality and Energy Efficiency

ASHRAE Standards 55, 62 and 90 require many things — some of which seem to be in conflict with each other. This track looks at these standards as well as Guideline 10 and their effect on the final project as well as on each other.

For more information or to register, visit www.ashrae.org/conferences/2024-winter-conference-chicago



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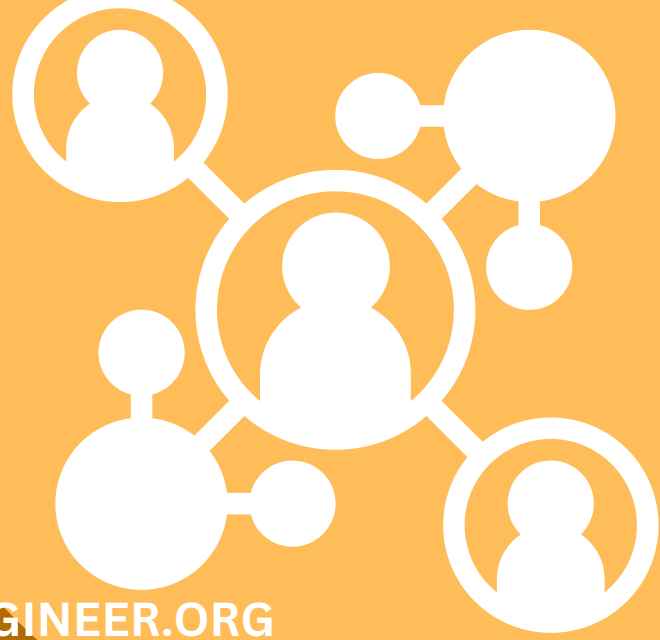
UPCOMING EVENTS

2023 - 2024

www.chiefengineer.org



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FOR SPONSORSHIP INFORMATION!



11.15

Wednesday, November 15
4:00 PM - 7:00PM

LOCATION: GUARANTEED RATE FIELD

12.13

Wednesday, December 13
4:00 PM - 7:00PM

LOCATION: MAGGIANO'S ON CLARK

1.6

Saturday, January 6
7:00 PM - 11:00PM

LOCATION: THALIA HALL

Inauguration Event

2.17

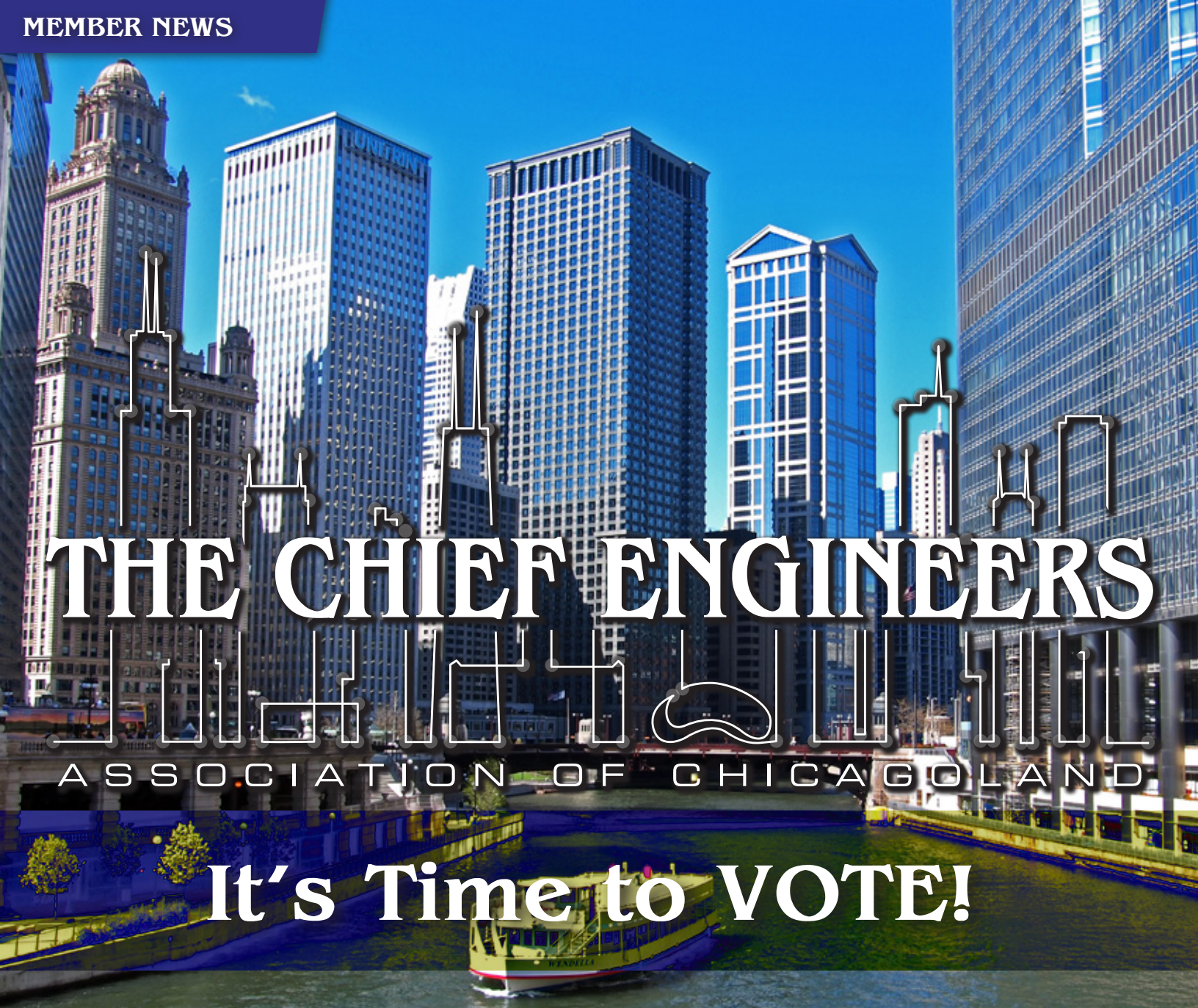
Saturday, February 17
11:00 AM - 2:00 PM

