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Act Now If You Like Metal Builder

Metal Builder has been a quarterly supplement to Rural Builder for over a year now, and Rural Builder subscribers didn't have to do anything to receive it. It just magically appeared on the back of your regular issue, four times a year.

That is changing in 2024. If you like Metal Builder, you need to sign up for it now. This is your last installment to be included in Rural Builder. Metal Builder is not yet becoming its "own" magazine. That is the plan, someday. But for now, it is moving to a different magazine and will now be a flip-cover within Garage, Shed & Carport Builder magazine. Both deal largely in metal structures.

Metal Builder will still be free and you only have to take 5 minutes to sign up. You can do that in a few different ways, but what we recommend is simply visiting Metal Builder's new website at www.metalbuildermagazine.com because you should bookmark our new website either way. Look for "Free Magazine Signup" at the top, or a popup will also appear with yellow letters so you can also just click on that.

Not sure if you need Metal Builder moving forward? Here's a sampling of the 2024 editorial calendar to help you decide.

- Metal Buildings & Codes
- BIM/3D
- Helping Customers Finance
- High-End Barndos
- Fasteners
- Welding Basics
- Europe vs. US: What Can We Learn?

- Printed Light Gauge Steel
- Tips to Improve Profitability
- Onsite Prefab
- Curving Metal Panels

Rural Builder will continue to cover all things rural, including agricultural buildings, and that obviously includes metal buildings. But if you work heavily in metal, or want to learn how, you should take 5 minutes and sign up today. Also see the ad on page 5.

— Rocky



Hanging With Style

Hangers Fit for Specialty Planes

HANGING BIPLANES
BY ROBERT WELLS
PHOTO: VANCE PRODUCTIONS

for the interior of the buildings and at the larger clear span frames. The Vance Production Rigid Frame system was used, which does not require any interior columns. Providing clear spans up to 500' or more, along with on-center and off-center ridges and single-ridge designs, these structures allow flexibility in the



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use of interior space. The Hangar Area D utilized 100' wide clear span Rigid Frames, and the Hangar A-B used 200' wide clear span Rigid Frames. The Engine Assembly building has Rigid Frames with a 90' clear span and the Flight Shop building has Rigid Frames with a 75' wide clear span.

Thomas also used two cranes simultaneously to set the main frames because of the clear span. The building team had a detailed erection plan showing how to temporarily brace the building during erection until all the permanent bracing was installed. Because the work was performed at an active airfield, every crane pick-up or "set-out" job had to be carefully coordinated.

Over an two-year project on the hangar that were set on a tight schedule. A company with specialized experience was hired to set the curved panels, as it would be an especially cumbersome during the entire week of the hangar. They got the building team a good view of how the steel will fit and the team could correct the steel framing work and system was used for the 60,000-square-foot building project with a 100' x 100' steel peak. The "SBC" system has durable, low-maintenance panels that are mechanically and mechanically field-welded into place, forming a single membrane that allows for an efficient and affordable solution.

For the WNC3 building complex, the architectural group also enhanced using a ThermiCheck roof system. The durable wall panels offer thermal performance with an attractive profile. The durable wall panels have an installed cost made from formed-in-place, blown-in foam-GFCI polyurethane. The enhanced GFCI and exterior panels are coated in 70% fluoropolymer finish in providing long-term low-maintenance performance. For two of the four buildings, the wall panels were pre-installed horizontally to give each building a long, sleek, airport-styled appearance.

The buildings are topped with a ThermiCheck roof system. The ThermiCheck system combines the Vance Production roof system with a multipurpose Deck-Base which provides multiple layers



METAL: The Material of Choice

When building with the primary material, metal is the most durable and longest-lasting material in the U.S. Metal buildings offer a wide range of options for clear span, high bay, and low bay buildings. Metal buildings are also the most cost-effective building option for most owners, offering the highest return on investment. The metal building market is growing rapidly, with the industry expected to reach \$10 billion by 2025. Metal buildings are used in a wide range of applications, from agriculture to manufacturing. The metal building market is growing rapidly, with the industry expected to reach \$10 billion by 2025. Metal buildings are used in a wide range of applications, from agriculture to manufacturing. The metal building market is growing rapidly, with the industry expected to reach \$10 billion by 2025.



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On the cover: Deals were made and hands were shaken at the Shield Wall Media Construction Rollforming Show in September in Cincinnati. Learn more about that show on page 6 and about the METALCON show on page 19. Metal Builder Staff Photo.



