CONTRACTOR

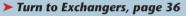
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When Heat Exchangers Fail

BY KELLY L. FALOON OF CONTRACTOR'S STAFF

BOSTON, MA —Boston's 100 Pier 4 epitomizes luxury living, with lovely views of downtown Boston and resort-style amenities: a rooftop outdoor pool with a fire pit and dining area, a lounge with a full kitchen, a screening room, a conference room and intimate lounges. Its 369 luxury apartments are built on the edge of Boston Harbor in the Seaport District (also known as South Boston Waterfront).





The original boilers at luxury condo building 100 Pier 4 in Boston needed to be replaced because of failing heat exchangers.

Bros. Bertolino are PHCC-NA's Plumbing Contractors of the Year

SPECIAL TO CONTRACTOR

Bringing a legacy of plumbing expertisepassed down through generations—and demonstrating outstanding leadership in the industry and ensuring professionalism for generations to come, Rob and Tony Bertolino were honored as the Plumbing-Heating-Cooling Contractors—National Association (PHCC) 2023 Plumbing Contractors of the Year. Sponsored by Delta Faucet, the award was presented Oct. 27 at PHCCCONNECT2023 in Cleveland, Ohio.

➤ Turn to Bertolino, page 10



From left to right, presenter Dave Frame (2022-2023 PHCC-National President), Tony Bertolino (holding the award) and Rob Bertolino.

GF Piping to Close Uponor Transaction

■ SPECIAL TO CONTRACTOR

APPLE VALLEY. Minn.. Nov 13. 2023 — By joining forces with Uponor, GF is set to become a global leader in sustainable water and flow solutions. To support this ambition, complementary businesses will be

grouped together under one roof: the new division GF Uponor will focus on Building Technology, whereas the infrastructure and utility business will move to GF Piping Systems. Michael

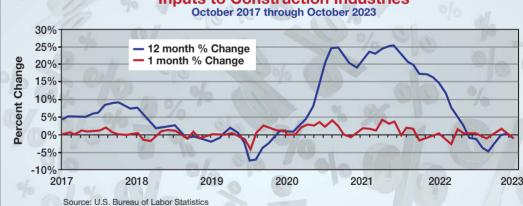
Rauterkus will join GF's Executive Committee and will lead the new division together with his Uponor leadership team.

After all conditions of the tender offer have been fulfilled, GF closes the transaction as of 13 November 2023.

➤ Turn to Uponor, page 8

CONTRACTOR INFOCUS

Producer Price Index Percent Change Inputs to Construction Industries



IN THIS ISSUE

Schwartz on

MANAGEMENT

HYDRONICS

Feldman on TECHNOLOGY

Contractors Giving Back Plumbing companies make the most of the season.

Manpower and Know-How Center Line Heating finishes a high-end radiant job.

FEATURE

18 Rural America and the Problem of Clean, Accessible Water

PRODUCTS

PRODUCTS OF THE YEA

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Kevin Tindall of New Jersey Receives the Col. George D. Scott Award

■ SPECIAL TO CONTRACTOR

FALLS CHURCH, VA – **Kevin Tindall** of New Jersey truly appreciates what the Plumbing-Heating-Cooling Contractors—National Association (PHCC) has done for his career, his family, his business, and his employees, and he's been paying it forward with selfless service to the association, the industry, his community, and future generations for nearly two decades. In recognition of this dedication to serve, PHCC **Turn to Tindall, page 35**



Kevin Tindall accepts the George D. Scott Award at PHCCCONNECT2023.

Boston Plumber's Pipe Dream Comes True at Inaugural Plumbing National Championship

■ SPECIAL TO CONTRACTOR

TAMPA BAY, FL — In a savvy move that would pay off more than he could have predicted, **Craig Childress**, a tradesman from Boston University, made the strategic decision to check extra luggage before jetting off to Tampa for the Elite Trades Championship Series (ETCS) Plumbing National Championship sponsored by SharkBite Plumbing Solutions—a rigorous showdown between the crème de la crème of American tradespeople, including plumbers, competing for the first time for their share of cash and prizes.





Graig Childress holds his two first place trophies.

ABC Announces 2024 National Chair, Executive Committee

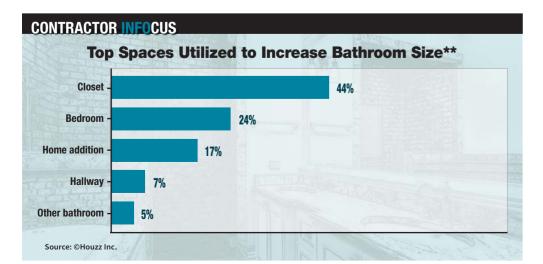
■ SPECIAL TO CONTRACTOR ■

WASHINGTON, DC — Associated Builders and Contractors today announced that **Buddy Henley**, president, Henley Construction Co. Inc., Gaithersburg, Maryland, was elected the 2024 ABC national chair at a board of directors meeting held in conjunction with the association's annual Leadership Institute in Rancho Mirage, California. "ABC provides the opportunities and

ABC.

tools to be successful in construction, an industry that I chose when I was 16, climbing the ladder until achieving my career

➤ Turn to ABC, page 12



Features & Departments

6 Contractors Giving Back

We look at home service contractors helping their communities.

14 Bradford White Supports Philabundance

Company donates \$10,000 to aid the fight against hunger.

- 18 Feature: The Problem of Clean, Accessible Water How the Watermark Program is helping in rural America.
- 24 Hydronics & Radiant

Modern hydronic distribution and a high-end radiant system.

- 38 Products of the Year
- 42 Editorial

The Best and Worst of 2023

Columnists

- **16 Management** by Al Schwartz

 Customer Relations: Put Yourself in the Customer's Shoes
- **24 Hydronics** by Pat Linhardt
 Modern Hydronic Distribution Circa 1962!
- **30 Technology** by Patti Feldman Solutions for Your Business Pain Points
- **32 Best Practices** by Candace Roulo

 Changes in the Auto Industry Could Mean Challenges for Your Fleet

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IAPMO has published the Manual of Recommended Practice for Medical Gas Resiliency, a comprehensive approach to ensuring the availability and effectiveness of medical gases in health care facilities. While developed as a quidance document, it is written in mandatory language so building and health departments can easily adopt and codify the requirements. This stand-alone document includes excerpts from the Uniform Plumbing Code (UPC®).

The China International Trade Fair for Heating, Ventilation, Air-Conditioning, Sanitation & Home Comfort (ISH China & CIHE) will be held from 11 – 13 May 2024 at the China International Exhibition Center (Shunyi Hall) in Beijing. The show will feature cutting-edge technologies and products from a variety of HVACrelated disciplines, including water supply systems, smart heating, and home comfort technologies.

Calefactio welcomes Doug Simpson as its National Sales Manager for the United States. Simpson brings over 15 years of experience primarily in technical sales and operations, most recently in hydronic heating and cooling. He is a passionate lifetime learner, with a Master's Degree in Engineering Technology.

Coburn Supply Company has announced the promotion of longtime employee, Kevin J. King, to the role of Director of Sales. King began his work in the Coburn's waterworks division in 1994 and has since worked his way up the ranks to Division Manager in 2010. Since 1934, Coburn Supply has served consumers by distributing plumbing, electrical and HVAC products and services.

Magid Glove & Safety, has been named one of the 2023 Chicagoland Top Workplaces for the third year in a row. With close to 100,000 licensed businesses in the City of Chicago alone, Magid was one of only 196 businesses to make the list released by Energage on behalf of the Chicago Trihune.

Malco Products has announced that Zach Fellows of Ace Supply Company in Eden Prairie, MN, won the company's firstever Counterperson of the Year Contest. Fellows earned a prize of \$500 cash, a Malco golf shirt and hat

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- PMI Expresses Support for Actions to Convert Commercial Buildings to Residential Use
- NCCER Announces New Approach to Construction Superintendent Certification
- Construction Job Openings Increased by 56,000 in September

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Have you been taking the guiz all year long? Challenge yourself with the most difficult questions of the last 12 months and you could win a \$25 gift card

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- ► Want to know about how to get the flow rates right in hydronics from master trainer Steve Swanson?
- Want to know what the 14 characteristics are of a professional plumbing company? Matt Michel will tell

If so, our Industry Perspectives page is the place for you! Visit Industry Perspectives today at contractormag.com/industry-perspectives-0

Want to converse with experts in the plumbing and hydronics industries? Then check out CONTRACTOR's Industry Perspectives, serving up thoughtful, conversational content from the industry experts you have gotten to know so well at www.Contractormag.com.





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High 5 Plumbing Makes \$3,000 Donation to Hope House of Colorado

BY STEVE SPAULDING OF CONTRACTOR'S STAFF

DENVER, CO — High 5 Plumbing, a family-owned residential plumbing company offering repair and maintenance services (including drain cleaning) to the greater Denver metropolitan area, recently announced a \$3,000 donation to Hope House of Colorado through the company's High 5 Cares program.

High 5 Cares was inaugurated in 2018 as a way for the company to give back to its community. Every month the company reaches out to a local nonprofit to help it in its mission. High 5 interviews the organization's leadership, teams up to spread the word on social media, and helps organize donations.

Hope House

Hope House Colorado began in 2003 as a shelter for homeless teen moms and their children, with the aim not simply housing and feeding their



The High 5 Plumbing team donates a check for \$3,000 to Hope House of Colorado.

charges but moving them towards self-sufficiency.

Today, the nonprofit still offers a residential program that provides a safe, stable environment for teen moms who have become homeless or may be living in an unsafe environment. Now it also offers educational opportunities, including a high school and GED program, and a college and career-builder program.

Moreover, Hope House offers parenting classes, as well as healthy relationship classes and counseling for teen moms who may face challenges stemming from anxiety, grief or loss.

To help furnish a sense of community, Hope House also offers social activities such as weekly donuts with staff members and volunteers and holiday celebrations including Christmas parties, Easter egg hunts, Halloween parties and more.

Continuing to Grow and Support

"We were so excited to launch our community give back program in the Denver area," Cassi Torres, VP of High 5 Plumbing said, "and after touring their facility in Arvada, we knew we had found a nonprofit that we would get behind for years to come."

Cassi Torres calls supporting teen moms a project "near and dear" to her heart—she and husband/co-owner Levi Torres started a family young and Cassie Torres was herself a teen mom at one point.

"We really value our long-time partnership with High 5 Plumbing," Hope House's Director of Development Lisa Schlarbaum said. "Everyone we have interacted with from High 5 Plumbing has been fun to work with and they love our moms! We are so grateful for their investment in our teen moms and their children."

This marks the third time High 5 has chosen to spotlight Hope House as part of its High 5 Cares program. In 2023 they were able to donate more than six times their initial donation back in 2018.

"It was special to us as both High 5 Plumbing and Hope House have continued to grow and support each other over the years," Cassie Torres said. "It's so cool to see them growing too, they are serving over 250 teen moms in the Denver metro area. It's always fun to reconnect with those people who partner with you to help make the community a better place."

For more information on High 5 Cares, visit https://high5plumbing.com/ high5-cares/.

For more information on Hope House Colorado or to make a donation, visit https://hopehousecolorado. org/. G

Rooter Hero Gives Back Year-Round Through Hero Helps Program

Rooter Hero Plumbing and Air is a cialice maker to a local chain of more than a dozen independently owned and operated businesses operating under a single brand in California and Nevada. The company offers a wide array of plumbing and HVAC/R services to its residential and commercial customers.

