High-Performance Modified, No-Odor Roof System Installed Without Disruption

Sharon Hospital | Sharon, Connecticut

HEALTHCARE

CHALLENGE

Anytime a roof begins to leak is a cause for concern – a concern that is elevated when the leaky roof is at a hospital. In those cases, it is not only critical to stop the leaking, but to do so without disrupting the hospital's patients and staff. Brian Croghan, the director of facilities at Sharon Hospital in rural Connecticut, wanted to ensure that patients and staff were not subjected to harmful and unpleasant odors or loud noise during a recent roof replacement project at the hospital. "Our biggest concern was making sure our patients and hospital staff were not disturbed during the project," Croghan explains.

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>
> **Brian Croghan**
> Director of Facilities
> Sharon Hospital

The 5,500-square-foot roof that was leaking was more than 30 years old – almost as old as the hospital itself. It was built as an inverted roof membrane assembly, which is essentially an "upside down" design with the insulation on top of the roof plies. Over time, the roof began deteriorating, causing severe leaking at the base of the walls and penetrations. Croghan wanted to replace the aging roof with a high-performance solution that would guarantee watertight protection so he turned to Steve Botelho, a local representative of The Garland Company, Inc., who evaluated the hospital's roofs a few years prior.

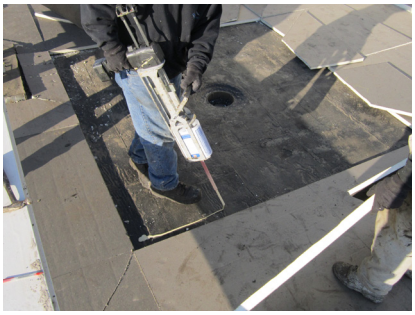
SOLUTION

Croghan's concerns of odor and noise coupled with the roof's existing flashing conditions prompted Botelho to recommend the existing roof be replaced with Garland's hybrid, two-ply modified SBS asphalt and coal tar pitch modified system installed with a zero odor and zero VOC membrane adhesive. There were several other factors to consider when developing a solution, including the low through-wall counterflashings, high-wind uplift, as well as the fact that the roof was directly above the hospital entrance. "The duration of the project needed to be at a minimum since the set up and staging area was directly in front of the main hospital entrance where patients are picked up and dropped off. It was also critical to make sure there were absolutely no unpleasant odors," Botelho explains.

The original roof was removed. All layers of the polyisocyanurate insulation were installed using Garland's Insul-Lock® HR high-rise insulation adhesive. The new insulation system met all international building codes for R-value and proper drainage. Oversized 20-foot tapered sumps were built around the hospital's internal drains to provide additional drainage.

Garland's StressBase® 120 modified base sheet was installed over the recovery board using Green-Lock® cold-applied, zero VOC membrane adhesive. The top ply of the system was Garland's Millennium® FR Mineral fire resistant, SBS, coal tar modified membrane – the industry's only SBS modified coal tar pitch cap sheet. Botelho coordinated the project with a Connecticut-based roofing contractor to ensure it was completed within the scheduled two-week time frame. "The willingness of Brian, his team, and the contractor to work around the project schedule I developed really helped in the successful completion of this project," Botelho reports.

Croghan was equally impressed with the success of the project, crediting Botelho for his diligent oversight and daily progress reports. "Once the contractor got set up on the roof, the disruption below was virtually nonexistent, which was really nice. That, coupled with the fact that there was no odor, helped make the entire project a very positive experience," Croghan explains.



Project: Sharon Hospital

Location: Sharon, Connecticut

Garland Rep: Steve Botelho

Materials Used: Insul-Lock® HR
Green-Lock® Membrane Adhesive
StressBase® 120
Millennium® FR Mineral

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