MCN Metal Construction News

November 2026
VOLUME 48 | NO. 11



One panel for multiple challenges

IMPs address growing construction pressures

- Striking sustainable housing in Jamaica Plain
- Designing metal buildings to carry overhead cranes
- Metal wall systems: what contractors should know

Build Faster. Backed by Exceptional SBS Service.

Cold-formed steel buildings designed for quicker installation, with the responsiveness and follow-through you expect from SBS.









FastForm™ is Built for Speed. SBS is Built to Deliver.

FastForm™ gives you a faster, simpler way to build without compromising strength or quality. Engineered-sealed drawings and foundation design are included. Lighter, shorter framing members simplify erection and reduce labor and equipment needs.

But speed means little without responsive service. SBS stays engaged from quote through delivery, with experienced support and the follow-through to keep your project moving.

FastForm™ gives you a simpler, quicker building system. SBS gives you the people and service behind it.

SBS
SCHULTE BUILDING SYSTEMS
TEXAS ▪ ALABAMA
1.877.257.BLDG (2534)
sbslp.com

Inland
BUILDINGS
1.800.438.1606
inlandbuildings.com

TALK TO OUR FASTFORM™ TEAM:

Ryan Cox: 940.595.0376, ryanc@sbslp.com

Ana Maldonado: 281.213.6131, anam@sbslp.com

Introducing the first, patent-pending non-combustible metal composite material for the U.S. market.

ALPOLIC™/NC-US

- Passes ASTM E136
- Passes E84
- Passes NFPA 285
- Third-party verified

For more than 35 years, our products have helped designers and architects change city skylines.

Now, meet the next generation of beautiful, durable, and safe metal composite materials. Only from ALPOLIC™.

ALPOLIC™/NC-US delivers non-combustibility assurance for projects requiring enhanced, fire-safe building products. Without sacrificing design intent.

Learn more at alpolicnc-us.com

ALPOLIC™ | Beautiful. Durable. Safe.

©2026 All Rights Reserved. ALPOLIC™ is a registered trademark of Mitsubishi Chemical Corporation.

NOVEMBER 2026 | VOL. 48 | NO. 11

MCN Metal Construction News

HOW TO REACH US:
266 Elmwood Ave., #289
Buffalo, NY 14222
Tel: (847) 674-2200 Fax: (847) 674-3676
www.kenilworth.com
www.metalconstructionnews.com

PRODUCTION OFFICES:
30 Leek Crescent, Suite 201
Richmond Hill, ON Canada L4B 4N4

EDITORIAL & PRODUCTION
Executive Publisher, Melanie Kowal, mkowal@kenilworth.com
Editor-in-Chief, Anthony Capkun, acapkun@metalconstructionnews.com
Production Coordinator, Bess Cheung, bcheung@kenilworth.com
Graphic Designer, Steve Maver, smaver@kenilworth.com

BUSINESS & SALES
Vice President of Sales, Joseph Galea, jgalea@kenilworth.com
National Sales Manager, Metal Group, Bob Higgins, bhiggins@kenilworth.com
Account Manager, Eric Silver, esilver@kenilworth.com
Circulation Manager, Mei Hong, mhong@kenilworth.com

Founding Publisher John S. Lawrence

Kenilworth MEDIA INC
A FORUM MEDIA GROUP COMPANY

KENILWORTH MEDIA INC.
Group Publisher/CEO, Erik Tolles
Chief Financial Officer, Philip Hartung
Senior Director of Operations, Krista Taylor
Editorial Director, Blair Adams
Director of Business Development, John MacPherson
Director of Digital Operations, Matthew Buckstein

SUBSCRIPTIONS AND REPRINTS
For subscription inquiries or changes of address, go to www.metalconstructionnews.com or contact Mei Hong at mhong@kenilworth.com. Subscriptions are free for those in the metal construction industry in the United States. For those outside the industry, the subscription price is $90 per year, in the United States; $120, in Canada and Mexico; and $195 per year, in all other countries.

METAL CONSTRUCTION NEWS (ISSN-8756-2014) is published monthly by Kenilworth Media Inc., 30 Leek Crescent, Suite 201, Richmond Hill, ON L4B 4N4. Distributed in the U.S. by Kenilworth Media Services Corp., 750 Commerce Dr. #1, Gulf Shores, AL 36542. Periodicals class postage paid at Gulf Shores, AL, and additional mailing offices. POSTMASTER: Address service requested. METAL CONSTRUCTION NEWS, P.O. Box 2267, Gulf Shores, AL 36547.

MEMBERSHIPS
METALCON INTERNATIONAL · MCA · AIA · MBMA · MRA METAL ROOFING ALLIANCE · AISC · METAL BUILDING CONTRACTORS & ERECTORS ASSOCIATION · BPA WORLDWIDE





Features

10 IMPs, PEMB, cranes, trucks, and new–builds
The expansion of Feldmeier Equipment's headquarters is a story of an expanding expansion, a whole new structure, roads and truck traffic, crane action ... and of VIP Structures, the design-builder that pulled it off.
By Anthony Capkun

16 Specifying doors for today ... and tomorrow
Contractors and specifiers check off baseline specs for a commercial rolling or sectional door, but these specs often fail to capture the long-term operational or life cycle value after installation.
By Heather Bender

19 Is a building's address its identity?
The gap between a building's mailing address and its physical address shows up constantly. Additions, retrofits, reroofs, reclads, insulated metal panel installations, and panel replacements almost never happen to a single, cleanly labeled structure.
By Trevor Vick

22 One panel for multiple challenges
Rising costs, labor shortages, schedule pressures, design needs, and sustainability expectations are reshaping how buildings are designed and delivered. Perhaps insulated metal panels can help.
By Karim Muri

26 Data centers are not just another warehouse project
A fastening decision, installation tolerance, or other issue that might be relatively minor on another project can have consequences measured not only in repair costs, but in uptime and business continuity.
By Brendan Cadman

28 Striking sustainable housing in Jamaica Plain
Standing out among its gray counterparts, Brookley Flats is a vibrant testament to what you can accomplish with sustainable housing—and multicolored aluminum wall panels.
By Ciara Lalor-Lindo







32 Designing metal buildings to carry overhead cranes
A lot of things change when an overhead crane enters a metal building project, which is why pulling the crane requirements forward into the design protects both the structure and the schedule.
By Jeremy Barth

36 Metal wall systems: what contractors should know
MCN's editor spoke with industry suppliers on the Metalcon show floor to gather insights, expertise, and practical advice on a range of metal wall systems.
By Anthony Capkun

Trade Smarts: A look at walk door U-factor

31 A look at walk door U-factor
By Tom Granitz

Departments

6 Publisher's Letter: 35 years. Countless connections.
By Melanie Kowal

8 Profit Building: Take the Hidden Losses Challenge!
By George Hedley

9 MBCEA Industry Perspective: Built for what's next: 2027 National Conference
By David Leinbach

40 Industry News

42 Snapshot: Prefab steel wall panels for this New England home



On the Cover

The insulated metal panels enclosing the Lenexa Old Town Activity Center give the facility a sleek and sophisticated look.

PHOTO: KINGSPAN INSULATED PANELS NORTH AMERICA

Follow us on social media

@MetalConstructionNews
@MetalConstructionNews
@MetalConstruct



35 years. Countless connections.

Melanie Kowal
EXECUTIVE PUBLISHER
mkowal@kenilworth.com

I'm fresh off the heels of another great METALCON, and as always, it was a wonderful opportunity to reconnect with familiar faces, meet new ones, and see firsthand just how much innovation is happening in metal construction.

From discovering new products and technologies on the show floor to celebrating the winners of the Top Products Awards and recognizing the impressive talent among this year's 40 Under 40 honorees, there was plenty to be excited about.



Celebrating Metalcon Legacy 10 exhibitor Metal Construction News. From left: Eric Silver, Melanie Kowal, and Bob Higgins. (Anthony Capkun is behind the camera.)

PHOTO: A. CAPKUN

I always enjoy seeing what's new, but what I appreciate most are the conversations. Whether it's catching up with someone I've known for years or meeting someone just starting out in the industry, those connections are what make events like METALCON so special.

This year was particularly meaningful for Metal Construction News. We were honored to be recognized as a Legacy 10 exhibitor, celebrating our presence at METALCON every year since the show began 35 years ago.

Think about how much the metal construction industry has evolved over those years. The products, technologies, and applications have changed dramatically, but the spirit of innovation and the relationships that drive this industry forward have remained constant. It's pretty remarkable to think that Metal Construction News has been there alongside the industry through it all.

Of course, none of that would be possible without the manufacturers, contractors, builders, advertisers, and readers who continue to support us. We don't take those relationships for granted, and it was especially nice to celebrate this milestone surrounded by so many of you.

To everyone who stopped by to say hello, thank you. It was wonderful to see you, and I hope our paths cross again soon.

Melanie Kowal

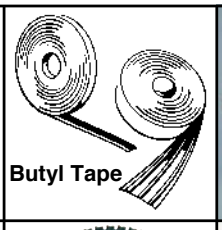
DYNAMIC FASTENER

Everything for the Metal Builder & Roofer®





















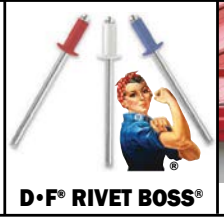
















You supply the crew.
We'll supply the rest.®

CALL 800-821-5448 or Order Online @ DYNAMICFASTENER.COM

Call for your Free Full Color 140 Pg. Hand Guide. Better yet, call us for your next tool or fastener requirement. Discover for yourself why your peers enjoy doing business with our company!



Take the Hidden Losses Challenge!

By George Hedley

George Hedley, *CPBC, is a certified professional construction business coach and speaker. He helps contractors build better businesses, grow, profit, get organized, and improve estimating and field production. He is the best-selling author of "Turn your construction business into a profit-making machine!" available on Amazon. Visit HardhatBizcoach.com to schedule a free introductory coaching session, get his Hardhat Hedlines Biz-Tips e-newsletter, templates, videos, or webinars and workshops information.*

Construction business owners often focus on completing projects, managing crews, and satisfying customers. In the midst of this hustle, you may be shocked to discover you've lost, wasted, or failed to charge enough for several job costs over the last year.

Can you spot the following "hidden losses" in your own business?

1. Know your overhead costs
Stop bidding every project using a standard industry markup like 15%. Understand what it costs to keep *your* business running and support your annual project volume.

Review all expenses and identify areas for savings such as insurance, software, office, underutilized or inefficient people, etc.

Consider eliminating underperforming social media, estimating the wrong projects, or providing company vehicles, gas cards, or phones for too many employees.

Assess the true cost of owning versus renting equipment. Review purchase price, interest, maintenance, gas, tires, and all operational costs to determine whether that equipment is financially viable.

2. Accurate labor burden rate
Ensure you're using precise field labor burden rates for each employee and crew. Your rates must include average overtime, paid holidays and vacations, health and workers compensation insurance, downtime, updated tax and benefit changes, training time, small tools, and bonus pay.

3. Competitive subcontractor and material costs
Regularly seek competitive quotes from several subs and suppliers instead of relying on the same companies over and over again. Getting more bids from current and new companies will help drive your costs down so you can submit more competitive bids and win more contracts.

4. Audit change order requests
Make sure subcontractor change orders align with your contract and the project owner's contract. Often, you'll find markup, labor costs, supervision, or equipment charges requested don't match what's allowed, and your pass-thru requests will be reduced accordingly. Also, make sure you and your customer agree on proposed change order rates and costs before you start any project.

5. Maximize change order pricing
Make sure your change order requests include all the actual costs required. Cost breakdowns should be detailed and include things like small tools, equipment, trucks, labor, supervision, general conditions, mobilization, delay, time extension, liability insurance, and the contract-allowed markup for overhead and profit.

6. Minimize general conditions costs
Regularly check your estimates versus final job costs for temporary facilities, services, cleanup, fencing, and utilities to avoid budget overruns that could have been avoided.

7. Complete subcontracts
When awarding subcontracts, make sure each sub has everything required to complete the total scope of work and eliminate missed items that *you* end up paying for. For example, who has the scissor lifts for steel inspectors?

8. On-budget crew production
A major problem for contractors is completing their self-performed work on budget because the foreman doesn't know the labor hour job budget nor are they given weekly job cost updates.

How did you do?

When you take action on these real costs, you can significantly enhance your profitability.

Built for what's next

MBCEA's 2027 National Conference

The MBCEA 2027 National Conference promises a focused, member-driven experience built around the issues that matter most to metal building contractors, erectors, and industry leaders.

Members consistently rank peer-to-peer learning and practical business solutions among the conference's greatest benefits, and the 2027 program is being shaped to deliver both—along with ideas attendees can put to work as soon as they return home.

The conference is prioritizing sessions that address the realities of running and growing an organization in today's market. The program will help attendees strengthen their organizations, develop their workforce, improve financial performance, and gain greater visibility into project success.

Presenters will move beyond theory to share proven practices, lessons learned, case studies, useful tools, and actionable strategies that attendees can use right away in their businesses. For example:

Workforce development, labor pipeline, and retention
Approaches for attracting people to the industry, building skills, developing future leaders, and creating workplaces where employees can grow and stay.

Financial management, project visibility, and field engagement
Practical ways to understand performance earlier, connect office and field teams, improve decision-making, and keep projects aligned from planning through completion.

Building processes that scale
Repeatable systems, clearer accountability, and disciplined operating practices that support growth without sacrificing quality, safety, or customer service.

More for the field and its people

The national conference will also put added emphasis on the professionals who bring metal building systems to life in the field. A dedicated Field/Assembler track will feature hands-on demonstrations, product-specific training, and real-world examples. The aim is straightforward: provide relevant instruction that can sharpen skills, reinforce sound practices, and help crews solve the kinds of challenges they actually encounter.

Shared technical insight with MBMA

Attendees will also benefit from joint time with the Metal Building Manufacturers Association. MBCEA and MBMA will provide an update on the technical projects underway within both associations, giving members a broader view of the work shaping the industry. Bringing contractors, erectors, and manufacturers into the same conversation creates an opportunity to align around common challenges, strengthen understanding, and connect technical initiatives with field experience.

A bigger exhibit hall, and more time to explore it

The exhibit hall will be larger, with more time built into the schedule for attendees to connect with suppliers, explore solutions, and have substantive conversations. A product showcase will add another practical dimension, giving companies a focused way to present products and capabilities while helping attendees see how new tools, technologies, and services can support productivity and performance.

One conference, immediate takeaways

Watch for additional details about the conference, May 5-7, in Kansas City. Plan to join your industry for a member-driven event focused on stronger organizations, stronger teams, and stronger project outcomes.



David Leinbach

David K. Leinbach *is a recognized leader in the construction and metal building industries with over 40 years of experience driving growth, innovation, and operational excellence. As president of Kaiser-Martin Group Inc., David's expertise spans design-build solutions, property development, and strategic management. A respected voice in the industry, he serves as national president of the Metal Building Contractors and Erectors Association (MBCEA) and has held leadership roles with Associated Builders and Contractors (ABC), the Chamber of Commerce, and other organizations. David has been instrumental in advancing best practices, safety standards, and legislative advocacy for the construction sector.*



IMPs, PEMB, cranes, trucks, and new-builds

VIP Structures' Feldmeier expansion project has it all

Anthony Capkun

If an expansion project were to be scripted and turned into a Hollywood movie, then a fantastic candidate for the big screen would be the 82,500-sf expansion of Feldmeier Equipment's headquarters in Syracuse, N.Y., in 2025, carried out by design-builder VIP Structures.