LOCATION: MORGAN PARK SPORT CENTER

3.20

Wednesday, March 20
4:00 PM - 7:00 PM

LOCATION: IRISH AMERICAN HERITAGE CENTER



THE CHIEF ENGINEERS

ASSOCIATION OF CHICAGOLAND

It's Time to VOTE!

With 2024 ending, it is time for us to look forward to a new year of challenges, accomplishments, and education. It is with this vision for the future that I proudly present the leadership slate for the Chief Engineers Association of Chicagoland. I ask that you vote to confirm the proposed slate listed below.
Regular Slate of Officers For 2022 President:

Regular Slate of Officers For 2022

- President: Doug Kruczek
- Vice President: Larry McMahon
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- Recorder and Secretary: Barbara Hickey
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- Financial Secretary: Brian Staunton
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- Corresponding Secretary: Bryan McLaughlin

Regular Slate of Association Directors For 2022

- Past President: Ken Botta
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- Door Keeper: Mike Collins
- Warden: Patrick Wawrzyniak
- Warden: Sean Casey
- Warden: Pat Biesty
- Warden: Mike Badame
- Warden: Joe Lettiere

In gratitude,

Pat Wawrzyniak, Chairperson Nominating Committee. 



Bear Participates in SLSF Annual Women's Golf Outing

BEAR Construction helped raise funds for the SLSF at its annual Women's Golf Outing event Aug.

On Aug 30, BEAR participated in the annual Women's Golf Outing event for the Special Leisure Services Foundation (SLSF) that benefits the Northwest Special Recreation Association, an organization that provides outstanding recreation for children and adults with disabilities. BEAR sponsored a golf foursome and hole and participated in the caddie auction.

BEAR was proud to help SLSF set a fundraising record at the caddie auction. In addition to Dan and Mark from BEAR's municipal group donning the iconic caddie white jumpsuits, BEAR enticed bidders with a BEAR gear foursome package of giveaways, including passes for a return trip to the Old Orchard Country Club (OCC).



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Best Practices: When to Repair? When to Replace?

By Karl J. Paloucek

Engineer Bill Middleton prepares the chiller plant water pumps at 225 West Washington for demolition.

It's a dilemma every chief engineer faces — when to repair that big-ticket piece of equipment, and when to replace it. And a lot more goes into it than just whether or not that unit, whatever it is, will last another season. There's a grey area that has to be negotiated with the building owners, homework that has to be done to illustrate the need, and of course, a certain amount of politics is part of the equation, as well. Mike Kenzinger is the chief engineer at 225 West Washington, and he agreed to give us his insight into what goes into making these often-complex decisions.

Not long ago at 225 West Washington, Kenzinger oversaw the replacement of the elevators in the building — a project that cost about \$3 million. In this case, difficulty of maintenance had become an issue. “The elevators, when they were installed, were from a company called Dover,” he says. “They're not even in business anymore, and what we were running into was that we're no longer able to get parts for them. I met with the owners and let them know that this was going to be a concern, and eventually they invested in replacing them altogether.”

Aging and obsolete technology is something that chief engineers need to look out for, and stay ahead of whenever possible. It can be a tricky discussion with your property's owners, because sometimes that technology you want to replace is still operating reasonably well, but you want to be proactive instead of waiting around for disaster to strike before making the necessary decision.

“I always try to have a five-year plan,” Kenzinger says. “I usually expect that at least for the first couple of years, the owners are going to say no, but after a few years, they'll have heard from me that it's time, and we're really going to have to do something before a catastrophe takes place and we have to do the replacement anyway. I like to tell them that it's going to affect the tenants.

“Another thing that really gets their attention is if I tell them that there's a risk of a massive lawsuit,” he continues. “Like we have these granite tiles on the outside of the building that need to be caulked. If we don't have the re-caulking done, not only

are there going to be leaks inside the building, but if one of those tiles falls and hurts somebody, it could cost them \$100 million.”

Kenzinger is used to having these types of discussions with the owners at 225 West Washington, mainly due to the age of the building itself. “The building I'm in is around 34 years old,” he says. “The first engineer would have had a pretty easy time of it, everything being new. The second engineer, it would have been a bit more challenging as some of the systems started to age. And now, as the third engineer, it's a lot more difficult, because we're past that 30-year mark and things are needing to be replaced.”

In the most recent case, Kenzinger made the decision that it was time to replace the chillers at 225 West Washington. “We went as long as we could, but we ended up having to spend \$75,000 to repair one of them to get us through the season, and then replaced both of them at \$300,000 apiece, plus the cost for labor, parts and installation.”

Fortunately, Kenzinger says, the costly replacement was significantly offset by a \$300,000 rebate from the ComEd Smart Ideas efficiency program through DLR Group, which covered the entire cost of one of the units they installed. “We still had to pay for the labor and installation, obviously — but getting that rebate helped a lot.”