Roll With the Changes

Shield Wall Media's Construction Rollforming Show in Cincinnati Connects Roll Formers With Products, Services

The 2023 Construction Rollforming Show closed with many happy attendees and exhibitors. It was held once again at the Duke Energy Convention Center in Cincinnati, Ohio, which many attendees and exhibitors expressed

was their favorite location. The September 27-28 event saw attending roll forming professionals keeping more than 60 industry suppliers extremely busy.

Shield Wall Media Show Director Missy Beyer explains, "The goal of the Construc-

tion Rollforming Show, much like all of our shows, is to put qualified buyers in the room with the industry professionals that are there to sell. The key is we're bringing qualified buyers into the space so they can make connections and build their businesses. Attendees can see everyone they need to see in one room, and the exhibitors can expand their footprint by seeing buyers from all over the US."

For the 2023 show, exhibitors and attendees came out in force. "It is great to see the Construction Rollforming Show mature," said Gary Reichert, Publisher/CEO of Shield Wall Media. "This year, attendance and exhibitors increased by more than 20%. Multiple exhibitors stated they did not have a second on the first day when they were not engaged with a legitimate prospect. We are going to have to add hours to the first day of next year's show to accommodate the growth."



SWI Machinery's Jason Smoak gives a demonstration to interested roll formers.

ATTENDEE BENEFITS

Hundreds of roll-forming professionals who attended the Construction Roll-

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Dear Readers:

A couple years ago, we added a new section to this magazine called *Metal Builder*. It has been a “flip section” of *Rural Builder* and has included articles specifically about building with metal.

We’ve been very encouraged by the reaction so far and continue to have plans to take this new brand to its own magazine someday. In fact, it has a brand-new website at metalbuildermagazine.com where you can read our back issues and the articles that were in them.

Here’s what you need to know today: *Metal Builder* is moving to another magazine so if you want to continue to read it, you need to sign up for it today. It will continue to be a flip section, for the near future in our *Garage, Shed, Carport Builder* magazine. Signing up for it using this form or the website address at left will ensure you receive *Metal Builder* in the near term, and when it becomes its own magazine someday.

Thank you to the advertisers and subscribers who have made this growth possible. We hope you have liked our *Metal Builder* content enough to take advantage of this free offer today.

Rocky Landsverk
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MAIL TO:
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Ryan King of Cidan Machinery, shown here at the booth, also ran two educational seminars.

forming Show recognize the benefits to be gained by attending. For the price of admission, attendees received personal, one-on-one connections with leading industry manufacturers and suppliers, relevant educational presentations, a five-star social event that included an authentic German food buffet and drinks galore. The event even included an “oompah” band, the Trans Am Euro Mutts, which performed while attendees and exhibitors enjoyed the catered dinner buffet.

They also had the opportunity to see first-hand new products and develop-

ments. New products unveiled included the Ridge RAT (Roof Access Tool) ladder tool that provides a new and unique way to work on a roof, which was introduced in the Formwright booth; the new Plyco window that has a scratch-free acrylic finish; and new Firm Grip gloves that are cut-free not only on the palm side but also on the back, which were at the ST Fastening Systems booth. Northern Building Components introduced a new door that has a fiberglass panel that doesn’t need to be painted, and a new door jamb that can be painted.

Educational presentations were given by industry insiders. Topics included, but were not limited to: roll former maintenance, presented by Frank Schiene of Metal Rollforming Systems, followed by Thomas Schwarzer, ASC Machine Tools, who spoke about considerations when choosing a panel roll former. Ryan King of CIDAN Machinery gave presentations on the benefits of professional associations and making the right buying decisions on trim bakes and folders. Additional sessions included Building Wins podcaster and Source One Marketing product rep Randy Chaffee, who spoke about working trade shows from both sides of the aisle and hybrid selling; Brad Shreve of AkzoNobel, who spoke about coatings and warranties; Royden Wagler and Keith Dietzen of SmartBuild, who lead a session about the pros and cons of automated versus manual material take-offs; and Adam Buck, 3GM, who educated the audience about coil basics.

A brand new and unique show feature this year was the Rest Stop Retreat, which was sponsored in part by Acu-Form. “The Rest Stop was a big hit,” Beyer recalls. This unique show feature included a dedicated rest area, complete with seating and activities for families. “Our show management recognizes that families attend this show



together, and often families need a time-out from walking the show floor.