This is a story of an expanding expansion, a whole new structure, roads and truck traffic, crane action ... not only does this story have it all, but it also comes with a happy ending.

Spoiler alert! The project was a category winner in the 2026 Varco Pruden Hall of Fame Awards and recently received a Construction Excellence Award from Associated Builders and Contractors (Empire State Chapter).

No stranger to the winners' circle, this project marks the 24th time one of VIP's industrial projects has been honored by VP's builder network recognition program—including a Best of Category win for the original Feldmeier facility in 2019.



VIP Structures' expansion of Feldmeier Equipment's Syracuse facility more than doubled in scope from the original plan, requiring careful coordination of construction activities with the manufacturer's ongoing operations.

SOURCE: VIP STRUCTURES

The Feldmeier Syracuse backstory

The expansion story actually started about 10 years ago when Feldmeier—a manufacturer of stainless steel processing equipment for industries such as pharmaceutical and food & beverage—first built its 125,000-sf facility in Syracuse, which consolidated the owner's local operations while establishing the building and site for continued growth.

VIP Structures served as the design-builder at that time. The facility included a PEMB manufacturing area and a conventional steel administrative wing. It included 8-in. reinforced concrete floors, overhead bridge cranes, and a specialized structural system to support the fabrication of large tanks.

"The main part of the manufacturing area is clad with insulated metal panels in a variety of colors," explained Tom Malinowski, senior project architect at VIP Architectural Associates of Syracuse during that first build.

"The office portion of the building is clad in ACM, glass, concrete veneer, and IMPs [which] offered us a variety of colors as well as the capability to match Feldmeier colors. We were also able to achieve the desired R-value for the facility, saving the owners on heating and cooling costs."

More than 56,600 square feet of insulated metal panels from Metl-Span were installed on the building. Almost 36,000 square feet were CF 36 Striated panels in Polar White with another 9,600 square feet in Slate Gray.

CF 7.2 Insul-Rib panels were installed as accent panels—some in Tundra, some in Regal Blue. About 2,600 square feet of the CF 42 Striated panels in Tundra were also installed. The IMPs were all 2.5-in. thick with interior panels in Igloo White.

Baked into this original facility—which was completed in 2018—was the decision to plan ahead for possible future expansion.

2024 brings the sequel to the prequel

As the business grew, Feldmeier Equipment realized it needed more space. The future had arrived. VIP Structures came aboard again as the design-builder.

Their job? Expand the manufacturing facility to the south without stopping production, keep the trucks coming and going, work around equipment on the production floor, and accommodate the two-shift operation inside.

"The original building was designed to be expanded along the south edge for an extension of 65 feet. And the frames along that sidewall were all designed to carry the additional load," explained Tom Malinowski, who served as VIP project architect for the expansion. "And because of the use of cranes within the facility, those sidewall columns also were designed to handle an additional crane load, essentially equal to what it was handling on the other side."

But as these things often do, the project scope changed, which VIP took in stride. The owner decided to make the addition larger overall—almost double the size of the initial expansion plan. "Everything was set up for a 60-ft addition, and they said they would like to push it further," recalled Jim Herr, vice president, construction, with VIP.

Because the building runs parallel to the New York State Thruway, there was only so far the expansion could be stretched, Herr said. Still, the perimeter road had to be moved, along with the swale.

"As we pushed closer to the edge of the property line, the grade was so steep that we had to add a retaining wall to be able to make the grade change there," Herr said. "The work blossomed into a much bigger addition than what they originally planned."

And if that wasn't enough of a curve ball, another soon followed: a new



The expansion employed Varco Pruden PEMBs, requiring precise coordination between the new structural framing and the existing facility.

SOURCE: VIP STRUCTURES

10,000-sf standalone building for stock and storage on the north side.

"The original planned expansion along the south wall totaled about 39,000 square feet. And the final total of the two additions was about 80,000 square feet, so the project more than doubled," said Malinowski.

Complicating the site was the regular truck traffic.

"They had trucks constantly—three, four, five times a day—that would show up with raw materials or to ship things out," said VIP construction project manager & director of field operations Cody Hoose.

"It's a pretty active truck way, so the design was created in such a way that access could be maintained during construction as well as possible," Herr agreed.

Because of this, a new roadway was installed early in the project to maintain access for regular truck traffic, construction activity, and emergency vehicles. As the work progressed, the teams continued planning around incoming materials, outgoing products, and daily site movement so the plant could remain functional while construction continued.

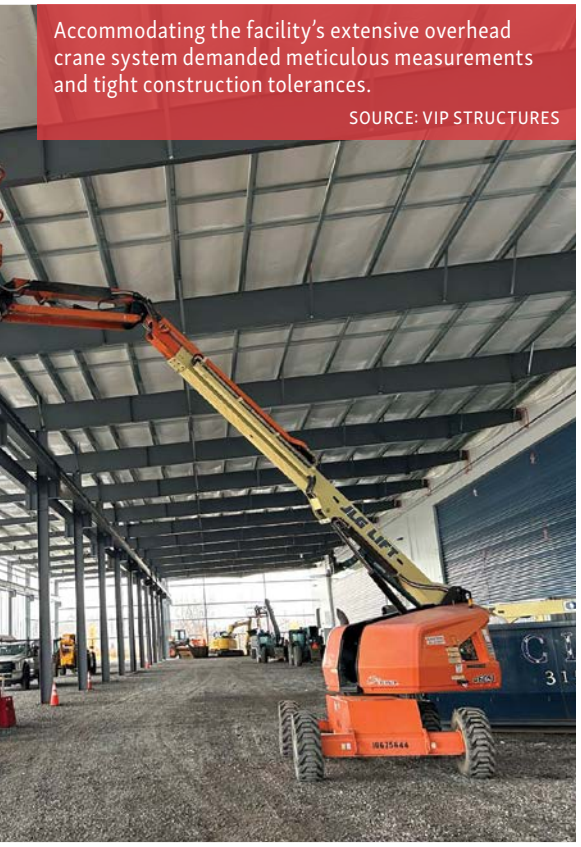
A tolerance for cranes ... and open walls

The expansion was built using Varco Pruden PEMB systems, the same used in the original facility. This required coordination between VIP's Architecture and Construction teams and Varco Pruden to align the new structure with the existing building across a 600-ft span.

"Varco Pruden did the structural design, but VIP was responsible for an accurate foundation," Malinowski said. "I think the biggest challenge was coordinating with VP for the east end where the expansion extended 100 feet beyond the existing building. We had to dimensionally offset a column with a bracket relative to the existing building's columns and brackets to ensure the alignment of the crane rail. From a design coordination, structural standpoint, that was the biggest thing."

The extensive overhead crane system really stands out in this expansion project—five 10-ton cranes and one 15-ton crane on the north side, and three 5-ton cranes on the south side.

Complicating matters and reinforcing the need to work closely with the PEMB provider was the fact that the existing



Accommodating the facility's extensive overhead crane system demanded meticulous measurements and tight construction tolerances.

SOURCE: VIP STRUCTURES



IMPs on the building had to stay in place, said Hoose. "It changed the depth of where the crane stub columns had to be welded to the existing columns, which had to hold a 6-inch tolerance from the face of the IMP to the edge of the crane. This required extensive collaboration with the Varco Pruden engineers to hold this tolerance."

When the metal building system from Varco Pruden showed up, it came with crane stub columns that were welded onto the new columns, which served as VIP's "zero," Hoose explained.

"We would make sure those were level across to where we had to weld the new crane stub columns on," Hoose continued. And to make this happen, the existing south wall had to be cut open, then closed again after the crane work.

"As soon as we would tack-weld one of them on, we would check it to make sure it was within line. After it was fully welded, we checked it again," Hoose recalled. "And after all of them were pretty much done, we had everybody go back and triple- and quadruple-check them."

"It starts at the anchor bolts, basically, of the columns. They've got to make sure those are really accurate and at the correct elevation. And then you can work your way up to the brackets themselves

EXCEL
STAMPING AND MANUFACTURING, INC.



www.excelstamping-mfg.com phone: (281)304-0771

Excel Stamping and Manufacturing Inc., is a leading supplier of stamped metal products including roof clips, wall clips, door framing clips, back-up plates, inside closures, outside closures, bearing plates, and numerous other accessories for architectural panels, commercial panels and specials. Excel has been providing stamped metal products and stamped metal solutions to the metal building industry for over 35 years with an excellent reputation throughout the industry. Excel Stamping and Manufacturing can take your concept from design and prototype to full production.

BRS Clips & Accessories

Excel Stamping and Manufacturing Inc. is one of only two approved suppliers for clips and accessories for the BRS TS-324 panel and PanelCraft panel roof systems.

BRS ACCESSORIES PARTIAL LIST

ED324C	BP2-324RO
ED324	BP2-324
FED216C	BP-216RO
FED218	BP-216
CC 324-18	

(PARTS LISTED ARE PICTURED TO THE RIGHT)



BRS CLIPS PARTIAL LIST



LC10213 LC10203 LC10200



MPS605 MPS604



MPS603 MPS602-3



MPS605 MPS604 MPS603-3 MPS602-3



LC 463 LC 462 LC 461



MC1213 MC1203

EXCEL
STAMPING AND MANUFACTURING, INC.

20101 Schiel Road, Cypress, TX 77433
Phone: 281-304-0771 Fax: 281-304-1340
Web: www.excelstamping-mfg.com
E-mail: excelmfg@excelstamping-mfg.com

PMA MEMBER MCA



A 10,000-sf north building was added to the project after the original expansion plans were developed. When the owner made it a priority, VIP Structures adjusted its construction schedule and delivered the building about two months early.

SOURCE: VIP STRUCTURES

that are 25 feet in the air, then start to get those located properly. And it worked out well. The cranes fit and run really well," said Herr.

Across that 600-ft span, VIP's field team installed crane rail brackets within a 1/4-in. tolerance. Using laser verification and multiple checks, most locations landed within 1/8-in. or 3/16-in. of target, Hoose confirmed.

The north takes priority

Back in 2018, the original expansion concept anticipated about 39,000 square feet on the south side of the building but, as we've already learned, that need had multiplied by the time Feldmeier was ready to move forward. And then there was the additional north building.

"The project started with the owner wanting the south addition done as quickly as possible. And then, all of a sudden, the north addition was the most important," Malinowski said.

The project team shifted focus. The steel erector redeployed from the south addition to the north and subcontractors adjusted their work.

"Yes, it was a change, but our subcontractors worked really well with us. We brought it up to them immediately, and then everybody shifted gears and got going and delivered the north addition, 10,000 square feet, about two months early," said Hoose.

Opening and closing the building

Because the original facility had been designed with expansion in mind, VIP could tie the south addition into the existing structure without adding new building columns along the connection line.

Tie-in work required careful coordination at the existing insulated metal panel wall and around the building envelope.

The new steel connections high up on the eave of the building were an important consideration, said Herr. VIP had to cut as small an opening as possible to be able to fit the rafter and weld the brackets and additional plates onto the existing columns so they could be neatly trimmed out later. They were not going to remove the existing insulated metal panel walls, so it was vital to plan those openings properly and cut the smallest sized holes possible.

VIP cut only the openings needed to make steel connections and kept larger wall openings closed until the new addition was enclosed. Temporary openings were sealed with plastic and tape to help prevent water infiltration. Existing gutters remained in place as long as possible, and temporary piping was used where needed to direct roof runoff away from work areas.

"Then we were able to enclose the building before we really started making any of the larger openings for, say, forklift traffic or product flow between buildings," Herr said. "And when we took off the overhead door, we would still try to keep the building enclosed as much as we could, because a lot of the work we were doing was in the winter time."

"The biggest thing was making sure that the existing facility was always



secure. We didn't open any of the existing wall openings low, and nothing at grade until we were fully closed in—doors in, overhead doors on," Hoose added.

The extension was built just slightly lower than the existing building, Herr explained, so careful attention was paid to managing that drop by keeping gutters in place and running some temporary piping to direct the outflow of water.

"When they designed the new addition, that snow drift that would be coming onto the new building was an important consideration," said Hoose. "And Varco Pruden did a great job with the design, and we made sure that the column locations and the actual foundations were correct before we started putting up the steel columns."

"Regarding the attachment of IMPs and larger openings ... we had one at floor level that was 16 by 20 feet. We had to add new framing to the existing wall, vertical C-sections to create those openings, and then trim them out," Hoose added.

Hoose credits having the correct tools and doing things the right way for the flawless integration of new and old IMPs. "The team did a really nice job cutting the opening only to the size that we needed, not overcutting or having an issue with the seams."

In all, 34,300 square feet of IMPs from Metl-Span were installed for the south extension and 9,050 square feet for the north addition.

When asked how the new IMPs stacked up against the existing panels, Malinowski didn't really notice any real difference in colors, and Herr enthusiastically chimed in that the color match came out really well.

Communicating in the now, and for the future

The Feldmeier facility runs two shifts, with trucks always going in and coming out. So how did VIP execute the project without tripping over the owner's operations?

"We had a weekly meeting with the client, and our superintendent was always communicating with their operations manager," Hoose explained. In those meetings, they would review schedules and truck deliveries—even if they were three weeks away.

For work inside the facility, Hoose tipped his hat to VIP's superintendent, who did "a very nice job" of letting the owner know in which areas VIP would be working, especially along the south wall of the existing building, where numerous pieces of equipment are located.

And VIP remained flexible in case scheduled work or a particular location impacted Feldmeier's operations.

"You let us know if we can't be in there, and we'll jump to a different column or a different bay," Hoose said. "We did that a couple of times to help them keep their operation running. It came down to a lot of coordination and back and forth. The goal was to hit our scheduled completion date to turn the building over, and the client worked very well with us. It was very smooth in terms of coordinating the work around the existing facility."

An important point to this story is the role the builder plays in helping clients look ahead and see themselves five, 10 or 15 years from now. Herr believes that planning for the possibility of future expansion is an important conversation to have with any owner regarding their new facility—especially if it is their first.

"We've worked with so many clients over our 50 year history, and we've got many that have already gone through two, three, four, five additions—even more," Herr said. "Those just starting out don't even want to think about adding on, but we try to get them thinking about that possibility and plan for it. Some things, like loading docks, are very hard, very expensive to move."

Although the plot line changed a few times over the course of the Feldmeier expansion project, the story came to a successful conclusion, thanks to its star-studded blend of imagination, ingenuity, and adaptability, constant communication, and strong collaboration ... not to mention meticulous measurements. MCN

__Anthony Capkun__ is the editor-in-chief of Metal Construction News and Metal Architecture magazines. Raised as a drywaller, he has spent over two decades as an editor in the construction sector.





Owners should be encouraged to think beyond current operating conditions, as future growth may justify specifying a higher cycle rating of 50,000 to 75,000 cycles or more.

Specifying doors for today … and tomorrow

Anticipating a facility's evolving operational needs

Heather Bender
PHOTOS: CLOPAY CORP.

Contractors and specifiers check off baseline specifications for a commercial rolling or sectional door, including structural, thermal, and fire safety requirements. These specs establish the minimum performance of the door on the day of installation, but they often fail to capture the long-term operational or life cycle value once it is installed.

