## 

DECEMBER 2021 Vol. 4, No. 6

## THE WAY WE Roll Features

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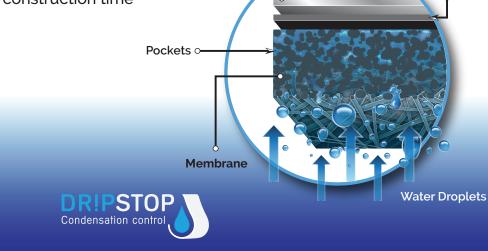
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#### Editor's Note ))

## Transitions

By Sharon Thatcher

t's been two years now since Covid first appeared on the worldwide scene. Its arrival signalled a seismic transition in how we all live. The dust has not yet settled to allow us any good vision of its' total impact.

Thus far, the roll-forming industry has weathered the storm well. At the recent Garage, Shed and Carport Builder Show in South Bend, Indiana, reports among exhibitors and attendees were still positive for a good year ahead for residential-type buildings based on pre-orders. This, despite all the issues with high prices and low supply. Moving forward, inflation may hold back some buyers, and supply-chain issues will certainly impact some parts of the building process, but *if* (remember, it's the largest word in the dictionary) nothing unforeseen happens, some of the problems should begin to resolve and the economy in general smooth out a bit in 2022.

I interviewed Steve Swaney, Flack Global Metals, for a more indepth view of the steel and aluminum market. You can find the results in this issue in our annual State of the Industry report.

I enjoy interviewing rollformers and found a couple more great ones to share with you in our ongoing business feature called "The Way We Roll." I was able to visit with Albert Shrock, owner of Cherry Fork Metals in Ohio, and had a wonderful phone conversation with COO Adam Clark of Best Buy Metals in Tennessee. They both offer some excellent ideas on what has worked for them to move their businesses forward in the industry.

Speaking of quotes, I decided to gather quite a few of them from past articles in *Rollforming Magazine* and had designer Kevin Ulrich create a special two-page spread of them. I hope you find them as educational and entertaining as I did.

The title of this column is "Transitions" so I guess this would be a good time to announce my departure from Shield Wall Media. While you may still see my byline from time to time in *Rollforming Magazine* or other Shield Wall publications, my routine presence will be absent as I move back to my home state of Ohio to attend to family matters after 45 years in beloved Wisconsin. I still encourage you to contact me if you have a company feature or article idea *Rollforming Magazine* should pursue. I will still be in contact with my former colleagues to pass on whatever I am unable to tackle myself.

Keep on rolling!



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Roofing crews from SaltedMetals use flatbed trailers to haul portable roll formers to roof height for projects in the Salt Lake City area. PHOTO COURTESY OF SALTEDMETALS ARCHITECTURAL METALS DESIGN AND CONSULTING



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# Company Acquisition & Expansion Announcements

#### TFC ACQUIRES GLR FASTENERS

In August, Triangle Fastener Corporation announced the acquisition of GLR Fasteners Inc., located in San Jose, California. GLR is a distributor of fasteners used in roofing and glazing applications and has serviced the San Francisco Bay area since 1977.

The acquisition expands TFC's coverage in the Bay area, and becomes the company's 24th branch.

## SDI TO ACQUIRE A 45% MINORITY INTEREST IN NEW PROCESS STEEL

Steel Dynamics Inc. announced in mid-October that it had entered into a definitive agreement to acquire a minority equity interest in New Process Steel, L.P., headquartered in Houston, Texas.

New Process Steel has two manufacturing locations in Mexico and four in the U.S., two of which are located at Steel Dynamics' Butler and Columbus Flat Roll Steel divisions.

Steel Dynamics has facilities located throughout the United States and in Mexico.

New Process Steel was purchased in 1952 by Gene Fant, father of current Chief Executive Officer Richard Fant. Richard has significantly grown, modernized, and diversified New Process during his over 25-year tenure as CEO. He will independently operate New Process as the majority 55 percent equity holder, making all business decisions in the normal course of operations, including steel purchasing and customer supply decisions. The company employs approximately 950 individuals and is currently Steel Dynamics' single largest flat roll steel customer.

#### GEORGIA-PACIFIC COMMITS MAJOR INVEST-MENT IN PINELAND, TEXAS LUMBER COMPLEX

Georgia-Pacific announced that it will modernize one of its premier sawmills in Texas. Pineland Lumber Complex will undergo \$120 million in additions and improvements in an overall modernization effort that will also increase the mills' overall production.

The modifications include a new sawmill which will replace the existing stud mill that was built in the 1960s. Construction is expected to begin early next year and is scheduled to be completed in late 2022. Currently the mill has the capacity to produce 380 million board feet of dimensional lumber each year, but when the new mill is operational and running at full capacity the production will increase to 450 million board feetwhich is equivalent to the amount of lumber needed to build 30,000 houses per year.

In order to meet increased capacity, Pineland Lumber Complex will also expand its log yard storage and incorporate a new debarking and log processing line. Additionally, a continuous dry kiln will help ensure production capacity while a new high-speed planer will replace the current vintage equipment that was installed in the 1960s. RF

### Steel Dynamics Receives Forbes and ESG Honors

Steel Dynamics recently received two prestigious worldwide designations.

Forbes named Steel Dynamics Inc. one of the World's Best Employers for 2021. SDI was the only U.S. steel producer receiving this designation and one of only 236 U.S.-based businesses to make the 2021 list, which is comprised of 750 global companies.

Forbes and Statista selected the World's Best Employers for 2021 based on independent surveys of roughly 150,000 employees in more than 55 countries working around the world. Participants were asked to rate employers on aspects such as image, trust, gender equality, corporate social responsibility, culture, and benefits. The 750 companies that received the highest total scores made the final list. Forbes 2021 World's Best Employers list and details on the selection methodology are available at www.forbes.com.

The second honor for SDI came from *Investor's Business Daily*, which named Steel Dynamics Inc. one of the 100 Best ESG Companies of 2021. ESG (environmental, social and governance) criteria measure the ethical impact and sustainability of investment in a company. To determine the 100 Best ESG Companies *Investor's Business Daily*, first screened Dow Jones ESG data, which includes more than 6,000 companies.

Steel Dynamics was the only U.S. steel producer receiving this designation, and one of only three steel producers globally. European-based company Arcelor Mittal, and Latin Americabased company Ternium also made the list.

### THE DM-ARM HAS YOUR BACK!

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# State of the Industry

Steel prices predicted to ease, consumer demand to remain strong in 2022 by Sharon Thatcher

n speaking with rollformers and their suppliers during preparation for this issue of Rollforming Magazine, optimism has been running high throughout the country for 2022 to be another good year. A typical slowdown between fall and winter seemed only a blip on an otherwise upbeat trend.

Steve Swaney, Sales & Business Development, Flack Global Metals, monitors the steel market on a daily basis and offered the best news in a long time: a prediction for steel prices to ease back on the accelerator for the first time in months. The trend has already begun, with a greater leveling out anticipated in the months ahead.

"The industry is in a flux again and pricing on steel is headed down," Swaney said in late October. It hadn't yet reached coil buyers, however. "Right now the going price for steel is still very high," he explained, "but the pricing for incoming import steel for the first quarter of 2022 is less expensive which will in turn put pressure on domestic mills to adjust their pricing going into 2022." The drop should eventually make its way to rollformers by year's end and into 2022.

At the time of our conversation, galvanized and Galvalume were selling near the \$2,100 a metric ton range. Swaney said to expect a drop to the \$1,600 to \$1,650 a ton range in Q1 2022, with further decline gradually into the second half of the year.

Helping to hold back price reductions for coils more recently were increases in paint for pre-painted metal.

Any current softening of prices is likely the result of coil buyers trying to reduce inventory by year's end to reduce inventory tax consequences and take advantage of more cost-effective inventory next year.

Coated steel is expected to eventually recede to around \$1,400 a ton before settling there.

At its lowest in early 2020, steel was in the range of \$500 a ton, with year-end prices at \$952-\$1,000 a ton, but don't expect those kinds of prices again. "It's still going to be much, much higher than where we were in 2020 and no one expects it to get back to

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that point," Flack noted.

Despite high prices in 2021, demand remained strong and coaters are still very busy trying to catch up, as are processors for slit coil and cut-to-length. Currently lead time is about 25% longer than normal. "A coil coater takes typically two to three weeks. They are probably running now four to six weeks," Flack said. "A slitter is normally one to two weeks. Most of them are running now anywhere from three to five weeks."

#### A RETURN TO OPTIONS

You can expect more leeway and freedom in what products you offer your customers in 2022. During the past year, buyers have been restricted to standardized volume colors and in some cases restricted wider widths based on what the mills were willing to produce. "[Coil buyers] couldn't get some of their more outlying colors because [coil suppliers were] pretty much stocking the very basic, larger-volume colors," Flack said. "We think going into next year [coil buyers] will actually get more latitude and availability of anything they want. It will shift to more of a buyer-friendly market. We think that will happen mid to late first quarter."

#### ALUMINUM PRICING NOW MUCH HIGHER

On the other side of the spectrum is aluminum where prices are at record level and availability very limited and expected to stay that way through most of 2022, with pricing expected to moderate some in the second half of the year. Insufficient domestic capacity coupled with tariffs and duties keeping some large producers such as China out of the supply chain, along with higher usage in the transportation and aerospace sectors forecasted for 2022 and beyond, have created a major shortfall. An announcement in late October by President Biden that there would be some easing back on tariffs for both aluminum and steel is not expected to affect the construction segment.

Until recently some aluminum building products were being substituted for light gauge steel as the cost per square foot was less, now steel will have the advantage in 2022 and might flip some things over to steel where either is acceptable. High energy costs to make aluminum, and shortages in magnesium will hold pricing up to reasonable levels for the short term.

"There's just not enough electrical power [worldwide] for mills to feel they can afford to run a lot of the aluminum," Flack explained. As a result, less of it is being made. "Whether [aluminum mills] will eventually try solar panel or wind power to generate some of their own electricity to help drive down their cost, something needs to be done. And none of that can be a shortterm solution. It's a minimum of a three- to five-year transition."