“Also new this year is the mother’s room,” she continues. “The mother’s room was a quiet, private place for mothers with infants. Although some industry shows make an effort to discourage family members under the age of 18, likely due to liability, Shield Wall Media shows strive to be family friendly and to occur in locales that are also conducive to wholesome family fun.”

THE MEASURE OF SUCCESS

When asked how she measures the success of a show, Beyer explains, “I measure the success of a show by the feedback from exhibitors and attendees. I want it to be a positive experience for all involved, whether that be from the standpoint of business done on the show floor or simply contacts made for future business. Feedback from the show was more positive than any previous Shield Wall Me-



Thomas Schwarzer of ASC Machine Tools gave a talk about choosing a panel roll former.

dia shows, with increased attendance for exhibitors and more booths on the show floor for the attendees to do business with.”

EXHIBITOR FEEDBACK

There were more than 60 exhibitors from whom attendees could get the information they needed to make educated



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Wayne Troyer gives advice and tips at the Acu-Form booth.

Interested in Roll Forming?

Shield Wall Media produces Rollforming Magazine for builders and contractors who own a roll forming machine or are seriously considering getting one. If you want to learn more about how to expand your business in this area, sign up free at shieldwallmedia.com or rollformingmagazine.com.



buying decisions. Meaningful connections were made throughout the duration of the show. "I cannot speak highly enough about this year's Construction Rollforming Show," enthuses Randy Chaffee, Source One Marketing, who sells components throughout the construction industry and did live webcasts over the course of the event. "First class all the way! Great attendance with outstanding networking opportunities. The Shield Wall Media folks were spot on in every aspect. This show is a real winner and one that I will be thrilled to attend every year."

ASC Machine Tools' Thomas Schwarzer was equally pleased. "The attendance of the show on Day 1 was really great," he says. "At times we hardly had enough time to talk to every customer that stopped by our booth."

Hershey's Metal Meister, which offers metal-shop machines, has exhibited at all four Construction Rollforming Shows. Spokesman Zach Harvey was also enthusiastic about the most recent show in Cincinnati: "We really enjoy the way we are treated at [Shield Wall Media] shows; the hospitality is unmatched compared to other expos we attend, as well as not

being nickel-and-dimed for every service you offer with your event ... We're looking forward to next year!"

Building material supplier Graber Post Buildings, too, has exhibited at every Construction Rollforming Show. "The 2023 CRS show in Cincinnati was a well attended event for the metal roll-forming industry," GPB's Trent Wagler recalls. "It's always great putting faces to names and making connections. The floor traffic was great both days and the exhibitors displayed a wide range of machines, products, and services that added a nice variety. We look forward to the show next year in Grand Rapids and highly recommend that each of you put this one on your radar."

ATTENDEE FEEDBACK

Attendees appreciated the ability to speak directly with vendors, get the information they needed, and not be rushed through the process. Albert Schrock, owner of Cherry Fork Metals, said he's been to all three of the Construction Rollforming Shows that were held in Cincinnati. Schrock said the shows were all wonderful, but he really enjoyed this one. "It's close to home and it's a nice central location; it's a good location for a lot of people."

Anthony Heggie, Customer Service Representative for coil distributor Mid-South Aluminum, states: "This was my first industry trade show, and I was impressed with the number of attendees and exhibitors for such a focused show. I also really enjoyed getting to meet all of the various Shield Wall Media members that I have previously only had email interaction with. It was easy to see how the entire team was dedicated to this show being a success. Wednesday was the day that I got to walk the floor the most, and I was also impressed with the rollforming machines that were on display. Thursday was when I got to attend a few of the sessions, and I brought that information back and shared it with members of our upper management. The session on the importance of associations was eye opening as far as just how important various trade associations are for the industry. The session on how to get free media



New products unveiled included a ladder called the Ridge RAT at the Formwright booth.

coverage was also an avenue that I had not previously thought of, but I am very glad that I attended that session as well and was able to get very valuable information.”

GIVING BACK

Wildfires ravaged portions of Maui and Hawaii from August 8-11. Moved by the devastation, Reichert made the decision to donate all admission fees received from Sept. 1-28 to help those in need. That record-setting, increased attendance meant putting a record number of buyers in front of sellers ... It also made it possible for Shield Wall Media to donate \$11,000 for Hawaiian wildfire relief.