In keeping with the company values put forth by founder John Akhoian—Faith, Integrity, Respect, Service, Teamwork-Rooter Hero seeks to give back to the communities it serves through its Hero Helps program. The program partners charities with local Rooter Hero businesses. To date, Rooter Hero employees have joined more than 40 events, performed more than 289 free jobs, and donated more than \$155,000 to worthwhile causes.

This year alone, Rooter Hero has given back through Earth Day volunteering, donations to the Ronald Mc-Donald House, by donating a commerhigh school, and by helping to fill neighborhood food pantries.

This Thanksgiving Rooter Hero franchises:

 Helped prepare Thanksgiving dinner for the woman and children at the Union Rescue Mission in Los Angeles. The URM is

a faith-based, 501(c)(3) nonprofit organization that has been serving the homeless and needy since 1891.

• Participated in the Drumstick Dash, LA's Largest Thanksgiving 5k/10k run. Hero Helps volunteers helped get all the runners checked in, distributing event shirts, and did all they could to make the event a success. Proceeds from



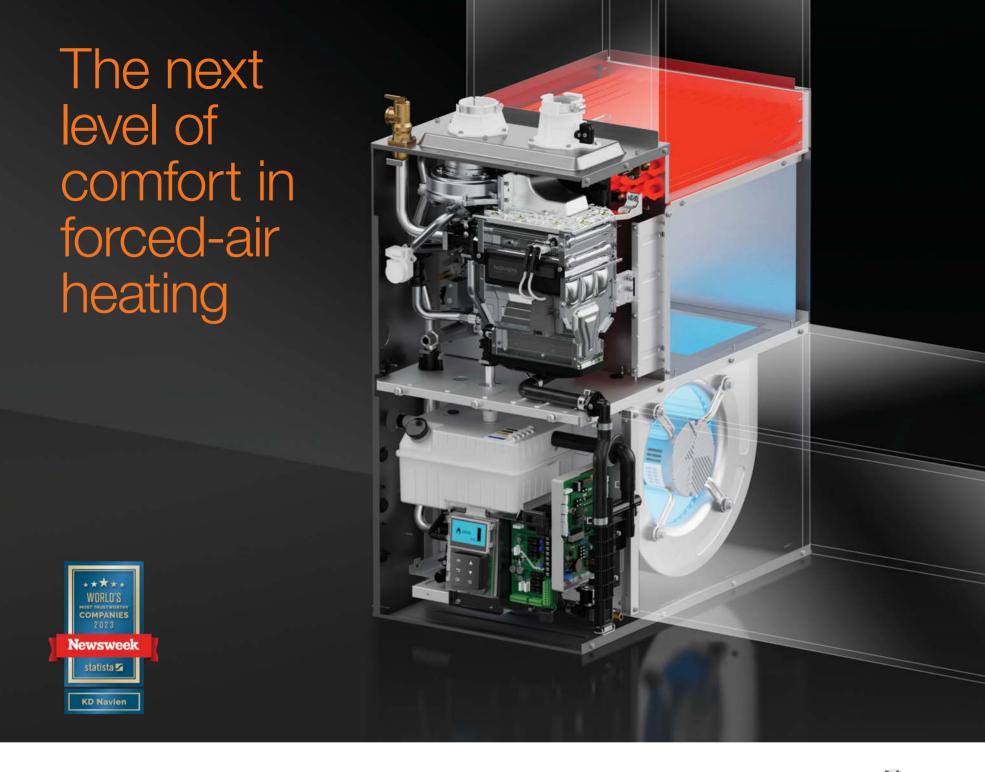
Rooter Hero volunteers donate a ice maker to a local high school.

the Dash went to help Hope the Mission provide over two million hot meals for homeless men, women and children.

To learn more about Hero Helps, visit https://rooterhero.com/herohelps.

To learn more or donate to the Union Rescue Mission, visit https://urm.org/.

To learn more or donate to Hope the Mission, visit https://hopethemission.org. 🕒



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GF Piping to Close Uponor Transaction

➤ Continued from page 1 Ambitious Value Creation

To accelerate the implementation of GF Piping Systems' Strategy 2025 and to further benefit from global megatrends, GF will start an ambitious value creation program to unleash the full potential of this acquisition. GF Piping Systems will focus on the industrial and utility business, providing its customers with sustainable leak-free piping solutions for numerous end markets such as microelectronics, water treatment, energy, chemical processing, marine, data centers or water & gas utilities. Uponor's infrastructure business will become part of GF Piping Systems and will further strengthen the division's portfolio to provide customers with combined solutions.

In the new division, GF Uponor, the building technology businesses will be combined to offer a complementary portfolio for safe and clean water, as well as energy efficient heating and cooling. The consolidation of complementary businesses provides an ideal platform to develop markets

These organizational changes will be implemented during the course of 2024.

Leveraging Global Trends

"We will continue to implement our strategy, and leverage powerful global trends, such as the need for safe and Uponor Corporation's President and CEO Michael Rauterkus will become a member of GF's Executive Committee as President of the GF Uponor division.

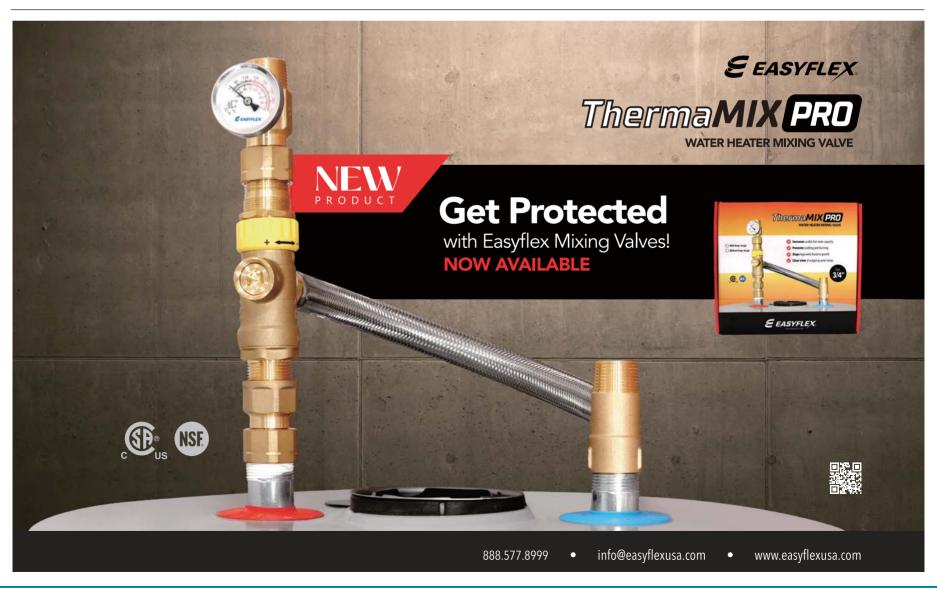
"I am proud to continue to steer GF Uponor together with my leadership team. The combination of our businesses will bring more exciting opportunities and will allow us to serve our existing and new customers even better. Together we are creating a global leader in sustainable water and flow solutions. We are looking forward to a bright and successful journey together," Michael Rauterkus said.

With its four divisions, GF will continue to actively pursue its vision to become a sustainability and innovation leader providing superior customer value.

Strong focus on value creation and attractive end markets with new piping systems setup.

with high potential for both divisions. As the brand Uponor stands for high quality and innovation, it will drive growth in intelligent Building Flow Solutions.

clean water, or more efficient energy use," GF CEO **Andreas Müller** said. "On behalf of all my colleagues, I am happy to welcome Uponor employees and start this new chapter together."



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Bros. Bertolino are PHCC's Plumbing Contractors of the Year

Continued from page 1

For Rob and Tony Bertolino, owners of Rob Bertolino Plumbing & Heating in Virginia Beach, Virginia, commitment to resolving plumbing issues efficiently and cost-effectively was ingrained at an early age, when the brothers worked with their

father, grandfather, and great-grandfather in plumbing up and down the East Coast. stand out." Under their leadership, the company—providing service and light commercial work—prioritizes

Educating Customers

As was shared during the PHCC awards ceremony, "in an industry where trust is paramount, the Bertolino brothers

stand out." Under their leadership, the company—providing service and light commercial work—prioritizes customer education over commission-based sales, ensuring that clients are well-informed to make decisions.

Their marketing efforts focus on social media, referrals, and word-of-

mouth, emphasizing reputation over volume. As an example, the company has a reputation for not charging fees for emergency calls... and for meticulously caring for clients' homes and belongings. The resulting customer reviews and referrals are a centerpiece of their business growth.

What If Water Heaters Had Tinder® Profiles? Intellihot, fresh design I'm sized right, smart, independent, low mantenance, and look great in orange! I turn on quick and heat on demand. I enjoy longtern relationships, and hate inefficiency. I am newer to the market and want to meet smart plumbers. If you're looking for someone bigger or smaller than me, I have friends of all sizes. have no secrets and share everything, checkon me anytime through my app. Big Tanka Hotwater, Burly & Domineering I am 133 years old, but can still keep you on the edge with Friday night leaks and emergencies. I may be big and bulky, but three men can easily carry me. I'm a comfortable choice for some, but I am not going to do anything different, exciting Fair warning, I gain limescale weight, am wasteful, and can be expensive to maintain. intellihot.com • Intellihot

'In an industry
where trust is
paramount, the
Bertolino brothers
stand out.'

Investing in the Workforce

Among their staff, the Bertolino brothers foster a culture of continuous learning and growth, and they actively encourage employees to expand their skill sets and participate in leadership programs. They are engaged in recruiting and training the future workforce as well; Tony is an instructor at the Norfolk Technical Center and was instrumental in creating PHCC of Virginia's Future Leaders program to nurture the next generation of industry leaders.

The Bertolinos' innovative approach is reflected in their company policies, such as using box trucks to carry a wide range of tools and parts to optimize efficiency. Team meetings often feature discussions on unique plumbing challenges to foster creative problem-solving among employees, while their expertise in supporting older home systems sets them apart from their competitors.

Giving Back

Beyond business, the Bertolino brothers are deeply engaged in civic activities that enhance the industry's image. Their support for PHCC and apprenticeship programs, along with sponsorship of community programs, exemplifies their dedication to giving back. And, their family-oriented approach, both within their business and with their valued customers, sets them apart as leaders in the industry, most deserving of this award.

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ABC Announces 2024 National Chair, Executive Committee

➤ Continued from page 3

dreams as the president of a family-owned contractor," said Henley. "ABC creates the conditions for us to succeed in the industry. The honor of serving as ABC's national chair allows me and my leadership team to have a lasting impact on strengthening the merit shop construction industry on so many levels, including delivering on ABC's strategic goals of establishing our members as the industry leaders in total human health, safety and environment; increasing ABC's strength in the political arena; expanding workforce development; and growing a diverse and committed membership."

Buddy Henley, president, Henley Construction Co. Inc., was elected the 2024 ABC national chair.