DLR Group on Wacker Drive was of great assistance in helping Kenzinger to make his case to the owners. “[They] put together a whole presentation with charts and graphs that not only talked about the cost of the units and their installation, but what they referred to as the ‘cost of ownership’ over their lifetime. I was able to take this to the owners and it made me look really good — really smart — and show them the data on the various units. There was a Carrier, Trane, York and Smardt Chiller Inc. The most affordable up front were these Carrier units, but in terms of the cost of ownership and overall efficiency over their lifetime, these York units ended up being the better value, which is what they ended up deciding to go with.”

Walking into meetings with the property owners to present such a case obviously can be a ticklish task, so being prepared in the way that DLR Group helped Kenzinger to be is a great boon to the situation. And as he outlined above, Kenzinger advises cluing in your building's owners well before any reasonable chance of a major crisis might surface. "What I don't want," he says, "is to have a meeting with the owners after something breaks down, and they tell me, 'Why didn't you tell us about this in advance, Mike?'"

But what about when advancing technology and innovations become too big to ignore, even though the current systems you have in place are still working perfectly fine, if not as efficiently as what's new? What then — at what point do you cut your losses and appeal for the better idea? "If the rough lifespan of a piece of equipment is, let's say, 30 years," Kenzinger suggests, "then around the 15-20 year mark, I can make the case that, hey, this unit is past the 50-percent point of its life, and it's only going to get less efficient from here on out. If we replace it with this newer technology, the savings we get from it will make it worth doing. Most units pay for themselves in terms of efficiency within five or six years."

For example, Kenzinger has some new ideas for the property at 225 West Washington — in particular, he'd like to have a fan wall installed in place of their current system. "We have these 200-horsepower fans that were installed in the '80s," he



Trainee Michael Curran completes the quarterly motor and fan maintenance on a 1985 Evapco cooling tower.

says. "They've been great, and they're still working, but it's just not efficient to keep operating them this way."

Efficiency overall has continued to shift in the wake of the pandemic. With more people working from home than ever before, lower building occupancy can drastically change the need for energy in building operations. On certain days, like Mondays, which, according to Kenzinger, typically find the building about 50-percent occupied, and Fridays, on which only roughly 25 percent show up in the office, they can reduce energy consumption accordingly. It also makes it much easier to schedule needed maintenance and installations. "On those days, we're able to get a lot more done than we used to, so that's been good," he remarks.

As a result of the reduced occupancy, tenant needs are changing, as well. "One thing that we're encountering is that tenants are coming back to us saying that they want to reduce the square footage of their occupancy by 20-30 percent," Kenzinger explains. "So we'll put up walls and doors, and create some new space."

Fortunately, for all parties concerned, there's a positive feeling about these new spaces available for lease. "The owners are optimistic that they'll be able to get the tenants in to cover it," Kenzinger says. "People still want to be downtown." 🏢 🏢