FUTURE SHOWS

Shield Wall Media events are produced like none other; they are about connecting buyers with the supplies and services they need to operate successful businesses. If a company is not relevant

to the industry that the show serves, it is not allowed to exhibit. (You won't find a consumer knife company exhibiting at a Shield Wall Media show.)

“What makes our shows unique is the specific focus on a qualified audience,” emphasizes Reichert. “We are growing our shows but we will never have a show with 400 exhibitors and 10,000 attendees. We will maintain the focus and quality of the audience over sheer numbers. Shows are not about the number of exhibitors or attendees – they are about the number of people there you actually want to talk to.”

Next year's Construction Rollforming Show will take place September 18-19, 2024, at DeVos Place in Grand Rapids Michigan.

Visit www.constructionrollforming-show.com to stay up to date on event updates. Contact Missy Beyer at missy@shieldwallmedia.com if you are interested in exhibiting. **MB**



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METALCON 2023

Ken Simonson's Keynote Speech Predicts Unpredictability

Ken Simonson, chief economist for Associated General Contractors of America (AGC), gave the keynote speech titled "Construction '24: Forbidding or Reason for Cheer?" at METALCON 2023 on October 18-20 at the Las Vegas Convention Center.

There were more than 200 exhibiting companies plus interactive demonstrations and hands-on training. There were 35+ immersive workshops, free learning sessions, and inspiring keynotes providing access to expertise most attendees couldn't get anywhere else. One of those talks was by Simonson, who is the Chief Economist for The Associated General Contractors of America. In summary, he said, construction is in transition and a slowing economy and rising interest rates are threatening private investment. He also predicted that construction companies were going to need to continue to raise their wages. Overall, he wasn't predicting gloom and doom, though he couldn't rule it out, either.

The total nonfarm & construction employment year-over-year change, seasonally adjusted between February 2020 through September 2023 is as follows.

- The percent change of nonresidential construction from February 2020 is +1.6%, and since September 2022 is +3.5%.

- Total nonfarm from February 2020 is +3.0% and from September 2022 is +2.1%.

- Residential construction from February 2020 is +11% and from September 2022 is +1.7%.

Those percentages are seasonally adjusted.

Construction job opening and news hires from August 2001 to August 2023, not seasonally adjusted, is as follows.

- New hires in August 2023 is 361,000; a -7% change from August 2022.

- Job openings in August 2023 were 360,000; a -0.6% change from August 2022.

According to a 2023 AGC of America/Autodesk Workforce Survey, there are two workforce challenges of hourly craft workers. A total of 85% of contractors say they have openings and 88% of contractors with openings report difficulty filling positions.

The following lists the change in construction spending from August 2023 vs. August 2022 in year-over-year % change in current (not inflation-adjusted) dollars, seasonally adjusted:

- Total construction: 7%
- Private residential: -3%
- Nonresidential: 18%
- Highway and street: 13%
- Health care: 12%
- Education: 14%
- Office: 9%
- Transportation: 9%



Economist Ken Simonson made news by not making news. He did not predict a recession or serious construction slump, but he didn't guarantee against them, either.

- Power: 10%
- Commercial: 5%

Simonson said the medium-term outlook is that the economic recovery should continue but the risk of recession remains. Homebuilding appears poised for slow recovery. Multi-family, warehouse, retail, office, and lodging may face a slowdown due to rising rates. Data center and manufacturing construction should remain good; he particularly likes the data center outlook.