"The 2024 ABC Executive Committee leads the merit shop construction industry and will add value to the association, this vibrant industry and ABC members' cultures and bottom lines by helping them develop their people, win work and deliver that work safely, ethically and profitably for the betterment of the communities in which they work," said **Michael Bellaman**, ABC president and CEO. "Working with exceptional leaders like Buddy, Chair-Elect **David Pugh**, Secretary 'Murph' Murphy and all of our 2024 elected leaders, ABC will continue to be an organization of high trust, high collaboration and effective communication to deliver value to our members, industry and community."

Executive Committee

The members of ABC's 2024 Executive Committee, who will take office on Jan. 1, 2024, are:

- Chair of the ABC board of directors: Buddy Henley, president, Henley Construction Co. Inc., Gaithersburg, Maryland
- Chair-elect: **J. David Pugh**, partner, Bradley, Birmingham, Alabama
- Secretary and Northeast region vice chair: Thomas "Murph" Murphy, vice president of Aggregates Division, Power & Construction Group, Scottsville, New York
- Treasurer: Larry May, CPA, CVA, partner, Carr, Riggs & Ingram, Jackson, Mississippi
- Immediate past chair: Milton Graugnard, executive vice president, Cajun Industries LLC, Baton Rouge, Louisiana
- Mid-Atlantic region vice chair: Lorri Grayson, partner and founder, GGA Construction, Middletown, Delaware
- Mid-America region vice chair: Brett McWilliams, partner, Pride One Construction, Medina, Ohio
- Southeast region vice chair: Kerrick Whisenant, president, Limestone Building Group LLC, Hartselle. Alabama
- South Central region vice chair: Brandon Mabile, strategic development manager, Performance Contractors Inc., Baton Rouge, Louisiana
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- Midwest region vice chair: Jim Ellis, vice president and COO, Price Electric, Robins, Iowa
- Chapter presidents' liaison: G. David Sload, president and CEO, ABC Keystone Chapter
- ABC national president and CEO: Michael Bellaman 🕒

PPI Announces Education Committee Chair

IRVING, TX — The Plastics Pipe Institute, Inc. (PPI) today announced the appointment of **Jason McKinnon**, director of engineering services, Viega, LLC (Broomfield, CO), as the chair of its Education Committee. PPI is the major North American trade association representing the plastics pipe industry.

"Our Education Committee," stated **David M. Fink**, PPI president, "is counted on by the various industries we serve to provide viable, validated in-

struction on all aspects of plastic pipe. This includes courses and curriculum in each of our five divisions plus the Hydrostatic Stress Board. In his new role,



Jason will assist in delivering courses at conferences with other organizations and use delivery platforms such as Red Vector and PPI's own eLearn $^{\text{TM}}$ educational channel. His input on the new courses PPI will develop will be highly beneficial."

McKinnon has more than twenty years of engineering and training experience developing new curriculum and training modules. He holds a BS – Mechanical Engineering Technology plus

MBA degrees from the University of Massachusetts.

Additional information can be found at www. plasticpipe.org. •

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Bradford White Supports Philabundance in Fight Against Hunger with \$10,000 Donation

AMBLER, PA — Bradford White Corporation, an industry-leading American manufacturer of water heaters, boilers and storage tanks, is providing critical support for the fight against hunger this holiday season with a \$10,000

contribution to Philabundance.

The donation will help Philabundance's year-end food distribution program, which provides holiday food items to individuals and families struggling with food insecurity in the

Greater Philadelphia area. Bradford White also donated to the Philabundance Camp Out for Hunger food drive event and will also be hosting food drives throughout the year to support the urgent need in the region.

From left to right, Ali Corr, Corporate Relations Manager (Philabundance), Rebecca Owens, Senior Communication Manager (Bradford White) and Loree D. Jones Brown, CEO (Philabundance) at the 2023 Camp Out for Hunger event in

Philadelphia, PA.

Leading manufacturer continues partnership with local community organization and its ongoing efforts to eradicate food insecurity

"The holidays can be stressful for members of our community who are struggling financially," said Rebecca Owens, senior manager of communications at Bradford White. "Philabundance works hard to ensure that all of our neighbors have the opportunity to share a happy, healthy holiday season with their families and friends. We're proud to support them and their mission during this special time of year."

Philabundance was founded in 1984 with the simple belief that no one should go hungry while healthy food goes to waste. The organization's mission is to drive hunger from our communities today and to end hunger for good.

For more information about Philabundance, visit https://www. philabundance.org/.

For more information about Bradford White Corporation, visit https:// www.bradfordwhitecorporation.com.

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by Al Schwartz Plumbing Contractor

Customer Relations: Put Yourself in the Customer's Shoes

here are many ways to improve your bottom line: inventory control, solid and accurate estimating, sharp materials ordering and handling, expert utilization of available manpower, controlling waste and scheduling to name a few of the more obvious ones. It can also be said that project selection (bidding only specific types of work at which you and your people excel) can improve a company's profit picture.

Some attention needs to be paid to a very important and often neglected part of your business: customer relations. For service businesses, customer relations are the fountain from which word of mouth referrals, and a great deal of future work, springs. Repeat customers are

what make up the bulk of service businesses income stream. Most successful service companies (and if you are still in business reading this column you can certainly be called successful) recognize this. With few exceptions, companies which primarily perform service work, whether commercial, residential or industrial, operate in a limited geographic and population area, so getting and keeping good customers, and their repeat business, becomes the brass ring.

The Three Ps

When you, or one of your people, come in contact with a customer, you are projecting an image of who, and what, you are. It's not always necessary to "chat up" a customer in order to provide good customer relations. You can provide your customer with a level of appreciation for you and your company by being aware of, and using, what I call the "Three Ps," which are:

1. Prompt: Arrive on time for your appointment. If you will be delayed, call your client. Once you've surveyed the problem, give a good estimate of the time you will need to effect the repair.



Human contact and interaction is at the heart of our business.

2. Presentable: Make sure that you and your vehicle are looking good. A uniform is the best way to achieve a good first impression. A clean uniform is even better. Carry more than one uniform in your truck, or a full coverall, just in case. Keep a box of hospital shoe covers in your truck and use them when entering a customer's home.

3. Professional: It is always possible to present a professional air... even if you are stumped by the problem at hand. Having the right tools and materials at your immediate disposal, and making the repairs quickly, with little wasted movement (like going out to your truck four or five times) will leave a lasting impression on your client.

Answering questions about the bill in a calm, courteous manner is also something that gets lost in translation regularly. Put yourself in the customer's shoes; how would you feel getting a large bill with only one or two lines (labor and material) and a bottom-line number? Be ready to explain the bill, list your materials and their respective retail costs, as well as your labor rate and any other ancillary data such as sales tax.

Contracting

Contractors who do not specialize in service, repair or remodel are often lax in recognizing the benefits of good customer relations. This could be due to the fact that much of their work comes from open bidding services like Dodge Reports, where many subscribers might be bidding on the same project, or it could come from having a large pool of generals to bid to. In any case, neglecting customer relations in favor of the mythical, mathematical equation about bidding "X" number of projects will yield "Y" favorable results is not smart.

Human contact and interaction is at the heart of our business. An argument could also be made that being a low bidder is what's at the heart of our business, but we all know that is not

strictly true. Personal relationships often dictate who will get a project, whether or not they were the low bid. It is common practice to provide incentives to a client in order to influence their favors. One look at the lobbyists in our nation's capitol can tell you that. Golf outings, tickets to sporting events, dinners and even vacations are considered a part of the "cost of doing business." I'm not saying that those material things do not open doors or influence people. They obviously do. I'm saving that a solid, long term, mutually beneficial relationship is built on more than one-sided gift giving.

A general contractor is concerned with the same things you are, only they are a little

higher up on the food chain. Things such as value engineering, using your particular knowledge to help the project architect and/or engineer to solve a sticky problem pays big dividends with all concerned parties. Architects and engineers, after all, must know a lot about a lot of things. You on the other hand are an expert in your trade, and as such can give insight into problems which specifically relate to your area of expertise. Helping these professionals look good, or to save face racks up lots of "I.O.U." points and can put you in the position to negotiate, rather than open bid, future projects.

Remember, "The customer is always right" even if he's wrong. Building a solid relationship pays back big.

The Brooklyn, NY-born author is a retired third generation master plumber. He founded Sunflower Plumbing & Heating in Shirley, N.Y., in 1975 and A Professional Commercial Plumbing Inc. in Phoenix in 1980. He holds residential, commercial, industrial and solar plumbing licenses and is certified in welding, clean rooms, polypropylene gas fusion and medical gas piping. He can be reached at omeletman01@gmail.com.

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*Comparing 80-gallon heat pump against pre-2015 similarly sized standard electric using DOE EF to UEF conversion rates. Savings may vary.

Rural America and the Problem of Clean, Accessible Water

There are 2.2 million people in the US without running water inside their homes—no sinks, bathtubs, or toilets.

By John Mesenbrink



Austin Alexander. Vice President, Sustainability and Social Impact



Susan O'Grady, Senior Director of Marketing

ccording to water accessibility nonprofit DigDeep, there are 2.2 million people in the US without running water inside their homes—no sinks, bathtubs, or toilets. *CONTRACTOR*'s Editor-at-Large **John Mesenbrink** recently caught up with Xylem's **Austin Alexander**, Vice President, Sustainability and Social Impact, and **Susan O'Grady**, Senior Director of Marketing, to discuss the company's Watermark program and the real issue of access to clean water, especially in rural areas.

CONTRACTOR: Can you provide a brief description or mission statement for the Xylem Watermark program?

O'Grady: In 2008, Xylem started Xylem Watermark as part of our commitment to social responsibility. Through this program, we are dedicated to providing education and equitable access to safe water and sanitation to support healthy lives and help build resilient communities. We do this through collaboration with nonprofit partners on sustainable development projects and engaging employees and stakeholders in addressing global water challenges. Examples of this include volunteer work, pro-bono expertise, in-kind technology and product donations, and matched monetary contributions. We also provide access to clean drinking water and sanitation, as well as humanitarian emergency response to help communities become more water-secure and sustainable.

CONTRACTOR: Talk about Xylem's work with the Waterboys on their Hometown H2O program?



Hometown H20 volunteers helping did the Dittman's new well.

O'Grady: We partnered with The Chris Long Foundation's Waterboys and the Water Well Trust in 2019 to bring further awareness to domestic water issues and bring clean, sustainable water to people and communities in need across the US. The Hometown H2O program brings free access to clean water through the installation of water wells for homeowners who are currently living without dependable water access.

The donations cover all aspects of the project, including necessary equipment, drilling and installation, as well as completion of other home improvement projects. What makes these projects so special is our partnerships with local distributors who act as the boots on the ground during the installation process—it is truly humbling to be a part of such a collaborative venture and come together for the sole purpose of aiding those in need.

So far, we have completed 15 projects in the US and have plans for more. Most recently, we had a project in Parker, Pennsylvania, where a family of four, living in a farmhouse that had been passed down through

generations, received a new water well system. As a result, the family no longer relies on friends and neighbors to help them haul water daily from town, a 40-minute round-trip drive—water that is needed for them to complete basic tasks such as cooking, cleaning, showering and doing laundry.

CONTRACTOR: What criteria does the program use to determine which communities will be eligible for a HometownH2O project?