To sustain day-one performance, a building owner must ensure the door is routinely maintained and serviced, and that operating conditions do not exceed the original specs. This seems straightforward enough, but specifications are often driven by tight day-one construction budgets, meaning they do not always account for all the factors that contribute to long-term value.

A door may fail sooner than expected due to an underspecification, such as opting for a lower cycle count or forgoing corrosion protection. Likewise, underperformance may result from serviceability complexities that lead to avoidance or deferral of routine maintenance tasks.



Corrosion protection is often specified based on a known exposure to moisture, chemicals, or salt, but it can be beneficial for other applications, too.

By recognizing how initial specs impact lifetime costs, contractors and specifiers can better educate owners on the value of specifying doors for the building's entire life. This guidance empowers owners to make decisions that lower their total cost of ownership, ensuring both client satisfaction and dependable performance long after installation.

Cycle count: plan for the building's future

A door's cycle rating is a specification intended to predict how long the door system will last under expected use conditions. A standard rating of up to 25,000 cycles may be appropriate for moderate daily commercial use, but is often selected based on anticipated use at the time of design rather than how the facility may operate years later.

A warehouse may add a second shift or a distribution center may increase shipping volume, causing doors to operate far more frequently than originally expected. Even modest increases in daily cycles can significantly shorten the service life of springs that were specified with little margin for growth.

For this reason, owners should be encouraged to think beyond current operating conditions. Is the facility expected to expand? Could operating hours increase? Is the opening critical to production or shipping? Answering these questions may justify specifying a higher rating of 50,000 to 75,000 cycles—or 100,000 cycles or more for extreme use cases.

For openings like parking garages that are expected to operate at 100 cycles per day or more, it is also worth considering whether an alternative springless, direct-drive design may be better suited to the application. Some springless designs offer a minimum of 300,000 cycles, providing longer uptime under high-frequency operating conditions.

While specifying a higher cycle count moves the project beyond baseline hardware requirements, it is a strategic choice that pays continuous dividends throughout the door's service life. Upgrading to high-performance springs or a springless design reduces maintenance, minimizes downtime, and helps avoid disruptive emergency service calls. Although these assemblies typically come at a higher initial cost, that cost is often recouped in long-term savings in maintenance, labor, and uptime.

Corrosion resistance: match the door to its environment

Protection against corrosion is often specified based on the project's location or a known exposure to moisture, chemicals, or salt. Galvanized steel, factory-applied coatings, stainless steel hardware, and specialized finishes are commonly selected for coastal regions, food processing facilities, agricultural buildings, and other harsh environments where corrosion is an obvious concern, but corrosive conditions are not limited to these applications.

Doors in parking structures are routinely exposed to road salts, vehicle exhaust, and moisture. Manufacturing facilities may generate airborne contaminants that accelerate corrosion, and washdown procedures and high humidity can gradually degrade door components. Without protection, corrosion can affect springs, hinges, rollers, fasteners, tracks, and other

Without protection, corrosion can affect springs, hinges, rollers, fasteners, tracks, and other hardware.



Door system features, such as accessible hardware, modular components, and easily removable covers can reduce the time required for routine maintenance and repairs.

hardware, increasing maintenance requirements and shortening the door's service life.

Rather than relying solely on geographic location, evaluate the door's operating environment over its entire life. How often will the opening be exposed to moisture? Will cleaning chemicals or industrial processes create a corrosive atmosphere? Are there seasonal conditions, such as deicing salts, which could affect hardware and finishes?

The answers will help determine whether upgraded coatings, corrosion-resistant hardware, or alternative materials are warranted.

Specifying enhanced corrosion protection can extend component life, reduce maintenance, and preserve the door's appearance and performance. More importantly, it helps prevent premature failures that can disrupt operations and require repairs. By matching corrosion protection to the operating environment rather than to the minimum project requirements, building owners can achieve greater reliability and lower total cost of ownership.

Serviceability: minimize maintenance complexity

Routine maintenance is essential to the long-term performance of any commercial door, but not all doors are equally easy to inspect, adjust, and repair.

Serviceability—the ease with which technicians can access, maintain, and replace key components—can significantly impact maintenance costs, downtime, and the door's ability to continue performing as specified.

Although serviceability is rarely a formal specification, it is a vital component of the door manufacturer's design. Features such as accessible hardware, modular components, and easily removable covers can reduce the time required for routine maintenance and repairs. For owners, that translates into lower labor costs, shorter service calls, and less disruption to daily operations.

More importantly, simplified serviceability encourages preventive maintenance. When routine tasks are time-consuming or require extensive disassembly, they are more likely to be deferred or performed less thoroughly. Over time, those shortcuts can compromise both the door's reliability and its performance.

For example, rollers, hinges, bearings, and spring systems require periodic inspection and lubrication to reduce wear and identify developing problems before they lead to component failure. If these inspections are difficult to perform because key components are hard to access, worn or damaged parts may go unnoticed until they cause an unexpected breakdown and unplanned downtime.

Likewise, perimeter seals require regular inspection and periodic replacement, as damaged or deteriorated seals can allow moisture infiltration that can accelerate the corrosion of door components. When replacing worn seals is unnecessarily complicated, owners may postpone the work, accelerating the decline of the door system's performance.

By prioritizing doors engineered for straightforward serviceability, building owners can significantly reduce maintenance labor, encourage timely preventive maintenance, and minimize disruptions throughout the building's life. For facilities where dependable access is critical, these long-term operational benefits easily justify a more robust specification.

Looking beyond installation day

Commercial door performance is often judged by how well it meets project requirements at the time of installation, but its true value is measured over years of reliable operation. Decisions made during specification, such as selecting a futureproof cycle rating, matching corrosion protection to the environment, and prioritizing serviceability, can significantly influence maintenance costs, downtime, and service life, as well as the building's overall energy efficiency.

While these enhancements can elevate the initial scope of the project, they often deliver a strong return through reduced maintenance, fewer repairs, and more dependable performance. By helping building owners evaluate commercial doors based on total cost of ownership rather than day-one performance alone, contractors and specifiers can improve long-term performance while strengthening client relationships and confidence in the finished project. MCN

Heather Bender *leverages 17 years of experience in manufacturing and building materials as the director of commercial product marketing at Clopay Corporation, a designer and producer of residential and commercial garage doors, as well as industrial rolling steel doors. Heather helps building owners and designers uncover unique and innovative door solutions. Visit clopay.com.*



Large university campuses, such as this one in Tempe, Ariz., can contain dozens of individual structures. As buildings are added, renovated, renamed, and repaired over time, a single campus address may provide little information about which physical structure a project record actually refers to.

SOURCE: JACOB / ADOBE STOCK. PHOTO USED FOR ILLUSTRATIVE PURPOSES.

A building's address was never meant to be its identity

A case for permanent identifiers for individual buildings

Trevor Vick

Ask any contractor who has worked a hospital campus, a school district, or a multi-building industrial park, and they will tell you *their* version of the same story. The work order lists one address. The site holds a dozen structures. Somewhere between the office and the jobsite, the crew has to figure out which building, which elevation, and sometimes which wing the scope actually applies to.

That gap between the mailing address and the physical building it is supposed to represent shows up constantly in construction work. Additions, retrofits, reroofs, reclads, insulated metal panel installations, and panel replacements almost never happen to a single, cleanly labeled structure.

They happen on campuses and complexes where several buildings share one address, where names have changed over the years, and where the paperwork

has not kept pace with what is actually standing on the ground.

Where the confusion starts

Single-address, single-building recordkeeping made sense decades ago, when most sites held one structure. But that system breaks down the moment a property grows.

A hospital adds a wing. A distribution center puts up a second warehouse behind the first. A university renames a building after a prominent donor but the permits, warranties, and panel specifications still reference the old name. Each addition is its own physical asset with its own roof, its own wall assembly, and its own repair history, but the records built to track it were only ever set up to track an address.

Four ways this plays out on the jobsite

1. Split records

On a large campus, drawings, panel submittals, and warranty documents for one building are rarely stored with the records for the building next to it. Ownership changes, contractor turnover, and inconsistent digitizing all leave a trail of partial files rather than one complete history for each structure.

2. Buildings that aged differently

One structure on a site might have been reclad within the last five years while the one beside it still carries its original panels from the 1980s. A crew that assumes uniform conditions across a compound site, whether that means fastener patterns, substrate condition, or insulation values, risks misjudging both buildings.

3. Irregular existing conditions

Older industrial and institutional buildings rarely offer square corners or consistent dimensions. Settling, additions, and decades of incremental repair mean that an accurate panel takeoff or reroof measurement has to be verified in the field rather than assumed from old drawings.

4. Undocumented site infrastructure

The ground between buildings on a compound site often hides utility runs, old foundations, and abandoned tie-ins that never made it into any record. A missing utility marking or an outdated site plan can turn a straightforward reclad into a delayed project once excavation or anchoring begins.

Every one of these issues traces back to the same root cause. A site plan can show where buildings sit. It cannot tell a crew which building they are standing on once ownership, naming, or recordkeeping has drifted from what is physically there.

A familiar scenario

Picture a manufacturing campus with a single street address covering nine buildings, two of which carry the same informal name because one was renamed after an expansion and the change never made it into the maintenance system.

A crew arrives to reclad a maintenance building and finds two structures matching that description, each with a different panel profile and a different anchoring pattern. The address on the work order is not wrong. What is missing is a reliable way to know which building, and which existing assembly, the scope actually refers to.

This is not a rare event. Bad or incomplete project data is estimated to have cost the construction industry roughly 1.8 trillion dollars in 2020, and a share of that figure—close to $88 billion—has been tied specifically to avoidable rework driven by bad data.[1]

On multi-building sites, unclear building identification is a direct contributor to that rework, whether it shows up as ordered panels that do not match the actual substrate or as a reroof crew discovering the wrong deck type once they are already on the roof.

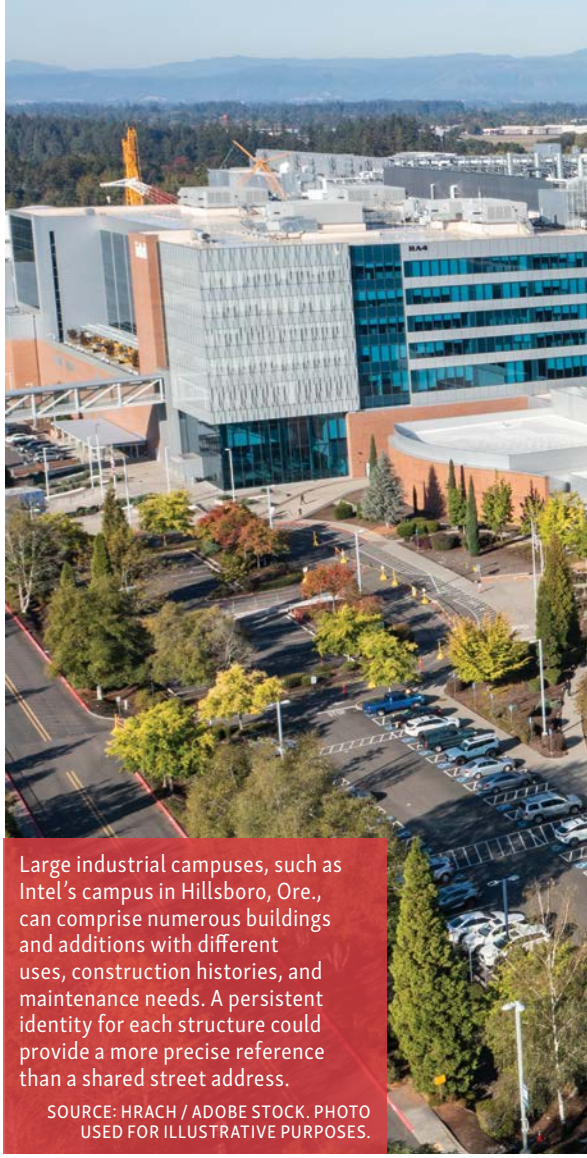
Changes with ownership turnover

Every building on a compound site will change hands, get a new operator, or get reassessed by an insurer more than once over its life. Each of those transitions is a point where field knowledge can vanish.

A facility changes ownership and the new operator inherits a mailing address, not a verified record of which building got a new roof last year or which one still has the original panels. For a contractor bidding future work on that site, the practical effect is starting closer to zero than the job actually requires.

An identity for each structure

The fix is not another software platform layered on top of the ones contractors already use. It is a shift toward treating each building on a compound site as its own asset with its own record, separate from the address it happens to share with its neighbors.



Large industrial campuses, such as Intel's campus in Hillsboro, Ore., can comprise numerous buildings and additions with different uses, construction histories, and maintenance needs. A persistent identity for each structure could provide a more precise reference than a shared street address.

SOURCE: HRACH / ADOBE STOCK. PHOTO USED FOR ILLUSTRATIVE PURPOSES.

A persistent building identity system establishes a unique identifier for the individual physical structure itself rather than relying on an address, parcel number, owner record, or any single data provider to serve as the building's identity.

In UMIP's case, that identifier is the Persistent Infrastructure Identity, or PIID. Once established, the PIID remains associated with the structure throughout its life cycle, providing a consistent reference point through changes in ownership, occupancy, addressing, renovations, data providers, and the systems interacting with the property.

UMIP maintains the identity infrastructure and the relationship between the PIID and the physical structure, while authorized third parties can use the PIID as a common



reference within their own systems and workflows. The objective is not to require contractors, owners, insurers, lenders, software platforms, or other participants to abandon their existing identifiers or systems. Instead, the PIID provides a persistent structure-level reference that those records can resolve against, allowing otherwise disconnected information to be associated with the same physical building.

For a contractor, for example, a PIID could provide a consistent way to associate inspections, specifications, repairs, warranties, permits, photographs, replacements, and other records with the actual structure where the work occurred. Future participants interacting with that building can then reference the same structure identity rather than attempting to reconstruct its history from an address or fragmented records.

Importantly, the model is intended to support interoperability rather than create a closed ecosystem. Organizations can continue maintaining their proprietary data, identifiers, and workflows while using PIIDs as a common structure identity where appropriate. UMIP curates the identity layer, but the underlying information associated with a building can continue to originate from many independent systems and organizations.

Panel specs, warranty terms, roof assemblies, and repair histories are tied to the structure to which they belong.

That means panel specifications, warranty terms, roof assemblies, and repair histories are tied to the specific structure to which they belong, not to a mailing address that might cover a dozen buildings.

For metal contractors working additions, retrofits, reroofs, reclads, IMP installations, and panel replacements on hospitals, schools, distribution centers, and industrial parks, that distinction has a direct payoff. Clearer building identification means fewer mismatched takeoffs, fewer surprises when an existing assembly does not match what the drawings said, and less time spent on site sorting out which structure a scope of work actually covers.

As campuses keep growing and changing hands, the buildings that carry a clear identity of their own, independent of the address on the gate, will be the ones that are easier, faster, and less costly to work on. MCN

Trevor Vick *is the CEO of UMIP Inc. and the founder of the Global Infrastructure Identity Standard (GIIS), umipinc.com.*

REFERENCE

1. Bowman, Jay, "Harnessing the data advantage in engineering and construction," FMI Corp., October 2021.



By using insulated metal panels instead of traditional precast, 587 Avonhead lowered the embodied carbon of the walls by nearly half.

