



Silver Creek Resort

Tucked away Snow Resort gets Much Needed Weather Protection

Far away from the hustle and bustle of a big city, Silver Creek Resort in Snowshoe, West Virginia, has gotten a new lease on life. The nine-story high rise building, with 239 condominiums, has recently undergone a complete renovation, and this time they are "doing it right," according to Sam Collins, who is the general manager and acting project manager, as well as being a resident for six years at Silver Creek.

"Our original cladding was a panelized Exterior Insulation and Finish System (EIFS) and we've had water leaks since the beginning in 1985, but that's because it wasn't installed or maintained correctly," said Collins.

Sto Products: - StoTherm NEX^T[®]
- StoGuard[®]

Applicator: Aird Inc.
Engineer: Engineering and Technical Consultants (ETC)
Contact information: www.stocorp.com





“This time we worked with an architect and looked at metal panels, fiber cement and other claddings, and selected a five inch drainable StoTherm Lotusan NExT® from Sto Corp. because it was the best fit for our needs and the best R value.” A five inch drainable EIFS provides an approximate R-19 of continuous insulation, also referred to as C.I.

The StoTherm Lotusan NExT® system includes StoGuard®, a fluid-applied waterproofing air barrier, StoLit® Lotusan®, a finish with a pronounced self-cleaning effect, and five inches of continuous insulation. These three proven components create a high-performing, eye-catching wall cladding system that saves energy and stays attractive for years. This Sto reStore project consisted of 125,000 square feet of Sto’s premier wall cladding, StoTherm Lotusan NExT®.



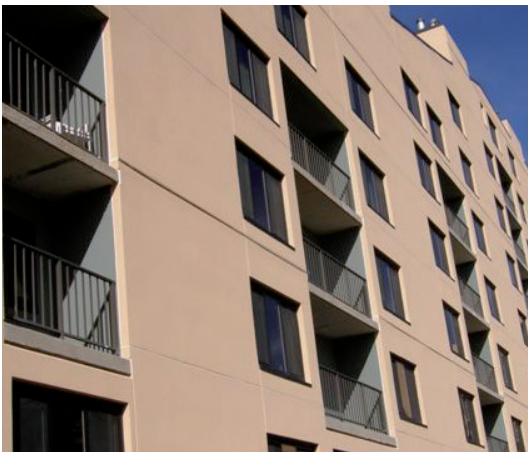
Snowshoe’s weather and climate make for the best snow in the Southeast. It also results in some of the most extreme wind, snow and rain in the Southeast and prior to the renovation, every time a severe storm came through Silver Creek management had to deal with damaged carpets, replace drywall, fix popcorn ceilings, and continue to “band aid” the problem. “Each time we had a storm with any wind-driven rain, we had anywhere from moderate to severe damages that our maintenance department had to work numerous hours to repair, costing us anywhere from \$5,000 to \$20,000 in repairs each year,” said Collins.

According to Collins, at the time the original EIFS was installed there was no option for substrate protection, air barriers or drainable systems, but that has changed greatly over the years. Gabriel Castillo, estimator and business development manager of Pillar Construction, says the key to any cladding project is to know what you are doing. “The technology has vastly improved in 20 years, and with the latest and greatest in air barriers and finishes, this was the perfect solution for Silver Creek.”



Before starting the project, sections of the building had to be opened up to identify the existing condition behind the wall. All of the issues had to be identified - the way the EIFS panels were hung on the building, the window leakage issues, and the imperfect seals - so that they could create a solid, water-tight building in the new cladding.

The team, which included Pillar Construction Inc. as the general contractor, Keast and Hood Co. as prime consultant and structural engineer, Williamson & Associates as building envelope consultants, and Peter Fillat Architects, along with manufacturer, Sto Corp., all worked together from the beginning to create a durable, watertight, and energy efficient building.



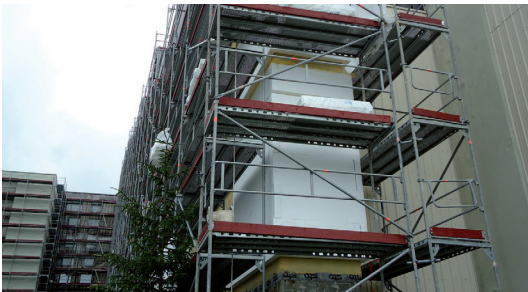
“We had to remove all of the original exterior skin including the EIFS, exterior sheathing and wet wall cavity insulation before we could begin,” said Castillo. “The trend now is to insulate outboard of the exterior sheathing taking the insulation out of the cavity, and we did just that.”

Adding a continuous air and moisture barrier was crucial, and gave the building a much truer R value. The air barrier connected to the windows to give it a tight seal. All 740 windows needed to be replaced. The new windows, which were Wojan M950 Series thermal break horizontal sliding and fixed window assemblies were also a large factor in the energy savings.



The project was done in two phases over more than two years. The building was occupied during the entire transition, with full-time residents and vacationers. This is a large property and getting all the ownership together to begin the renovation was the first challenge, according to Castillo. The next challenge was the climate. Silver Creek is located on the Ski Slopes and sits at 4,200 feet above sea level and the annual average snow fall is 180 inches. The final challenge was the location. A beautiful and remote resort location, even the closest Home Depot, according to Castillo, was three hours away. There is also limited use of cell phones, and the crew, which was up to 60 people at any one time, committed two to three months at a time, and stayed on the property.

According to the architect, Fillat, there were several water tests and inspections along the way, including after the windows were installed. Scott Johnson, an inspector with Williamson & Associates, came out during phase one with window water testing and came back during phase two to test the windows and claddings related to the openings.



"The building tested out fine," said Johnson. "There was a major storm during the final phase of construction, with 85 mph winds and hard rain, and there were no leaks. We attribute this to the EIFS and windows, and of course, the installation." Johnson and his team performed the ASTM E1105, a uniformed static pressure test to evaluate water infiltration performance, capabilities of windows and related construction on the building. Testing was performed at the most stringent requirements. They tested each assembly for 15 minutes.

The end result is a beautiful, dry building, changed from white to earth tones. The new main cream color, with a separate forest green color inset, gives the building a distinct profile and more depth, according to Fillat. This is the first time Fillat had ever worked with a drainable EIFS cladding, and he feels it's a great solution to a long-standing problem.



"Not only does it look good, people are noticing drastic changes in their utility bills – with a savings now of 20 to 50 percent," said Collins. "It's quieter, too. Being a ski resort the noise reduction from the outside has been a big improvement since in the winter time you have ski guns and grooming machines running all of the time. And another benefit is that from inside my residence I can no longer hear the wind blowing or have snow in my living room!"