O'Grady: Each Hometown H2O project is a collaborative venture, involving a number of stakeholders within the water community. Our Watermark program partners with The Water Well Trust (WWT), a national nonprofit established by the Water Systems Council, to provide

➤ Turn to Rural America, page 20



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The Dittman family of Parker, PA, in front of their 1903 house.

funding for wells benefiting low-income families nationwide in need of safe drinking water or wastewater systems. For Hometown H2O projects, WWT handles the specific applications and verifies applicant qualifications to receive a new donated water well on their property. WWT serves Americans living primarily in rural, unincorporated areas, minority communities that may be difficult to reach, low-income families that do not have access to public water supplies and those who live in areas where the extension of public water service does not make economic sense.

As far as the application process goes, the WWT provides a list of applicants to Waterboys and Xylem Watermark that do not meet all the qualification for the WWT funding. Once a family is selected, our team then coordinates the project, donates supplies, and partners with Xylem channel partners, well driller and contractors to make the project a success at no cost to the homeowner.

CONTRACTOR: To what extent can the current water quality and availability challenges be attributed to the effects of global warming?

Alexander: We are starting to see in earnest the global ongoing and escalating challenges climate change is bringing to the natural water cycle. This can be demonstrated through increased scarcity of freshwater resources in some regions and too much water in other regions. While we often see the most severe and immediate cases on the news, which are important, it is the slow and steady changes to water resources that are making it most challenging to manage water infrastructure and resources. The increasing severity of acute weather-related events in addition to steady baseline adjustments to water resources is a clear indication that water quality and availability are being impacted by the changing climate.

CONTRACTOR: With the growing realization that climate change is a threat to global resources, sustainability is beginning to

play a key role in every industry. How can the water industry set an example for everyone else?

Alexander: For me, if any industry is going to lead on sustainability, it should be water. Sustainability is at the core of what it means to monitor, manage and treat water for today and future generations. I believe the water industry has a distinct opportunity to be a leading sector that is addressing climate mitigation through decarbonization efforts, meaningfully address climate adaptation by more efficiently utilizing water resources and finally, continue to support the positive social value clean water brings to our communities. I think the simplest place to start is to continue to do more to

tell our story as the water sector—to make sure the world knows how important water availability and quality are to our day-to-day life so that as a society, we don't fall victim to taking this precious resource for granted.

CONTRACTOR: What links exist between healthy drinking water and socioeconomic circumstances?

O'Grady: You never know how important water is until you don't have it. When water poverty is in play, people are more likely to be living in economic



The Dittman family in Parker, PA used to rely on friends and neighbors to haul water from town—a 40 minute round-trip.

poverty and experience other quality of life outcomes in turn. In the context of water access, people who cannot maintain personal hygiene because they don't have clean water to shower, or bathe are often disadvantaged in getting a job. Without a steady income and insurance, regular doctor visits are often postponed or ignored, even when health issues occur. It's a perpetuating, downward cycle that people, on their own, cannot rise above.

CONTRACTOR: How challenging is it for Americans in rural communities to access clean drinking water?

O'Grady: The reality is that rural households can face a wide range of water infrastructure challenges. For instance, connecting to public water systems is often cost prohibitive and impractical in rural areas where homes are widely dispersed. When you add on

the global issues of rising water costs, aging infrastructure, depleted water supplies and climate change, this only exacerbates the water access challenges that rural communities face.

As a result, families are often forced to source water from rain barrels or other unsanitary means for everyday use; others need to travel long distances to get water for drinking, cooking and bathing; and many more experience sewage backup into their toilets, sinks or bathtubs. These are daily, ongoing struggles Americans in rural areas encounter.

CONTRACTOR: How can water well pumps, and other technology, aid in closing the gap?

O'Grady: Every American has the right to clean and safe drinking water; however, in rural areas, connecting to centralized water systems can be limited and costly. Instead, using individual and small, shared water wells are an economic and cost-effective option for rural communities. Drawing water from a well as opposed to a municipal water system can offer several advantages, from low utility costs to naturally filtered water supply that contains beneficial minerals and nutrients. Water well installations also serve as localized and independent access points for crucial needs such as drinking water and irrigation. The cost savings are tremendous, and the increased accessibility helps to close the economic gap.

However, closing rural America's water access gap requires various strategies, including the development of innovative technologies. Smart water technology, ranging from intelligent equipment to smart networks to digital solutions, promotes the sustainable management of water and enhances equity in water accessibility, which will in turn help communities secure water access for vulnerable residents.

CONTRACTOR: In 2021, the Infrastructure Investment and Jobs Act was passed, which may result in difficulty getting funds into the right hands. What are you hearing about this, and do you think this is going to have a marked effect on the crisis?

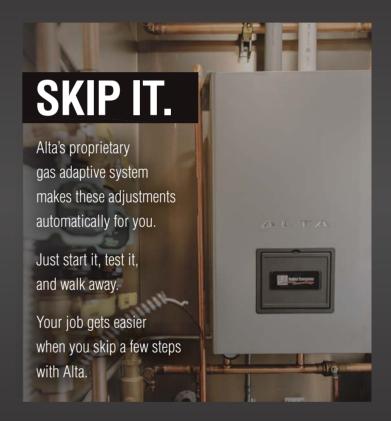
Alexander: The 2021 Infrastructure Investment and Jobs Act is largely considered a success in helping address water infrastructure issues. The Act includes \$55 billion in water infrastructure funding, including funds for "small and disadvantaged communities" that can be specifically targeted to rural

➤ Turn to Rural America, page 22



ALTA

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Prior to the project, the Solares family had been living without running water since their existing well collapsed in 2018.

communities. Although the infrastructure bill is a short-term investment, it is a step in the right direction.

CONTRACTOR: In the Solving Water in Rural America: A Xylem Report, there is a call to action where it says solving water insecurity in rural communities means doing things differently—from technology and policy innovation to creative partnerships that build public awareness of water challenges and solutions. Can you expound on this?

Alexander: The water infrastructure crisis and social inequities related to water

access remain largely invisible to the general public. By taking a coordinated policy approach to make water systems more stable, safer, affordable and accessible, lawmakers can efficiently and effectively lay the groundwork for future water security. Major players in the water sector like Xylem, the Water Systems Council and Dig Deep are advocating for these public policy initiatives. There's also a need to prioritize the adoption of smart water technologies to help rebuild water infrastructure for the 21st century—and do it in a more affordable way. Improving data availability and visibility can help us make smarter investments into our water infrastructure and improve the longevity and resiliency as climate change continues to impact it

CONTRACTOR: Can you describe what Xylem is doing in Washington to support clean water advocacy?

Alexander: Xylem partners with government officials and advocacy groups to tackle water issues in the US through public policy initiatives.

We have teamed up with other major players in the water sector, advocating for the inclusion of key water projects in federal recovery spending, and building upon the Infrastructure Investment and Jobs Act (IIJA), which allocated an estimated \$55 billion to upgrade water infrastructure and replace lead service lines. This included advocating for funding Tribal communities water infrastructure, resulting in the single largest investment in Tribal infrastructure ever (\$13 billion) in the Infrastructure Investment and Jobs Act.

In the spirit of bringing together collaboration across the water sector on these important topics, in June 2022, Xylem launched the Reservoir Center for Water Solutions in Washington to

foster collaboration among policy makers, utility associations, foundations and academic institutions to address water-related challenges and build a shared vision for the future of the water sector.

CONTRACTOR: More than two million Americans without access to clean, safe water. How important is collaboration and public awareness in all of this?

Alexander: We often think about water access challenges as something that happens elsewhere, instead of in our own backyard. Global water challenges are immense and daunting, but it's affecting so many people here in the US where we have the technology and the resources to make sure everyone has access to water.

To make this happen, education is imperative so that people understand how close these water challenges are and how they affect other areas of our lives. Safe drinking water is vital not only to public health, but also economic vitality of rural America. Information and education play an essential role in growing America's knowledge about where their water comes from and what it takes to deliver reliable water service. To do this, utilities, nonprofits and companies involved in the water sector need to come together and effectively communicate the importance of safe, reliable drinking water through outreach campaigns and community engagement. If we can do this, I believe people would put in their time, resources and expertise toward solving this issue.



The Solares family poses with project volunteers.



Hometown H2O, the partnership between Xylem, Waterboys and WaterWell Trust, installed a new well for the Solares family of Bertram, Texas in December 2021.

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by Patrick Linhardt HYDRONICS MANAGER AT CORKEN STEEL PRODUCTS CO.



Modern Hydronic Distribution - Circa 1962!

e walked into the room and there it was, just like in the picture, installed in 1962. I can be sure of that because I noticed the cornerstone of the church as we went to the office to meet an old friend of the industry I hadn't seen in years. Turns out, he was too busy doing paperwork to come to church. I completely understood, because he works for the city and they like their employees to spend a lot of time doing paperwork.

He volunteers at the church on the building committee since he knows HVAC, growing up in the business as the third generation. I was with his brother, who took on that family business. He was going to quote the job. The idea was for me to give them some ideas on modernizing the equipment, since I have been advising this heating company for almost forty years, starting with their father, the second generation running the company. He has long ago retired and moved to Florida, as so many do here in the Midwest, but we still play golf every year when he's in town for the summer.

The System

The church is heating with the boilers and pumps installed in 1962, when they installed two separate boilers and heating systems for two buildings, locating both boilers in one of the buildings. The boiler room had two large cast iron atmospheric draft hot water boilers sitting side by side, their flues connected to one large chimney.

That was the only thing they shared. Each had its own piping distribution system. The one on the right had three zone pumps, on the return as I remember, which was very common in 1962. Nothing unusual there. The idea of the boiler on the supply side pumping away from the expansion tank connection wasn't well known back then. Or so I thought.

The boiler on the left had one large pump on the supply side piping, with the expansion tank connected to a tapping on the boiler, so it was pumping away from the expansion tank connection. Whoever piped this was utilizing modern (for 1962) piping technology.

Reading Hieroglyphics

I was told that there was a room with more pumps in it, in the other building. The piping leaving the boiler on the left went to that room and back. I was intrigued. One of the reasons I still work is my curiosity for finding something different. I was not disappointed with what I found.

It took a while to sort out the piping, even with all those arrows pointing out the direction of flow. Then it took a while to understand what I was looking at. I felt like the guy trying to understand Egyptian hieroglyphics for the first



Two of the three pumps that were installed, all piped the same way.

One of the reasons
I still work is
my curiosity for
finding something
different, and on
this job I was not
disappointed.

time. What does it all mean and why was it piped this way?

In the photo, you see two of the three pumps that were installed. There were connections on the supply and return for a fourth pump, but they were capped off. They were all piped the same way. On the far left, that is the supply pipe from the remote boiler room flowing down and elbowing to the right. The first tee on the low pipe is pointing up, its branch connection feeding to a plug style balancing valve.

Each of the other tees off the supply pipe have a balancing valve, which would divert, when adjusted properly, just the right amount of water to each of the zones. The first zone might need 20 gallons per minute of flow, while the next zone might need 30 gallons of minute, and so forth. The total flow of that pump back in the boiler room is split three ways and controlled with three balancing valves. Somebody was thinking on this job.

After the balancing valve, there is another tee, with the branch connected to a check valve on the first zone and a weighted check valve on the second visible zone. Both are there to prevent flow from circulating backwards through the zone when that zone pump is off, but another zone pump is on. The pumps are circulating water through their zone, in this case up towards the ceiling, past the very 1960s thermometer in the piping.