Common alloy aluminum was trending at over \$2,800 at the time of this writing.

#### **REGIONAL TRENDS**

From a regional perspective, Flack has witnessed some areas doing much better than others. "The construction sector in the

#### State of the Industry Feedback

While preparing this issue of Rollforming Magazine we asked for input on the status of local economies in the rollformers' respective areas, yielding the following results:

"As far as the install side ... and on the machine sales side we are booked out into the first of May 2022. New construction is still strong and re-roofing is booked out. It has not slowed down for us at all. They are mostly residential. "

- Larry Schlabach, Masterpiece Metal Roofing, La Grange, Indiana

"The metal roofing industry in Florida: it's very good. It's a very strong industry. There are certain hot beds, stronger than others. We're getting a lot of [rollformers] our size popping up; a lot of micro rollformers, I would call them, that are in the \$15 million and under revenue range and doing very well for themselves. There's so much metal roofing going on and [contractors] don't want to drive two-and-a-half hours to a big plant to get something, and don't want to have to wait a week to get it. If they need one more piece of ridge cap to finish a job, they want to get it right now. So there's getting to be a lot of people investing in these little metal shops so [their customers] can continue to move at a rapid rate."

- Joe Keene, Integrity Metals, Vero Beach, Florida

"It's still busy despite the steel prices. It might be a little slower right now, this time of year (late August). You get the spring rush and then you get the fall rush. People get excited in the spring to get it started, and in the fall they're in a rush to get it done before the snow flies. We're right in that little dead spot now, unless it changes this year, but in the past six years that's what I've seen."

- Albert Shrock, Cherry Fork Metals, Oak Hill, Ohio

"Some of the entry-level material handling positions we've had to look at compensation rates a little differently this season like many others have, but we're still going strong...some of our sales positions, some of our manufacturing positions, some of our operating positions we've really not had a hard time filling those roles." - Adam Clark, Best Buy Metals, Cleveland Tennessee

#### SURVEY IDENTIFIES TOP CONCERNS

In a recent online survey conducted by Shield Wall Media we asked for input regarding the greatest challenges facing the industry. Responses came from building contractors (45%) and Building Material Dealers/Manufacturers (55%). Worker shortages and raw material cost were equally identified at 36% each as the most challenging; followed by material and/or component shortages, over 18%; and future market uncertainty/inflation, 9%.

In looking ahead, most respondents continued to be optimistic, with over 27% believing 2022 will be at least the same as 2021, and 36% believing it will be better. Another 36%, however, remained cautious, believing it was either too early or the market too uncertain to predict.





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#### In Focus ))

Sun Belt and the West Coast seem to be much stronger," he said. "We're seeing more of a slowdown in the Upper Midwest and Northeast right now." He attributed some of the slowdown to the initial onset of winter and changes in weather, but also some "sticker shock" by end consumers.

The slowdown is expected to be relatively brief, however. "They're still predicting that residential construction could be up 10-15% [next year]," Flack said, "with pricing going up even further than what it did this year ... both for preowned and new construction."

#### **GUIDANCE FOR ROLLFORMERS**

Flack Global is telling its own buyers to only buy what they can sell between now and January, then start stocking back up in the first quarter of 2022 when prices start going down.

At the Steel Summit meeting in August, hosted by Steel Market Update, Flack said industry experts were predicting a strong 2022, with some recessionary activity potentially in the second half of 2023. "Those guys are normally fairly accurate in their predictions," he noted.

Flack also said rollformers should be encouraged by how well roll-forming equipment manufacturers have fared, and even flourished, during the upheaval of 2020 and 2021. "There's continued new machinery coming out that's enhancing operations for the rollformer, streamlining their operations, allowing them to make more consistent and better products. There's a lot of investment in that now," he said. "I think a lot of people felt, with the price of metal going higher and higher, there would be less investment because they would be squeezed for cash flow, but that hasn't been the case."

### AGC Chief Economist Outlined Challenges at METALCON

Ken Simonson, chief economist of the Associated General Contractors (AGC) of America, presented some statistical observations on the current state and outlook for construction at his October METALCON keynote address.

On the labor shortage, Simonson noted, "86% of contractors are having difficulty filling salaried jobs, particularly project managers and supervisors. The number one reason is available candidates do not meet the hiring company's needs-they do not have the right training." He added: "89% of contractors are having difficulty filling key craft jobs."

With regards to materials costs, Simonson said, "The costs of steel mill products were up 111% from April 2020-August 2021. Lumber and plywood reached their highest in June 2021 at a 120% increase but have dropped to a 52% increase in costs since.

On the subject of supply-chain bottlenecks, he explained the various factors involved, beginning with problem getting materials from China, followed by a shortage of containers, then too many containers stacking up in yards.

Of the future he said: "I am faintly optimistic we will see improvement on costs and availability" in 2022. Source: Metal Construction Association

#### NORTH AMERICAN MILL EXPANSIONS

Several North American steel companies are in the process of adding production. While some of these projects are not directly aimed at steel for the construction market, any new capacity will help to ease overall supply constraints.

Blue Scope has new capacity expected to come on stream in Q2 at its North Star steel mill in Ohio.

Big River Steel, now part of United States Steel Corporation (US Steel) has a major expansion underway in Arkansas, which should be finished mid-year 2022.

US Steel has also committed to a new a mini mill at a site yet to be announced, with construction to begin in the first half of 2022 and production expected to begin in 2024. Steel Dynamics has announced plans to expand at its Terre Haute, Indiana, facility as well at its Pittsburgh Techs Division. Some production at its new Stinton, Texas EAF operation went online in 2021, but weather delays has put behind the opening of the primary facility, now expected to come on stream in the second quarter of 2022.

Nucor has plans for a new steel sheet plant in either Ohio, Pennsylvania, or West Virginia.

Ternium and Arcelor Mittal are committed to expansions in Mexico, which feed into the U.S. market.

All the North American mills on the drawing board are electric arc furnace (EAF) mills using recycled steel for new production.

On the aluminum side, no new capacity is expected. RF

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#### The Way We Roll ))



## **Cherry Fork Metals LLC**

Growing the Reputation of Metal in the Ohio Appalachian Foothills

By Sharon Thatcher

raveling through the western foothills of the Appalachian Mountain Range in southern Ohio you see the evidence: metal is outstripping asphalt as a roofing choice. Helping to make that trend part of the local landscape is metal roofer and rollformer Albert Shrock and his company Cherry Fork Metals LLC [Ph: 740-637-0657].

Shrock said his 5 1/2-year-old business has experienced phenomenal growth, which he attributes to refusing to compromise quality just to get a contract: a good product doesn't sell just one job, it sells many. His business card reads: Standing Seam Doesn't Cost, It Pays!

He recently broke ground for a larger 124 x 80 foot steel building to house his growing business. It is located along Hwy. 35 at Richmond Dale near Chillicothe, a few miles from his present home-based shop and within an hour's drive of Columbus suburbs to the north and two hours from Cincinnati suburbs to the west.

Like most contractors, Shrock had a background to build upon. Originally from Wisconsin, he explained that he first worked in his father's Amish buggy shop learning woodworking. At the age of 22 he was in Iowa building log homes in the summer and woodworking in the winter. Except for one year when he worked for his brother-in-law, he has been on his own.

Married with a growing family, he moved to Ohio 15 years ago. Metal roofing was not yet popular, and he worked on framing and general roofing in local residential and commercial markets. When he saw metal take off as a roofing option 10 years ago, he recognized the potential.

He knew the better option was a metal standing seam panel with concealed

fasteners, not only because metal lasted longer but "when you put 2,000 screws in that roof and that rubber washer gives out, that's 2,000 potential leaks. Even half a percent is 10 leaks ... once you cover that screw it all makes sense."

After three years of "kicking it around," Shrock told himself: "It's time to buy a roll former; it's time to invest and do something better than the average roofer."

That kind of logic has not been lost on consumers. In his area, Shrock said, "I would say there is more metal sold than shingles."

Shrock has delegated the roofing labor now to a single crew (he has backup for larger jobs) while he lines up work and supplies. It has been part of his master plan to build a business he could work with his family. Currently working with



him are a son and a son-in-law as well as a couple additional employees.

His machine of choice is a New Tech, purchased new. It can accommodate up to 15 profiles, from 12- to 30-inches wide, but Shrock runs two profiles: 1-inch rib height for residential, and 1-3/4 inch for commercial. About 95% of the company's rollouts are done on job sites.

At the shop Shrock makes his own trim with a Schroeder manual handbrake with air assist. The Schroeder arrived

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#### The Way We Roll ))



The growth of Cherry Fork Metals can be seen in this aerial view of the old shop surrounded by new shop buildings.

about three months after he started using the roll former. "We had to go to a local metal shop to get our trims bent, and goodness, there's nothing like bending your own; you run one piece short you can just go to the shop and make a piece. There's a lot of roofs that are standard but there's also a lot of times that you have to bend a special piece."

He has a new trim brake on order from Hershey's Metal Meister that is scheduled to arrive next spring.

He sees more machines in his future. "There's only one way to go and that's to get bigger. I'm looking to grow. The potential is to have more equipment," he said.

His coil comes from Hixwood Metals. "I had quite a few coil suppliers after me to buy from them, and I found Hixwood at one of the trade shows," he said. "Part of the reason I went with them is because they had a better variety of the standing seam coil. A lot of the others had more focus on the ag panel."

He uses primarily 26 gauge galvanized for residential, 24 gauge for commercial, and on a recent school project used 22 gauge to comply with the architect's instructions.

Shrock does not fear being out priced. "I don't hesitate to tell a homeowner that I'm not the cheapest one out there, but we aim to be the best," he said. He knows there is a market for cheap and a market for excellence, and he prefers to pursue the latter.

Part of being the best is tearing off the old asphalt roofing rather than going over it with metal. "You get rid of the weight, and in the end, it looks so much nicer. I've seen [metal] going over shingles and you get that little wave...There are some people out there that think the quicker the better; that's not us, we work on quality."

He purchased an Equiptor that has helped significantly with the clean-up following tear off. The Equiptor is essentially an elevated dumpster that can be raised to roof height and moved easily around the building. Shrock said it is paying for itself in saved labor costs.

