



HIGH

STANDARDS



NorthStar Construction

NorthStar Construction installed solar panels on the roof of its headquarters to make use of an otherwise dead space.

ROOFING CONTRACTORS EMPHASIZE SAFETY, TECHNOLOGY AND SUSTAINABILITY

BY JESSICA PORTER

Of the 775 fatalities that occurred in the private construction industry in 2012, 278 (36 percent) were due to falls—higher than any other risk factor. Few understand the gravity of that risk better than roofing contractors.

Sutter Roofing, Sarasota, Fla., approaches safety by creating a culture that emphasizes family. “We focus on the whole employee, rather than just what he does for the company,” President Douglas Sutter says. “Our focus is to provide for our families by producing the best roofing value in the industry today.” That mission extends to making sure employees’ medical insurance covers their whole family.

Other contractors, such as NorthStar Construction, Shirley, Mass., implement a zero-tolerance safety policy that includes 100 percent tie off. The firm also does annual safety stand downs and employs a full-time safety officer.

“Safety is a big focus for our company and we work hard on our safety initiatives,” NorthStar Construction President John LaStella says. “You can’t operate without safety.”

LaStella calls NorthStar Construction’s safety officer the firm’s “secret weapon” because he previously was a school superintendent, which taught him about peoples’ varying learning styles. He creates “lesson plans” for every project that are customized for the job and workforce.

NorthStar Construction’s safety policy also helps it remain competitive in a tough market. “The prices are getting more competitive and the number of roofers has gone down, so customers can get a first-rate company at a good cost,” LaStella says. “We are more qualified as a group, so you really have to be on your game to stand out from the crowd.”



Balfour Beatty Construction

KPost Company won a 2013 ABC Excellence in Construction Award for its work on the roof of the \$95.6 million Perot Museum of Nature and Science.

AWARD-WINNING PROBLEM-SOLVING

One of the most important qualities in a contractor is an ability to work with the owner, architects and subcontractors to find solutions to unexpected or unusually complex problems, which is exactly what Dallas-based KPost Company did while helping build the \$95.6 million Perot Museum of Nature and Science.

In 2008, the museum's construction team—led by Balfour Beatty Construction—brought KPost in to begin working on the design. Three years later, it was awarded the contract to do the roofing and roof-related sheet metal on the building's upper penthouses, built-up air handler unit, office terrace, main roof and third-level roof.

"There's not a square corner on the building. Every detail is unique; what we did on one side we didn't do on the other," says Ryan Little, project management department head for KPost Company. "That took a lot of detailing on our part. We did 3-D modeling to look at the building from every angle and figure out how everything tied

together and how we could make it waterproof."

Work on the main roof and upper penthouses proved to be a challenge before construction even began. KPost Company inspected the area and determined as-built conditions differed from the architectural drawings, as a 4-inch gap existed between the roof and vertical precast wall system. The firm responded by installing a free-floating plywood cap and attaching it to the precast wall. This allowed the expansion joint to be supported and waterproofed independently of the roof system and to move with the sheet metal expansion joint cover.

During construction, KPost Company's scope was expanded to include work on the entry plaza and rear terrace. After weeks of coordinating with the architect and subcontractors, KPost Company installed a waterproof TPO 80 mil fleeceback roof system that could be fully wrapped with hundreds of epoxy-coated rebar supports. The supports had to accommodate structural topping slab with tie-ins for

concrete stairs, ramps, water features and planters without compromising design or constructability.

"The entire plaza is a roof—it even had fountains with running water—and we poured 9 inches of concrete on it," Little says. "I've never poured concrete on a roof before, and we were the first company to do it with the manufacturer we used."

To ensure the plaza was waterproof, KPost Company brought in an electronic leak detection testing agency to apply small currents across the roof surface to find breaks in the membrane. It then installed a high-density insulation protection board and drainage and protection mats. The system was retested for leaks a final time before structural concrete was poured.

Despite the complexity of the project, KPost Company completed its portion of the museum on time with no safety accidents—winning a 2013 Excellence in Construction Award from Associated Builders and Contractors and a 2013 TEXO Distinguished Building Award.

- Jessica Porter

Despite being on opposite ends of the East Coast, both contractors have an increased number of health care projects on the books, which Sutter attributes to the aging U.S. population. “Despite the recession, hospitals still seem to have funding, while private owners are scaling back,” he says.

Sutter Roofing has five health care projects going on in Florida, and Sutter sees even more growth in the residential market, which is a good sign for commercial construction.

“The commercial market always lags behind residential by 12 months to 18 months,” Sutter says. “Commercial building permits also are way up throughout Florida, so I expect to see a good next four to five years.”

But the last few years have not been easy for roofing contractors. “We had to really look at all areas of our operations and staff, but we emerged a much better and leaner company as a result,” Sutter says. “We’re much more mindful of costs.”

Sutter Roofing also reevaluated its relationships with customers and eliminated many that were not profitable. “Now we’re cautiously expanding and trying to be a better company at our current size.”

Coming out of the recession, both contractors changed the way they work in regard to sustainability and technology. Sutter Roofing is primarily paperless, automating many programs and adopting mobile technology (e.g., all employees now use an automated timekeeping program with their iPhones for real-time job costing). Sutter Roofing also developed a web application to dispatch services crews—a necessity for its 24-hour maintenance service. It also uses recycled materials in insulation and metals, and recycles as many roofing materials as possible.

In addition, Sutter Roofing installed 25,000 watts of solar panels on its roof, producing enough electricity to power two company cars. In 2012, NorthStar Construction added more than 360 solar panels to its 20,400-square-foot headquarters, which generates more than enough energy to power all building operations.

“The roof should be used for solar because it’s dead space already,” LaStella says. “There’s nothing you can do with a roof besides collect solar rays.”

Sutter adds that having the panels installed “in-house” helps the company gain knowledge about the issues clients with solar panels can expect down the road.

“We adopted these initiatives because thinking green and being a responsible citizen of the world is important,” LaStella says. “We’ve embraced it for the



Sutter Roofing

Sutter Roofing is a 112-year-old family-owned business that specializes in roofing, sheet metal and service work.

past 10 years and our customers appreciate it. It helps us get work.”

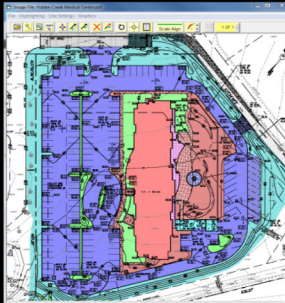

Though NorthStar Construction currently does not have many clients requesting solar panels, LaStella expects more in the future. The company works with solar companies and employees are trained to prep roofs for solar panel installation. [CE](#)

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