The return line comes down, past a thermometer, elbows to go through another check valve, to connect to a tee in the vertical supply line. That return tee and the supply tee 18" below it, it finally dawned on me, were a primary-secondary connection, not commonly used in the early 1960s. The second visible pump is piped the same way, as is the third pump in the room, not in the picture.

If it's Working, Why Change It?

Today, we are used to seeing primary-secondary connections on modern near boiler piping, and as one set of closely spaced tees, not three separate sets of closely spaced tees. In this configuration, the pump back in the boiler room is the system pump with the cast iron boiler piped as full flow. The three zone pumps are piped individually as primary-secondary in the remote location. This idea for multiple zone pumps worked for sixty years. Why change that?

What I did propose to modernize the system would have to reuse certain components and minimize piping changes to keep within the church's budget. The big ticket would be a pair of commercial mod-cons to save operating costs in the future. But instead of keeping the boilers on separate systems, I proposed to combine all the zone pumps to new common distribution piping in the boiler room, with the boiler pair connected to the new common piping with a new primary-secondary connection.

So there would be the three zone pumps from the right boiler and the old boiler pump form the left boiler, still piped to the other three zone pumps, as the other connections to the new common piping. The advantage of this design is boiler redundancy. If one of the boilers doesn't fire, the other boiler can provide heat into the building, avoiding that dreaded no-heat situation.

Patrick Linhardt is a forty-year veteran of the wholesale side of the hydronic industry who has been designing and troubleshooting steam and hot water heating systems, pumps and controls on an almost daily basis. An educator and author, he is currently Hydronic Manager at the Corken Steel Products Co.



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SPECIAL TO CONTRACTOR

BLOOMFIELD HILLS, MI — Old money and new money coexist nicely in Detroit's Bloomfield Hills area. Descendants of Motor City's automobile aristocracy share parks, lakes and other neighborhood amenities with A-list celebrities and NHL players. Residences are often commercial in scale, and construction timelines are no exception.

When money is no object, architects and engineers are involved at every level, even for something as simple as a back patio. These projects require a special kind of builder, and specialized subcontractors.

Center Line Heating and Cooling grew with the city

of Detroit. Today, the 25-person firm focuses exclusively on custom homes in the 10,000 to 55,000-square-foot market. Long-standing relationships with the area's most exclusive builders yield constant demand for intricate heating and cooling systems.

Three-generation relationships

"My grandfather founded Center Line in 1936," said **Jeremy Gillette**, owner



The owners of an existing, 25,000-square foot home in the Detroit's Bloomfield Hills area added an outdoor living space in 2023, hiring Center Line Mechanical for the heating component.

The design-build project was to include three patio levels—each snowmelted— a heated pool, spa, bathrooms and a solarium.

of the company. "It started as a sheet metal shop. In the '90s, we specialized in hydronics because that's the way the

Center Line Healing

Center Line installed two, 399 MBH Aspen light commercial boilers for the snowmelt, radiant, pool heat and DHW.

custom home market was moving. I bought out my dad in 2014 and my uncle in 2020. We're big enough to handle any home but small enough that I have personal oversight on each project."

The bulk of Center Line's work comes through two or three custom homebuilders. These are relationships that the Gillette family has cultivated for nearly 90 years. However, those aren't the only relationships that've led to success.

"We've done business with HS/Buy Van Associates, our hydronic rep, for 25 years or more," said Gillette. "**Jarrett Armstrong**, VP of commercial sales, has been a great resource. On the engineering side, we work hand-in-hand with Kaiser Consulting."

A recent Center Line project was a perfect example of how long-developed, collaborative partnerships yield extraordinary results.

Just a back patio

Thomas Seabold & Associates, one of the best-known custom builders in the Detroit area, approached Gillette in 2018 about an outdoor living addition to a 30-year-old, 25,000-square-foot home in Bloomfield Hills. The design-build project was to include three patio levels, an outdoor kitchen, pool, spa, bathrooms and a solarium. The pool was to be heated and each level of the patio to be snowmelted. The solarium and outdoor bathrooms were to feature radiant heat and air conditioning.

The project was in design phase for more than a year before the pandemic put groundbreaking on hold. In 2022, work began in earnest.

"After the builder had final plans, it was up to me, Armstrong, and **Mike Kaiser**, at Kaiser Consulting to design the hydronic system," said Gillette. "We wanted all heating loads to draw from a central boiler plant. In all, there were eight zones. Each patio terrace was a single snowmelt zone. The pool was one zone. The solarium was a standalone radiant zone, as were the bathrooms. Finally, we included a large indirect water heater."

Kaiser consulting handled load calculations, sizing, loop layouts, etc. Armstrong suggested the use of Aspen light commercial firetube boilers, made by U.S. Boiler Company, and assembled the list of needed tekmar components for control. It was critical that the new system tie in seamlessly with the home's existing home automation system.

The outdoor living space totals 4,000 square-feet, all of which is either snowmelted or radiantly heated. It's a private entertainment space, and the owners wanted the ability to control each terrace individually.

Remote snowmelt and radiant

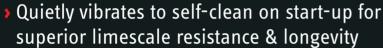
"Each of the three snowmelt zones feature a tekmar 654 Snowmelt Control

➤ Turn to Center Line, page 28

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➤ Continued from page 26

with a 090 in-slab snow/ice sensor," said Gillette. "Because the zones are up to 150 feet from the mechanical room, we have three remote manifold boxes buried in flowerbeds."

Center Line worked with the builder to excavate trenches for the two-inch supply and return lines to the remote manifolds. Lining the trenches with rigid insulation, followed by spray foam, ensured that very little heat is lost to the surrounding soil. From the manifolds, three-quarter inch PEX is installed at nine-inch centers. The system is designed to fire when the slab sensors detect precipitation below a certain ambient outdoor temperature. As a result, the sizing was calculated to melt on demand, so a 120°F supply temp provides 200 BTUs per square foot to the paver or slate tile surface.

For the two radiant zones—the 500-square-foot solarium and the restrooms—a similar approach was used.

The heart of the mechanical system lies below the patio terraces. The low supply and return water temperatures required for radiant and snowmelt applications are perfect for high efficiency, modulating boiler technology.

Underground mechanicals

Center Line installed the two, 399 MBH Aspen light commercial boilers, individually vented through the only exposed wall in the mechanical room. Offering up to 96 percent AFUE and with a combined turndown ratio of 20:1 via the onboard cascading Sage controls, the dual Aspen approach offers as much efficiency as a snowmelt system can provide.

"We started installing U.S. Boiler Company products about seven years ago, in large part due to our great relationship with HS/Buy Van," said Gillette. "Jarrett is always quick to help us on hydronic designs and controls. The Aspen is a proven product for us, and Buy Van has parts in stock if something should ever need repair with a fast response time."

The snowmelt loops are heated directly from the boilers, while the two radiant zones are served by an injection mixing loop. A 115-gallon indirect water heater serves domestic needs at the restrooms, kitchen, and outdoor shower. But the boilers also serve two more needs.



Landis, Center Line installer, wires a tekmar switching relay.

Second stage heat is provided to hot water coils in the solarium. These coils are integrated with two, five-ton Lennox air handlers, which supply air to a continuous linear register around three sides of the room, which itself required three days to install.

"Obviously, an all-glass room has a great deal of solar gain, and tremendous heat loss in the winter," said Gillette. "The linear register was the best way to provide balanced comfort across the whole space, in summer or winter."

Finally, the pool is heated by an 800 MBH Advanced Industrial Components (AIC) titanium shell-and-tube heat exchanger.

"The heat exchanger is custom made, and we selected titanium for its corrosion resistance, which is a big consideration when heating pool water," said Gillette. "When we initially fired the pool zone, the 36,000-gallon body of water went from 65°F to 84°F overnight. The pool is maintained at 90°F from April through December,

To protect the entire hydronic system from freezing, Center Line installed a 15-gallon Axiom glycol feeder. A 35 percent Dynalene glycol mixture is used throughout.

Integration

The big home features a Savant home automation system, allowing the owners

Armstrong (left) and Gillete, in the mechanical room below the terraces.

to control lighting, sound, security and HVAC through a mobile device or a wall-mounted display. They wanted every element of the patio project to report to the same control system.

"Center Line has been working on controls for so long that they rarely need any help from me," said Armstrong. "But I pitch in to expedite the project if the work is this extensive."

Tekmar's teknet communication system was used to integrate all of HVAC equipment in the home and the outdoor living space. The 16 tekmar thermostats throughout the home were combined with the controls outside—including boilers, radiant, snowmelt,

slab sensors, etc.—all of which report to a tekmar 423 main system control.

"Through a tekmar 482 gateway, the Savant control technician integrated the new system with the existing HVAC thermostats and everything else in the home," said Armstrong. "From the living room and anywhere in the world, the homeowner has full access to every automated component at the property."

This level of fit, finish and control is the rule on Center Line projects, not the exception. Consistent excellence has lead to growth that's forced the company to expand its facilities.

More elbow room

Before this past summer, Center Line Heating and Cooling headquarters had been in the same 4,000 square-foot shop since before World War II.

"We purchased a 12,000 square-foot facility in April of 2022, but it's taken a year to renovate the space and move in," said Gillette. "We're now in a commercial complex instead of a neighborhood, which makes deliveries, etc. much more convenient."

The additional space has allowed Center Line to stock many of their most commonly used products, which is especially convenient for hydronic jobs that often take specialty components.

"We've implemented a new Fishbowl inventory management system, which has had a learning curve, but

it's well worth it," continued Gillette. "We have a barcode system, so everything is scanned in and out. We also do a little bit of prefabrication, but most of our project are so large that components need to be assembled onsite, coordinating with the builder."

"The new warehouse and inventory system have already proven to be a great advantage," said Gillette. "We're able to stock installation materials and maintain accurate job costing to ensure that we're quoting properly. That's especially important right now, as we're conducting another job very similar to this one, and 10 other radiant projects going on concurrently."



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DIVERSITEC



by Patti Feldman computer Authority

Solutions for Business Pain Points

esign Master HVAC (www. designmaster.biz) is a complete ductwork drafting and calculation program that works directly within AutoCad and BricsCad. The solution handles duct and diffuser layout, CFM and sizing calculations, pressure loss calculations, and heating and cooling calculations.

How it works: the user defines the parameters of a project when drafting it, and the software performs calculations using those parameters. You can make revisions throughout the design.

Features include: Intelligent Duct and Defuser Layout, with designed ductwork responding to changes in your design. The solution enables automatic inserting of fittings while you draft and you can modify them as needed. You can generate a diffuser schedule as you design your project. When doing CFM and sizing calculations, you can size an entire system with a single command using the inputted criteria. If you make a change, any affected callouts, calculations, and duct sizes are updated.

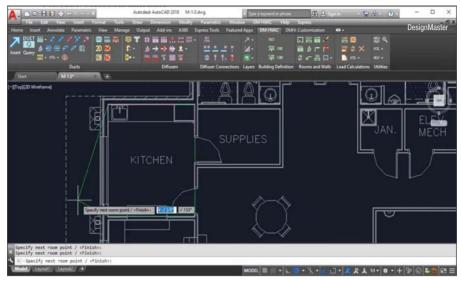
The program can generate a full 3D model based on your 2D layout and you can export IFC and DWG for use in Autodesk's Navisworks (review and coordination software to improve BIM project delivery) and Revit (building information modeling software).

