



Roof Hugger keeps Sevierville Community Center open during re-roof

Lutz, Fla., Dec. 20, 2024 — The Sevierville Community Center is aptly named. Residents of the City of Sevierville, Tenn., take full advantage of its comprehensive recreational offerings, including a bowling center, gymnasium, fitness center, Olympicsized natatorium, cycling area, racquetball court and meeting rooms.

So, when the roof started leaking in several places, closing the center to tear off and replace the failing roof really was not an option.

"We were brought in by the architect," says Chuck Howard, P.E., president at Metal Roof Consultants of Cary, N.C. "They had some leaks in a lot of different areas and everyone was obviously concerned about the damage that could result from these leaks. We presented the idea of installing a new metal roof on top of the original roof without a tear-off. The community center is open 365 days a year, so they were very receptive to that plan of attack." Installing a new metal roofing system over an old 24-inch trapezoidal metal roofing panels requires the use of sub-purlins to create a new structural framing system. Roof Hugger provided 4-1/2-inch-tall Roof Hugger notched zee sub-purlins for most of the roof areas. However, in the corners where purlin spacing needed to be reduced for code compliance, 3,375-inch-tall sub-rafter hats were run upslope over the existing purlins and overlayed with 1.125-inch tall hat sub-purlins providing the correct reinforcement for the attachment of the new roofing panels. All necessary fasteners were included.



"I was impressed with the use of tape sealant between the Hugger and the existing roof before the new roofing panels were installed, such that there was never a construction leak induced during the entire construction time," says Doyle E. Jones, RRC, architect/roof consultant, whose office is three blocks from the community center. "There was not one minute of down operating time at the community center during the entire process and the center never closed for any reason, related to the roofing."

Morristown Roofing of Whitesburg, N.C., handled the installation of Roof Hugger subpurlins as well as the MRS 24-gauge 2500, 16-inch-wide vertical rib painted structural panels from Metal Roofing Systems of Stanley, N.C. The roof covers approximately 50,000 square feet with pitches of 4:12 and 5:12. Sub-purlins were installed approximately five feet apart, with the space created by the sub-purlins between the original roofing panels and the new panels filled with insulation to improve R-value. The new system meets IBC-2012 for winds of 120 mph. The color is Mansard Brown. "We relied on the past installation experience of our foremen and supervisors who were able to guide our project and ensured we were well prepared for the challenges the project presented," says Ashley Horner, VP at Morristown Roofing. "We also worked closely with the designers of the project. Architect Doyle Jones and engineer Chuck Howard were able to provide valuable insight into specific techniques required for the project and extensive details for various sections of the building."

Horner says the irregular shape of the building meant there were some detail challenges installing the sub-purlins and the roofing.

"The intricate details and the high visibility of the roof area required the detailing be both precise and aesthetically pleasing as the fifth wall of the structure," Horner says. "The biggest challenge was the protection of the public, as the community center is a vital resource for the community throughout the day. By working together as a team and adapting to the changing circumstances, we were able to successfully address the challenges and provide a finished product we are proud to be associated with."

About Roof Hugger

Roof Hugger notched sub-purlins enable replacement of new metal roof panels over an old metal roof. They can be used over screw-down or standing seam and corrugated roof systems and can accommodate new standing seam or screw-down panels. Roof Huggers also maintain integrity of original design loadings; achieve "thermal break" air space between old and new roof sheets; allow for optional insulation; and are laboratory and load tested — with certified load charts. For more information on metal-over-metal retrofit re-roofing, contact Roof Hugger at 800-771-1711 or visit <u>www.roofhugger.com</u>.