225 West Washington, where Chief Engineer Mike Kenzinger makes the decisions that impact its tenants and owners.

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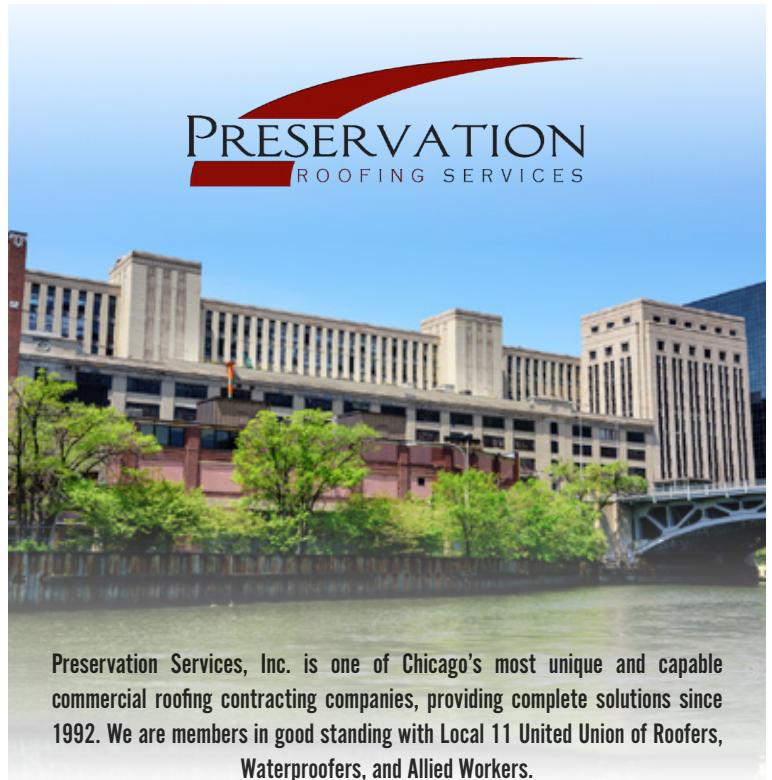
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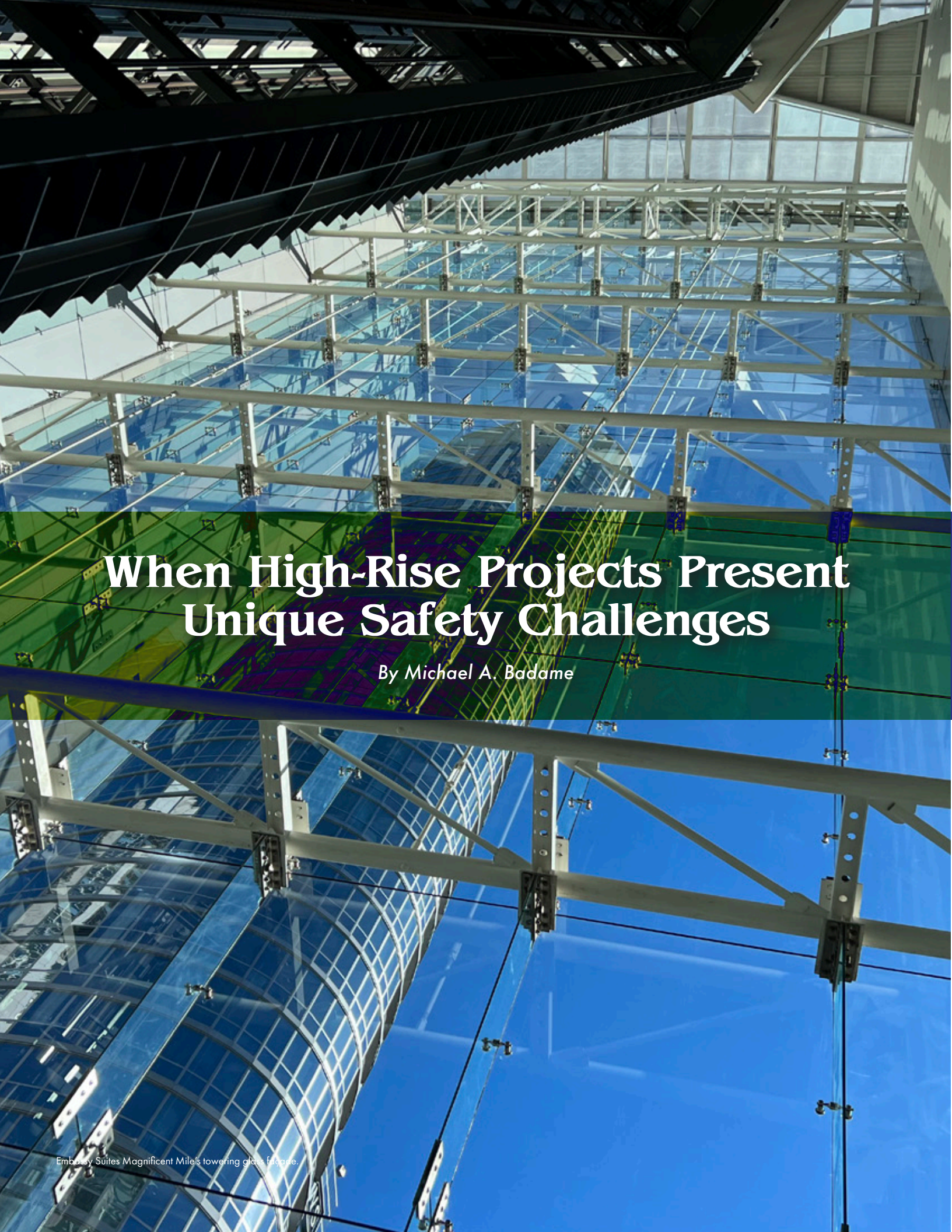
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When High-Rise Projects Present Unique Safety Challenges

By Michael A. Badame

Just like our equipment, even under the best of environmental conditions, our buildings require maintenance. The Embassy Suites Magnificent Mile at 511 N. Columbus Drive sits in Downtown Chicago's premier commercial district. This 800,000-square-foot metal-and-glass atrium-style hotel recently underwent a façade maintenance project that started out as what would seem to be routine maintenance, and ended up presenting some challenging situations that required daily toolbox talks and routine safety checks throughout all phases of the project.

I had the opportunity to talk shop with Chief Operating Engineer Laurence Hickey and Assistant Chief Operating Engineer Dwayne Hampton. We toured the facility to discuss project highlights as well as some of the daily challenges the engineering team faced while assisting in the safety aspects and oversight of the job.

Project Overview

The project consisted of cleaning the interior beams, vents and ductwork. The exterior panoramic window and skylights were also a part of the project. Squeegee Squad was the company that was hired to complete the work, and once they were fully aware of the challenges the project presented, they had to bring on a specialty team certified in tower services. Laurence mentioned how unique an interior high-rise project can be, and that this also took place during a busy time for the engineering team. "The project was happening during a very busy time for the Embassy Suites," Hickey recalls. "We had to make sure our equipment like elevators and escalators were protected from potential project debris and that hotel guests and events weren't impacted by the project."

Some of the work took place on the night shift. This made the project even more challenging, due to reduced visibility for a large portion of the project. "It was a busy season for the hotel, and the hotel was booked with high-end events," Hickey says. "We were in constant communication with the engineering staff, and even worked split schedules to accomplish our work with zero impacts to their operations."

"The engineering team provided specialty lighting for Squeegee Squad, which helped the project stay on schedule and added an additional layer of safety for our workers," said Rich Ward from Squeegee Squad.

When I asked Hickey what role the engineering team had with regard to safety for the project, he replied, "My entire engineering staff is OSHA General Industry Certified, and I'm an OSHA Authorized General Trainer so I make sure all engineers go through a monthly refresher. Safety training is a top priority for the engineering staff."