Pricing: monthly recurring subscription or annual fee. Single-user license: can be used on different machines but cannot be shared. Floating license: can be used by any one person at a time. Downloadable free trial of Design Master HVAC for AutoCad upon request.

Dartbid Proposal

Dartbid Proposal (www.dartbid.com) is a software solution that aids HVAC technicians in selling residential and light commercial comfort systems, pricing jobs, creating and managing the proposal process, and generating customizable quotes. It also provides a single access point for job billing and ordering requirements.

The software streamlines scheduling the proposal with the customer and includes automated follow-ups. It



The DesignMaster heating/cooling load calculation screen.

Reviews of the Design Master drafting program, the Dartbid proposal solution, Boxcore safety software, Duct Proscannable solution and HomeBuddy lead-gen software.

features several payment options for the customer, including financing options that enable customers to compare different systems and payment paths.

Dartbid Proposal also tracks customer service histories, including current and past service agreements, invoices, and quotes. Technicians can update invoices in the field and send them to customers on the spot directly from Dartbid software, using their iPads. The customer receives the proposals to their emails.

Pricing: subscription-based, by the month, no contract (a demonstration is available upon request).

Boxcore

Boxcore (www.boxcore.com) is cloudbased construction safety software, suitable for companies of all sizes, for simplifying on-site safety management. You can create, view, approve, store, and access safety documents, including risk assessments, on its intuitive platform, from any device. Streamlining administrative tasks, it provides site teams real-time visibility of key safety data such as worker training records, equipment inspections, safety documents, permits, and risk assessment while simplifying worker onboarding.

Pricing: Monthly or Annual Subscription (a demonstration is available upon request)

Duct Pro

Duct Pro® by Shurtape® BR **Code**TM **Scannable Solution**s (www. shurtape.com/brcode) is a line of preprinted scannable labels that, when used in conjunction with the free BitRip® App, enables users to connect digital data to physical assets. The user sticks the scannable label with the preprinted code to a physical object and then scans the label to start uploading data. Each time the label is scanned, the app records a timestamp and GPS location. Any team member who has the app can then locate the asset and upload and share asset information in the form of photos, links, checklists, notes, videos, voice memos and documents.

Potential uses include: shipment tracking; tagging tools for inventory accountability; tracking equipment inspections; managing safety data; tracking maintenance and repair schedules; creating punch lists; sharing tool and equipment videos; and more.

Several types of scannable tape are available in the BR Code Scannable Solutions line, including versions for indoor or outdoor use and permanent or non-permanent applications. Different colors are also available for color coding. The BitRip App is available to download from Google Play and the App Store.

HomeBuddy

HomeBuddy (www.homebuddy.com) is a lead generation company in the home improvement market that finds homeowners through various marketing channels, prescreens them as good potential customers, and then shares those prospects with local remodeling companies in the form of leads or in-person sales appointments.

Contractors receive exclusive leads to book as new customers (there is no sharing or "double selling"). Home-Buddy, which has no long-term contracts and no upfront fees, handles all of the CRM integration work. If a customer does not have a CRM, HomeBuddy uses its call center to set up appointments.

If a customer has a CRM, exclusive leads are delivered directly into their CRM. (HomeBuddy handles all of the CRM integration work at no cost.) If a customer does not have a CRM, then HomeBuddy books appointments for them on their calendar.

HomeBuddy looks at its service as a partnership: HomeBuddy customers get a dedicated account manager who meets with the customer and, according to HomeBuddy, continuously improves the campaigns to make sure both are hitting their targets.

Pricing: Contractors only pay for leads or appointments as they are delivered.

Patti Feldman writes articles and web content for trade magazines and manufacturers of building products. She can be reached at productpad@yahoo.com.



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by Candace Roulo TECHNICAL WRITER

Changes in the Auto Industry Could Mean Challenges for Your Fleet

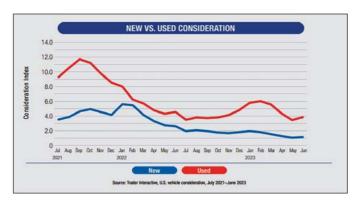
he past few years have been challenging for the automotive industry. Plumbing contractors looking to purchase fleet vehicles have faced challenges stemming from what the automotive industry continues to experience. First automobile manufacturers experienced COVID shutdowns and supply chain stoppages, then the microchip shortage. Just recently there was the UAW strike against Ford, General Motors and Stellantis, which has been resolved. Add the push of electric vehicles (EVs) into the mix, and it is an interesting time for all—plumbing contractors that own businesses, consumers and the automotive industry.

When deciding to add to their fleets, plumbing contractors consider prices, efficiency, vehicle life, miles driven, cost of repairs, and more. But during the past few years, and this year too, they must consider other factors, such as vehicle inventory, and if it is indeed the right time to purchase a vehicle. Being knowledgeable of the state of the auto and work truck industry will help them make the best decision as to if it is the right time to add to their fleet. This is where the US Commercial Vehicle Market Report comes in handy.

The Work Truck Association™ recently released the third edition of the US Commercial Vehicle Market Report, Powered by Commercial Truck Trader, NTEA The Work Truck Association and S&P Global Mobility. This semi-annual industry report dives into details, data and trends around the commercial vehicle life cycle—from chassis sales to truck registrations to later stages when used vehicles re-enter the sales market.

The New vs. Used Consideration graph above shows that there is still a consideration for used cargo vans and this is higher than consideration for new cargo vans. Consideration is a measurement of the perceived effort an end-user puts forth to locate a suitable vehicle as measured by search data provided by Trader Interactive.

According to **Kevin Koester**, NTEA managing director, three main components have caused used cargo van





consideration to grow: increased prices, decreased availability due to supply constraints and increased order-to-delivery due to industry backlog.

"Given the unprecedented challenges the industry has seen over the past few years, there's been a significant spike in interest in used vehicles as they have historically helped satiate some short-term spikes in demand," explained Koester. "Fleets are spending

that will limit build capability, and even the smallest disruptions can have a butterfly effect on a vehicle line."

EV registrations take a step back

Regarding EV registrations they took a slight step back in the first six months of 2023, but are anticipated to continue growing (see Electric Vehicle Growth by GVWR graph above). Growth in

industry, and we should not expect growth to be a straight line. The step back in first-quarter 2023 is likely part of an ebb and flow in the growth of the segment, and as more fleets test and proveout vehicles, the volume will grow to reach an ongoing, ambient level."

There are some contractors that have researched EVs and have considered them for their fleets.

"When checking into EVs for vehicles, our first challenge was our guys take trucks home because they are on call, but we could fix this to some degree," explained **Vincent Youndt**, president of Vertex Mechanical, Stevens, PA. "More importantly, with loaded down vans we were very concerned about drivable distance, getting stuck in traffic, etc. We need a little more time to research and process this aspect, and we are in the middle of reviewing EVs for our sales team."

Most early adopters like Youndt are in a similar position. Thus, it is best for plumbing contractors to do as much research as possible when in the market for fleet vehicles, whether electric, hybrid or internal combustion engine.

Koester's words of advice to small fleet operators and contractors: "In the end, plan far ahead, and stay in contact with your dealers and manufacturers, so you don't get caught waiting for a vehicle that may or may not be buildable."

Candace Roulo, a graduate of Michigan State University's College of Communication Arts and Sciences, is a technical writer covering topics in the mechanical contracting, manufacturing and supply chain industries.

Knowing more about the industry will help you make the right decisions managing your fleet.

a greater amount of time in the used market to meet their price, timing and availability needs. Cargo vans have maintained comparatively higher consideration for used product, likely speaking to ongoing challenges in acquiring new product."

Shortages continue to limit build capabilities

Although the microchip shortage is still affecting the availability of commercial vehicles, the industry has been adapting to it. Yet, there have been other component shortages impacting vehicle manufacturing.

"Chassis OEMs are limiting some configurations and features, which have added chip requirements, and fleets are adjusting their expectations," said Koester. "Component shortages in total are impacting the industry. Simply put, there is always a next component

the second half of 2022 was driven by long-standing larger fleet orders, creating a spike as opposed to first-quarter 2023 stepping back.

Large fleets can move the needle swiftly, which not only can cause quick increases of registrations, but also quick decreases. According to Koester, it is important to note that EVs are still being tested by fleet owners—as the first round of high-volume EVs were produced, the cutting-edge/early adopters received their first batches of vehicles for testing.

"Given the relatively unproven nature of EVs across a broad range of applications, those early fleets are likely to run EVs through a longer range of testing when compared to traditional internal combustion engine (ICE) replacement vehicles," explained Koester. "This means holding off from ordering a second round right away. We're still early in the process of onboarding EVs to the

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Boston Plumber's Pipe Dream Comes True at Inaugural Plumbing National Championship

➤ Continued from page 3

Childress's foresight was spot on. Not only did he clinch the title in the Plumbing National Championship, but he also emerged as the groundbreaking crossover victor in the HVAC National Championship's pro division—a first in the event's history.

The spoils of his double triumph? A hefty \$50,000 in prize money, complemented by a pair of weighty trophies. In the aftermath of his double win, with his wife **Rachel** by his side, an elated Childress reflected on the magnitude of his achievements: "Professionally, this is the most absurdly wonderful thing that's ever happened to me," he remarked, still processing the whirlwind of success. "It's been an unbelievable journey. I'm incredibly grateful."

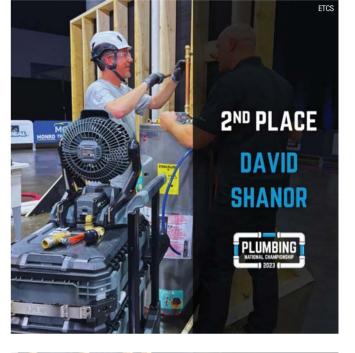
The Elite Trades
Championship
Series is on
a mission to
elevate the profile
of plumbing
by framing
pipework as a
competitive sport.

Fighting Stereotypes

The ETCS is more than just a trades competition. It's a showcase of finesse, knowledge and dedication among the nation's elite apprentices and seasoned pros, all vying for a slice of the \$300,000 prize pool, bolstered by various sponsor contributions, including SharkBite's support of the trade.

The ETCS Plumbing Championship is a mission to elevate the profile of plumbing. By framing pipework as a competitive sport, the championship aims to flush away old stereotypes and draw a new generation into the fold.





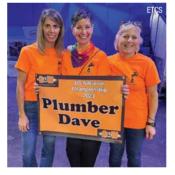
It's a call to action for young craftsmen and craftswomen: plumbing is not just a job—it's a vocation that pays well but demands smarts, skill and a steady hand. In showcasing the sheer expertise these challenges demand, the championship underscores the critical role plumbers play in keeping

our modern world running. The city of Tampa Bay became the stage where these virtues were on full display.

Plumbing may not spark viral hashtags or trend on TikTok, but the Plumbing National Championship is changing the conversation around this foundational trade. Think of it as the Olympics of U-bends and pipe wrenches: a high-stakes arena where plumbing pros from across the nation lock horns, armed with nothing but their tools and talent. Each plumber dives into a gauntlet of real-world challenges, turning the spotlight on the unsung skills that keep our faucets flowing and toilets flushing.

