



INNOVATIONS FOR LIVING®

Custom Fit for a New England Retrofit: OptiLiner™ Banded Liner System





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Decaying insulation board in a 47,000 square foot metal building in Franklin, Conn., was creating building performance issues and impacting the tenant's business operations. In October 2011, building owners brought in expert installers to examine the facility and provide recommendations for a retrofit solution that would address tenant concerns. The three primary considerations for the project centered on thermal, acoustical and vapor retardant product performance.

Based on previous experience working with metal building structures facing similar challenges, Bill Beals, District Manager, Therm-All, Inc. was selected to lead the retrofit project application.

After reviewing the interior condition of the building, Beals noted that the old insulation board had resulted in a dark, damp and cold environment that was uncomfortable for the tenant's employees and customers. Rather than replace the old insulation with another board product that would also deteriorate over time, Beals proposed the OptiLiner™ Banded Liner System solution fabricated by Therm-All for its high-performance product benefits.



Before

The building owners agreed with Beals' assessment and approved the recommendation to use the OptiLiner™ System noting the product's high R-Value roof and wall insulation specifically designed to achieve maximum thermal performance in pre-engineered metal buildings.

Low Maintenance, High Performance

Given the challenges the building had previously faced with decaying board insulation, a properly installed OptiLiner™ system effectively eliminated those concerns for the building owner and tenant. The custom fit fabric sections with thermally welded seams and vapor properties provide excellent long-term vapor sealing for the system and minimize concerns of concealed condensation.

Installing the OptiLiner™ System also enables each cavity void to be filled with insulation to optimize thermal performance and ultimately help to minimize heating and cooling costs associated with conditioning a metal building. Once installed this solution also improved the acoustical environment both inside and outside of the metal building.



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For this specific application, a combination of residential and commercial OptiLiner™ System products were used to insulate the ceiling and walls. The team used residential Owens Corning™ L-77 Loosefill insulation blown to 9" thick for the ceiling and R-25 Owens Corning MBI Plus fiberglass for the walls.

In addition to the fabric's high-performing vapor retardance and thermal and acoustical benefits, the OptiLiner™ System also created an overall transformation of the interior space replacing the previously dark environment into an attractive, bright appearance. The bright white fabric color has a light reflectance rating of greater than 80 percent, which may allow for reduced lighting loads in the design space and provides exceptional durability.

Another practical benefit of the fabric is the ease of cleaning. The fact that the facing can be cleaned using a soft cloth with soap and water or non-abrasive household cleaner makes it easy to maintain the bright, uniform appearance of both the ceiling and walls.

The OptiLiner™ System also represented a sustainable product choice reflecting third party certification to contain a minimum of 65 percent recycled glass content (41 percent post-consumer and 24 percent pre-consumer). In addition, this product is also GREENGUARD Indoor Air Quality Certified® and GREENGUARD Children and Schools CertifiedSM to ensure the product's chemical and particle emissions meet indoor air quality pollutant guidelines and standards.

Easy and Fast Retrofit Installation

Because the building space served as both office and distribution for tenant F.W. WEBB COMPANY, New England's largest Plumbing & Heating distributor, it was important to identify a solution that would not impact daily operations. To ensure minimal disruption, the retrofit installation itself involved six team members working throughout a two month period during November and December 2011 to complete the project in each of the four sections of the building space.

To expedite the installation process Beals recommended hiring contractor, Steve Hayes, the owner of Itchy and Scratchy Insulators, based on his prior experience installing the OptiLiner™ System to existing and new commercial steel buildings in the New England area.



During



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In the absence of available drawings, Hayes and Beals hand measured each of the roof and wall sections of the building to submit the custom specifications for production. From there, fabric sections were custom fit for each bay in order to ensure a swift retrofit installation.

Due to the ease of working with the OptiLiner™ System in this retrofit application, the install team was able to maneuver around obstacles to enable the tenant's business to remain operational with customers entering and leaving the premise throughout the product installation



After

With the improvements made to the building using the OptiLiner™ System, employees and customers are enjoying the finished performance, aesthetics, and overall transformation. With a more comfortable working environment and lower energy bills, the OptiLiner™ System solution has exceeded expectations of both building owner and tenant.

To learn more about Owens Corning™ OptiLiner™ Banded Liner System please visit: www.owenscorningcommercial.com.



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