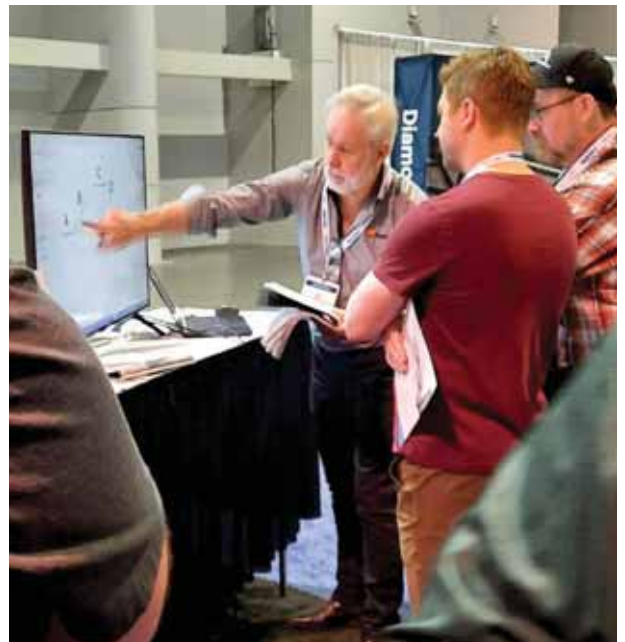
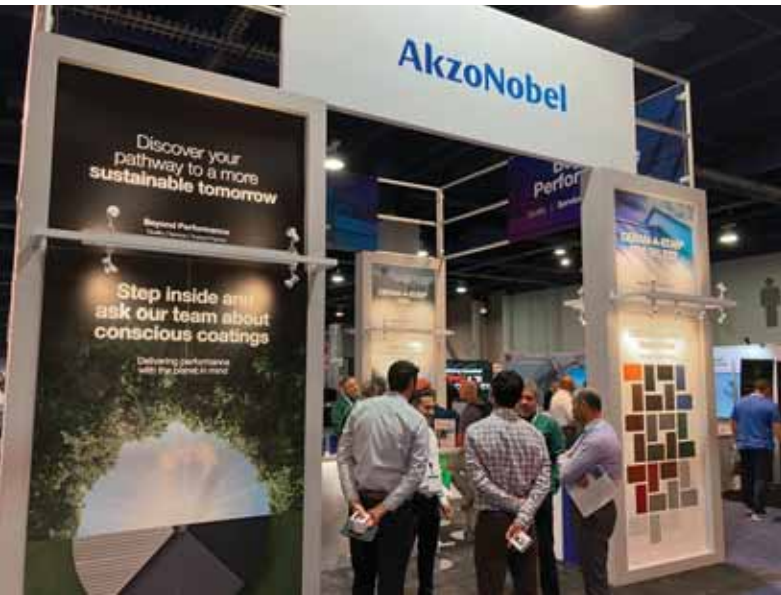
The long-term outlook for construction is as follows.

- Finding workers will be a challenge for much longer than materials costs or supply. He added that there's been a surge in immigrants, but many do not have work papers.
- Slowing demand for K-12 and higher education construction.
- There will be a permanent shift from retail to e-commerce/distribution structures.
- There will be more specialized and online healthcare facilities; meaning few hospitals and nursing homes.

Some of Simonson's other key takeaways, forecasts and predictions regarding construction trends included:

- Existing home sales have fallen to a 13-year low
- New home sales have fallen to a 13-year low
- In terms of state-by-state employment, 45 states are up from August 22 to August 23
- The construction employment rate fell below 4% between September 2022 and September 2023; it's now 3.8%
- The industry continues to see job growth.
- Wages are going up faster than inflation.
- Simonson is not optimistic about inflation, saying it's probably not going to drop from 3% to the target of 2%
- Overall "the balance of risks is for further growth." **MB**

METALCON Photo Gallery



Left column, from top: AkzoNobel had a beautiful display and unveiled several new products and programs at the show. Middle left: METALCON Training Zone, sponsored by Sherwin-Williams. All attendees could receive hands-on training and instruction. Bottom left: S-5! had a big display and also won an award. Right column, from top: AppliCad had a busy time showing its software to METALCON attendees. Above: Metalforming shows off one of its Schechtl machines.

New Product Highlights



Malco Products (above) was prominent at the show from a new products standpoint, unveiling several cool tools.

- **Power Assisted Seamers:** This is the fastest seaming machine in the world (max speed of 98 feet per minute), driven with a cordless drill from a standing position for effortless and ergonomic seaming of single and double mechanical lock standing-seam panels.

- **Power Assisted Cutters:** Demo single or double mechanically locked standing-seam metal roofing panels, operated with a cordless drill from a standing position.

- **1-Station and 2-Station Metal Disc Benders:** Finish custom straight or curved metal roofing details like open hems and HVAC ductwork. Available in both large and small models.

- **2-Station Benders:** Form 0-100° bends in standing seam roofing. Best for long, continuous straight bends of infinite lengths. Available in 150mm, 200mm and 350mm models.

These products join Malco's Modular 1-Station Metal Bender, which launched in spring 2023.

AkzoNobel CERAM-A-STAR Frost is a tough and durable two-coat exterior finish based on the superior performance

of CERAM-A-STAR 1050, the company's silicone-modified polyester (SMP) paint systems in North America.