One panel for multipe challenges

How IMPs address labor, schedule, sustainability, and design pressures

Karim Muri
PHOTOS: KINGSPAN INSULATED PANELS NORTH AMERICA

The construction industry in North America and around the world is navigating one of its most challenging periods in decades. Rising costs, labor shortages, schedule pressures, design needs, and sustainability expectations are reshaping how buildings are designed and delivered.

To stay competitive and meet expectations, industry professionals are seeking materials and systems that do more with less—materials that are faster, smarter, and more sustainable. One building product that has emerged as a powerful solution to many of these challenges is insulated metal panels.

Labor shortages

One of the most persistent obstacles in construction today is the shortage of skilled labor. Demographic shifts, retirements, and a lack of new entrants into the trades have led to significant workforce gaps, slowing project timelines and increasing wage pressures.

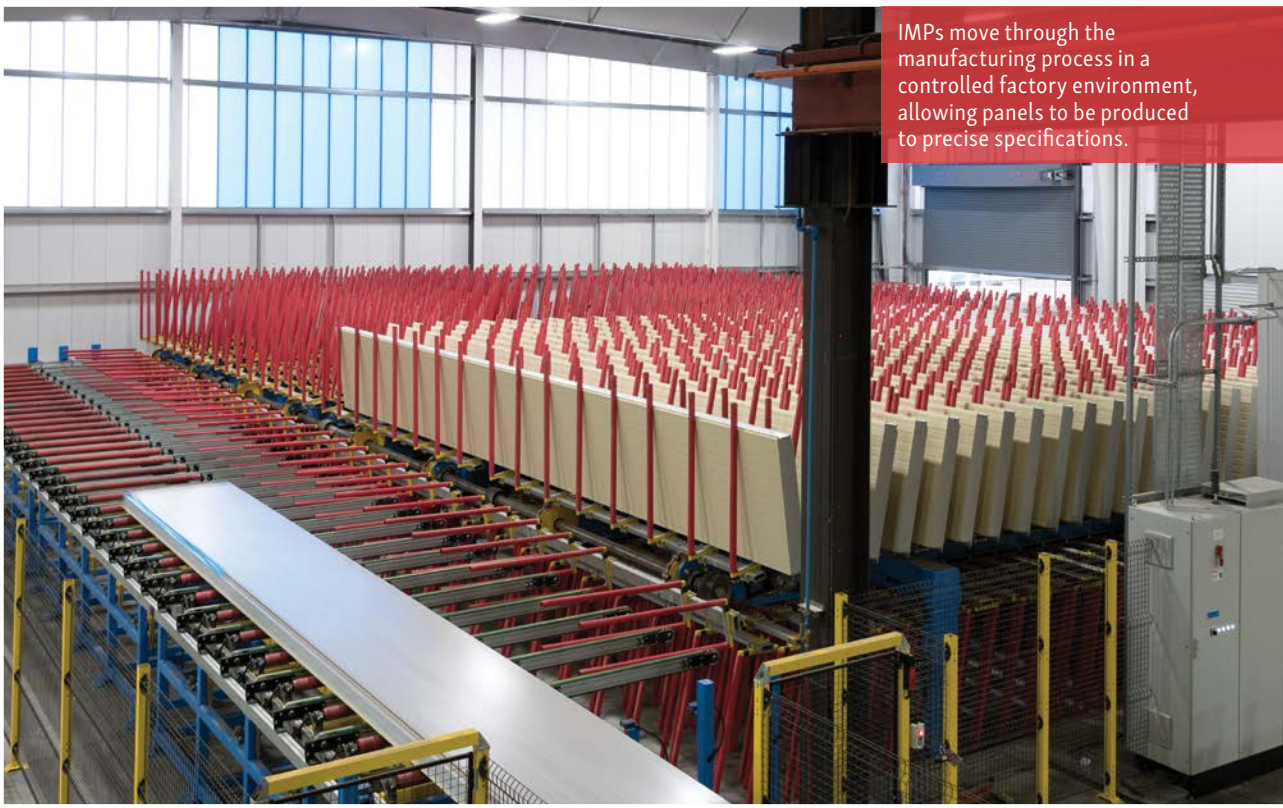
A 2025 survey from Associated General Contractors of America found that 92% of construction firms are struggling to fill open positions, with 45% reporting project delays tied directly to labor shortages.

Insulated metal panels are designed to help ease this burden. Unlike traditional multi-component wall systems that require coordination among several trades, IMPs are a single-component, prefabricated solution. Because they arrive onsite ready to install, with insulation and finished surfaces integrated, they minimize the number of hours required onsite.

Each panel combines two steel skins, typically 20 to 26 gauge, with a Galvalume or galvanized coating and a factory-applied paint finish, such as PVDF or silicone-modified polyester, around a continuous insulating core. Core options include polyisocyanurate (PIR), mineral fiber (for projects with heightened fire requirements), and hybrid cores—some of which achieve R-8.0 per inch.

That all-in-one construction changes how the wall goes up onsite. A field-assembled metal wall is built in layers: liner panels, girts or studs, insulation, air





IMPs move through the manufacturing process in a controlled factory environment, allowing panels to be produced to precise specifications.

and vapor barrier, and exterior sheeting. These are often installed in separate passes by separate crews, whereas an IMP wall goes up in a single pass.

Each panel attaches to the framing with concealed stainless steel clips, and its tongue-and-groove side joint locks into the panel in front of it. Staging is simpler, too. Panels arrive in shrink-wrapped bundles on flatbed trailers and are set at designated locations along the building perimeter, near where they will be installed.

Bundles are moved by forklift or crane, and vacuum lifting equipment can reduce installation time for individual panels. Traditional metal walls and their supplementary components may be individually easier to handle than a composite IMP, but the multitude of components can add complexity to the job.

Lightweight IMPs often can be erected by a single crew rather than multiple subcontractors. This labor efficiency can help reduce scheduling conflicts and mitigate the impact of workforce shortages.

Accelerating construction schedules

Time is a critical commodity in construction. Delays ripple across schedules, increasing labor costs and jeopardizing contractual milestones. Speed matters not only for profitability but also for strict construction timelines and planning.

As an integrated system, IMPs simplify sequencing and help streamline coordination among trades, enabling faster completion of the building envelope and allowing interior work to proceed sooner.

Because they are manufactured offsite in controlled settings according to precise specifications, IMPs provide greater consistency in both quality and delivery.

That precision depends on close coordination between the field and the factory, starting with shop drawings prepared by the manufacturer or the panel contractor and reviewed by the manufacturer's technical team. Panels are made to length, up to 53 feet, so field dimensions and structural loads need to be settled before production.

Layouts are drawn so that panel lengths are set to line up with openings to reduce onsite cutting. Before installation, the field crew confirms that the steel framing is within tolerance (typically 1/8 inch over 5 feet) and takes field measurements for any factory-bent corner panels before fabrication. Variances go back to the architect and general contractor to correct before panels go up.

With that coordination in place, the building shell closes faster, and interior work can begin earlier. In a market where even a 30-day delay on a $10 million job can add over $300,000 in additional costs, a quick and reliable project timeline is essential. The lightweight nature of IMPs also allows for more economical transport, lowering freight expenses and reducing the potential for error for contractors who are managing tight budgets.

The weight difference compared with concrete is substantial. A typical IMP wall panel weighs about 2 to 5 lb/sf, depending on thickness and steel gauge. In a life cycle study commissioned by Kingspan from

the architecture firm KieranTimberlake, a 150,000-sf warehouse was modeled with four wall systems, each designed to R-20. The QuadCore IMP wall, including its supporting structure and footings, weighed about 800,000 kg. The tilt-up option weighed about 3.8 million kg—nearly five times as much.

The concrete options also required more support below grade: a continuous reinforced footing with embedded steel plates to carry the panels' weight. To reach R-20, all it took was a 2.5-in. IMP, compared with a 9-in. tilt-up panel plus steel studs, batt insulation, and gypsum board.

Those advantages matter most where the schedule drives the business case, and the global semiconductor sector is a clear example. Fueled by artificial intelligence, automotive electronics, cloud computing, and consumer devices, this market is expanding rapidly.

For GlobalWafers America's production facility in Sherman, Texas—the first silicon wafer manufacturing plant built in the U.S. in over two decades, not to mention one of the largest—IMPs played a crucial role in quickly enclosing the project, allowing interior work to commence sooner. For facilities like this, completing construction quickly allows the owners to begin operations sooner and start generating revenue.

Other enclosure methods involve more steps. Tilt-up panels are cast onsite and must cure before they can be lifted; they still need studs, insulation, and interior board afterward to meet energy codes. Precast concrete requires heavier foundations to carry its weight. Compared with concrete assemblies, IMP walls can save several weeks on a construction schedule.

Multi-component metal walls take several passes. IMPs close the envelope in one step—often in about half the time—with thermal, air, water, and vapor barriers built into each panel and can be installed in most weather conditions.

Meeting sustainability mandates

According to the 2026 Sustainable Construction Barometer, 87% of construction stakeholders say the industry needs to go further on sustainable construction. The push toward more thermally efficient, lower-carbon buildings only continues to grow.



Public input on the activity center guided the creation of a warmer, more distinctive building appearance.

Codes and client expectations now often require higher thermal performance and tighter building envelopes as owners pursue green building certifications and carbon reduction targets.

In a cradle-to-grave life cycle assessment by KieranTimberlake, the 150,000-sf warehouse clad with QuadCore IMPs had 28% lower embodied carbon than the same building using insulated precast or tilt-up concrete (largely due to the cement in the concrete options).

587 Avonhead in Ontario used IMPs to achieve its sustainability and design goals. The panels helped the project meet the Canada Green Building Council's Zero Carbon Building Design Certification by improving the building's effective R-value and reducing thermal bridging.

According to the project's architect, IMPs also lowered the embodied carbon of the walls by nearly half compared with traditional precast walls, contributing to the certification. These advantages boosted LEED points in the optimized energy performance category, making 587 Avonhead one of Ontario's first design-certified industrial net-zero carbon buildings.

Design flexibility and long-term performance

While performance and efficiency are top priorities, building owners also demand aesthetics and adaptability. IMPs come in a range of finishes, colors, and profiles, giving designers the ability to achieve distinctive facades.

The versatility of IMPs in offering diverse textures allows architects to manipulate light and shadow, resulting in facades that are not only visually appealing but also highly functional. The flexibility of these panels enables the creation of fluid, organic forms that would be challenging to achieve with traditional materials such as precast concrete, tilt-up, or masonry. Panels can be aligned vertically or horizontally, paired with other materials, and customized to fit a project's goals.

The renovation and expansion of the Lenexa Old Town Activity Center in Kansas focused on enhancing its ability to serve the community while updating its design. Public input guided the creation of a warmer, distinctive building appearance. Ultimately, IMPs were selected to give the facility a sleek and sophisticated look. Panels in multiple





The IMPs enclosing the Lenexa Old Town Activity Center give the facility a sleek and sophisticated look.



IMPs close the envelope in one step and can be installed in most weather conditions.



IMPs helped GlobalWafers America's Sherman production facility enclose faster, allowing interior work to commence sooner.

colors were installed for a dynamic and varied appearance.

Beyond appearance, IMPs are made durable to resist weathering and corrosion, and the integrated insulation performs consistently over the life of the building with minimal maintenance. For example, the QuadCore panels mentioned earlier come with a 30-year thermal performance warranty and are offered with finish warranties of up to 20 years.

Upkeep is mostly routine: an annual visual inspection, a check after major storms, a periodic rinse with a low-pressure hose and mild detergent, and a look at sealants, trim, and weep holes. Owners should keep landscaping trimmed back from the walls, keep runoff from copper, lead, or rooftop HVAC units off the panels, touch up minor scratches, and avoid pressure washing. This durability supports long-term value for owners focused on life cycle costs, not just initial build savings.

A strategic response to industry realities

Material selection plays a powerful role in how effectively teams navigate the pressures in the construction industry today. Labor shortages, cost pressures, compressed schedules, design goals, and sustainability standards are all challenges that will only become more apparent in the coming years.

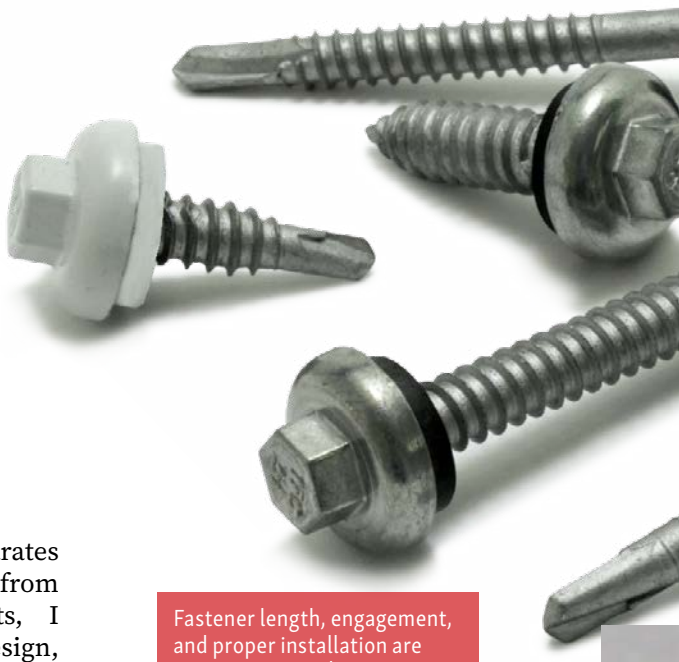
In an industry where doing more with less is increasingly the norm, insulated metal panels are helping reshape expectations for what is possible. MCNY

Karim Muri *is vice president of marketing services and strategy development for Kingspan Insulated Panels North America. Muri has led strategic marketing in the construction products market for nearly 20 years. His global experience includes leadership roles in Australia and the United States, working in both the residential and commercial building sectors.*

Data centers are not just another warehouse project

Even the smallest parts demand big attention

Brendan Cadman
PHOTOS: TRIANGLE FASTENER



Fastener length, engagement, and proper installation are important considerations in achieving the intended performance of a connection.

At first glance, data centers may look like another large commercial building, but the expectations are fundamentally different.

When you walk onto a commercial construction project, many of the processes, material requirements, and installation practices feel familiar. While every project comes with its own unique challenges, most are ultimately designed to provide functional spaces where people work, shop, manufacture, or gather.

Yet data centers aren't really built primarily for the people inside them. Instead, they're built to support the equipment and digital infrastructure that businesses, healthcare systems, financial institutions, cloud computing platforms, artificial intelligence, and countless everyday services that we depend on.

A fastening decision, installation tolerance, or coordination issue that might be relatively minor on another project can have consequences measured not only in repair costs, but in uptime, operational reliability, and business continuity. When a data center experiences an unexpected failure, the impact extends far beyond the building itself.

Knowing this changes how data centers are designed, coordinated, inspected, and maintained. Every decision made during construction has the potential to influence the long-term performance of the facility. What surprises many contractors is that the decisions with the greatest impact often aren't the largest or most visible, but the smallest details happening behind the scenes.

To better understand what separates data center construction from conventional commercial projects, I spoke with two professionals who design, manufacture, and support these facilities every day. Their experiences reveal why contractors entering the data center market must approach these projects with a different mindset.

Accelerated expectations

During these conversations, one theme that emerged consistently was the fact that the building itself isn't necessarily the biggest adjustment; it is the speed required to bring the facility online.