"We also held regular daily toolbox talks with the construction team to go over the logistics of the project as well as testing of anchoring points and making sure everyone was using PPE



Laurence Hickey, Chief Operating Engineer (left), Dwayne Hampton, Assistant Chief Operating Engineer (right) Embassy Suites Magnificent Mile

[Personal Protective Equipment] on the job, my Assistant Chief Engineer Dwayne Hampton took lead on the daily toolbox talks and was an integral part of safety oversight on the project," he adds.

The engineering team used a daily checklist that was sometimes modified based on the area of work, and unique challenges or safety requirements for that phase of work.

Safety and Specialty Equipment

Know this: Owners must provide compliant anchorages to allow for rope descent systems (RDS), also known as bosun's chairs, which is the most common technique for window cleaners (OSHA 1910.27(b)).

A qualified consultant must certify each anchorage at least every 10 years, typically by a load test of 5,000 lbs. Additionally, OSHA states that a qualified person must visually inspect each anchorage annually. Proof of the certification in writing is to be submitted to the vendor prior to usage. Always check with your local building codes to confirm requirements and to prepare for any changes if needed.

I had asked Rich Ward with Squeegee Squad what type of safety gear his team used, and if they faced any difficult challenges during the project. "All team members used N-95 masks, Class 'C' safety helmets, lanyards with fall tech shock absorption and bosun chairs. We had some unique situations where we used Petzl Croll Chest Ascender Com-Along Double Gear Hand Cable Pullers for horizontal rigging points."





Squeegee Squad horizontal rigging in action

Creating a well-structured training plan is indeed crucial for ensuring that employees receive effective training. However, the process may vary depending on the organization's needs and the specific role of the employees.

When I asked Ward to share some of the training and certifications required for a job like this, he rattled off an impressive list:

- Competent Climber Certification
- Competent Rescuer Certification
- Competent Rigging Certification
- First Aid Certification
- Hazardous Communications Certification
- Industrial Rope Access Trade Association (IRATA) Level 3 Certification

"Overall, it was a pleasure working with Laurence and his engineering team," Ward says. "This was a successful project that challenged our team and allowed us to demonstrate our skills while keeping safety at the forefront."

Hickey earned his Master's Degree in Spring of 2023 from the Illinois Institute of Technology. As a hobby, he crafts furniture out of repurposed wood and has donated some of these items to organizations such as Helping Hands and the Chicago Federation of Labor. Hickey has a wealth of knowledge on safety, and is an experienced Adjunct Instructor as well, "I've been teaching Industrial Maintenance for the last 2 years at Local 399 Technology Center. Safety is a part of every class I teach, and also a part of every day on the job!"

"It was a very unique project to have rigging and rope access on the interior of a high-rise structure," he continues. "We had daily meetings with Laurence and the engineering team to craft safety plans for each night of work."

Safety plans are critical to implement not only for projects such as this, but also for our day-to-day operations. So how do we know when we need safety plans and if something is defined as a hazard? OSHA publishes a guide on these topics, Job Hazard Analysis (JHA), that takes the guesswork out of it.

Performing a job hazard analysis can also be a collaborative effort for people involved who may be new to the environment. "Working with Laurence and the engineering team was a collaborative effort." Ward said. "Daily walk-throughs took place to discuss strategies for rigging on the interior of the building as well as anchoring points. We needed to have ongoing communication about our means and methods to accomplish the overall scope of work. The engineers were always available to provide access to the building and equipment whenever we needed them."

Training and Certifications

The importance of workforce training in facility management cannot be overstated. Staff development and training are the two most crucial elements required for the efficient operation of a facility. Hickey makes sure he has a training plan in place that consistently raises the caliber of the engineering team at the Embassy Suites Magnificent Mile.



Laurence Hickey, Chief Operating Engineer, Embassy Suites Magnificent Mile



A Natural Tendency: Meet a Chief Engineer Who Is Drawn to Taking on It All

By Kate Gawlik

It takes a team of engineers to maintain the boilers at Nature's Fynd, including Raymond Lewis, Victor Castro, Stanley Harell and Jeffrey Lowe.

The motto of the Chief Engineers Association is "Anything that can be done, can be done better." While the motto guides the group, it also sometimes encompasses how a stationary engineer approaches the profession and a passion for taking on more.

Lore Roberto Ramos is a chief operating engineer at Nature's Fynd, a manufacturer of a nutritional fungi protein called Fy and located in the Bridgeport neighborhood. Nature's Fynd started as a research project for NASA. Ramos takes on electrical, HVAC, mechanical, welding and more at the manufacturing facility and research and development office.

"I like to work on everything, and am drawn to facilities where I get that chance," Ramos says. "My day at Nature's Fynd is somewhat unpredictable beyond scheduled maintenance. Not every engineer would like that, but I enjoy walking into work not really knowing what repair is going to come my way."

Education-Focused

The ambition to become a stationary engineer started when Ramos became a young father, at the age of 19, to his son, Roberto, and later his daughter, Daliah. The path to Nature's Fynd is a winding one in which Ramos stayed focused on a career and education while trying to achieve more for himself and his family.

Ramos first worked at Elkay Manufacturing, polishing stainless-

steel sinks and water fountains. He soon received an electrical certification from Coyne College and joined the company's maintenance department. The next certification that Ramos tackled was welding at Triton College, and then he earned an associate of applied science degree in HVAC, also at Triton College. This opened the door for him to serve as an electrical technician with the same company.

