

Old Technology Learns New Tricks to Resolve School Roof Problems

Kent Center School | CT

CHALLENGE

Nestled in the northwestern corner of Connecticut, Kent Center School serves a small community of 3,000 residents. Its original structure, which was built in 1922, has undergone three major renovations, in 1955, 1970, and 2003. In recent years, three of the school's seven roof sections had begun to experience leaks. According to Curt Mechare, head custodian, the existing roof had reached the predictable end of its useful lifespan and was overdue for replacement.

Recent window replacements near the problematic roof surfaces complicated the issue, due to code taper requirements. Local code requires a minimum taper of .25 inches, but that degree of taper would have required removing the new windows, which was not a viable option. The code permits coal tar roofs to be installed with a taper as low as 1/8 inch, due to coal tar's exceptional waterproofing capabilities. But traditional coal tar solutions pose their own challenges, and as Dr. Rima McGeehan, Kent Center School principal explains, "Our biggest concern, no matter what the project, is always the safety and well being of our children."

SOLUTION

Karren Garrity, chairperson of the District of Kent's (Region One) Board of Education asked Steve Botelho, area sales manager for The Garland Company, Inc., to recommend a solution addressing all these concerns. Botelho reports, "Nothing beats coal tar technology, and we were able to offer Kent an SBS-modified cold-applied coal tar flood coat that met the 1/8-inch building code requirement without adding a tapered system or removing the windows."

Botelho provided turnkey support for the project, including on-site supervision of the installation process. He reports that contractor Silktown Roofing tore off the existing roof and replaced several small areas of the underlying deck before re-roofing with Garland's StressPly® EUV SBS/SIS UV-resistant modified membrane, which incorporates post-consumer recycled rubber content. The high-performance roof was installed using the company's cold-process Black-Knight® polymer-modified coal tar flood coat. The roof was surfaced with a highly reflective white spar gravel for additional UV protection and energy-use reduction.

According to Botelho, "Gary Dero, Silktown's project manager, and their foreman, Kevin Guertin did a wonderful job of staying in communication with me throughout the process. They delivered the installation under budget, despite considerable rain, by working on Saturdays and weekends – doing whatever it took to get the job done."

To address Kent's environmental concerns, Botelho suggested replacing the existing lead-coated copper wherever practical with a safer, lead-free, pre-weathered Galvalume® aluminum metal edge. The visible edge sections were color-matched with a Kynar® coating for aesthetic consistency. For those areas where the new metal would come into contact with existing lead-coated copper, stainless steel was used to ensure the integrity of both metals.

According to Mechare, the project was completed in a timely and efficient manner. Garrity comments, "I found it particularly helpful that Steve would send us regular updates and photos." McGeehan agrees, concluding, "Being new to the school, both Steve and Curt kept me in the loop, and even gave me the opportunity to get up on the roof to understand the work that was being done."

Botelho reports, "The entire team at Kent was a pleasure to work with. The project went out to bid in April, and was completed before the school resumed session." found Sam to be a very stable trustworthy partner."

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Steve Botelho

Phone: (800) 762-8225 ext. 529
E-Mail: sbotelho@garlandind.com

EDUCATION



Project: Kent Center School
Location: Connecticut
Garland Rep: Steve Botelho
Contractor: Silktown Roofing
Materials: Black-Knight®
StressPly® EUV SBS/SIS UV