#### The Way We Roll ))

Working in the foothills of the Appalachian Mountains has presented some interesting challenges. One in particular called for hauling the roll former trailer loaded with coil up a steep driveway to a new home construction site on top of a mountain. "It took two, threequarter-ton trucks to make it to the top after the first one spun out half-way up the steel grade," he recalled.

Then there are stories about homes with 12:12 pitched roofs; "those aren't exactly fun either," he said, "but pretty when finished."

At the end of the day, he said, owning his own roll former for his metal roofing business "has worked out very well, probably better than what I imagined it would."

After his business soon relocates along a major highway, Shrock is expecting to be in pursuit of even greater metal roofing opportunities. RF





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## An Open and Enclosed Case

Trailer Tips for Portable Roll Formers

Open or enclosed? For companies hauling portable roll formers, that is the question. The decision is not always simple. Here are some pros and cons of each for consideration.

#### The Case for Enclosed Trailers

arry Schlabach believes that for most owners of portable roll formers, nothing beats an enclosed trailer. The owner of Masterpiece Metal Roofing, LaGrange, Indiana, [phone: 260-463-4010] Schlabach learned first-hand about trailers from his metal roofing business which he started in 2010. Now as a dealer for New Tech Machinery, he occasionally sells an open trailer customized for New Tech portables, but has found that enclosed trailers he has customized for roll formers are more popular in the Midwest. He takes from his own experience to help educate his customer base on making the right choice.

Schlabach started his roofing business with an open trailer. His moment of awakening took place in 2015 when he purchased a second portable and it came in an enclosed trailer. From that point, he never looked back.

"The big thing is the salt up here on the roads in the northern states. Maybe it's a little slushy and the salt gets all over Even if you've got your machine covered with a tarp, it's going to come in through the cracks [of] the tarp. ... If you're on the road every day, traveling from one job site to the next ... you're going to get that stuff in there."

Schlabach could simply compare his two machines and tell the difference. "I could not believe how, in three years, my open-trailer machine looked versus



30-foot enclosed gooseneck. PHOTO COURTESY OF MASTERPIECE METAL ROOFING

the one I kept in an enclosed trailer. I still have one of the 2015 machines in an enclosed trailer and she's not nearly as rough as my open-trailer unit."

Schlabach's company works with trailer manufacturers ATC and United Trailer to customize enclosed trailers for portables. Standard is a 30-foot gooseneck and an 18-foot bumper-pull unit.

The gooseneck offers 22 feet of floor space, and 8-feet of space on the goose typically used for tools and supplies.

The 18-footers are their best sellers since many customers come from hilly areas where smaller is better when pulling up and around tighter spaces.

Masterpiece customers also like the fact that an enclosed trailer can carry all their necessary tools. "We sell a lot to the anabaptists. They're not going out to the job site, rolling it off and leaving again [the same day] ... with an enclosed trailer you can have your tools, your pouches, your screw guns, the complete unit set up. They don't have to have two trailers on the job site, one with tools in it and one with the roll former in it."

When Masterpiece Metal orders roll former trailers, they specify heavier axles, heavier tires, heavier aluminum exterior skin, three-quarter-inch plywood on the walls for optional shelving, and side doors for loading and unloading coil.

Special orders can be accommodated. One client ordered a 20-footer with a 6-foot V-nose.

When buying an enclosed unit, Schlabach cautions the owners of any portable roll former against buying just any off-the-lot trailer; a lesson he learned the hard way. "In 2015, when I bought trailers for my roofing business, I bought them cheap because I didn't think I could afford expensive good ones that were heavy-duty built," he said. "Well, they lasted two years. I had to do major repairs within two years. I have a saying now: the good ones will cost you, but they will last you."

#### SETTING UP AN ENCLOSED TRAILER FOR EFFICIENT USE

John Dumke, Vice President of Sales and Marketing, Roll Former Corporation (www.rollformercorp.com); is also an advocate for enclosed trailers for the company's typical customer. "I'm not a big proponent of the open flatbed trailer," he said. For him it's about investing in the care of the machine and eliminating the hassle of wrestling with tarps and



18-foot bumper-pull unit. PHOTO COURTESY OF MASTERPIECE METAL ROOFING

ratcheting straps on an open-bed trailer.

"A guy invests \$40,000 to \$50,000 or more for a roll-forming machine, whether he buys it from us or someone else. That's a pretty good expense ... The work itself is tough enough compounded by dealing with the weather—cold weather or hot weather. I recommend an enclosed



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## **Trailer Recommendations**

Contributed by Roll Former Corporation

oll Former Corporation manufactures customized machinery, much of it portable. Popular for panel is their V-150 model. They do not sell trailers with their machines but do offer the following suggestions when a customer is looking for advice on buying a trailer, either open or enclosed. Note that a decoiler on an RF machine is a separate unit, not mounted to the roll former itself, so the decoiler advice is tailored around this setup.

First, depending on the length of the rollforming machine you will want to have at least 4 feet to 6 feet of distance from where your decoiler will sit on the trailer to the front entrance guides on the machinery. With good alignment of the metal coil sitting on the decoiler entering into the machine guides, the 4 feet to 6 feet of distance will allow for the metal to "find center" and more naturally enter into the machine. Also, consider the weight of the machine and the weight of the coil stock that you will carry when buying your trailer.



PHOTO COURTESY OF ROLL FORMER CORPORATION

#### Option 1: Open Flat Bed Trailer (similar to a landscaper trailer)

- Dual Axle minimum 7,000 lbs. capacity
- In lieu of a back gate, have four (4) corner leveling jacks installed.
- You may consider mounting the given machine onto 4" x 4s" or 6" x 6s" to elevate the "pass line" of the coil / panels for a more ergonomic use of operation. This will also give you storage underneath of the machine for run-out stands or tripods.

#### **Option 2: Enclosed Box Trailer with Possible Options**

- Dual-axle minimum 7,000 lbs. capacity.
- Four (4) corner leveling jacks
- Rear barn doors
- "Double wide" barn doors in the front of trailer for ease and safety when loading decoiler with material.
- Mount upside down angle iron ("A" Shape) with flange mounts to the floor of the trailer and then attach locking V-groove caster wheels to the base of our decoiler (3" x 3" bolt pattern) creating a "train on a track" effect to load your coils onto the decoiler. Establish a safe locking mechanism for the decoiler. This would also give you a self-aligning set up for your coil stock by using "stops" for the decoiler base and the spindle for the coil feed-ing into the given machine.
- Interior lighting / 110-volt outlets
- Axle / floor capacity upgrades
- You may consider mounting 4" x 4s" or 6" x 6s" to elevate the "pass line" of the coil / panels for a more ergonomic use of operation. This will also give you storage underneath the machine for run-out stands or tripods.

trailer to (A) protect your investment and (B) at the end of the hard workday, you can shut the doors, lock it, and boom, you're done."

Although Roll Former Corp. does not sell trailers with its machines, they do offer advice when requested (see sidebar) and Dumke cites two elements to consider when setting up a trailer for use on the job site: one dealing with the ease of access to coil changeovers within an enclosed trailer, and better ergonomics for work crew.

A decoiler on a machine from Roll Former Corp. is a separate unit, not top-mounted to the roll former itself. An option is to create a train-on-a-track within the trailer so the decoiler can be easily accessed.

A train-on-a-track is created by using two pieces of angle iron with flange mounts that can be through-bolted to the floor of the trailer in the shape of an 'A'. This is the track. Adding grooved caster wheels to the decoiler creates the train. As long as you have 2-1/2 to 3-foot barn doors on either, or both, sides of the trailer, the decoiler can then be safely accessed at the edge of the door for loading and unloading coil or for removing the decoiler for shop use.

To assure automatic realignment for feeding coil to the guides, also mount 'set stops' on the floor.

#### FOR BETTER ERGONOMICS

Hunching over panels coming out of an ill-placed roll former every day can prove to be a real pain in the back, so Dumke also suggests taking heed of your pass-line height. This is the height that your panels exit the machine.

To make that height comfortable for all-day use, measure the height of the trailer from ground level, plus the height of the machine and where the panel exits the machine, then adjust the pass line to a comfortable work level by creating a metal frame. The machine can then be bolted to the frame and the frame bolted to the floor of the trailer at a more ideal height.

An option would be to use two wood 4" x 4s" as the frame.

An added benefit to increasing the pass-line height is the usable storage that has been created under the frame.

#### FOUR-CORNER LEVELING

It may seem like common sense to advise that a roll-forming trailer be kept as level as possible, but French philosopher Voltaire once said, "Common sense is not so common." So, just as a reminder, Dumke said it is good practice to use four-corner leveling when using a



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trailer, especially if you are using an offthe-lot trailer that is not customized for precision equipment like a portable roll former. He tells a story of someone a few years back who complained about twisted panels coming out of his machine. "He had an open-bed landscaper-style trailer that didn't quite have the structural quality of a box trailer. He said 'all the panels are coming out ugly as heck, and it was fine the other week.'"

Asked to send a photo, the problem

was revealed: "one of the tires was on a rock and another one in a gully," Dumke recalled.

A level trailer will give you level panels, so don't be surprised if a twisted trailer gives you twisted panels. RF

#### The Case for Open Trailers

ertainly, an affordable option is an open trailer for the transportation of portable roll formers, but more than affordability should be used in the decision. David "Homie" Mulcahy, owner of Salted Metals (www.facebook.com/ SaltedMetals-Architectural-Metals-Design-And-Consulting) in Utah, has a client base of residential customers with multi-million-dollar homes in the mountains. Traversing the mountainous terrain requires a nimble unit, and one that he can hoist up to the roof for roll-out. He uses Maxey Trailers purchased through New Tech. "They've been the better ones for us," he said. "They have built-in pivot points where we can hook a crane to it. We do a lot of roof run-outs. We run [the roll former] to the edge of the roof using a crane."

From there, the machine can be further raised near the peak using forklift extensions he's developed.

He has seen some owners with purpose-built flat beds installed with scissor lifts to hoist their machines, "but you can only go so high," he noted. "It's better to crane the [machine] up rather than trying to do it from the edge of the roof," he said.