The next stop for Ramos was at Lagunitas Brewing Company, where he served as an electrical maintenance technician. A friendship with Dan Chaparro, a former stationary engineer at Lagunitas, was how Ramos learned about the Chief Engineers Association of Chicagoland. He also found a mentor in Edgar Utreras, a former stationary engineer at Lagunitas, who introduced Ramos to Local 399.

"I completed my two-year stationary engineer apprenticeship with Dan while at Lagunitas," Ramos explains. "Dan took me under his wing and showed me a profession where I could take all of my certifications and apply them in one place. I was already used to the work, but now I got to do it all together instead of changing jobs."

Once Ramos was in Local 399, he completed class after class at the Union Hall to master his trade as a stationary engineer. He took his new skills with him while he served as a facility manager at a health clinic, but it was short-lived. Chaparro called in 2021 inviting Ramos to join the Nature's Fynd team.

Finding a Rhythm

At Nature's Fynd, Ramos works with seven stationary engineers for 24/7 coverage. The work is divided accordingly: four stationary engineers on first shift, two on second and one on third. Most of the Fy production happens on first shift, with maintenance on second. The third shift is reserved to look after the boilers.

"We need boilers for chambers where fungus grows, because the steam creates that growth," Ramos notes.

The stationary engineering team maintains and operates three vertical high-pressure boilers. The two boilers at the manufacturing facility are Fulton VSRT 60- and 80-horsepower that run at 100 psi around the clock. The research and development facility has one Fulton VMP boiler that runs at 130 horsepower at 80 psi for half a day, Monday through Friday. Four chillers work with the boilers to add humidity in the humidity chamber; those also need maintenance.

"As stationary engineers, we cover both buildings to check chemicals, run routine maintenance, lubricate moving parts, and replace gauges and valves on the boilers when needed," Ramos says.

At the manufacturing facility, the stationary engineers also work on advanced storage automation (ASA) rovers. The rovers are warehouse management systems, or unmanned automated utility vehicles, which require preventive maintenance and troubleshooting. This could include checking the DC drives and safety components and checking and logging into the PLC when an issue arises.

"All of our PLC programs are Allen Bradley, and have to work closely with our automation technicians," Ramos says. "Our automation tech is also with Local 399."

Fanuc Robots — automated robotic arms that move trays of Fy from pallets onto moving conveyors — also require maintenance. It could be as simple as greasing and checking all mechanical parts or working with the electrician to help with an electrical automation problem.

The stationary engineers often focus on breakdowns with, for example, belt conveyor systems, or rebuilding the 81 GEA valves. Motors or pumps have to be changed out as needed, and there is TIG welding to do.

Beyond keeping production going, the team has to make sure its RTUs and AHU are working properly with checks, maintenance and troubleshooting with outside contractors as needed.

Ramos notes, "A couple of our latest projects were adding a new 540-gallon water heater to improve our sanitation room. We also had a COP project [clean out of place] which takes steam from our boilers into the sanitation room to help with



Lore Roberto Ramos (left) with fellow structural engineer Joe Lazzaro.

the cleaning of different production parts, including trays, conveyor belts and deep-cleaning hoses. All of our engineers had to work closely with the pipe fitters and electricians to get this project done."

Multi-tasking Route

While quite content with his varied work at Nature's Fynd with a team of engineers, Ramos is now working toward an associate degree in facilities engineering through Local 399. He additionally is working on getting an electrical license from the City of Chicago. He also plans to go back the Union Hall for more continuing-education classes — because if it can be done, it can be done better.

"Being here, you never know what is going to happen," Ramos says. "We always stay busy with something exciting going away. And for me, that's great. I like working with my hands, and I like having lots of options from electrical, HVAC, welding, robotics and more. Being a stationary engineer has given me these options instead of having to focus on one trade."

Kate Gawlik writes about construction, design and business trends from Lockport, IL.



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Engineers Golf Outing



Thanks to all of you who came out to attend the 83rd Annual Chief Engineers Golf Outing. This is the most popular event of the year, and every year, it's such a great time that there's no doubt as to why. The Board would like to extend our thanks to our participants as well as to our abundant generous sponsors. This is the largest event that Cog Hill hosts each year, and you're all part of making it the great day out that it is every year.

As always, we also must express our gratitude to Kevin Kenzinger and Brendan Winters for their abilities and efforts in organizing this event, as well as to Alex Boerner, who once again joined us to assist in making the day go as planned and without a hitch. And last but not least, we thank the staff out at Cog Hill for being so accommodating year after year, providing their excellent courses, facilities and service.

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The product line now offers custom ECM fan assemblies on double-stack units through a collaboration with Multi-Wing. The equipment offers high electrical efficiency, high airflow, integrated control package for fan speed control, and BAS communications.

eco-Air also offers a newly-updated control package with larger touchscreen and proprietary EVAPCO control sequence and further reduction in water usage for their adiabatic systems.

EVAPCO provides a full spectrum of global product solutions for the commercial HVAC, industrial refrigeration, power generation and industrial process markets. 



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With BuildAlert, users can gain 24/7 visibility into their construction jobsite. It enables the ability to automatically turn off water in the event of a leak — both during and after working hours.

Leak Defense has announced the release of BuildAlert, a new system that allows users to gain 24/7 visibility into their construction jobsite. It enables the ability to automatically turn off water in the event of a leak — both during and after working hours.

BuildAlert offers a comprehensive set of features designed to streamline and enhance water management at construction sites. With automatic controls, displays and alarms, users have easy access to essential functions whether on or off the jobsite. The system utilizes remote ON/OFF capabilities accessible via a free PC or Mobile App, making it convenient to control operations as long as there's a jobsite Internet connection.