Other Winners

The competitive but fun event also celebrated other top-tier talents, with



David Shanor and Joe Jaspers nabbing the second and third spots respectively in plumbing, and Dagner Espinoza and Lee Morris Jr. round-

ing out the HVAC podium.

However, for Childress, his moment of victory was as personal as it was professional. After both championship wins, he shared the moment with his 12-year-old daughter via video chat. Her pride in her dad was the cherry on top of an already sweet victory, moving Childress to the brink of tears.

The gripping tale of the ETCS Shark-Bite Plumbing National Championship



will hit the airwaves soon. According to the Plumbing Nationals Instagram feed, CBS Sports Network will broadcast the 2023 Plumbing National Championship on December 29, 2023, at 8:00 PM ET, allowing viewers nationwide to witness the drama of Childress's remarkable pipe dream come true. The HVAC National Championship will be televised Friday, December 15 at 8 PM ET, also on CBS Sports Network.

Kevin Tindall of New Jersey Receives the Col. George D. Scott Award

➤ Continued from page 3

presented its highest honor, the Col. George D. Scott Award, to Tindall during its annual awards ceremony, held Oct. 27 at PHCCCONNECT2023 in Cleveland, Ohio.

Inspired by PHCC's inaugural president, Col. George D. Scott, the award acknowledges a PHCC member who has provided years of service and unselfish devotion to the association and to the industry ... and whose industry efforts have provided many benefits to other p-h-c contractors.

A Legacy of Service

"Kevin has always believed in the mission of PHCC and of our Educational Foundation... and he recognizes that our work is never done," says **Cindy Sheridan**, PHCC's chief executive officer. "It's why he continues to volunteer whenever asked and is passionate about providing the next generation with the connections, resources, and training they need."

As president of Tindall & Ranson in Windsor, New Jersey, Tindall is fully involved in the company's daily business and—from many years of involvement in PHCC—recognizes the importance of investing in his employees. He provides regular education and training, conducts a monthly seminar for his technicians, and invites manufacturer representatives to provide new product training. These efforts have resulted in keeping his employees up to date on new codes, installs, repairs, and customer relations and retention.

Within PHCC, Tindall believes in building up the next generation, serving as a huge contributor to the PHCC Educational Foundation's online apprenticeship program offered through PHCC of New Jersey and many other states. With Tindall's support, PHCC of New Jersey has run its online program—PHCC Academyfor eight years; it has become the chapter's biggest source of non-dues revenue and has helped countless apprentices who previously were unable to find a school in their area. As the Academy grew in New Jersey, Tindall supported the creation of the Foundation's Apprenticeship Advisory Board, which helps maintain the PHCC Academy at the national level. He also has volunteered at the SkillsUSA Championships and the PHCC Educational Foundation's National Apprentice Contests.

Tindall currently is chairman of the PHCC Educational Foundation. Among many other accomplishments in this position, in 2021 he approved a \$500,000 budget to reinvest in the Foundation's HVACR curriculum. Tindall also is committed to helping the rising leaders in the industry, mentoring the next generation of contractors based on his vast knowledge and expertise. In fact, he was a



PHCC presented its highest honor to Tindall during its annual awards ceremony, held at PHCCCONNECT2023.

speaker at the Rising Leaders Summit last month at PHCCCONNECT2023.

Commitment to the Association

Within PHCC—National, Tindall has served in several positions, from zone director in 2005-2008 to president in 2014-2015, not to mention his work on numerous committees. In 2020, he was among the few PHCC members who were invited to the White House to celebrate Pledge to America's Workers, with PHCC and the PHCC Educational Foundation committing to train 75,000 people through its plumbing and HVAC apprenticeship programs.

Tindall is no stranger to Washington, DC. He testified on behalf of PHCC in front of the US House Small Business Committee on healthcare reform and on the impact of green technologies on the plumbing and HVAC industry five years before passage of the Inflation Reduction Act and its expected influx of energy-efficient products into the market. He also was one of a select group of business community representatives who met with President **Donald Trump** at the White House as part of the president's progress report on deregulation; Tindall shared how his business had benefitted from the rollback in regulations enacted by the then-President.

Tindall is a long-standing member of PHCC's Government Relations Committee, where he offers his perspective on workforce development and other legislative and regulatory issues affecting the plumbing and HVAC industry. He also generously supports PHCC's Political Action Committee, playing a central role in building and maintaining relationships with Congress. "He is vertebrae in the backbone of PHCC's government affairs efforts," reads his nomination for the Col. Scott Award.

Impact on the Industry

Beyond PHCC, Tindall has made an indelible impact on the industry. He has been an important part of the New Jersey NSPC coalition, fighting hard for the contractors to keep the state's plumbing code. He also served on the IAPMO C.A.U.S.E. committee in 2010 and 2011, and in 2012 was named IAPMO's Sustainable Professional of the Year. Tindall's work extends beyond our borders as well, serving as a World Plumbing Council member from 2019 to 2023

Closer to home, Tindall has served PHCC of New Jersey on a host of committees—Code, Legislative, Finance, Apprenticeship, and more—as well as on its Board of Directors, including as its current president. Within his community, he is a life member of the Volunteer Firemen for West Windsor. In 2013, he received PHCC's Larry M. Cox Award for his efforts in his community after Superstorm Sandy in 2012. The day after the storm, Tindall and his family jumped into action to secure necessary items, including 10 Port-a-Potts, fresh water, socks, and food for first responders. His community knew they could turn to their "contractor neighbor" to provide the supplies, support, and knowledge they needed.

Tindall's dedication to PHCC and its mission to help protect the health, safety, and comfort of society cannot be denied.

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When Heat Exchangers Fail

> Continued from page 1

The 21-story structure with LEED Silver status was built in 2019 with resilient features—a crucial design point considering its proximity to the harbor. The first floor is elevated above the 100-year flood level, and critical mechanical and electrical systems are protected by locating them above the ground floor.

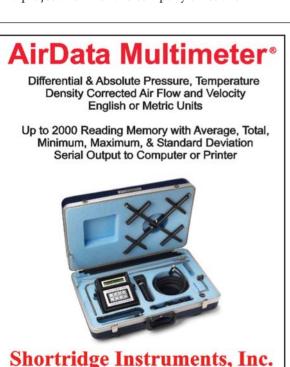
Built in 2019, the high-rise boasts more than 1 million square feet, including 10,000 square feet of retail space and 20,000 square feet for civic use and below-grade parking.

Retrofit for Energy Savings

In 2023, the building owner contracted with E.M. Duggan of Canton, MA, to retrofit its hydronic heating system to a more energy-efficient one, along with all piping and the Honeywell building management system. E.M. Duggan's **Bill Keogh**, project manager, and **John Lamb**, account manager at Duggan Mechanical Services, worked with Economy Supply representative **Joseph Poles** to source the replacement boilers.

"We removed two Camus boilers because their heat exchangers had continued failures," explains Lamb, a 40-year industry veteran. "We turned to Laars, whose boilers provide top-of-the-line heat exchangers."

Lamb merged his Boston-based, 20-year-old service business with Duggan Mechanical Services in 2016 and has worked developing service relationships and project work for the company since then.



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The Duggan crew removed the old flue and installed a new flue using Centrotherm polypropylene flue piping to meet code. John Lamb, account manager at Duggan Mechanical Services, notes that the plastic piping has fewer leaks than stainless steel.

"I chose to work in this industry because it is always evolving and challenging every day," he says. "It is a relationship-driven business between the customer and the contractor. I enjoy helping our incredible project and service team build these relationships and grow."

Keogh is a 16-year industry veteran who ran, repaired and replaced HVAC systems for Massachusetts General Hospitals. He started with E.M. Duggan in 2015 as a foreman/project manager on commercial projects.

Partnering for Success

Bill Hoch, northeast regional sales manager for Laars Heating Systems, notes that E.M. Duggan and Economy Supply worked closely on the project's design: "E.M. Duggan contacted Economy specifically for Laars product on this job. The service support from Economy and Laars was also a driving force behind the decision to work with the Laars product for this project."

He adds that replacing a more energy-efficient hydronic system made sense since the existing system was a hydronic one. Hoch has helped design heating systems for 33 years; he started at Laars in 2001.

High Performance

The Duggan crew consisted of four technicians throughout a two-week installation, including prep and prefabrication. They installed two new Laars MagnaTherm HTD water-tube boilers with 3,000 MBH, 96% efficient ASME-rated stainless-steel heat exchangers.



The new boilers serve the condenser water loop for in-unit heat pumps to the 369 luxury apartment units at Boston's Pier 4.

"The high turndown ratio of the boiler, 20:1; the TruTrac O2 sensing function that keeps the boiler at its best performance level; and the unit's footprint were contributing factors to choosing the Laars MagnaTherm HTD," Hoch explains.

The new boilers serve the condenser water loop for in-unit heat pumps to the 369 luxury apartment units. Other features include Modbus, BACNET, multiple pump control, outdoor reset, and high/low gas pressure switches. Lamb says that Duggan removed the old flue and installed a new flue using Centrotherm flue piping to meet code.

"We used BIM piping prefabrication for inlet/outlet piping on both boilers due to the tight physical layout," he explains. "We also used our prefab shop to avoid costly fire details and lower onsite work hours. Rigging units down the hallway was challenging, so we used a 250T Liebherr crane to rig boilers onto the roof."

Duggan Mechanical Services completed the job on Nov. 3, 2023. •

Kelly Faloon is a contributing writer to CONTRACTOR magazine and the principal of Faloon Editorial Services. The former editor of Plumbing & Mechanical magazine, she has nearly 35 years of experience in B2B publishing, with 25 of those years writing about the plumbing, heating, cooling and piping industry. Faloon is a journalism graduate of Michigan State University. You can reach her at kelly@falooneditorialservices.com.

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THE E90-E INTEGRATED PUMP SOLUTION

from Xylem features state-of-the-art technology

designed to maximize pump performance and efficiency. It can communicate with other building systems. High efficiency hydraulic design lowers energy cost, shrinks carbon footprint and

helps meet government regulations. As an integrated pump solution, (including VFD, motor, and pump) it reduces equipment needs, and ensures

reliable performance and maximum savings. Remote system will alert before failure to prevent downtime. Xylem

WWW.XYLEM.COM/EN-US/

#4 THE VERITUS AIR-SOURCE COMMERCIAL **HEAT PUMP WATER HEATER** from Lochinvar

features a modular design that allows multiple units



to be banked together to achieve large commercial hot water demands. provide built-in redundancy and match the capacity to the demand. Units can be installed outdoors

while the SmartTouch control's touch screen can be located indoors for ultimate control.

Lochinvar

WWW.LOCHINVAR.COM

#5 SUPPLYHOUSE.COM is an online distributor of plumbing, heating and HVAC products. The site

offers HVAC. PEX, radiant heat, hydronic heating and plumbing supplies. Shop more than 200,000



450-plus brands; free shipping is offered for orders over \$99. The SupplyHouse.com Resource Center provides job calculators, a video library (with product guides and installation tips), and much more. Rush shipping available.