Another advocate for the open trailer is Joe Keene, Owner, Integrity Metals (www.integritymetalsfl.com), Vero Beach, Florida.

Like Mulcahy, he likes Maxey Trailers. He owns three of them. A fourth machine is on a trailer he purchased cheap and came to regret. "I got a good deal on it," he explained, cautioning: "if you get



If needing to lift your machine to roof height you'll want an open flatbed like this Maxey Trailer owned by Homie Mulcahy of SaltedMetals in Utah. Note that when the roll-forming trailer is lowered, it will be jacked and stabilized to hover just over the roof so as not to put extra weight on the roof structure. PHOTO COURTESY OF SALTEDMETALS ARCHITECTURAL METALS DESIGN AND CONSULTING

a good deal on something, it's usually worth what you paid for it."

Keene's type of business makes open trailers particularly appealing. His crews roll-form panel for roofing contractors throughout the state of Florida. They also pre-make panel in the shop and transport within state and occasionally surrounding states.

"We run multiple jobs a day," he said of their job-site roll-forming business. Integrity employs 18 workers plus himself and does 80% residential, 20% commercial. "We're pretty high-paced. Sometimes we're running five and six standing seam jobs a day so the quickness of being able to load [the roll formers with coil], is really a big deal for us," he said.

An open trailer offers more access to the machine on all sides with a forklift.

"We might run 26 gauge in the morning, 24 gauge in the afternoon, and an .032 or .040 aluminum the next day. We're constantly adjusting our tooling and constantly adjusting the portable roll former, so ... the ability to just walk around the machine very quickly and lean over and make adjustments is a very important deal for us," he said.

He also notes that an open trailer allows the user to more easily hear when trouble arises. "I think for maintenance purposes [an enclosed trailer] muffles the noise a little bit and makes it so you can't quite hear things the way that you need to," he said.

He knows from experience what problems can develop. "I've had it where a bearing seized up and a panel stopped running through ... the tooling. The panel came up and pushed the cover off

my machine ... I was walking panels at the time, so I was 20 feet away from my roll former. When I came back, the panel was sticking out 10 feet between the two coils. If I was in an enclosed trailer, how far would that have gone; would it have gone through trailer? I don't really know."

It took him 3-½ hours to cut the metal out of the roll former, and he wonders how much more time it would have taken had the machine been in an enclosed space.

Despite his own affinity for open trailers, Keene is originally from Michigan and says he understands the appeal of enclosed trailers. "There is an argument for having a customized trailer that's covered to be able to keep your machines out of the weather," he said. "We get a lot of rain here [in Florida], but I have customfitted canvas covers, so when we travel you can put them right over everything. "Our machines also don't live outside," he continued. "They travel to the job and when they come back they go inside our shop," he emphasized. "If they were living outside, and we didn't have room inside my shop, then I'd consider an enclosed trailer."

He also recognizes that two different worlds exist in the roll-forming industry: rollformers who roll panels and trims for metal roofers on site and/or off site (prevalent in his region); and metal roofers who buy portables to roll their own metal. The latter typically go out to a job site and roll panels one at a time as needed during installation, which can take several days before traveling on to the next job site. The type of trailer needed in that circumstance is different than his own.

"I understand the cold winters and being able to close the doors if a snowstorm starts up; close the doors and let it sit," he said, adding: "It's completely different worlds when you're roll forming what you need for today or when you're trying to roll form as much as you possibly can every single day because you're a high-paced manufacturer."

Most trailer manufacturers don't cater to the roll-forming industry, so there are reasons for why the Maxey Trailer is a favorite in the trade. "They're very durable and they're built in the mind that we're going to be going on job sites," Keene said. "They sit up off the ground and you don't have anything low that will drag."

They come with double axles; 7,000 pounds capacity on each axle for a total of 14,000 pounds of weight capacity, and there are heavy steel hooks on all four corners for hoisting the trailer-mounted roll former to the roof for running straight onto a roof deck.



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"And those trailers are tough," Keene said. "The first Maxey Trailer I got, it's probably got 500,000 miles on its original axles, maybe more. Everything is steel. Everything is coated with an epoxy paint, so there are no rust issues."

Trailer length is around 15-16 feet. "The machine itself is 12' 6", so you have the flat section of the trailer at about 12' 6" and you've got maybe a 4-foot tongue."

Being short is a critical advantage for where he does business. "We are a beach-front community so a lot of the places have a tiny little driveway for a little beach bungalow, and you've got to get into a tight little space...when you go to an enclosed trailer it has to be long enough to walk all the way around the machine, so you going from a 15-16 foot trailer to having to have like a 20-foot trailer and that's a huge game changer when you're going in and out of a small spaces all day long."

Since the machines will be out all day, they need enough coil to last. "We put three coils on the flatbed of our truck, and then there's a cradle that comes with this machine that mounts to the trailer that holds two coils over top of the machine ... we can do the setup one time and continue to run until they run out of coil. We usually finish every single job without having to drive back to our shop and then drive back to the job again."

In addition to his portable roll-former trailers, Integrity has two 37 foot long gooseneck trailers pulled with 3500 series pickup trucks. The trailers are custom-made in Northern Florida with larger torsion tubes underneath to keep the trailer bed from twisting, and I-beams for mounting a knuckle boom crane. Strapping points in the middle of each side, leading to the center of the bed, offers the ability to off-load one package of product at a time without unstrapping the entire trailer.

Even with a cover, weather can be rough on machines exposed to the elements, so Keene is adamant about maintenance. "If they get rained on, we tear the covers off when we get back, and we're oiling our tooling just to make sure we don't get any rust. And every set of tooling gets torn down after so many feet and all the bearings replaced."

**Conclusion:** Both open and enclosed trailers are viable options for portable roll formers. Base your decision on the type of work you do and your ability to protect your machine from the elements, then seek out a heavy-duty option that will stand up to long miles and hard work. RF

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CS Roofing	Strip Metal Tile		0.00	0.00	1.00	3.53	Mult. Qty by Roof Art 💌	Labour	Prompt		
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CS Roofing	Gutter Sundries	GutterS	1.00	125.00	0.00		Mult. Qty by Roof Area	Material	Always	Gutter	
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CS Roofing	Gutter Mileage		0.00	0.00	1.00	0.90	Spaced Along Hip Spaced Along Valley	Labour	Always		
CS Roofing	Gutter Access		0.00	0.00	1.00		Spaced Along Fascia	Labour	Always		
CS Roofing	Gutter Travel		0.00	0.00	1.00		Spaced Along Gutter	Labour	Always		

## **Don't Forget to Estimate Extras!**

Use your software to its fullest potential for profitable results

Bestimating software is great for productivity, but you may not be getting your money's worth if you neglect to use all the tools included. Ray Smith, Managing Director, AppliCad Software [www.applicad.com], sees this all too often. "One of the problems that I have noticed is how easy it is for an estimator to miss many small details in their quotation and in some cases, not even notice that they have been missed," he said. These missed items can end up minimizing your profit margin and possibly even contribute to a loss.

One group of items more frequent-

ly overlooked include fall protection expenses, specialized trims, site preparation or cleanup, dumpster expense, power poles and connections. As well, specific accessories that, if not ordered and delivered at the start of a job can hold up progress and cause expensive delays that flow on to other jobs.

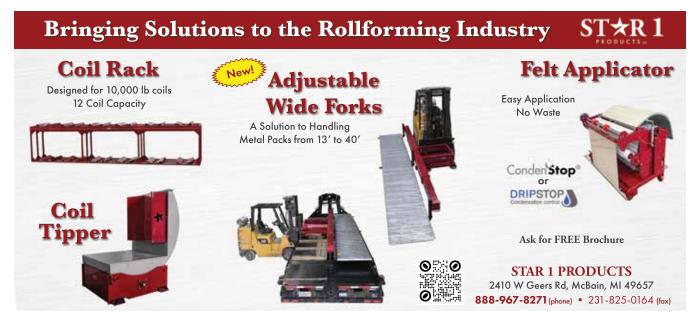
"Labor and materials for any of these items can 'suck up' any, and often all, of your profit," Smith noted. "Many of these things are not even dependent on the size of a job, but simply required to complete the job."

In the case of AppliCad software,

Smith said these items can be treated within the software as either a compulsory extra item, an accessory to a primary component, or as an optional item that the estimator is prompted for. Once set up, the process virtually eliminates losses from these issues on future jobs.

#### USE ALL THE TOOLS AVAILABLE

One of the first places you will want to look within the software is accessories to panels and flashing/trim. "The software will automatically calculate the correct quantity based on how they are fabricated and installed. This can get confus-



ing, especially for manufactured mitred corners, or clips and brackets—as these items might be different for various combinations of trim or different roof geometry; for example fascia with gutter, fascia without gutter, or fascia merging with a rake/gable or simple fascia only along an eave," said Smith, adding, "Defining these accessory items can be tedious, but you do this once and the benefits flow on with every job you complete."

In addition to creating an accurate 3D model of your roof, you will have verifiable accuracy in the take-off of every clip, screw, tube of sealant, labor and additional materials.

#### **DEFINE EXTRAS**

The second part of a profit saving set up is using what AppliCad defines as Extras. Extras can be anything that goes into a job, labor or material, part of the roof, or simply part of the job.

They can be compulsory extra items or optional extra items that you are prompted to include, or already exist in a list of items within the software.

The sort of things that you might include as an Extra item range from various types of crane hire, dumpster rental, compliance paperwork, travel time/mileage, generators, site inspections, power poles or even leaf guard.

Some estimators include various types of extra items in their list as a 'compulsory item' with zero value. This assures that the item appears on the list and serves as a prompt when preparing quotations; the quantity adjusted for a particular project. "The software has a switch that allows you to turn off zero quantity items when the quotation is printed, thus ensuring that you never forget anything that might comprise the detailed and thorough client proposal," Smith said.

#### **ONGOING REVIEW**

Smith encourages software users to continually review your items list. "You should be constantly reviewing your jobs won and jobs lost and also review each job on completion. Take note of the things that 'bit' you and update the list," he said.