This unique chemistry, using AkzoNobel proprietary resins and special additives, creates a textured coating surface that is not only durable, but easy to apply, fabricate and install. CERAM-A-STAR Frost was formulated in North America and is designed to endure the extreme North American climates.

The Frost product will soon be part of the new Select program, which means it's part of a standard color palette, allowing for standardizing in the distribution chain and thus faster deliveries.

AkzoNobel also announced the company is upgrading its dealer app and will soon be making it available on Android. We'll feature the new app in a future issue of the magazine.



Beck Automation booth, left, and at right, the Wuko team gives the show a thumbs-up.

Framing Machines Abound

There were more than five cold-formed steel framing machine companies on hand at the show and several are either new or at least not yet well-known to the American market.

Howick, shown at right, is known by most builders for its machines and software that create light-gauge steel metal building frames. Newer to the American market are Framecad (see several photos throughout this issue of the magazine), Livio Metal Building Systems, and Arkitech. Metal Building Software was also on hand with a framing software upgrade that now supports rigid frames and mini storage, and can run on dealer/contractor websites. More on these machines and their software in future issues of Metal Builder.



Education Sessions



Education sessions included Kiki Redhead and Brynn Wildenauer of Sherwin-Williams (above) presenting the company's color forecast. Top left is the State of the Industry panel discussion. Bottom left, S-5! Director of Sales David Stahler gave a presentation on sales, including how to upsell and cross-sell. It will be featured in a future issue of the magazine.



The only publication dedicated to the effects of weather and climate on roofing systems.

Roofing Elements Magazine deals with the physical environment and how "Elements" like heat, moisture, wind, and sun affect roofing systems. The Elements need to be considered in every aspect from material choice and design to installation techniques. *Roofing Elements Magazine* provides both industry white papers and institutional knowledge from the experts who learned their trade in the real world.



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2023 METALCON TOP PRODUCTS AWARD WINNERS

This year's METALCON Top Products Award winners were invited to nominate their top metal products in one of 15 product categories. To be eligible for consideration, a product must have been introduced to the market after Jan. 1, 2022, and its manufacturer must exhibit. Winners were determined by an electronic vote.



S-5! and its solar-mounting product.

Accessories: S-5! - PVKIT HUR

The S-5! PVKIT HUR is the newest version of the PVKIT solar mounting attachment for metal roofs. It is specifically designed to withstand extremely high wind uplift forces such as hurricane-force winds and is the first metal roof PV mounting system certified to FM4478, FM Approval's toughest PV Standard. It was tested and certified along with Butler's MR24 standing seam roof and JA Solar's module up to 105 pounds per square foot uplift forces and has passed many other stringent tests required for FM4478.

Contractor Tools & Equipment: Wood's Powr-Grip - MTEX-DC3 Vacuum Lifter

The WPG MTEX-DC3 Vacuum Lifter allows for the safe and efficient installation of oversized and regular insulated metal



Wood's Powr-Grip.

panels. It allows installers to reconfigure the pad-frame tubes tool-free for either a vertical or horizontal panel project with a load capacity of up to 1200 pounds and panel lengths of up to 50 feet. Available in two versions, an "entry-level" 4-pad model (600-lb load capacity) and an 8-pad version (1200-lb capacity).



PAC-CLAD won for its HT insulation.

Insulation & Weather Barriers: PAC-CLAD - PAC-CLAD HT

PAC-CLAD HT high-temperature, self-adhering roof underlayment, is designed to provide premium waterproofing protection

for a variety of roofing applications. This strong, 40-mil, skid-resistant, high-tensile-strength rubberized asphalt membrane is designed to withstand temperatures up to 250°F and is available in either black or white. It will not crack, dry out or become brittle, even under the most extreme weather conditions, resulting in permanent protection and low lifecycle costs.

Paint & Coatings: Chemcoaters - FeGuard

FeGuard is an innovative thin-film, corrosion-inhibiting coating, specifically designed for use on hot-rolled (P&O) and cold-rolled steel substrates. It offers an alternative to galvanized coatings, with performance properties to match. FeGuard's corrosion-inhibiting package provides a clear, high-gloss finish that allows the brightness of the underlying metal to shine through, while simultaneously slowing corrosive forces.