"The construction isn't necessarily what catches people off guard," said Alex Cory, project engineer for Nucor Data Systems. "Many contractors underestimate how quickly decisions have to be made and how closely every trade has to work together."

According to Cory, success depends on understanding that a data center isn't simply another commercial project with a larger footprint. Every phase of construction is tied to an aggressive schedule, where delays in one area can quickly affect multiple trades and delay the commissioning of the facility.

"You have to think beyond the building itself," Cory explained. "Energy efficiency, coordination between trades, and execution all have to come together at the right time. If you're only focused on your own scope of work, you're probably missing something."

Further, many data centers are built in locations based on land availability, utility access, tax incentives, or future expansion, creating logistical challenges that may not exist on many traditional commercial projects.

The devil in the details

The importance of consistency was another prominent theme throughout my interviews. Data center projects rely on repeatable processes, standardized materials, and close attention to detail to maintain quality while meeting those aggressive schedules.

"The details matter," Cory said. "Whether it's fasteners, hardware, or installation methods, everyone has to understand exactly what's being specified and why."

He explained that customized components and inconsistent materials can introduce unnecessary complexity into projects where standardization and uniformity are essential.

"The more uniformed everything is, the smoother the project goes," Cory said. "Once you start introducing variations, it becomes much harder to maintain efficiency and quality across the entire job."

Fasteners may be physically small components when it comes to constructing data centers, but their role in the overall building system is anything but small. Material selection, coating, and corrosion resistance are important factors that need to be considered, along with the metals or substrates being joined.





Fastener selection should account for the materials being joined, substrate thickness, environmental exposure, and corrosion resistance.

A fastener selected for one application may not necessarily be appropriate for another because of differences in steel thickness, substrate composition, environmental exposure, or the potential for corrosion. These critical project-specific performance requirements will influence your fastener selection for any given project.

Once you have selected the correct fastener for your specific project, you want to ensure it performs as it was designed. Length, spacing, engagement, and proper installation need to be carefully considered. Over-driving a fastener can damage the substrate or compromise a sealing washer, while under-driving can prevent the connection from achieving its intended performance.

On data center projects, where schedules can be highly compressed and thousands of fasteners may be installed, these details become especially important. The scale and pace of these projects can also put pressure on fastener availability, making early planning and coordination critical when selecting approved products and identifying acceptable substitutions without compromising the requirements of the connection.

Unlike traditional buildings designed primarily around human occupancy, data centers involve higher electrical loads, specialized cooling systems, tighter installation tolerances, and equipment-first design. They require a level of planning and coordination that many contractors don't fully appreciate until they're already on the project.

"Many people think it's just a warehouse on steroids," said Marty Martin, vice president of sales at Triangle Fastener Corp. "The reality is far different. You're building an environment where precision, coordination, and long-term reliability drive every decision you make."

According to Martin, overlooking these differences can lead to redesigns, schedule delays, costly rework, and operational issues that may not become apparent until commissioning or even after the facility is operational.

Pre-plan for construction success

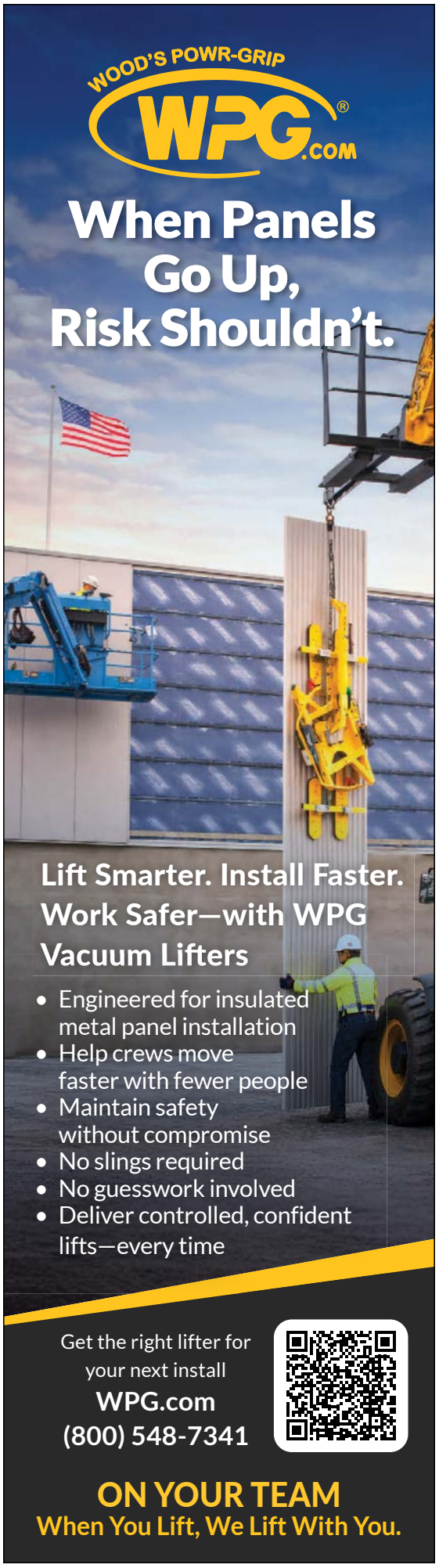
"A tremendous amount of planning takes place before construction even begins," Cory said. "Our goal is to make installation as efficient as possible for the field."

That preparation includes coordinating multiple vendors, integrating components before delivery, and designing systems that can be installed quickly once they reach the jobsite.

While every project presents its own challenges, one lesson became clear throughout these conversations: data centers demand a different level of planning, coordination, and execution than most commercial construction projects.

Contractors who recognize this are better positioned to meet the expectations of one of the fastest-growing sectors. MCN

Brendan Cadman *is with Triangle Fastener, a supplier of standard and specialty fasteners, tools, sealants, and accessories.*





Six colors of aluminum wall panels give Brookley Flats the vibrant facade requested by Jamaica Plain residents, who wanted the development to reflect the neighborhood's artistic identity.

Striking sustainable housing in Jamaica Plain

Metal facade expresses neighborhood identity

Ciara Lalor–Lindo
PHOTOS: LONGARONE EXTERIORS

Standing out among its gray counterparts, Brookley Flats is a vibrant testament to what you can accomplish with sustainable housing.

What was once vacant property in Boston's Jamaica Plain has been transformed into a 44,500-sf, four-story community-first housing development with 45 units, each providing affordable, income-restricted housing.

The multicolored, mosaic-like residence uses ATAS International's .040 aluminum wall panels with a 70% PVDF finish as a key ingredient of the design and facade, allowing for the building to become a visually striking part of this community's identity, reflecting its creativity and love of the arts, while maintaining the building's goals of sustainable living.

The project was a collaboration between JGE Architecture + Design, Longarone Exteriors, and ATAS distributor Kamco Supply Corp. I spoke with Andres Bernal, an architect at JGE, to learn more about the building and how metal helped bring the design vision of vibrance and community to life.

MCN: Brookley Flats uses multiple profiles and six colors of ribbed aluminum wall panels. What led the design team to that approach, and what role did the metal wall system play in achieving the overall architectural vision?

ANDRES: To give a little bit of context, the building is in Jamaica Plain, which has an identity of being an artistic area of the city. Through the community process, the residents said, "We don't want another gray building. We want something that expresses the identity of this neighborhood," and color seemed the best way to do so.

We were thinking about color and thought of metal panels. Since this was an affordable ownership project for the city, the budget was a concern of ours. We thought single skin metal panels would be a good solution, allowing us to bring in color at a reasonable price.

From there, it became a design exercise about whether to use blue, red, or yellow, and how to incorporate them into an interesting composition.

We eventually felt that red would make a stronger statement in the neighborhood, as it opposed the idea of a gray building. The use of the six colors (Black, Chocolate Brown, Redwood, Mission Red, Brite Red, and Boysenberry) provided the vibrancy we were intending.

MCN: Using multiple panel profiles and six colors adds complexity to fabrication and installation. How were the panels identified, fabricated, delivered, staged, and installed to ensure the correct profile and color ended up in the correct location?

ANDRES: From the documentation side of things, it required us to develop

several sheets documenting the layout of panels—with the colors and location—to give to the contractors.

At Brookley Flats, we were present much more than usual, more than at any of our other projects, working very closely with the general contractor and subcontractor during construction. As they began laying out the material, we were onsite to review, answer any questions, and make sure the pattern we had devised was followed.

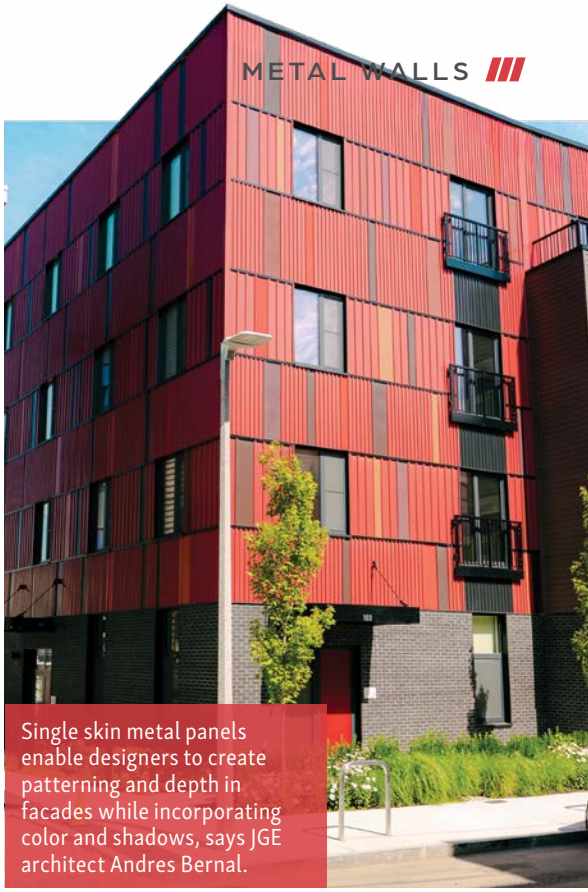
Some leeway was given on the panel width, but otherwise we knew every aspect of the building's construction. It was a meticulous process that required many resources on our part.

MCN: Brookley Flats has achieved Passive House certification. How does the metal cladding integrate with the high-performance building envelope, particularly with respect to insulation, thermal bridging, air and water control, and panel attachment?

ANDRES: The main goal was to ensure there was no thermal bridging between the metal panel and our envelope. In terms of metal cladding, we had to ensure there was no thermal bridging, continuous insulation between the metal and sheathing, and a thermally broken bracket between the sheathing and the metal panels.

MCN: From a constructability standpoint, what details required the most attention, for example, corners, openings, penetrations, transitions between profiles or colors, or interfaces with other exterior materials, and how were those challenges addressed?

ANDRES: I would say the aspect that required the most attention, aside from the meticulous color range, was making sure that—because this was a Passive House



Single skin metal panels enable designers to create patterning and depth in facades while incorporating color and shadows, says JGE architect Andres Bernal.

accurate PERFORATING
NOW POWERED BY AMICO
• PERFORATED METAL
• ARCHITECTURAL DESIGN SUPPORT
• INTEGRATED FABRICATION CAPABILITIES
800.621.0273
accurateperforating.com
GET INSPIRED
GRAPHICPERF®
SUNSHADES
STAIRTREADS
AND MORE



Energy recovery ventilators in each of Brookley Flats' 45 units required 90 penetrations through the building envelope. Perforated metal panels conceal the vents while allowing air to flow.

"I came out of the experience enthusiastic about using the material in the future."

project—we included energy recovery ventilators in each of the 45 units.

Because the ventilators are bringing fresh air into the units, there had to be a penetration in and out of each unit, resulting in 90 total penetrations. The issue was that, architecturally, we didn't want to see these vents in every unit, so we had to hide the vent behind a perforated metal panel while still allowing air to flow.

That required a lot of attention from a documentation standpoint. We had to do onsite mock-ups to understand how we could address the perforation of the metal panel visually and from a performance perspective.

While we have powerful tools that help us render how the building looks, it's hard to get it right given the perforation and the varying light qualities depending on the time of day.

We had perforations ranging from 30% to 50%. Mock that up with the insulation and vent in the back to see whether all the pieces would be visible. Based on what we found, we selected the perforation that worked best, then added additional screening material on the back to ensure we wouldn't see through the perforation.

MCN: Looking back on the completed project, what lessons from Brookley Flats would you share with architects, contractors, and installers considering a similarly complex single skin metal wall system?

ANDRES: It was fun. It was a lot of work from many people, but it was fun. Working directly with the installer and being able to talk to the crew was key. The word "collaboration" gets thrown around a lot these days, but this truly was a collective, hands-on effort.

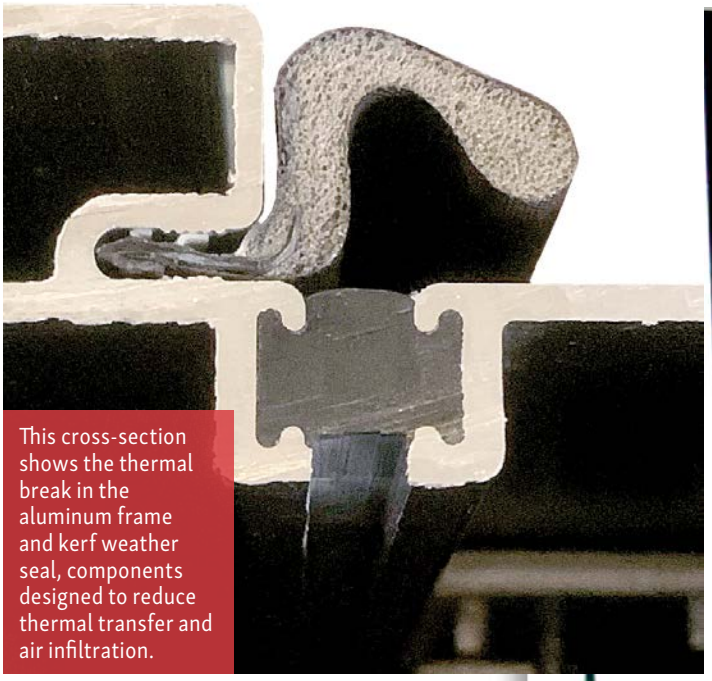
Because of their flexibility, I think single skin metal panels offer the ability to create a lot of patterning and depth in facades while incorporating color and the use of shadows.

Interestingly, we've been approaching the use of color with more comfort because we know it's available. We're trying blue, green, and we'll see what else comes to mind.

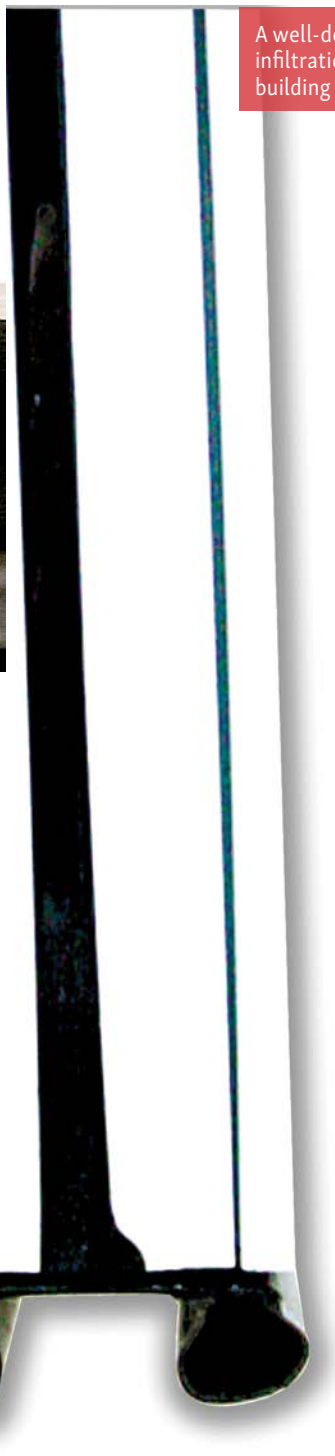
This was my first time working with single skin metal panels, and I came out of the experience enthusiastic about using the material in the future.