It all adds to your bottom line.

"Do the best job you can for yourself and your customer by investing a bit of time in the systems that help you. It is a very good investment for the long term and means that everyone in your team gets the benefit of the combined experience of you and your field crews. You can count on a profitable job because you accounted for everything at the estimation/quoting stage." RF



## Notable Quotes from 2021 Rollforming Magazine

onstruction roll forming is an interesting industry in part because of the people inside it. They are often willing to share experiences to help pave the path for others; that makes writing about the industry especially enjoyable. Here is a look back at the year 2021 highlighting some of the especially colorful quotes taken from articles published in *Rollforming Magazine*. It includes observations you may find useful, inspirational, or just plain entertaining.

## On the superiority of standing seam with hidden fasteners:

"When you put 2,000 screws in that roof and that rubber washer gives out, that's 2,000 potential leaks. Even half a percent is 10 leaks ... Once you cover that screw, it all makes sense."

– Albert Shrock, Cherry Fork Metals, Oak Hill, Ohio

#### From the man who created the first portable roll former in the U.S. dedicated to the double-lock standing seam roofing industry:

"I didn't research what roll forming was all about, I just thought, I can figure this out myself. What I came up with was a different idea of pulling the metal through, without looking at existing machines; I wasn't focusing on how it was done normally."

- Ewald Stellrecht

#### On starting a roll-forming shop:

"Sometimes you might have to work all night just to keep up, but you have to. You're signing your life away to get started, but eventually you hope to be able to pass some of the work on to others."

"You just don't know what you will need when you first start. It's better to start in slow, where you can manage it and then upgrade as time goes on, as to jump in and start big and not be able to make it." - Nathan Yoder, Your Quality Metal, Little Suamico, Wisconsin

#### On bending metal:

"Metal has what is called memory. You have this flat piece of metal, and it says, 'by golly, I'm going to be flat for the rest of my life.' It has to be coaxed into taking shape."

A lot of 'gutter guys' are just out there running a machine and whatever comes out goes up on the project. If the gutter is not roll formed properly it can lead to premature failure and unhappy customers! So, the first step in 'hanging' a great gutter is 'forming' a great gutter."

#### On handling customer problems:

"My motto to the guys is, don't ever tell me what you can't do, tell me what you can do. There's always a solution. Tell me, 'I don't think we can do *this*, but I think we can do *this*.' If a customer has a problem, they're calling on us to solve it. If we can't solve it, they're not our customer."

### About sourcing factory workers who want to work outside and travel:

"Once in a while they'll complain about rain or cold in winter, but then we remind them of the [factory]."

- Victor Lottice, AA Seamless, Athens, Wisconsin

#### **Good Employee Relations:**

"My philosophy is that not everyone is going to be gung-ho about Best Buy Metals their entire life, but our responsibility as a company is to give people the skills to pursue their passions, and if that means something outside Best Buy Metals, we hope their time with us equips them to go and find something that brings them true joy."

- Adam Clark, Best Buy Metals, Cleveland, Tennessee

#### Reacting to Covid:

"Instead of looking for problems with the pandemic upon us, we found opportunity to react for the near term, manage differently and maybe even more effectively. We used the downtime to shift thinking, re-direct resources and prepare for the pent-up, near-term demand on the other side.... With those lessons learned and 2020 behind us, we now look forward to the year ahead with a perspective and attitude of gratitude. You know, gratitude is a lot like bacon; it can make almost anything taste better–even Brussel sprouts!" – Rob Haddock, S-5!

#### On buying equipment:

"Smart buyers ask smart questions. Rollforming equipment is not one size fits all; it is highly specialized equipment that varies widely in quality, performance, and features."

- Chris Cox, ASC Machine Tools, Inc.

### The importance of trade shows:

"When an owner or manager is in the office, the majority of his or her time is spent dealing with immediate issues and putting out fires.' Trade shows provide an opportunity to step away from those daily fires and think about big picture goals and strategic plans for the business."

- Chris Cox, ASC Machine Tools, Inc.

#### On buying trailers

for portable roll formers: "The good ones will cost you, but they will last you." - Larry Schlabach,

Masterpiece Metal Roofing, LaGrange, Indiana

#### The importance of eliminating shipping damage with stretch wrap systems:

"Vibration from wind or chatter from the road creates a harmonic rubbing together of the panels. It is like an ultrasonic effect that creates an abrasive situation-like sonic sandpaper."

– Robert Bowlin, Ameripak

#### On the issue of "sheet separation" or "sheet delay time":

"As an owner you want to see that number minimized to maximize productivity. Every second of delay is a second the machine is not producing panels."

- Bill Griffin, Metal Rollforming Systems

#### On life:

"Today is a gift. Let's make the best of it." - Quote frequently used by the late Chris Ray (1960-2021),

Levi's Building Components

#### On starting a metal roofing and portable roll-forming business:

"It was the scariest thing I ever did because I had seven kids, but it was the best thing I ever did, too. It provided a way for me to raise my family and put opportunities in front of them."

#### On equipment maintenance:

"Don't treat your roll former like any old tool, where your guys just take it out and beat on it. Treat it like a finely built automobile, one that you would maintain properly, keeping it out of the weather. Clean it, oil it, and adjust it properly before and after each project. Have one person or a team dedicated to it. Train them really well so you can run a good quality product...I'd go some places and ask them, 'where's your roll former,' and they'd say, 'well, it's out back by the dump truck.' It's not that type of a tool; it is a precision fabrication tool."

#### On hiring:

"Hire character. You can't train that into people; you can teach them a skill, but you can't train character. ... My best guy just walked into my office one day and said: 'I don't know anything about sheet metal, but I've got a wife and kid out in the car, and I need a job.' I could tell in my gut; so, I trained him to be quality-minded and he turned out to be one of my best guys and we were together for years."

#### Pricing the job fairly

"Be honest with your customers and don't try to get rich on every job. ... You get rich by doing quality work consistently, not by capitalizing on every job."

#### On working with architects:

"When you have an architect standing like the Corps of Engineers saying, 'you will do it this way,' it's like, I just learned my ways, now I have to learn yours?"

#### Regarding women roofers:

"You get guys that just want to beat everything to death and cowboy everything, and girls want to finesse and think of better ways to achieve it. If there's grunt work involved, the guys will do it, but when it comes to the finesse, hey, girls are great." - Mark Orsborn, Colorado Custom Metal, Inc., Glenwood Springs, Colorado

High price and low availability of steel: "We're all in the same beat-up boat, and we're all losing sleep at night." - Bob Kula, Mill Steel

"It's been a tale of two universes...we've gone from one extreme to the opposite, from the beginning of [2020] to where we are today."

- Steve Swaney, Flack Global Metals

# **Best Buy Metals**

How this Southeast Roll-Forming Company Landed on the Inc. 5000 list



Best Buy Metals started roll forming with a single-deck Titan roll former from Metal Rollforming Systems. The company now relies on double-decker Titans as the company grows.

B est Buy Metals of Cleveland, Tennessee, was named to the Inc. 5000 list in 2021 identifying it as one of the fastestgrowing private companies in the U.S.

The Inc. 5000 website says companies that make the list have displayed "brains, bravery, and optimism" to propel them to above-average growth. Best Buy Metals experienced an 87% 3-year growth rate. The company's Chief Operating Officer Adam M. Clark drills down further to explain how the company did it.

#### THE HISTORY

The company was founded in 2002 by Isaac Libbey. "He was a general contractor for a number of years, building homes and doing some electrical work," said Clark, speaking on Libbey's behalf. Metal roofing was being used in the southeast, but Libbey discovered that getting metal roofing products was a bit of a challenge, compromising the industry's growth. Seeing an opportunity, he found his own source—a regional rollformer about 100 miles away—and started selling metal roofing kits.

Libbey continued to follow opportunities as they came his way, that included hiring Clark in 2009. A native of Vermont, Clark had graduated from Lee University near Cleveland and stuck around because he liked the area where he also had a network of friends.

Clark had been hired to sell the metal

roofing system Libbey had developed and was installing. Best Buy Metals had only a hand full of workers then, so Clark found himself doing everything from selling metal to driving a forklift; whatever was needed for the day.

"I was just a silly kid at that time," he said. "There was really no expectation the company becoming what it is today. It's really fun to look back and say I'm able to help our machine operators because I had to do it; I'm able to help our sales team because I had to do it, but there really wasn't this expectation when I started."

The manufacturing side of the business followed soon after Clark's arrival. "We purchased a metal brake first to start

#### The Way We Roll ))

manufacturing our own trim and then early in 2010 we bought our first roll former," he noted; it was a single-deck Titan from Metal Rollforming Systems. It became a double-deck 18-months later.

What happened in 2011 was pivotal: "we had some really significant tornadoes that came through southeastern Tennessee," Clark remembers. Nearly overnight, demand for their metal roofing system doubled. "And by April 2012 we had planted our second facility in Chattanooga, Tennessee about 35 miles south of our headquarters ... because we felt that we needed to serve the local community a little bit better than we could being 30 or 35 minutes away."

Other locations soon followed. "After we realized that having multiple sites really made sense, we opened up in Asheville, North Carolina in 2013."

At first, Asheville was just a distribu-

tion site. Manufacturing was done in Cleveland and trucks would make daily trips to Asheville. "Because we were figuring it out, we didn't know what the demand of the market was going to be over there," Clark explained. But "after three months running trucks there every day, we could see that the demand was absolutely there, so we invested in some equipment, and we turned our Asheville facility into a full manufacturing site."

Also in 2013, they ended their roofing installation services. "We were losing too many [contractor] customers because they perceived us as competition, not as a resource," he said.

In 2017, a facility in Greenville, South Carolina was added; and in 2019, Morrisville, North Carolina just north of Charlotte. Each time they started by using the new locations as distribution sites. "When we were comfortable with the local market, manufacturing was also shifted to those sites," Clark said.

Today, the company has six divisions: one for each of the five locations, plus a national sales division for distribution of materials across the U.S. Property for yet another location has recently been purchased.