For added convenience and security, BuildAlert allows users to schedule automatic scene/mode changes after hours. Furthermore, the system maintains jobsite water pressure to help ensure a steady supply of water. For advanced integration and customization, the system offers an optional API for input/output signaling to remote systems, output alarms, or building management systems/building automation systems (BMS/BAS).

To learn more, visit LeakDefense.com/Commercial. 



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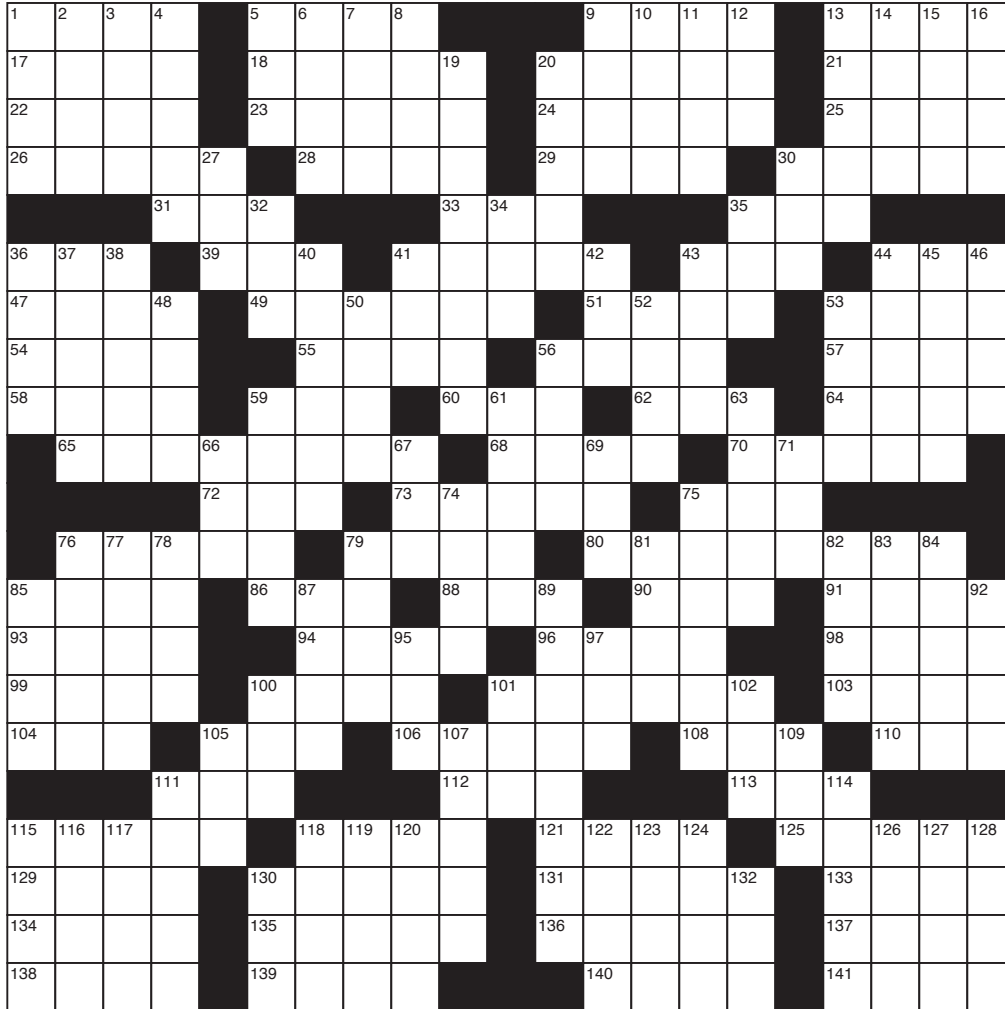
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- 8 Opp. of false
- 9 Oil
- 10 Movie star
- 11 Coin
- 12 "Raven" author
- 13 Cut off wool
- 14 Tuft of hair
- 15 Island
- 16 Formal dance
- 19 **Basic**
- 20 Treed (2 wds.)
- 27 Bro. or sis.
- 30 **Lubricate**
- 32 Doctor (slang)
- 34 Owns
- 35 Pocket
- 36 September (abbr.)
- 37 Bye
- 38 **Levies**
- 40 Passageway between shops
- 41 Pressure unit
- 42 Ocean
- 43 Motley
- 44 National capital
- 45 Wrinkle removers
- 46 Terminated
- 48 Asian starling
- 50 Hawkeye State
- 52 Feign
- 53 **Lovers**
- 56 Seaweed
- 59 **Relating to the sun**
- 61 Material
- 63 Slippery
- 66 Digit
- 67 Yea
- 69 Type of partnership
- 71 Street abbr.
- 74 Voluble
- 75 Fastener
- 76 Sapphire
- 77 Give a present
- 78 Talk back
- 79 Musical composition
- 81 Dueling sword
- 82 Finger part
- 83 Praise
- 84 San __ (CA city)
- 85 Adam's garden
- 87 Black
- 89 **Reins**
- 92 Air pollution
- 95 Lysergic acid diethylamide
- 97 School group
- 100 Kitten's cry
- 101 Moose relative
- 102 Surface to air missile
- 105 Federal government (abr.)
- 107 Elicit
- 109 Killed in action
- 111
- 114 Midday meal
- 115 Ammunition
- 116 Big cat
- 117 One nautical mph
- 118 Russian ruler
- 119 Soviet Union
- 120 Children
- 122 Prefix ten
- 123 Wagon pullers
- 124 Ancien German character
- 126 Valley
- 127 Whim
- 128 U.S. President William Howard
-
- 130 Marvel
- 132 Fashion