Ciara Lalor-Lindo is the associate editor of Metal Architecture magazine.





This cross-section shows the thermal break in the aluminum frame and kerf weather seal, components designed to reduce thermal transfer and air infiltration.



A well-designed door sweep helps limit air and water infiltration at the bottom of the door, contributing to the building envelope's performance.

A look at walk door U-factor

Tom Granitz
PHOTOS: PLYCO CORP.

Many people assume there is little difference between walk door types when discussing their energy efficiency in post-frame or red iron metal buildings. The thinking is that most doors are very similar in construction, gauges, and cores, so there is no need to look at performance or testing results.

But because of energy costs and climate objectives, greater emphasis is now being placed on thermal performance. This makes sense ... every building owner or homeowner *should* be concerned with the insulating properties of the building envelope.

Those who look at each category in finer detail will find ways to source better-performing products—and walk doors are no different.

The starting point would be the door panel itself. Common exterior doors use a styrene core with an R-value ranging from 4 to 6. Better doors will have a poured-in-place polyurethane core; because it is a liquid at the time of application, this core fills all the door cavities and typically more than doubles the R-value to about 12 to 13.

But the core is only part of the story. The weather seal, threshold/sweep, and overall fit in the frame also play a big role in the amount of air or water infiltration. The thermal performance of the complete door system can be evaluated according to ANSI/NFRC 100, which provides a good indication of real-world thermal performance.[1] (Make sure your supplier can provide results from third-party tests rather than in-house engineering calculations.)

Knowing the door system's NFRC 100 U-factor helps you quantify the impact of using high-performance windows and doors. That performance data can be used in the Department of Energy's REScheck and COMcheck when evaluating residential and commercial building envelopes.

For example, under ASHRAE 90.1, the prescriptive U-factor for walls is 0.050 and 0.68 for doors in Climate Zone 5.[2] While there are several other variables to consider, an aluminum thermal-break barrier door system will yield a strong U-factor for a door opening, and possibly reduce the R-value required for the wall around it.

Figuring out the energy efficiency of doors can be a bit complicated. Testing and performance level minimums are a good starting point to ensure basic requirements are met. Meanwhile, advanced door systems—especially those with a thermal break door and frame—will deliver the necessary U-factor for meeting energy efficiency and climate goals.

***Tom Granitz** is the vice president of sales and marketing at Plyco Corp., a supplier of metal doors, windows, horse stall systems, ventilation products, reflective insulation, fasteners, and closures. Email tgranitz@plyco.com.*

NOTES

1. ANSI/NFRC 100, *Procedure for determining fenestration product U-factors.*
2. ASHRAE 90.1, *Energy standard for sites and buildings except low-rise residential buildings.*

Designing metal buildings to carry overhead cranes

Jeremy Barth
PHOTOS: HOJ INNOVATIONS

A metal building meant to house an overhead crane is designed around the crane. That single idea separates the projects that open ready to run from the ones where a crew is cutting into brand new steel to add runway support that should have been on the drawings from day one.

Most builders have seen a version of the second scenario. The shell goes up clean and on schedule, the owner is ready to move in, and then the crane shows up and nothing quite fits. The runway needs bracket support that the columns were never sized for. The hook will not clear a purlin. There is power at the runway but no proper ground.

Every one of those is a design coordination miss, and each one is far cheaper to solve on paper than in the field.

This article walks through what actually changes when an overhead crane enters a metal building project, and why pulling the crane requirements forward into design protects both the structure and the schedule. Four areas do most of the work: structural loads, geometry and clearances, runways and rails, and the electrical rough-in.

The crane belongs in the structural design, not the punch list

Crane requirements drive structural decisions, so they have to land during design. The cost curve is the whole argument. A change captured on the structural drawings is a line edit. The same change after the steel is standing means reinforcing columns, revising foundations, remobilizing a crew, and losing time the owner planned to spend in production.

The reason is that the crane sets parameters the building has to accommodate. Three inputs in particular ripple through the entire frame:

1. Rated capacity: the load the crane lifts, which drives wheel loads into the runway, columns, and foundations.
2. Span and configuration: bridge span and whether the crane is single or double girder, top running or

Whether it is a jib, gantry, or bridge crane, the lifting equipment feeds its loads into the building structure, so the two are best coordinated from the start.

under running, which affect runway placement and building width.
3. Service class: how hard and how often the crane works, which determines whether fatigue governs the design of runway beams and connections.

That last input catches people off guard. A crane that runs a few lifts a day is a different structural problem than one cycling continuously, even at the same capacity. The Crane Manufacturers Association of America (CMAA) defines service classes A through F, and for the busier classes, fatigue rather than peak strength governs many runway details.

The practical takeaway is simple: the crane engineer and the building designer need to be talking before the framing package is final, not after.



Crane loads travel through the supporting columns into the foundations, which is why crane support steel is engineered heavier than the rest of the frame.

Structural loads: what an overhead crane adds to the frame

An overhead crane adds a category of load that a static building never sees. Beyond the usual dead, live, wind, and seismic demands, the crane introduces forces that move, reverse, and repeat thousands of times a day. Runway beams are often described as the most demanding structural members in an industrial building for exactly this reason: they resolve several load actions at once.

The loads a crane imposes break down into four actions builders should recognize:

1. **Vertical wheel loads with impact.** The combined weight of bridge, trolley, hoist, and lifted load, increased by an impact factor to account for hoisting and travel. That allowance commonly falls in the range of about 10% to 25% depending on how the crane is operated, with cab- and pendant-operated cranes usually carrying the higher figure.

2. **Lateral (side thrust) forces.** Horizontal loads from trolley acceleration and crane skew, applied at the top of the rail. CMAA guidance commonly expresses these as a percentage of the lifted load plus trolley weight, and because they act on the top flange, they drive the beam's lateral stiffness, not just its vertical capacity.

3. **Longitudinal forces.** The back-and-forth thrust from the bridge starting and stopping along the runway, typically taken as roughly 10% of the wheel loads on the driven wheels and carried into the longitudinal bracing and runway stops.

4. **Fatigue from cycling.** For higher duty classes, the sheer number of load cycles governs connection detailing, which is why welded beam-to-column runway connections are generally discouraged in favor of bolted details that tolerate movement.

All of these forces travel the same path: from the wheels, through the rail and runway beams, into the columns, and down to the foundations. That load path is why the crane bay steel is not the same as the rest of the building. Crane columns and their brackets are frequently heavier, connections are detailed differently, and foundations under a crane bay may carry more than the roof loads alone would suggest.

How the crane changes the metal building package

Those loads do not stay in the runway beam. They work their way into the metal building system itself and change several parts of the package a builder would otherwise treat as routine. The runway has to be carried, and how it is carried depends on the crane.

Lighter, lower-cycle cranes can often ride on brackets bolted to the main frame columns, which keeps the structure simple. Heavier or high-cycle cranes usually call for separate crane columns, or stepped and laced columns, so that the crane's deflection and vibration are isolated from the primary frame rather than fed straight into it.

The lateral and longitudinal forces the crane introduces also reshape the bracing scheme. Side thrust has to be resisted where it happens, at the top of the rail, and the starting and stopping of the bridge drives a longitudinal force down the length of the runway.

Metal building frames handle this with dedicated crane bracing: a tier of bracing at the runway level to take the lateral surge, and longitudinal crane aisle bracing to carry the tractive and braking loads into the foundation. This is bracing the building otherwise would not need, and it has to be laid out such that it does not collide with the crane envelope or the bay's other uses.

Connections change in the same way, with the fatigue from a busy crane pushing details toward bolted, movement-tolerant connections rather than welded ones, and bay spacing and eave height often set by the crane's span and hook height before the roof is even considered.

The loads carry all the way to the ground. Crane wheel loads, impact, and lateral surge raise the column reactions,



Runway and support components must be set straight, level, and in tolerance, because misalignment shows up later as wheel wear and downtime.

so the anchor bolts and the foundation under a crane bay are designed for a heavier, more complex set of demands than a crane-free building of the same footprint. In practice, this is where scope and responsibility need to be pinned down early, because the pieces are usually supplied by different parties:

- The metal building manufacturer designs the primary frame to carry the crane reactions it is given, which means the crane's loads and duty class have to be provided to the building designer up front, not after the frame is quoted.
- The runway beams, rails, and the crane itself are commonly furnished by the crane supplier. The party who provides and connects the runway support steel is a scope line that should be settled in the contract rather than assumed.
- The anchor bolts and foundation are typically the responsibility of the contractor and a foundation engineer, designed to the reactions the building manufacturer publishes, which is one more reason those numbers have to be coordinated early.

None of this is exotic once the crane is in the plan from the start. It becomes expensive only when the building is designed as without the crane—then the framing, bracing, columns, and foundation all have to be revisited to accommodate a load path that was there in the requirements the whole time. Designing that structure to the right loads is well-established engineering work.

Widely referenced guidance for this work includes CMAA Specification 70 and 74 and AISC Design Guide 7 for industrial buildings, which is where a structural engineer will confirm the exact factors for a given crane and code.

Geometry and clearances: designing the envelope around the lift

Loads are only half the coordination problem. The other half is dimensional, and it is where crane-bearing buildings most often get pinched. The starting point is not the building height; it is the hook.

Required hook height, the lift the operation actually needs, sets the clear height under the runway. Working up from there, the bridge, trolley, and hoist all consume vertical space above the hook, and the runway sits above that. Add it up and the crane, not the roof, often drives the eave height. Design the envelope from the roof down and the hook height comes up short. Define the hook height first and build the envelope outward from it, and the geometry works.

Clearances matter just as much in the horizontal and end directions:

- Side clearances keep the bridge and end trucks from contacting walls, columns, girts, and wall-mounted equipment as the crane travels.
- Overhead clearances keep the trolley and hoist clear of the roof structure, purlins, lights, ductwork, and sprinkler lines.
- End clearances and runway stops define how close the hook can get to the ends of the bay, which affects how much of the floor the crane can actually serve.

These dimensions ripple straight back into the building's overall height and footprint, which is exactly why they belong in early design rather than in the field. A clash between the hoist and a light fixture is trivial on a drawing and expensive once both are installed.

Runways, rails, and the electrical rough-in

The runway is where the crane meets the building, and it is unforgiving of shortcuts. Runway beams and crane rail have to be installed straight, level, and within tolerance, because misalignment does not stay hidden. It shows up later as accelerated wheel and rail wear, tracking problems, and downtime, and the tighter deflection limits that heavy-duty cranes carry exist specifically to keep the rails aligned under load.

This is the point in a project where crane rail installation and runway support have to be coordinated with the steel rather than treated as a later add-on. Providers who handle overhead crane installation as a design-build service typically verify runway components against the manufacturer and the crane's engineer before anything is set, which is the kind of coordination that keeps alignment problems off the punch list.

Then there is the item that gets missed more than any other: the electrical rough-in. Conductor bars or festoon systems and the crane controls need power routed to the runway, and that path has to be planned during construction, not discovered afterward.

A common field miss is a runway that has a power bar but no proper ground bar. Catching the electrical requirements during design means the conduit, disconnects, and grounding are roughed in while the walls are still open, instead of surface-mounted later or, worse, opened back up.

Coordinating the build: design, fabricate, install, load test

When the crane and the building are planned together, the sequence runs clean and the payoff is a building that opens complete and compliant. That ideal flow looks like this:

- Design together. The crane's capacity, span, and service class are fixed early, and the structure is engineered for the resulting loads, clearances, and runway support.
- Fabricate and erect with crane provisions in place. Columns, brackets, runway support, and the electrical path are built in, not added on.
- Install the crane and runway. Rail and runway components are set straight, level, and in tolerance, verified against the crane's engineering.
- Load test before first use. OSHA 1910.179 calls for new and altered cranes to be tested before initial use, with the proof load not exceeding 125% of rated capacity unless the manufacturer specifies otherwise. That test validates that the design assumptions hold in the real structure.

Coordinated in that order, the crane is not a risk item hanging over the end of the job. It is simply part of the building. The alternative, treating the crane as something to sort out after the shell is closed in, is what turns a finished building into a waiting game or a demolition-and-reinforce exercise.

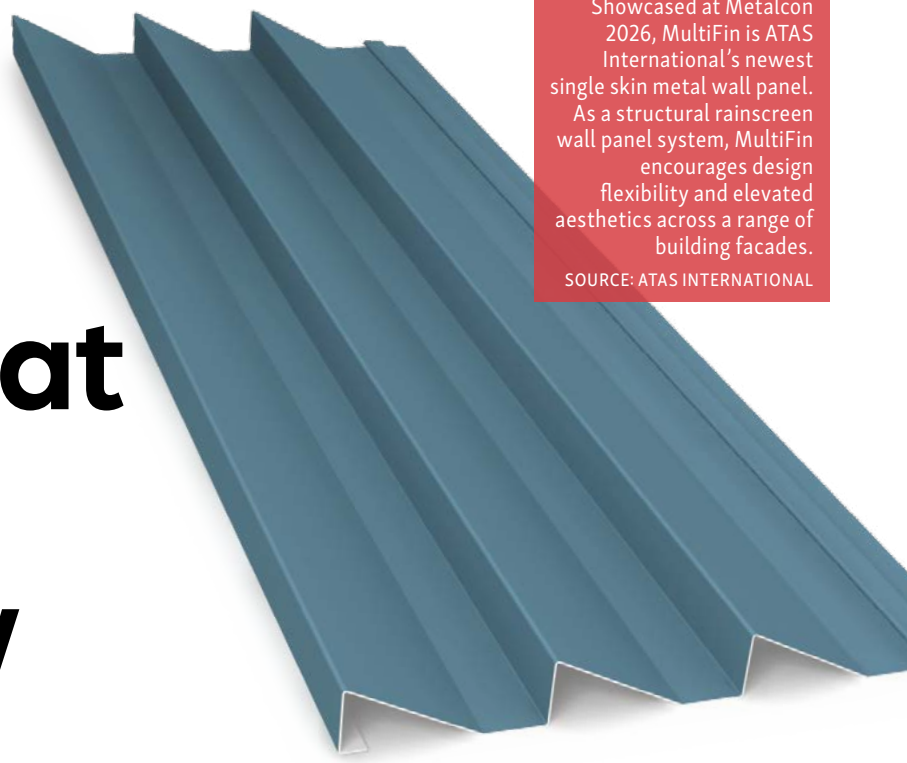
> Runway beams and crane rail misalignment do not stay hidden.

The lesson for any crane-bearing project is the one the whole article comes back to: the most expensive crane mistakes are made on the structural drawings. Bring the crane requirements into the design phase, get the crane engineer and the building designer talking before the framing package is locked, and the structure and the schedule both hold together.