Clark's own career path mimicked the trajectory of the company. "As opportunities came up, I took them—an opportunity to lead a team, then an opportunity to lead a facility. I really felt called to do those things because I was invested in the company, I was invested in the industry," he said.

Today, owner and Chief Executive Officer Isaac Libbey uses his talents to concentrate on facility upgrades, while Clark manages the ever-changing, dayto-day operations and financials of the company. "The operations side of the





#### The Way We Roll ))

business ... is what has always really intrigued me," he said. "I like data. I like being able to understand operational efficiencies in setting goals and helping to shape our culture, but in 2009 I had no idea that would all fall under my umbrella.

"There wasn't this grand plan. I didn't even have a roll-forming background; it's just funny how it developed," he went on. "As I've gotten to know more people in the industry, it seems to be a common thread for entrepreneurs: maybe they had some experience, but a lot of them happened to get pulled into the industry. I'm really passionate about it. I love this industry. I can't imagine doing anything else."

### THREE-PART EQUATION FOR SUCCESS

Clark speaks of a three-part equation

when he delves into the company's success. "The real value we believe we bring to the equation is: #1: we have a fair price; #2: we have very, very quick turnaround time .... making sure we have same-day service for people placing orders first thing in the morning; and #3: we focus on education."

Those are concepts other companies claim to use yet experience less success. Clark offers additional clues as to why Best Buy Metals landed on the Inc. 5000.

"I think our reputation for taking care of people certainly was the catalyst for some of our growth," he offered. "Planting in new regions sort of happened organically when we felt we could no longer take care of the customer base that was hearing about us."

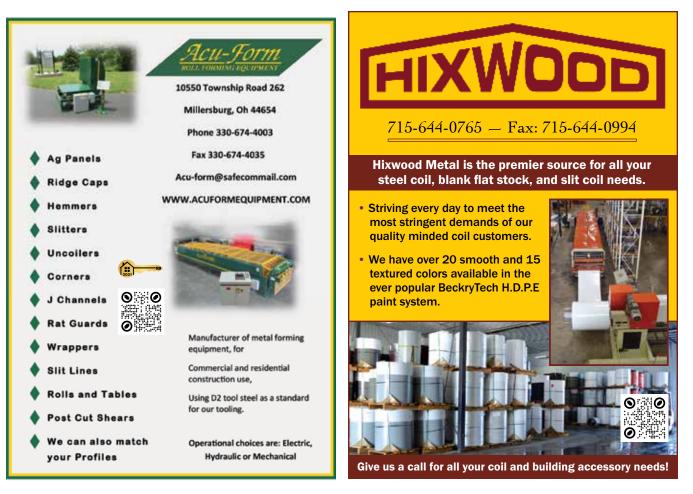
Taking care of the customer base meant assuring that the quality Best Buy Metals had worked hard to achieve was carried through as the company grew. "Nothing kills an industry faster than a product that is perceived as poor by the end-user," Clark said.

Moving closer to an expanding customer base was critical, so too was making sure contractors understood how to install metal roofing properly.

"For us to introduce a quality product, we control the product, and we control the quality of the materials, but the quality of the installation is equally as important to us," he said, "so we really invest a lot of time with our contractors; sitting down, coaching them and helping them to understand proper application."

That has been accomplished with monthly Best Buy Metals certification courses. Participants are treated to breakfast and some meaty advice.

Education doesn't end there. They also help contractors to stay in business



by offering business coaching classes. "That's something really enjoyable for us. We want contractors who are building sustainable businesses, businesses that don't grow up when there's a storm (when it gets busy) and deteriorates or breaks down when business is harder. We spend time with our contractors helping them to build a sustainable business model, helping them with the pricing and proposal approaches. That's been a really good tool for us to gain confidence with our contractor base."

Then there's education targeted to the end user, homeowners debating over the benefits of metal roofing. They have an online Metal Roofing University, a series of podcasts, and onsite workstations and estimating stations to help the customer understand a potential purchase decision.

Best Buy Metals only uses U.S.made steel, domestic coatings, and top-quality screws, closures, and sealants. Conveying why that is important to homeowners is critical. "We believe that by creating a watertight system, a metal roof should last you a lifetime. If you have [a company] who's challenging that, you really have to ask them why they are challenging that; why are they offering a cheaper product; why are they offering a system that won't last [a lifetime]," Clark said.

"Once you have those conversations with your customers and they understand the value of buying a higher quality product, it's a no-brainer for them," he said. "The mentality of 'we'll just get the cheapest product because it's available' I think we're past that. I did see some of that happening in 2009, 2010; a lot of people were thinking short-term, but I think right now people are thinking: 'it's inconvenient for me to have to pause and re-roof my home, and it's going to be more expensive in 10 years [with] inflation of materials and inflation of labor."

#### **CHANGING PERCEPTIONS**

When Best Buy Metals first opened, metal roofing on residential was not seen as normal. Having a local presence and



Roof and wall panel from Best Buy Metals can be increasingly seen on residential and commercial buildings throughout Tennessee and the Carolinas.





#### The Way We Roll ))

local contractors with successful businesses contributed to changing perceptions.

"We have found it takes two years of

planting and cultivating [the idea] that metal roofing is normal before homeowners see it as an option for residential application," Clark noted. "In our third



A Best Buy Metals employee works on a Variobend folder from Hershey's Metalmeister

#### **Machines of Choice**

What machines do an Inc. 5000 company rely on? Best Buy Metals uses Titan doubledecker roll formers from Metal Rollforming Systems for its primary plant-based machines, one deck running ag-panel, the other an R-panel.

The company also relies on two 20-foot Variobends from Hershey's Metalmeister (one double-bender and one single); and two Marxman Plus slitters from SWI.

Best Buy also has 11 New Tech portables for on site roll forming of standing seam. When a portable is used, Best Buy sends its own crew to the job site. "We do all the manufacturing," Clark said. "We don't want a contractor to get into the position where they're scrapping 1,000 feet of metal just because they've run into an issue with the machine. We have the responsibility to maintain our profile tolerances and to maintain our equipment in a certain way, so if there is a material loss, that's on us."

The portables have proved popular with homeowners who can see their roof being manufactured. Clark noted: "That's something enjoyable for the customer to experience."



year, without fail—in Asheville, then Greenville, and now in our Morrisville, North Carolina office (currently in its third year), if we plant the seeds correctly, and we create this sense of normalcy for metal roofing in the residential application, it really starts to take off. People start to see it available in many colors, in many profiles, and once you create that sense that it's a great alternative to traditional asphalt shingles, once people start talking about it in the community, it's not really a hard product to sell.

"The first couple years you have to do things right, though," Clark continued. "You really have to be sure you're educating customers on the value proposition, on the longevity of the system. If that's done correctly, by year three it's always been kind of an explosion of customers who think: I've seen that, I'm familiar with that, I want that."

Today, 85% of Best Buy Metals' panel systems go into residential applications.

#### COMPETITORS

Clark said Best Buy Metals has two primary business models they compete against: the big box stores, and small shops focused on the status quo. Best Buy Metals studied the inherent weaknesses of their competitors to develop their own business model.

Regarding big box stores, Clark said, "they may have good resources, they may have access to a lot of materials, but they really don't have the technical expertise. And they don't have the time to dedicate to customers who are willing to spend on metal roofing."

Regarding many small shops: "they're not necessarily looking to grow, they're really just looking to maintain, and that becomes 'how do I cut expenses, how do I buy cheaper materials, how do I race to the bottom just so I can keep the lights on.' For us, what it comes down to, is realizing that we have to be smarter in terms of creating a financial model or a pricing model that allows us to continue to grow. We know that a race to the bottom, a race to the cheapest product, is not going to give us the financial freedom to make some of the investments and some of the expansion that we have."

### THE FUTURE

COO Clark said he and owner Isaac Libbey have had many conversations over the years about what they wanted Best Buy Metals to grow into. The fact that it would grow into a company with 160 employees and multiple locations was not anticipated.

"I think when we opened up the Chattanooga office, and we found it was a great way to get into a new community, to affect more people, that kind of opened our eyes a little bit to understand what the potential looked like," he said.

Their plan is to concentrate their business in the southeast, at least for now. "We still do have growth campaigns going on and we anticipate that we will continue seeing similar growth for the foreseeable future," Clark said. "I don't foresee anything that's going to be slowing us down unless there's a major economic change. We're really motivated to keep creating vertical positions for highperforming team members and we have not gotten to a place where it's beyond our capacity yet. I think if we got to the place where we didn't think we could do it well, we might slow down, but we haven't reached that point yet." RF



Some of Best Buy Metals' 160 employees posed with owners Isaac and Angel Libbey (center front) for photos at a company dinner.

### Work Force Strengths

Best Buy Metals showed major growth despite Covid, and that included growth in its workforce. How did the company find and maintain workers? COO Adam Clark said the company is unique in its approach to hiring.

"Our company culture is designed around making people find joy in the work that they're doing," he said.

They look for people who aren't just applying for a job. "We want somebody who's looking for a place and responsibilities that bring them joy and fullness of life," Clark said. "My philosophy is that not everyone is going to be gung-ho about Best Buy Metals their entire life, but our responsibility as a company is to give people the skills to pursue their passions, and if that means something outside Best Buy Metals, we hope their time with us equips them to go and find something that brings them true joy.

"I think that's helped us retain a lot of people," he added. "Some people have found joy here in the work that we do and in the culture that we set up; caring for people well has helped us retain our best team members."



# Meeting Old Friends, Making New Friends





R ollforming Magazine attended the Garage, Shed and Carport Builder Show in South Bend, Indiana November 4 and 5. The show was sponsored by *Rollforming* Magazine's parent company, Shield Wall Media.

We met up with a lot of familiar faces at the show, and gained new friends at the education sessions and on the trade show floor.

Though Covid 19 created some difficulties with services we typically take for granted, the hotel and convention center staff were wonderful, and the venue had a beautiful view of the Joseph River and its historic night-lit relics.

On behalf of Shield Wall Media we thank all the exhibitors and visitors who were able to attend the event.