ACROSS

- 1 Sham
- 5 Accustomed
- 9 Hobble
- 13 Pig food
- 17 Eyelet
- 18 Musical production
- 20 Sound
- 21 Frost
- 22 Orient
- 23 Capital of Afghanistan
- 24 Cut of beef
- 25 Reverberate
- 26 Soothing agents
- 28 Onion-like vegetable
- 29 **Pant support**
- 30 Ship's caulking
- 31 Free of
- 33 Expression of surprise
- 35 Title of respect
- 36 Rested
- 39 Scarf
- 41 Shows
- 43 Chum
- 44 Lurked
- 47 Swiss-like cheese
- 49 Exigency
- 51 Heroic
- 53 Gambling game
- 54 Elf
- 55 Nickel

- 56 Cabbage cousin
- 57 Soon
- 58 Adolescent
- 59 Beheld
- 60 Before, poetically
- 62 Advertisements
- 64 Not any
- 65 National newspaper (2 wds)
- 68 Unite
- 70 Fertile desert area
- 72 Roberto's yes
- 73 Nile's home
- 75 ___ **box**
- 76 Afloat (2 wds.)
- 79 National capital
- 80 Compounded
- 85 Jewish scribe
- 86 Representative
- 88 Business title ending
- 90 Wooden sheet
- 91 Bloc
- 93 Fees
- 94 Electric light
- 96 Organization of Petroleum Exporting Countries
- 98 Detail
- 99 Long time periods
- 100 Green seedless plant
- 101 Comes on stage
- 103 Company symbol
- 104 Gauze
- 105 Bog

106 Airline

- 108 Tree
- 110 Record
- 111 Cut
- 112 Danish krone (abbr.)
- 113 Cubic centimeter
- 115 ___ resin
- 118 Skirt
- 121 Smell
- 125 **Analyze**
- 129 Object
- 130 Association (abbr.)
- 131 Acura's competitor
- 133 Nothing
- 134 Dock
- 135 _____ **heat boilers**
- 136 Panorama
- 137 Musical notation
- 138 Upon
- 139 Goofs
- 140 Fresh
- 141 **Stove top emissions**

DOWN

- 1 Popular stadium
- 2 **Fuel**
- 3 In addition
- 4 **M**
- 5 Pan
- 6 Opaque gem
- 7 Northeast by east

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D	I	M	S	E	E	F	O	U	L	S	R	I	I	T	S		
O	A	T	H	S	H	O	L	I	D	A	Y	A	S	I	D	E	
L	I	Q	U	I	D	L	I	R	A	S	T	M					
T	A	L	C	S	T	O	R	M	S	P	I	C	P	U	R	E	
A	L	E	C	P	S	R	O	A	M	G	A	S	S	O	Y		
B	U	N	G	L	E	R	D	N	A	A	L	L	E	S	E		
M	O	O	E	R	H	U	E	T	A	C	O	N	A	R	Y		
G	A	U	G	E	S	F	R	O	Z	E	N						
E	C	O	N	H	A	S	P	A	T	E	I	R	O	N	S		
P	R	O	S	C	O	T	H	I	M	C	O	G	N	A	T	E	
R	I	O	E	O	S	D	A	M	E	A	N	Y	S	A	P		
Y	E	L	L	S	T	A	B	M	O	L	D	S	M	A	Y	A	
P	S	I	B	L	A	B	L	A	T	E	N	T					
C	O	N	A	N	R	E	F	U	T	E	D	N	E	V	U	S	
A	R	M	Y	E	A	N	O	S	Y	F	D	A	M	A	L		
B	O	I	S	E	D	O	D	O	P	H	I	L	T	A	B	B	Y
E	N	T	E	R	A	B	E	T	E	U	R	O	H	I	R	E	R
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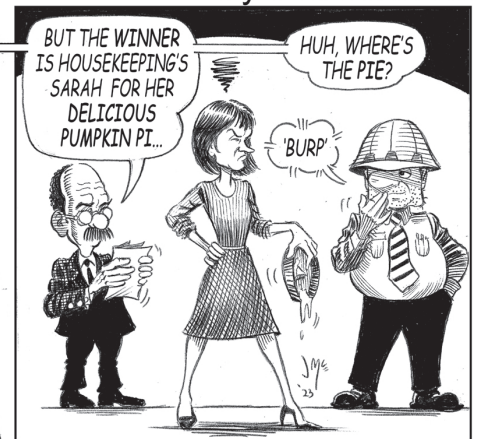
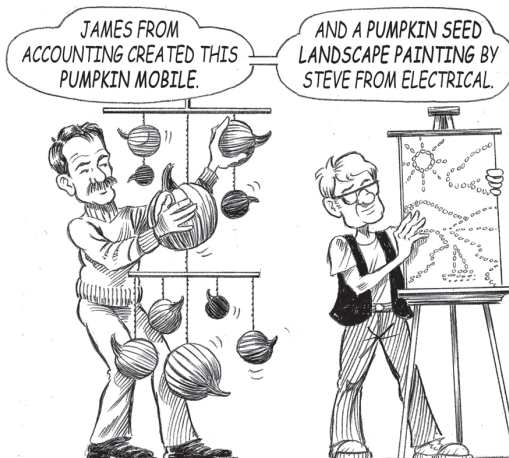
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