Jeremy Barth *is a specialist at Hoj Innovations who leads the inbound growth and digital discovery initiatives, collaborating with the firm's internal technical teams to capture and share real-world operational insights. Hoj (hoj.net) engineers complete material handling solutions for warehousing operations.*







Showcased at Metalcon 2026, MultiFin is ATAS International's newest single skin metal wall panel. As a structural rainscreen wall panel system, MultiFin encourages design flexibility and elevated aesthetics across a range of building facades.
SOURCE: ATAS INTERNATIONAL

Metal wall systems: what contractors should know

Insights from the Metalcon show floor

Anthony Capkun

Insulated metal panels. Single skin. Perforated metal. These are just some of the options available to designers for cladding a structure in metal, but is one better than another?

"Better" is probably not the right word, as suitability may boil down to budget, schedule, lead time, performance requirements, aesthetics, familiarity, and so on.

It may also very well hinge on one simple question: What makes sense here?

Rather than copy-paste product specs that you can just as easily find on our partners' websites, I interviewed several metal wall system exhibitors at Metalcon 2026 to get their perspectives on everything from recent developments and suitable applications to common installation mistakes, misconceptions, and advice for contractors.

Their answers may make you rethink what you think you know, and may even introduce you to a wall system you've never considered.

Single skin panels

Interviewees: Sam Chapo, ATAS International; Tom Cook, Dri-Design

When it comes to single skin panels, there is a growing trend to provide architects and designers with the ability to *make* their own panels, Sam told me.

The panel itself may still be concealed or exposed fastener, but the innovation is more about customization, Sam explained. "Different types of panels, profiles, and even allowing architects to come up with their own types of profiles so they can get the design intent that they're looking for."

That's one of the reasons single skin remains a popular choice; it lets designers leave their mark and enhance the appearance of their projects.

Tom echoed those thoughts, saying the market wants more variety. "As machinery changes with technology, people want to push the limits of single skin metal panels across the board." He said manufacturers have responded to this demand "by getting the latest and greatest machinery, better testing, more equipment," and carrying out testing for things like wind loads.

Sam is not one to say anything negative about other cladding options, but compared to brick or stonework, he believes a single skin solution increases a designer's ability to play with multiple dimensions, colors, embossing, flatness or smoothness.

Despite the design possibilities, single skin panels remain a tried-and-true workhorse.

"A lot of single skin systems are used in government jobs," Tom said. "Anywhere where they want buildings to last 40 to 60 years. There's almost zero maintenance that goes into a single skin system. No sealants, no gaskets, no permeable materials that may break down and need to be maintained over time. Once it's on, single skin is forgiving. It's there to last until you want to completely recycle the facade at the end of the building's life."

When asked whether there are any situations where single skin does not make sense, Sam said no ... but there are considerations.

"I'll get asked by architects: 'Can you put a single skin metal panel over masonry or a CMU block?' or something like that, and the answer isn't no, but there are stipulations," Sam explained. "We don't want to fasten directly to CMU block or to brick because the expansion and contraction of the panel is going to be different than that of the CMU wall."

So, while it is forgiving and will work just about anywhere, detailing and proper installation still matter.

Speaking of detailing, Sam said installers must ensure they are flashing the cladding correctly to help manage water flow, "and that we're using the right type of subframing or secondary framing."

Proper fastener installation is also vital. "Maybe the contractor drives the fastener in too deep or too tight and *anchors* the panel," or maybe there is a specific pattern to fastener installation that should be followed.

Sam believes that the contractors who use a slotting tool to slot the panel, especially concealed fastener panels, are truly worth their weight in gold, as this allows the panel—especially if it is a dark color or part of a long run—to expand and contract.

A common misconception with a single skin solution is that it is going to oil can, Sam said, but that's not necessarily true. "Just like any other type of material, if you install it incorrectly or if you handle it incorrectly, issues may arise. It's more about the type of material we are using, the thickness, and the profile of that panel, and then you take steps to reduce the potential for oil canning."

Sam also suggested using horseshoe shims when going over a solid substrate or secondary/open framing, "because no wall is absolutely perfectly straight or flush, and using horseshoe shims helps ensure the fastened panel is plumb, regardless of what's behind it."

And if sticker shock has kept you from considering single skin, Tom thinks you should take another look.

"Single skin has a history of being more expensive," he said. "Typically, people have shied away from it because of that, but prices have come down, just as manufacturing methods have gotten better and more efficient."

New MCA EPDs document environmental benefits of IMPs, MCMs, and single skin cladding

The Metal Construction Association (MCA) has released updated industry-average environmental product declarations (EPDs) for three cladding product categories, providing independently verified data to support sustainability reporting, material selection, and compliance with green building programs.

Developed using data from multiple manufacturers, industry-average EPDs serve as benchmarking tools for architects, owners, and contractors.

"Maintaining current industry-average EPDs helps ensure metal construction products are evaluated fairly against competing materials," said MCA technical director Bob Zabcik.

Insulated metal panels

This EPD documents the advantages of IMP systems, including high thermal efficiency, reduced operational energy demand, and integrated air, vapor, and insulation performance in a single panel assembly. The declaration provides quantifiable environmental data that can support whole-building life cycle assessments and sustainability planning.

Metal composite materials

This EPD documents the beneficial attributes of MCMs, such as aluminum recyclability, reduced material waste through project-specific fabrication, and the long service life associated with durable coil-coated finishes. The declaration provides verified performance data to support material evaluation and specification decisions.

Single skin metal cladding

This EPD highlights the benefits commonly associated with roll-formed metal cladding systems, including recycled steel and aluminum content, long service life, low maintenance requirements, and end-of-life recyclability. The declaration provides industry-wide environmental impact data that can help project teams support sustainable design goals.

"These industry-average EPDs demonstrate the metal construction industry's commitment to transparency, while providing the design community with trusted benchmarks that support informed decision-making and sustainable building practices," said MCA executive director Jeff Henry.

In addition to supporting sustainability assessments, MCA's industry-average EPDs help project teams compare materials using consistent environmental metrics, simplify documentation for green building programs, and establish benchmarks against which product-specific EPDs may be evaluated.

The Metal Construction Association is a diverse group of companies involved in metal roof and wall systems, collectively promoting metal's performance, durability, and design potential through education, research, and advocacy.



With insulated metal panels, one contractor installs a panel that serves multiple functions.
SOURCE: BRUCHA

Insulated metal panels

Interviewee: Maggie Christiansen, Brucha Corp.

"When I started in IMPs 25 years ago, we were talking about white insulated panels on a walk-in cooler or freezer, or a big, cold storage distribution center on the side of the interstate," Maggie recalled. "But the panels and the industry have evolved so much, they now allow for some really beautiful buildings to be constructed."

In fact, one of the biggest changes she has seen is the expanding versatility of IMPs and the types of projects that are now being built with them.

"As energy codes continue to evolve, more people are recognizing the benefits of using an IMP as a single-component system rather than a traditional built-up system," Maggie said. "A big part of that is the ease and speed of installation. With IMPs, you're not relying on multiple trades to come in and complete their portion of a built-up system. Instead, you have one contractor installing a panel that serves multiple functions."

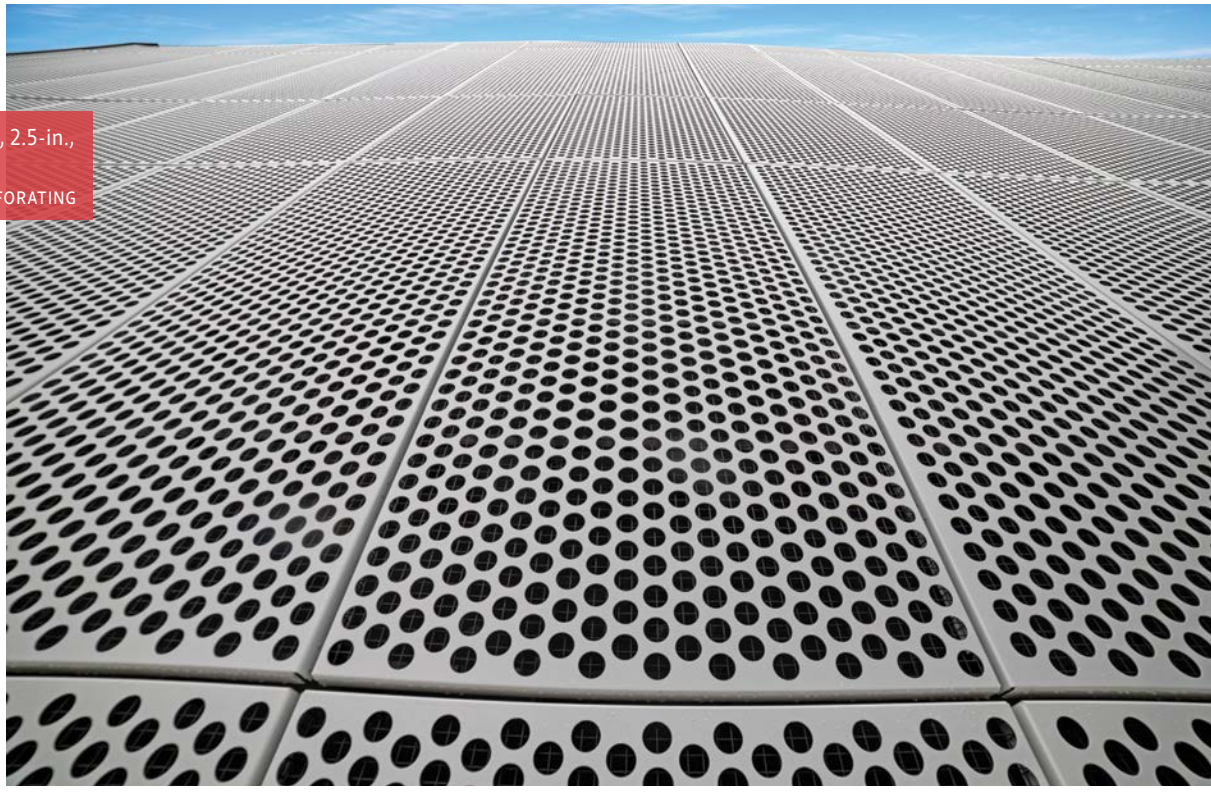
And while she feels IMPs make sense for just about any project, Maggie sees tremendous opportunities with data centers.

"These projects have incredibly aggressive construction schedules, and that's where insulated metal panels really shine. When you have a single-component system that provides your air, water, and vapor barrier all in one panel, you're able to get that building enclosed much faster," she said. "That speed and efficiency can make all the difference. In many cases, insulated metal panels are what make those schedules achievable."

Maggie pointed out that not all IMPs are created equal, as each manufacturer has its own system with specific installation requirements. Installers must understand the product they're working with and follow the details provided by *that* manufacturer.

"Just because you've installed one brand of IMP doesn't necessarily mean another brand installs the same way. Following those details is critical to ensuring the system performs the way it was designed," she said, adding that IMP manufacturers help prepare shop drawings, which serve as the roadmap for a proper installation.

By no means does Maggie feel that IMPs are complicated to install, or that you need to be a specialized installer to work with them. "The reality is they're actually very easy to install. As long as you're following the manufacturer's installation details and recommendations, it's a pretty straightforward process."



Perforated 215 white panels with 2-in., 2.5-in., and 3-in. round holes, varied staggers.
SOURCE: ACCURATE PERFORATING

Perforated metal walls

Interviewee: Jim Erhart, Accurate Perforating

When used well, perforated metal gives buildings a special character. "But more importantly, it keeps the building looking minimalistic, like a glass system. So perforated metal looks integral to the wall system," Jim told me.

The thickness of perforated metals has changed over the past few years. It used to always be 1/8-in. thick, Jim recalled, but now 3/16-in. thick material is commonly being spec'd. With the material being thicker and more robust, it does not require as much bracing and support.

Not surprisingly, perf systems should not be used in load-bearing applications. "Sometimes, because it is steel or aluminum, people think perforated metal is load-bearing and can be walked on, like a walkway, but that is not the case."

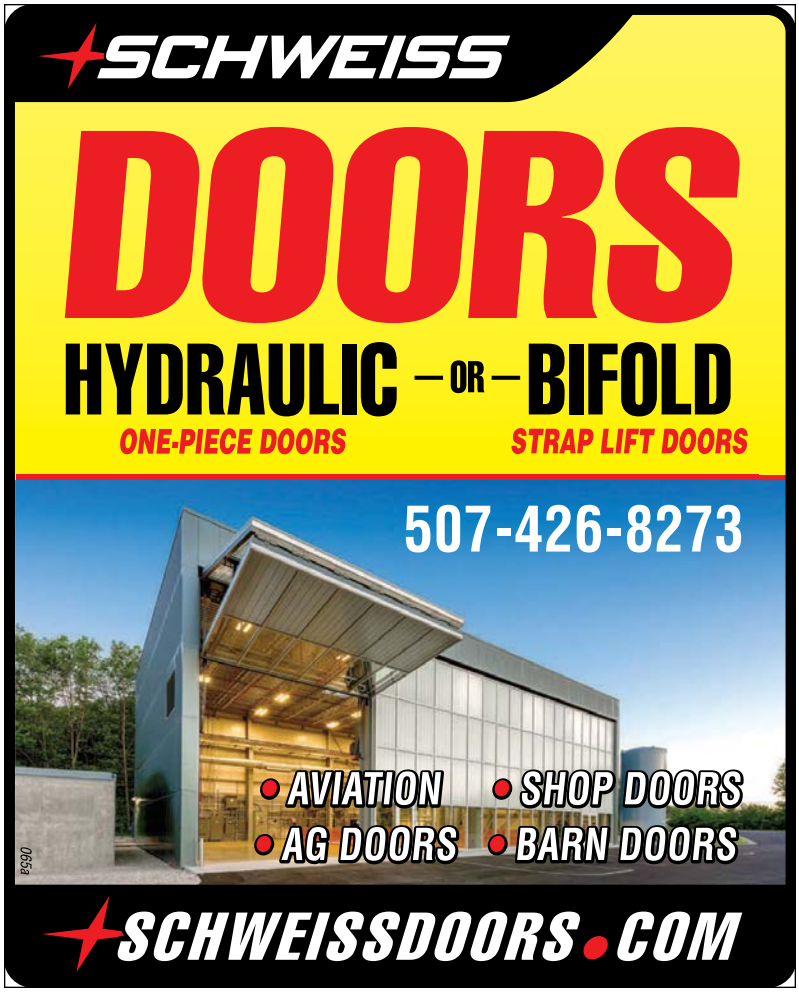
Beyond that, Jim said the applications are endless, although perf systems really shine (pun intended) when used as a sunshade. "Depending on the open area that is chosen, you can still bring in the sunshine, but your building stays cooler. Parking garage operators love to use perforated metal. It helps to transform a boring building into something with more color and personality."

For something that's already perforated, it is curious that one of the most common mistakes is getting the hole orientation wrong on the building; that is, installing it the way it was intended to be oriented.

Buyers always want a hole size that is incompatible with the material thickness, Jim noted. "The rule of thumb is the hole size needs to be a 1:1 ratio to the thickness of the material."

The best advice Jim can give contractors is to pay close attention to lead times. "Typically, perf is one of the last items to be installed at the jobsite. Providing the perforated metal manufacturer with the correct lead time will save you a lot of headaches down the road."