Rollforming Equipment: Cidan Machinery Group - XTAP & XSpace

The XTAP feature revolutionizes conical bending, allowing automatic angled positioning of back gauge fingers with the Pro-Link control system, ensuring seamless production of gutters and copings, perfect for high-speed manufacturing. For challenging profiles, the XSPACE offers flexibility and convenience. Recessed beneath the bending point, it provides 15mm of additional space, enabling secure folding of hat channels, gutters, and high-pitch drip edge profiles. Equipped with crowning, it guarantees zero angle deviations for long profiles, ensuring precise and consistent folds. The XSPACE handles complex geometries effortlessly, providing safe and accurate results. Compatible with F-, FS- or FX-Series machines.

Roofs: Isaiah Industries, Inc. - Anodized Aluminum Oxford Shingle

Together with Lorin Industries, Isaiah Industries introduces the Anodized Aluminum Oxford Shingle. Each panel is anodized, resulting in an incredibly durable protective finish with dozens of possible

colors and textures. According to Lorin, anodizing is “an electrochemical process where we grow the anodic layer from the base aluminum.” This newly formed protective layer seals the metal from the elements, improving corrosion resistance and longevity in roofing applications. The new finish, combined with Oxford Shingle’s interlocking panels and hidden fastener system, is a bold new step for residential metal roofing.

Technology: MetalCoffeeShop - MetalTalk

MetalTalk™ is a webinar series that delivers in the Read, Listen or Watch (RLW) format with content being presented to RLW; the only event in the metal construction offering all three platforms. MetalTalk features industry thought leaders, including progressive manufacturers, technology and more.

Walls: Steel Dynamics, Flat Rolled Group - TruSteel HD

TruSteel HD is the first and only continuously digital printed steel available in

North America, using real wood images that are printed on coils of Galvalume or Galvanized and rollformed into various panels, providing the beauty of wood with the durability and ease of installation of steel. While there have been prints in the past, the image would repeat every 28-30 inches. With TruSteel HD, the images actually look like real wood and do not repeat for up to 32 feet. This groundbreaking technology has grown and is now used for building siding, interior applications, garage doors and more.

Other: Accurate Perforating - The Essential Partition

Starting with high-quality galvanized steel that is formed and punched to provide a unique look to any outdoor space, the Essential Partition offers the same flexibility as the original SelectSpace line at a lower price. Each panel quickly connects to base plates that allow you to secure it to the ground or leave it as is for maneuverability.

MB

People’s Choice Award Winners

The METALCON People’s Choice Award winners are selected by attendees who voted on site for their top three choice products (among the category winners who were listed on these two pages). The People’s Choice Award winners:

First Place: MetalCoffeeShop - MetalTalk™

MetalTalk™ is a webinar series that delivers in the Read, Listen or Watch (RLW) format with content being presented to RLW; the only event in the metal construction offering all three platforms.

Second Place: S-5! – PVKIT HUR

The S-5! PVKIT HUR is the newest version of the PVKIT solar mounting attachment for metal roofs. It is specifically designed to withstand extremely high wind uplift forces such as hurricane-force winds and is the first metal roof PV mounting system certified to FM4478, FM Approval’s toughest PV Standard.

Third Place: CIDAN – XTAP & XSpace

The XTAP feature revolutionizes conical bending, allowing automatic angled positioning of back gauge fingers with the ProLink control system, ensuring seamless production of gutters and copings, perfect for high-speed manufacturing.

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Considering CFS

10 Ways Cold-Formed Steel Framing Can Lower Your Total Construction Costs

Photos courtesy of FrameCAD

Selecting the right material for your project can significantly reduce costs while maintaining (or even improving) work quality and output. Cold-formed steel (CFS) framing has a proven track record of providing cost-effective and sustainable benefits for mid-rise buildings, and offers significant cost benefits over competitive building materials when the total cost of construction is considered. Here are 10 ways that CFS framing systems can lower your total construction costs.

You're a building owner with an upcoming project. Would you like to cut your construction costs while maintaining work quality and output? Of course you would. But how?

One answer involves material selection. Cold-formed steel (CFS) framing has a proven track record of providing cost-effective and sustainable benefits for mid-rise buildings. For example, cold-formed steel framing was chosen for an office renovation at the Chart Industries, Inc., manufactur-

ing plant in La Crosse, Wisconsin, for its cost benefits and flexibility to integrate with other systems. Compared to masonry wall construction, the CFS system saved about \$2.50 per square foot on the exterior walls.