SupplyHouse.com

WWW.SUPPLYHOUSE.COM

#6 THE RANGER AIR 260MPX **MULTIFUNCTION ENGINE DRIVE** is designed

for the work truck industry; it can serve as an air

compressor, generator, battery

charger, battery jump assist and multi-process welder all in one. The Vanair compressor delivers 40 cfm at 150 psi. With up to 30% more air than other machines in its class,

operators are able to inflate tires faster and power anything up to a 1" impact wrench.

Lincoln Electric

WWW.LINCOLNELECTRIC.COM

#7 THE COMMERCIAL RADIANT STAINLESS-**STEEL MANIFOLD** from Uponor provides more than double the gal./min. of standard manifolds to meet the demanding applications of large



Handles 48 gpm total flow with up to 4 gpm flow meters, 11/2" distribution ball valves, and 1-in. loop isolation ball valves that reduce loop pressure drops without impact to pump head pressure. Available in loop configurations of 3-8, 10, and 12.

Uponor

WWW.UPONOR.COM

#8 QUICKDRAIN QUICK KITS FOR SHOWER **SYSTEMS** from L.R. Brands simplify ordering

and installation by packaging products and components together instead of offering them a la carte. Available kitted systems will include WallDrain fully concealed shower

drains, ShowerLine linear drains and SquareDrain point drains, offered in best-selling sizes, cover designs and finishes. Customers will

be able to order a Drain Kit and add an optional Installation Kit (based on shower layout, size and waterproofing preference) to build a full-assembly shower system.

L. R. Brands

WWW.LRBRANDS.COM

#9 THE MICROCURE SMALL-DIAMETER PIPE **UV CURING SYSTEM** from Vortex is specifically

engineered to reline sewer mains, laterals, and interior plumbing systems ranging from 3" to 10" in diameter and work with both inversion and CIPP methods. Designed for portability, it is built on a two-wheel carriage and weighs only 176 lb. The system comes



light sources for optimum curing: a 2x400-watt unit that easily navigates multiple bends up to 90 degrees for 3" to 6" pipe, and an 8x100-watt unit that accommodates 6" to 10" pipe.

IMS Robotics

with two

WWW.IMS-ROBOTICS.DE

#10 THE COMFORTFLEX PRO WORKWEAR

LINE from Cintas was engineered based on feedback from professionals who put them



to the test. Engineered with stretch fabric and venting, the workwear delivers comfort, mobility and breathability. With a Cintas Workwear Program, you provide your team with ComfortFlex Pro plus laundry service. Cintas delivers your crisp, clean workwear and picks up your dirty workwear. Your workwear is hygienically

laundered and delivered right back to you. *Cintas*

WWW.CINTAS.COM

#11 SHARKBITE MAX PUSH-TO-CONNECT

FITTINGS from RWC are re-engineered to deliver the same reliability as its first-generation fittings but with

new product enhancements that provide more strength and an easier installation. The original brass body now has a



reinforced stainless-steel collar for added strength, allowing the fitting to handle up to double the burst pressure. Requires half the insertion effort as the original fitting, allowing for seamless installations and quicker emergency repairs in wet lines. *RWC*

WWW.SHARKBITE.COM

#12 THE INVERTER RESIDENTIAL HEAT PUMP WATER HEATER combines heat pump

compressors with a backup electric resistance heater.



The Energy Star-certified unit delivers hot water with a 3.75 UEF, and minimizes the need for supplemental electric heat due to its wide operating range (23° F to 120° F ambient temp). Features LG ThinQ technology, Wi-Fi capability, and smartphone control for ease of scheduling and monitoring. The dual inverter compressor maximizes power in Turbo Mode for a 30% faster heating time than in standard operating mode. LG Electronics USA WWW.LGHVAC.COM/ **RESIDENTIAL-LIGHT-**

#13 THE TMAX ALUMINUM MECHANIC TRUCK BODY is intended for a 108" cab-to-axle chassis with 22,000- to 22,900-lbs gross vehicle weight rating. The new 13' aluminum body offers additional compartment storage and features the crane carrying reliability of the Stellar Torq-Isolator

COMMERCIAL



torsion box understructure and crane compartment. Aluminum extrusion compartment tops with two built-in accessory mounting rails eliminate the need to drill holes in the compartment tops.

Stellar Industries

WWW.STELLARINDUSTRIES.COM

#14 THE ABS UNIVERSAL CLAMPING RING

offers greater flexibility when using decorative drains with bonded waterproofing methods.

For use with 4" x 4" center drains (Pro-Series and Premium Series). Allows clamping to standard drain bodies. Works with 2" threaded nipple TNAS or \$50 in \$ Series + FX 65 Series + FCB Series products, and all standard flow center drains.

Infinity Drain

WWW.INFINITYDRAIN.COM

#15 THE TFTN GAS BOILER SERIES from

NTI is designed for residential and light commercial



hydronic applications. It introduces a high-quality, 7" color touchscreen and offers onboard Wi-Fi capability to provide contractors with more functionality and diagnostic ability. Efficient installation includes top or bottom supply and return connections, direct-vent options or use with indoor combustion air, and an integrated three zone controller.

NTI Boilers
WWW.NTIBOILERS.COM

#16 THE VH-199 CONDENSING HYBRID WATER HEATER from Vesta features a UEF of 0.91

and a thermal efficiency of 98%. Options includes wall-mounted, floor-standing and top water connections. Designed for 2" venting up to 60". Easily field-convertible from natural gas to propane. Features a premiumgrade, stainless-steel fire tube heat exchanger; a low NOx metal fiber burner; and a 3-gal. reserve tank.

Vesta

WWW.VESTAHWS.COM

#17 THE T-47NL UNDERSINK THERMOSTATIC MIXING VALVE from

THERMOSTATIC MIXING VALVE from Legend Valve sustains and limits hot water to an adjustable

temperature between 80° and 120° F and with a flow rate between 0.25 gal./min. and 3.2 gal./min. Its flow characteristics provide temperature control with low pressure drop. The valve incorporates dual check valves.



Legend Valve
WWW.LEGENDVALVE.COM

#18 THE ELECTRIFLEX SERIES COMMERCIAL ELECTRIC WATER HEATERS from

Bradford White come in light-duty, medium-duty and heavy-duty models. Voltage, phase and kW are field-convertible. Features include Vitraglas tank lining with Microban technology, Hydrojet performance system,



fully automatic controls, non-CFC foam insulation and direct heat transfer with INCOLOY immersed elements.

Bradford White WWW.BRADFORDWHITE.COM

#19 THE TTS SYNERGY SERIES TANKLESS RACK SYSTEM from Facilities Resource

Group features a turndown ratio of 66:1 that will provide more than 1,600 gal. of hot water per hour, yet is compact enough to fit through a standard mechanical room doorway. It streamlines and accelerates the process of

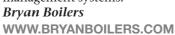


changing out a centralized water heating system. Facilities Resource Group WWW.WEBFRG.COM/TTS

#20 BE SERIES ELECTRIC BOILERS in water or steam models, are compact, packaged and wired

or steam models, are compact, packaged and wired units with automatic controls featuring long-life Incoloy-sheathed elements. Applications include

water heating, steam heating, process heating and supplemental heat for heat pumps. The boiler control includes functions designed to save energy, optimize efficiency and integrate seamlessly with energy management systems.





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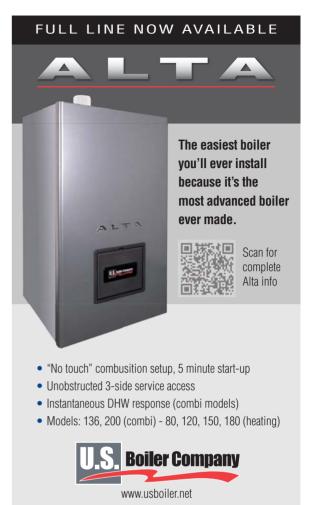




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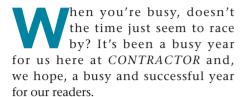
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PRODUCT CATALOG



by Steve Spaulding EDITOR-IN-CHIEF

The Best and Worst of 2023



Looking back at 2023 one of the best things to happen was something that didn't happen. The early months of the year saw nearly everyone predicting a recession caused by rising interest rates. The only real questions were how soon, how bad, and how long would it last.

And then... it didn't happen. The economy kept chugging right along thanks mainly to the US consumer who, despite all the headwinds, kept spending. At the same time, it seems those higher interest rates are having their desired effect. The latest numbers from the Bureau of Labor Statistics have inflation at 3.24%—a big improvement from 7.75% this time last year.

Another one of the best things to happen this year was that money from federal infrastructure projects started to make its way into the economy. But there was a gray cloud to this silver lining. In October, Associated Builders and Contractor's Construction Backlog Indicator reported an increase for larger contractors, but a sharp downturn for smaller contractors.

"While larger contractors continue to disproportionately benefit from a bevy of the time it would take a human. It's fair to say we have only scratched the surface of what AI can do to improve efficiency, productivity and profitability—and only had the briefest glimpse of how it may disrupt our economy.

One of the worst things to happen

I think the best thing I've seen this year has been the willingness of people in this industry to give back.

megaprojects around the nation, many smaller contractors are feeling the sting of weaker economic fundamentals," said ABC Chief Economist **Anirban Basu**.

For better *or* worse, one of the biggest news stories from the past year has been the sudden arrival of Artificial Intelligence in the workplace via large natural language models such as Chat GPT. No, the robots aren't about to drive the trucks or turn the wrenches (yet), but AI can produce schedules, checklists and customer service scripts in a fraction of

Advertiser

this year was a new set of proposed regulations from the Department of Energy on consumer water heaters. To be fair, the end goal—the reduction of carbon emissions—is a worthy one, but the industry consensus seems to be that the regulations push things too far, too fast.

To wind up on a positive note, I think the best thing I've seen this year has been the willingness of people in this industry to give back—both to the industry itself and to the people around them.

I can't count the number of stories

I've published in 2023 that fit that description. In this issue alone our lead cover story is on the PHCC's Plumbing Contractor of the Year, the **Bertolino** brothers. In addition to being outstanding plumbers and businessmen, the brothers have done a lot to support community programs and the PHCC's apprenticeship programs.

On pg. 3 you can read about **Kevin Tindall**, recipient of this year's Col. George D. Scott Award. Over the course of his career Tindall has been tireless in his efforts as a mentor and educator, and selfless with his time volunteering with the PHCC's National Association and with his local chapter in New Jersey.

On pg. 6 you can read about how High 5 Plumbing and Rooter Hero are giving back to their communities, donating time, money, equipment and expertise to worthy causes throughout the year.

It's stuff like this that makes me proud to have the plumbing & heating industry be my beat. I wish all our readers a happy, healthy holidays. We'll see you in 2024 for *CONTRACTOR Magazine*'s 70th Anniversary year!

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Anaco-Husky	. choosehusky.com	9
Bradford White	. www.bradfordwhite.com	11
Charlotte Pipe & Foundry	. charlottepipe.com/oakboro-foundry	15
Cintas	. cintas.com/contractormag	37
Climate Control Group	. climatemaster.com	23
Easyflex, USA	. www.easyflexusa.com	8
ECR International/Dunkirk	. www.dunkirk.com	BC
Fernox USA	. www.fernox.us	12
General Pipe Cleaners	. www.drainbrain.com/XPodPlus	IFC
ntellihot Green Technologies Inc	. intellihot.com	10
nternational Exposition	. ahrexpo.com	29

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Liberty Pumpslibertypumps.com
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