Anthony Capkun is the editor-in-chief of Metal Construction News and Metal Architecture magazines.



SOURCE: BERIT KESSLER / ADOBE STOCK



Construction materials prices continue their ascent

"Construction input prices surged again in August, and the increases were widespread across materials," said Anirban Basu, chief economist with Associated Builders and Contractors (ABC).

Prices for iron and steel, softwood lumber, switchgear, copper wire and cable, and several derivative metal products are now up more than 10% year over year, Basu added.

According to an ABC analysis of the U.S. Bureau of Labor Statistics' Producer Price Index data, construction input prices increased 1.2% in August compared to the previous month. Nonresidential construction input prices increased by the same percentage.

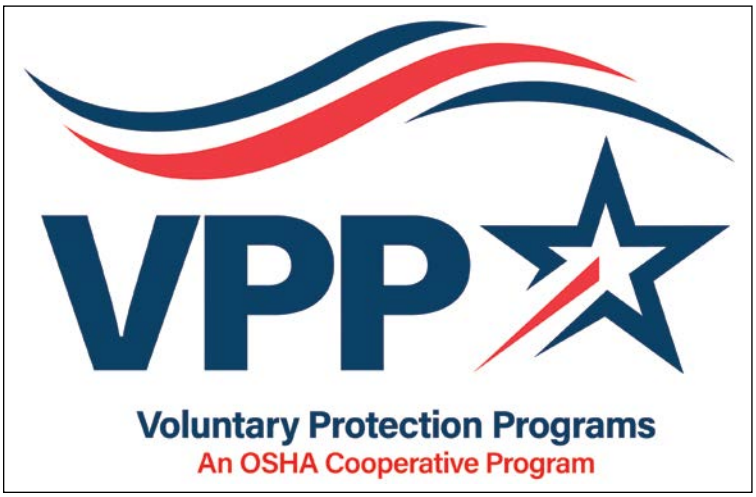
Indeed, metals remain a significant source of cost pressure. Steel mill product prices increased 1.7% in August and are up 23.4% over the past 12 months. Since February 2020, prices have more than doubled, rising 103.4%.

Iron and steel prices increased 0.9% for the month and 17.9% year over year. Compared with February 2020, prices are up 80.8%.

Prices for hot rolled steel bars, plates, and structural shapes were unchanged in August, but remain 13.4% higher than a year ago and 63% above February 2020 levels.

Overall construction input prices are 8.9% higher than one year ago, while nonresidential construction input prices are 8.8% higher.

SOURCE: OSHA



OSHA recognizes Wieland Metal Services for being a Star

Congratulations to Wieland Metal Services in Parsippany, N.J., for achieving OSHA VPP Star Status.

On August 27, OSHA regional administrator for New York Richard Mendelson presented the Voluntary Protection Programs Star plaque to the Wieland team in recognition of their commitment to workplace safety and health.

Wieland Metal Services in Parsippany is now the eighth Wieland location nationwide to earn and maintain VPP Star approval.

OSHA's VPP recognizes employers and workers who have strong safety and health programs and low injury rates. Meanwhile, VPP Star recognizes employers and employees who have developed comprehensive, effective safety and health management systems that successfully prevent workplace injuries while maintaining safety performance below industry averages.

SOURCE: SUPPLIED



CMG's new Omaha facility brings architectural metals to underserved region

Coated Metals Group, a manufacturer and distributor of pre-finished steel products for the architectural metal and roofing industries, announced the opening of its newest stocking and distribution facility at 14607 Chandler Road in La Vista in Omaha.

Outside sales rep Jordan Jackson will lead sales efforts throughout the region.

The Omaha facility will stock CMG's portfolio of architectural metal products, including pre-finished coil and sheet, roofing accessories, and complementary products for the residential, commercial, and agricultural construction markets.

Increased pessimism among architecture firm leaders about Q4 2026 billings

The AIA/Deltek Architecture Billings Index (ABI) score for August 2026 was 47.2. While slightly up from July's score of 46.6, the majority of firms continued to see weak business conditions.

The ABI is a leading monthly economic indicator based on billings at U.S. architecture firms and is used to predict nonresidential construction activity 9 to 12 months in advance.

ABI scores greater than 50 indicate growth, while scores below 50 indicate contraction.

Inquiries into new projects showed only modest growth this month, while the value of newly signed design contracts continued to decline. Further, sentiment about future billings has weakened at architecture firms.

When AIA first asked about future billings at the end of Q1 2026, 31% of responding firm leaders indicated they expected billings to increase in the second quarter. That belief held steady when firms were asked about Q3 (30%), but expectations about Q4 have now fallen to 25%.

The share of responding firm leaders who expect billings to decline in the coming quarter has increased from 21% at the end of Q1 to 29% at the end of Q3, AIA added.

Despite billings declining overall, firms in some regions saw better conditions in August. Those located in the Midwest reported modest growth for the first time in nearly a year, while billings were essentially flat at firms located in the West.

At firms in the Northeast, billings softened significantly, reaching their lowest level since 2020.

Billings also varied significantly by firm specialization, as those with a commercial/industrial specialization saw a slight uptick. Despite firms with institutional and multifamily residential specializations seeing slight growth earlier this year, business conditions remained soft at firms of all other specializations.

After dropping by 100 positions in June, architectural services employment added 700 new positions in July (the most current data available).

— With files from AIA

AWIP strengthens commercial leadership with Harrell and Nickel promotions

Strengthening its commercial leadership team, IMP and building envelope solutions provider All Weather Insulated Panels has promoted Kim Harrell to vice president of sales and Jacob Nickel to director of commercial sales.



Kim Harrell



Jacob Nickel

SOURCE: SUPPLIED

Harrell now leads AWIP's sales organization while also assuming responsibility for customer service. Nickel will oversee AWIP's East and West sales regions, as well as national accounts.

"Together, they strengthen an already outstanding commercial organization that is focused on delivering exceptional value to our customers while continuing to expand AWIP's presence across North America," said president Joe Paparella.

Pineda succeeds Fochs as a South Region sales manager



SOURCE: SUPPLIED

Albert Pineda has joined Apogee Architectural Metals as a regional sales manager, overseeing sales and market development efforts across Texas, Oklahoma, Arkansas, Nebraska, Kansas, and Missouri.

Pineda succeeds Jeff Fochs, who transitioned to a new leadership role within Apogee Architectural Metals as director of Linetec. Most recently, Pineda served as a regional sales manager with Associated Materials, where he was responsible for driving sales through dealer and distributor channels and developing relationships with contractors, custom home builders, and architects.

Statement of Ownership, Management and Circulation

1. Publication title: **Metal Construction News**

2. Publication number: **553-650**

3. Filing date: **October 1, 2026**

4. Issue frequency: **Monthly Except Semi-Monthly in April**

5. Number of issues published annually: **13**

6. Annual subscription price: **$0.00**

7. Complete mailing address of known office of publication:
Kenilworth Media Services Corp., 750 Commerce Drive, #1 Gulf Shores, AL 36542-2811
Contact person: **Mei Hong, Tel: 905-771-7333**

8. Complete mailing address or headquarters or general business office of publisher:
201-30 Leek Cresent, Richmond Hill, ON, Canada L4B 4N4

9. Full names and complete mailing address of publisher, editor, and managing editor:
Publisher: Erik Tolles, Kenilworth Media Inc.,
201-30 Leek Cresent, Richmond Hill, ON, Canada L4B 4N4
Editor: Blair Adams, Kenilworth Media Inc.,
201-30 Leek Cresent, Richmond Hill, ON, Canada L4B 4N4

10. Owner: **Kenilworth Media Inc.,**
201-30 Leek Cresent, Richmond Hill, ON, Canada L4B 4N4

11. Known bondholders, mortgages, and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages or other securities: **None**

12. Tax status:

13. Publication title: **Metal Construction News**

14. Issue date for circulation data: **September 1, 2026**

I certify that all information furnished on this form is true and complete. I understand that anyone who furnishes false or misleading information on this form, or who omits material or information requested on the form, may be subject to criminal sanctions (including fines and imprisonment) and/or civil sanctions (including civil penalties).

15. Extent and nature of circulation

	Average no. Copies Each Issue During Preceding 12 Months	No. Copies of Single Issue Published Nearest to Filing Date
a. Total number of copies (net press run)	**25,172**	**17,828**
b. Legitimate paid and or requested distribution (by mail and outside the mail)		
(1) Outside county paid/requested mail subscriptions stated on PS form 3541	**19,610**	**15,405**
(2) In-county paid/requested mail subscriptions stated on PS form 3541	**0**	**0**
(3) Sales through dealers and carriers, street vendors, county sales and other paid or requested distribution outside USPS.	**0**	**0**
(4) Requested copies distributed by other mail classes through the USPS	**0**	**0**
c. Total paid distribution	**19,610**	**15,405**
d. Free or Nominal Rate distribution (by mail and outside the mail)		
(1) Free or nominal rate Outside-county copies stated on PS form 3541	**924**	**244**
(2) Free or nominal rate in-country copies stated on PS form 3541	**0**	**0**
(3) Free or nominal rate copies mailed at other classes through USPS (*e.g.* First-class mail)	**0**	**0**
(4) Free or nominal rate distribution outside the mail	**0**	**0**
e. Total Free or nominal rate distribution	**924**	**244**
f. Total distribution	**20,534**	**15,649**
g. Copies not distributed	**50**	**50**
h. Total	**20,584**	**15,699**
i. Percent Paid	**95.5%**	**98.4%**
16. Electronic copy circulation		
a. Paid electronic copies	**5119**	**4571**
b. Total paid print copies + paid electronic copies	**24,729**	**19,976**
c. Total print copies + paid electronic copies	**25,653**	**20,220**
d. Percent paid (both print and electronic copies) (16b divided by 16c X 100)	**96.4**	**98.8**

17. Publication required and will be printed in the **November 3, 2026** issue of this publication.

18. Signature and title of editor, publisher, business manager, or owner:
Krista Taylor, VP of Operations



PHOTOS COURTESY SHEET METAL SUPPLY LTD.

A heavy lift for a lasting exterior

Prefab steel wall panels for this New England home

The homeowners of this unique new-build wanted their home to fit within its natural surroundings and take advantage of scenic vistas. They wanted the house to have a traditional New England form while including accessibility features for aging in place.

The homeowners also desired an exterior that was virtually maintenance-free and were willing to entertain unconventional exterior materials.

With that in mind, ARQ Architects delivered a design that employs 11-ga Corten prefab panels for the walls and 22-ga Corten A606 standing seam panels for the roofing.

"We looked at other options for the exterior cladding and roofing, but weathered steel turned out to be the best choice for both," says ARQ's Paul Bonacci, AIA, LEED AP.

Bonacci says the use of mostly standard-width weathered steel panels worked well alongside the window and door openings to augment and enhance the simple gabled form. "The weathering steel will have great longevity with basically no maintenance."

Sheet Metal Supply was tapped to deliver the exterior metal, while Brendan King Construction and Natural Metal Associates were tasked with making it happen.

"SMS did a really nice job of packaging the material for delivery as well as labeling the location of all the panels. It saved us a lot of time moving all the panels right where we needed them around the building," said Brendan King.

"The architects did a great job of measuring the panels so they needed almost no modifications, except for where we had to cut for vents," King continued, noting that two flashing details were made from thinner-gauge Corten—one for the windowsills and one at the bottom of the walls where the steel panels met the foundation.

"The windowsills were a little tricky because we had to notch the Corten wall panels around the windowsill flashing. And, at the bottom of the walls, we needed more of a z-type flashing to kick the water out beyond the foundation," King said.

"The walls were 11-gauge prefabricated Corten panels, so they're heavy and awkward, but worth the workout when you see the finished project," said Lou Rondeau, owner of Natural Metal Associates. "The material is a challenge to work with. You have to be careful with the panels and have the proper tools. It takes a lot of preplanning and patience, but it was a fun challenge."

King says it was awkward working with the 200-lb, 4x10-ft, 1/8-in. wall panels.

"There was really no place to hold on to them. We initially tried to hoist them with large magnets, but because we were lifting vertically, the magnets wanted to slide. In the end we had the most success with suction cups."

The installers also tried using a ledger to set the bottom and edge location of the panels, King says, with some success. "We then screwed the panels to 1x4-in. strapping with about 32 screws. We chose a square drive stainless steel bugle-head screw that fit nicely into the countersunk holes made from SMS."

Bonacci says the new home meets the homeowners' expectations and has also drawn a lot of attention from the neighbors.

"The biggest surprise is how much all of the local community and passersby have expressed their great appreciation for the house design and the use of weathering steel.".


We've got
the cure for
your concrete
headaches.
Pours, cure times, weather windows, and stacked trades can slow a project fast. MetI-Span insulated metal panels integrate steel deck, insulation, and a continuous air barrier into a single system, helping you move faster with fewer moving parts on site. And when the details matter, our team is right there with you.
metlspan.com
Built to move you forward.
METL SPAN
a NUCOR company

DYNAMIC FASTENER 2026

DYNAMIC FASTENER

Everything for the Metal Builder & Roofer®

2026 TOOL & FASTENER HAND GUIDE

You supply the crew. We'll supply the rest®

MAIN OFFICE

KANSAS CITY
9911 E. 53rd St.
Raytown, MO 64133
816-358-9898 Local
800-844-1199 Fax
800-821-5448 Ntl

CHICAGO
2575 W. LeMoyne St.
Melrose Park, IL 60160
708-615-1450 Local
708-615-1451 Fax
800-573-7787 Ntl

HOUSTON
1414 Brittmoore Rd.
Houston, TX 77043
713-647-8665 Local
713-647-8635 Fax
800-988-5490 Ntl

LAS VEGAS
6455 Dean Martin Dr. Ste J
Las Vegas, NV 89118
702-566-1555 Local
702-566-0175 Fax
866-936-8665 Ntl

MEMPHIS
3700 Cherry Rd.
Memphis, TN 38118
901-369-8000 Local
901-369-0105 Fax
800-727-0288 Ntl

ST. LOUIS
12800 Pennridge Dr.
Bridgeton, MO 63044
314-739-8771 Local
314-739-8691 Fax
800-444-0515 Ntl

ST. PAUL
2316 Territorial Rd.
St. Paul, MN 55114
651-644-1212 Local
651-644-1124 Fax
800-755-2426 Ntl



D•F® RIVET BOSS®
PG. 92, 93



D•F® ultra-premium nut runners
With Mag 5/16 x 2-9/16"
10 $3.60
100 $2.50
PG. 52



With *Dyna-Coat*®
D•F® SELFDRILLERS
PG. 74-83

50 YEARS ANNIVERSARY
1976-2026



D•F® DYNA-CLAMPS®
DC-U
600+ $6.75
PG. 68



Titebond® THE PRO'S ADVANTAGE™
COLORS
120+ $6.83
PG. 59

DEWALT



Premium Impactor
DCF860B $119
PG. 5



2-Pcs Kit & *FREE* bit set
3697-22 $329
PG. 28



D•F® DYNA-FLASH®
#3
10+ $6.89
PG. 61-63

PRICES GUARANTEED UNTIL MARCH 31, 2027 OR WHILE SUPPLY LASTS - SUBJECT TO CHANGE WITHOUT NOTICE

(800) 821-5448 Order online @ www.dynamicfastener.com

© Copyright 2026 D.F.S.

Call 800-821-5448 for your *FREE* 140 pg 2026 Hand Guide