We hope to see even more of you at Shield Wall's next big event: the 3rd Annual Construction Rollforming Show, Oct. 26-27, 2022 at the Ernest N. Morial Convention Center in "The Big Easy"— New Orleans. Information updates will be available in the coming months at www.rollformingmagazine.com. RF



Above: MIDCO Building Products shed doors

Left: IdentiGrow custom name plates

Below: Thursday evening happy-hour reception sponsored by Graber Post Buildings Inc.



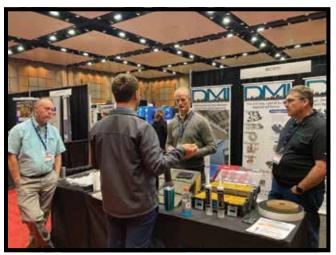
### GSCB Show ))



Aora Cladding by Arcitell panelized systems



Workshop on rent-to-own options for shed builders presented by NewFound Rentals



Direct Metals Inc. fastening solutions



E&H Tubing Inc. steel tubing manufacturing



SmartBuild Systems design software



RTO National management and finance solutions

### Steel Post-Frame Construction Case Study of a 60' x 140' Pole Barn

Contributed by SmartBuild Systems

### ABSTRACT

In the autumn of 2017 a small startup company in Sundance, Wyoming attempted something new. The company is called Straight Cold Rolling, LLC and they wanted to build a 60-feet by 140-feet pole-barn style building using cold formed steel.

They used a new automation technology from SmartBuild Systems<sup>™</sup> (SBS) that allowed them to roll every piece of framing material off a single roll-forming machine. These were not 'dumb' parts like they could purchase from a typical steel stud manufacturer; each part was precut to length, pre-punched at connection locations, and uniquely labelled. Parts were bundled together and the entire framing package fit on a single truck. At the job site, the pieces were assembled into wall and truss components. They fit together like 'Tinker Toys'. There was no measuring or marking required to assemble; only to verify dimensions.

There was no saw on the job site (no cutting), only several screw guns. A crew of four untrained laborers was instantly productive because the parts were perfectly made.

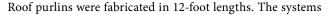
How did they do this? Using powerful SmartBuild software, the structural plans were drawn up in the 3D design software. Wall columns and girts were formed into panels. Trusses were designed to a 60-foot clear span. Each wall panel and truss was QC'd in the software for geometry and fit. Then every piece of material was loaded into a data file that fed into special rollforming machinery. The machine took raw coils of steel and formed them into the pieces specified by the data file. ufacturing labor to roll-form and bundle the parts was competitive with the cost of an equivalent wood building. This was unexpected because the cost of cold formed steel building materials in other market segments usually exceeds the cost of wood materials. An even bigger surprise emerged in the field labor costs. Because the pieces were fabricated to fit together without measuring, marking, or cutting in the field, an untrained crew erected the building as quickly or more quickly than a trained crew could build a wood pole barn.

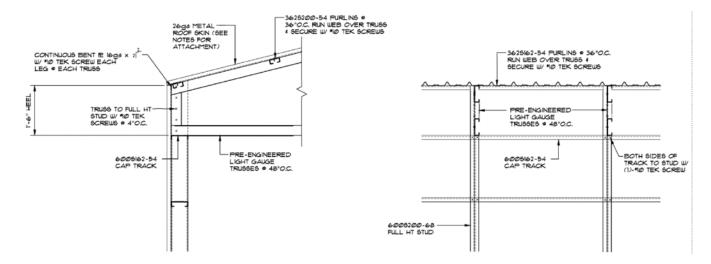
### FRAMING DESIGN

The building was designed to support up to four independent commercial spaces. The building dimensions were 60 feet by 140 feet and the south wall included (4) 12-foot overhead doors each with an adjacent entry door. Wall height was 16 feet and the roof slope was 4:12. There were no roof overhangs.

The framing solution included several features to ease the construction process. Wall panels were designed in 4-foot sections. On one end of the panel, the vertical stud (14 gauge) terminated inside the top track; at the other end, the vertical stud (also 14 gauge) extended through the top track an additional 18 inches. As two panels were placed side by side, the 14-gauge end studs were fastened in the field forming an I-shape. The short stud became the bearing point for the truss above (also spaced 4-foot on center), and the long stud provided a connection for the truss (heel height 18 inches) that also formed a moment-resisting connection for the building frame.

The results were startling. Cost of raw materials plus the man-





# Show

## OCTOBER 26-27, 2022

**New Orleans Ernest N. Morial Convention Center** 



FOR MORE INFORMATION CONTACT GARY REICHERT: gary@shieldwallmedia.com 715-252-6360

### **Emerging Industries )**



used cee-shapes for purlins oriented face down and each purlin had special notching every 4 feet to receive the trusses. This created an automatic spacer for setting the trusses quickly and accurately, increasing the speed of field erection.

### ENGINEERING

Structural engineering was completed by Krivonen Associates in Billings, Montana. The building was designed under IBC2012 with a ground snow load of 30 psf and ultimate wind speed of 120 mph. An interior shear wall was required to support the 140-foot diaphragm in the transverse direction, and diaphragm connection details were included.

The builder desired a concrete floor so this foundation consisted of a 4-inch slab with 18-inch wide x 24-inch deep thickened edge footings using (3) #4 reinforcing bars top and bottom. Wall panels were fastened to the foundation using 5/8-inch x 8-inch anchors at 32 ioc, and hold-down devices were install at the corners. Since not all buildings require a concrete floor, additional foundation options are currently under investigation, such as a strip footing or perhaps a concrete pier system which the wall columns would stand on, anchored with steel holddown devices.

Trusses were designed using powerful truss design software and a proprietary truss system called KeyTruss that utilizes standard cee shapes with special notching and piece marking to facilitate fabrication. Trusses were spaced 4 feet on center and beneath each truss was a column built from a back-to-back cee stud. Trusses were designed with a 60-foot clear span and a heel height of 18 inches to form the connection with the wall panel. Trusses were designed with 2-inch flanges, which eliminated the need for any web bracing. Truss chords were 6-inch 14-gauge cee shapes (600S200-68) with special notching of the flanges to receive the webs at each joint. Truss webs were 3 5/8-inch cee shapes and varied between 18 gauge and 16 gauge (362S200-54 and 362S200-43). Truss purlins were made from 3 5/8-inch 16-gauge cee shapes (362S200-54) oriented face down with notching to receive the trusses. Purlins were spaced at 36 inches on center.

Columns were formed by joining two 6-inch 14-gauge cee

shapes (600S200-68) to form an I-section. Columns were spaced 4 foot on center to align with the trusses above. Wider wall panels with wider truss spacings are also possible. The top and bottom tracks of the wall panels were made of 6-inch 16-gauge shapes (600T150-54) with dimples that matched the vertical columns. The dimples allowed the tracks and columns to snap together even before screwing off the connection. Wall girts were made of 6-inch 18-gauge cee shapes (600S200-43) and had special notching to remove the web and lips where the columns passed through. This detail allowed for a strong material that could also receive the exterior sheathing as well as interior sheathing. Wall girts were spaced at 24 inches on center.

### MATERIALS LIST

The materials were manufactured in Marion, Kansas. Special roll-forming machinery was used to convert raw coils of steel into the smart pieces that formed the building. Every stick for every wall and truss was a highly processed piece with custom marking and notching.

The weight of all materials including walls, girts, truss chords and webs, roof purlins, and permanent bracing added up to 42,000 pounds. Since the pieces can be bundled together in a compact fashion, the entire job fit on one truck and the truck was weighted out, then shipped to the job site in Wyoming.

### CONSTRUCTION

Bundles of materials were delivered to site where the slab had already been poured and prepped. All the wall panels and trusses were assembled on site.

Since all the pieces were cut to length, pre-punched with pilot holes and dimples, and had customized markings, the wall and truss components went together like 'Tinker Toys'. A crew of four workers who previously had no construction building experience, plus one experienced supervisor, rapidly assembled all the walls and trusses and erected the building.

There was no need to field cut the component parts because each piece had come off the machinery precut to the exact length. Field cutting was only needed for temporary wall braces, etc.

No jigging was required for building trusses. The trusses were self-jigging, using alignment holes and notches in the chords to properly build each truss. Crew members built the first truss using the pilot holes and checked measurements against the construction drawings. The crew squared one end of the truss, then screwed off the rest of the required fasteners. Once the first truss was confirmed, it was used as a template for other trusses, which themselves were first set together using the pilot holes and then screwed off.

### **COST COMPARISON**

Material costs and field labor costs were tracked throughout the process. Two competitive bids were procured from leading

### **Emerging Industries )**

	Cos	t Comparison				
	Stee	el 🛛	Woo	od Package 1	Woo	od Package 2
Posts, Girts, Headers and Other Framing including Member Connections	\$	9,819.00	\$	15,800.00	\$	9,992.00
Trusses, Purlins and Roof Bracing including Truss Connections	\$	22,200.00	\$	13,500.00	\$	20,286.00
MATERIAL TOTAL	\$	32,019.00	\$	29,300.00	\$	30,278.00
Field Labor	\$	20,000.00	\$	24,650.00	\$	22,000.00
TOTAL	\$	52,019.00	\$	53,950.00	\$	52,278.00

pole barn manufacturers using wood framing. In comparing the costs of the framing, here's how the numbers stacked up. The steel frame solution generated a combination of labor and materials that is lower than the wood solution. designed and engineered using a new building methodology. Advanced automation software for building design and truss engineering, combined with special roll-forming machinery, created a new building system that went together in the field perfectly, like an Ikea product. The combined cost of materials and field labor was less than a similar woodframed pole barn. RF

[Editor's Note: For more on the emerging cold formed steel framing industry refer to our cover story in October/ November 2021 issue of Rollforming Magazine available online at www.rollformingmagazine.com.

### CONCLUSION

A 60'x140' pole barn style building was



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# **Recognition Earned**

Shield Wall Media

**BUILDING** 

AWARD

**PROGRESS** 

### Building Progress Award Recognizes Trade Professionals

he Shield Wall Media Building Progress Award has been launched to recognize individuals who have made significant impacts on the growth and/or development of the construction trade.