Additionally, steel is resilient, adaptable and durable, which reduces life cycle costs. Steel framing systems can be readily and economically adapted to cope with the changing requirements of occupants, avoiding functional obsolescence and the high cost and disruption of refurbishment, redevelopment or demolition.

Steel building systems offer significant cost benefits over competitive building materials when the total cost of construction is considered. Here are 10 ways that CFS framing systems can lower your total construction costs:

1. High strength-to-weight ratio

Steel framing's strength-to-weight ratio significantly exceeds that of wood or concrete. Being strong and relatively light-

weight, CFS systems reduce a building's total load which, in turn, allows the owner to save costs beginning at the foundation.

2. Panelization

Panelizing CFS wall panels off-site reduces on-site labor costs and construction waste. It cuts the total project cycle time and improves quality control, since CFS components can be created to exact measurements.

3. Shorter project cycles

The predictability and accuracy of steel components speed up the process and allow follow-on trades to get to work sooner. The shorter construction timeframe reduces interim financing costs for projects. It also narrows the window of construction-related liability and allows for earlier building occupancy, as was the case with a CFS project for student housing at California Polytechnic State University. The project was completed six months earlier



than what was predicted for a concrete structural form, saving the university's budget.

4. Better results during winter time

Ready-mixed supply of CIP concrete during winter construction can add cost to a project and concrete requires artificial heat in order to cure during cold temperatures. Neither of these costs are associated with steel framing.

5. Earlier project completion and budget savings

Steel's shorter construction cycle means equipment can move on and off the job site faster. This lowers crane costs and reduces scaffold rental times, for example.

6. Lower insurance rates

Builders risk insurance premiums are typically lower for steel than for wood. Builders risk insurance for a four-story, 400-unit hotel built over 24 months in Ohio cost \$360,000 because cold-formed steel framing was used. It would have cost \$1.6 million had it been built with wood — a savings of about \$1.3 million.

7. Lower fire-related legal costs

Owners of wood-framed, mid-rise buildings need to consider the possibility of legal actions due to a construction or building fire which results in damage to, or destruction of, adjacent properties. This is of particular concern for mid-rise buildings which are often built on "infill" sites as a method to curb urban sprawl.

In 2015, for example, a fire at apartments under construction in Edgewater, N.J., displaced hundreds of tenants from nearby buildings. Lawsuits were filed against the building owner citing the known risk of fire associated with wood construction. Steel, in contrast, is non-combustible. So, CFS framing minimizes the risk of any fire spreading to adjacent buildings and reduce the possibility for subsequent legal action, putting less burden on building owners and firefighters.

8. No mandated site security

Several Canadian jurisdictions are requiring builders to post 24-hour security guards at their wood-frame construction sites. One builder reported paying up to \$10,000 per month for these security details. Another builder said the security

needed for a \$8 million wood-framed project cost \$20,000. Steel-framed projects do not have such hidden or extraordinary site construction costs.

9. No costs associated with site safety compliance

Since wood-framed buildings are highly susceptible to fire during the construction phase, many municipalities in British Columbia, Canada, require developers to submit detailed fire-safety plans when applying for a building permit. Some municipalities mandate that sprinklers and standpipes be in place on floors where work is underway. They also require additional safety supervision, such as fire watches during hot work. These costly site safety practices are not required for noncombustible cold-formed steel buildings, providing peace of mind for owners and builders.

10. Product durability

Steel is dimensionally stable and does not expand or contract with changes in moisture content. Steel will not warp, split, crack or creep when exposed to the elements. When materials like wood or brick are exposed to moisture, they swell. When dried, wood will warp, crack, chip, split and spall. Concrete and concrete block will shrink and form shrinkage cracks. Dimensional stability concerns are magnified when these types of materials are used in taller mid-rise buildings. Additionally, steel is resistant to termites and rodents. **MB**

BuildSteel.org, powered by the Steel Framing Industry Association (SFIA), is dedicated to educating building professionals on the use of cold-formed steel (CFS) framing as a sustainable and cost-effective building solution.

Cold-Formed Steel Definition

Cold-formed Steel (CFS) is the common term for products made by rolling or pressing steel into semi-finished or finished goods at relatively low temperatures. Cold-formed steel products are created by the working of steel billet, bar, or sheet, using stamping, rolling (including roll forming), or presses.

— SFIA and BuildSteel.org