The new award replaces, and builds upon, two previous awards from our sister publications: The Rural Builder Hall of Fame and the Metal Roofing Magazine Hall of Fame awards. Both were long-standing programs. The Rural Builder Hall of Fame ran from 1982-2020. The Metal Roofing Magazine Hall of Fame ran from 2007-2019.

Both of these Hall of Fame programs have now come to a close and have been replaced by the Building Progress Award program.

### DETAILS ABOUT THE BUILDING PROGRESS AWARD PROGRAM

In this program, one award will be presented each year, beginning in 2023. Anyone can nominate one or more individuals who have had a significant impact on some facet of the low-rise construction trades serving the town and country market (population of 250,000 or less).

As the name implies, the Building Progress Award will be bestowed upon someone who has spent their career bettering and advancing the low-rise construction industry. Those advancements may include innovating products or processes, developing solutions to significant problems in the trade, influencing young people entering the workforce or people from other professions to join the construction trades, supporting trade education efforts, or any number of other ways to positively influence the construction industry.

### NOMINATION & VOTING PROCESS

The nomination process is non-exclusionary; anyone who has a vested interest in the construction trade may nominate a candidate who has made an impact on the low-rise construction industry. Builders, manufacturers, public relations and media professionals, and anyone else who comes in frequent and close contact with construction trade leaders and influencers are in an excellent position to make nominations.

Candidates must have made exceptional, enduring contribu-

tions to the success of the industry and must have been active in the industry for a minimum of 10 years. Individuals who have received entry into the Metal Roofing Hall of Fame or Rural Builder Hall of Fame are also eligible for the Building Progress Award.

Once a nominee's qualifications have been reviewed and vetted, the candidate's professional profile will be published on all Shield Wall Media branded websites and in

all Shield Wall Media magazines (time permitting).

The nomination period for the Building Progress Award cycle closes Dec. 31 each year. To accommodate late-cycle nominations, voting will commence February 15 and will close June 30. Ballots will be published in each of our magazines, distributed via email, and voting will be available online on each of the

Shield Wall Media websites.

Voting is open to everyone over the age of 18, but is limited to one vote per person.

The winner will be announced through publication in Shield Wall Media maga-

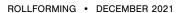
zines, on its websites, through its e-newsletters, and on its social media accounts. This person will have the distinction of being honored with the inaugural Shield Wall Media Building Progress Award. In addition to receiving an award, Shield Wall Media will donate \$1,000 to the charity of the recipient's choice. The charity is subject to approval and must be a 501(c)(3) organization.

All non-winning candidates will be rolled over and included

on the next year's ballot, making repeat nominations unnecessary.

Download the form online at https:// bit.ly/BuildProg21 or by scanning the QR code shown. Questions may be addressed to Karen Knapstein (karen@shieldwallmedia.com; 715-513-6767).

Due to extenuating circumstances of 2020-2021, the nomination period for the inaugural award will continue through December 31, 2022. RF









### **Official Nomination Form**

Name of Nominee:
Mailing Address:
Email address:
Telephone:
Company/Position:
If retired, most recent position held:
Professional Achievements:
Association Affiliations & Offices Held:
Years in the Construction Industry:
Nominated By (name):
Mailing Address:
Email address:
Telephone:
Title/Company:
Relationship to Nominee:

Please describe why this person should receive the Shield Wall Media Building Progress Award. How have they influenced or advanced the construction industry?

Signature: Date:

### Email the completed form to one of the editors.

### **Questions? Contact an editor:**

Karen Knapstein: 715.513.6767; karen@shieldwallmedia.com Linda Schmid: 920-659-6319; linda@shieldwallmedia.com

Mail To: Shield Wall Media **ATTN: Editors – Building Progress PO Box 255** Iola WI 54945

### MCA Releases 3-Part White Paper

Metal Roofing & PV Solar Systems Parts 1, 2 & 3

he Metal Construction Association (MCA) has released a three-part white paper series, "Metal Roofing & PV Solar Systems Parts 1, 2 & 3." Part one had been published earlier this year. Parts two and three were recently added to expand on the original paper and supply additional technical guidance for optimal installation and mounting of photovoltaic (PV) solar systems on metal roofing.

Andy Williams, MCA's director of codes and standards said the white papers "go beyond the advantages of these systems and look at the durability of the roof, along with mounting and installation practices that provide the optimal foundation for these advanced systems."

Part one details the benefits of metal roofing as a solar mounting platform. Included are important but frequently overlooked topics, such as service life and durability comparisons for metal roofing and PV systems. For instance, solar PV has a service life of more than 30 years. Metal is one of the only roofing materials that outlives the PV system.

Part two discusses how to mount solar PV to metal rooftops to provide the most benefit for building owners and solar contractors. This information is integral to lower installation costs and lengthen the product life cycle for the greatest return on investment. Topics include preserving the integrity of the roof and PV system, and code compliance.

Part three calls attention to the mounting system that marries the expensive PV array to the host roof and how metal roofs enable solar PV systems to perform at their best. The roles of careful planning, high-quality materials, design, and installation are highlighted.

The white papers are part of MCA Metal University and can be downloaded at www.metalconstruction.org.

### CONSTRUCTION JOBS LOW ON THE WISH LIST FOR GEN Z

It's not really a surprise, but the younger generation by and large is not interested in construction as a career. At least, not among the 29,640 participants of a survey conducted by Talo. com in late 2020.

In Talo's findings, from a list of 23 career categories, only 16.7% expressed interest in construction, just below the lowest choice of Forestry at 16.4%. Manufacturing fared a tad better, at 34.9%. No. 1 on the list? Arts/Entertainment/Recreation at 78% followed by Technology at 76.5%.

### DATA SHOWS UNMISTAKABLE BOOM IN RESIDENTIAL CONSTRUCTION

Rollformers around the country have known for a long time that new home construction has been booming. Omnipanels. com, however, decided to take a deeper dive by looking into the numbers.

Each month, the U.S. Census Bureau and the U.S. Department of Housing and Urban Development release data reflecting trends in new residential construction. One of the leading indicators of construction trends is how many building permits are issued for new projects.

Recently, Omni analyzed the data from 368 permit-issuing municipalities across the country to understand new construction trends at both the national and local levels.

"The national numbers show an undeniable boom in new residential construction," the company reported. "Over the past two years, permits issued increased 36 percent nationally, for all sized residential projects. For single-family homes, the increase was 30%. For large buildings containing five or more units, the increase was 21%.

Also during this period, the average value of a newly constructed single-family home increased 7%.

Omni created tables to identify where in the U.S. single-family home construction and value has increased the most, plus where construction of 5+ unit structures has increased the most.

In a small sample of the results, permits for single-family home construction, from June 2020 to June 2021, increased the most in the following cities:

Anchorage, AK (113%) Brunswick, GA (112%) Billings, MT (105%) Columbus, IN (103%) Yakima, WA (102%) Springfield, OH (95%) Hinesville, GA (93%) Great Falls, MT (85%) Oshkosh-Neenah, WI (83%) Rockford, IL (82%)

To find complete results go to https://omnispanels.com and search for "new residential construction statistics 2021"

### New Products ))

### SAFETY HELMETS FOR ANGLED IMPACTS

Traditionally hardhats have targeted protection of the head from falling objects, but a more common source of injury for workers is impact from a fall. Skullerz Safety Helmets with built-in Mips<sup>®</sup> technology from Ergodyne protect workers from dangerous angled impacts.



Available in Class C and Class E, the new safety helmets are integrated with Mips Elevate—a low-friction layer that slides multi-directionally to redirect rotational energy that otherwise could be transferred to the

head upon falling or impact. The integration fills a protection gap left by traditional hard hats, which have been designed to provide protection from direct impacts only.

The development of Mips safety systems results from years of

research and testing by Swedish neurosurgeon Hans von Holst and engineer Peter Halldin.

Information: www.ergodyne.com

### **BACTERIA- AND VIRUS-KILLING PAINT**

PPG has received U.S. Environmental Protection Agency (EPA) registration for its PPG COPPER ARMOR<sup>™</sup> antimicrobial paint containing Corning<sup>®</sup> Guardiant<sup>®</sup> technology. It is proven to kill 99.9% of bacteria and viruses on the painted surface, including SARS-CoV-2, in two hours. The Copper Armor product's efficacy was measured using tests that simulate real-world contamination that are mandated by the EPA



for products making claims against harmful pathogens. PPG is selling the product through U.S. PPG PAINTS stores, independent retailers and select home improvement stores.

Information: www.ppgpaints.com/copper-armor.











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### Send to: Barb Prill • P.O. BOX 255 • Iola, WI 54945; barb@shieldwallmedia.com

### Calendar of Events ))

### DECEMBER 2021

Dec 1-3 The Buildings Show 2021 Toronto, Ontario, Canada; https://informaconnect.com/thebuildings-show

### JANUARY 2022

#### Jan 18-20

Frame Building Expo, Gaylord Opryland Resort & Convention Center, Nashville, Tennessee; www.nfba.org

#### Jan. 24-26

Metal Construction Association Winter Meeting, Scottsdale, Arizona; www.metalconstruction.org

### FEBRUARY 2022

#### Feb 1-3

International Roofing Expo, New Orleans, Louisiana; www.theroofingexpo.com

### Feb 8-10

National Association of Home Builders (NAHB) International Builders' Show (IBS), Orlando, Florida; www.buildersshow.com

### **MARCH 2022**

### March 9-11

Self-Storage Association Spring Conference & Trade Show 2022, Orlando, Florida; www.selfstorage.org

### APRIL 2022

April 24-26

National Coil Coating Association Annual Meeting, Sonoma, California; www.coilcoating.org

### April 27-29

Metal Building Contractors & Erectors

Association Conference 2022, Tucson, Arizona; www.mbcea.org

### **JUNE 2022**

### June 13-15 Metal Construction Association (MCA) Summer Meeting, Rosemont, Illinois; www.metalconstruction.org

#### AUGUST 2022

Aug. 16-20 National Association Of Women In Construction's (NAWIC) Annual Meeting And Educational Conference; www.nawic.org

#### **OCTOBER 2022**

### **Oct. 26-27** Construction Rollforming Show, Ernest N. Morial Convention Center, New Orleans; www.rollformingmagazine.com

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