No Frills Supermarket

Omaha, Nebraska

SYNTHEON™

ACCEL-E®

STEEL THERMAL EFFICIENT PANEL

"I definitely see advantages to having a full wall surface, being able to cut in openings, and do everything that the product has done. Would I use it again? Definitely I would."

Alex E. Toye
ATA Architects,
North Kansas City, Mo.

PROJECT FACTS

SIZE: 25,000 square feet

PURPOSE: Retail

Maximum Wall Height: 26-30 feet

PANEL DEPTH: 8 inches

WALL TYPE: Non-load bearing exterior bypass wall

OWNER: No Frills Supermarket

ARCHITECT: ATA Architects LLC

CONTRACTOR: Darland Construction

PROJECT PROFILE

For the owners of No Frills Supermarkets, a new store location in Elkhorn, Nebraska, presented the opportunity to launch a new flagship design. But the sloping site also posed challenges, requiring a mix of exterior wall treatments to accommodate the change in grade.

"Key considerations were a step up in grade on one corner, and the need to maintain hard durable surfaces at lower levels where the back room of the grocery story is located," explained Alex E. Toye of ATA Architects LLC of North Kansas City, Missouri.

A key part of the solution was the SYNTHEON® ACCEL-E® Steel Thermal Efficient Panel wall system.

SYNTHEON SOLUTION

ATA Architects employed a combination of exterior wall systems on the 61,000-square-foot structure. These included a 12-inch CMU wall structure on one face of the building, with steel beam and column above concrete block foundation walls on other faces.

The ACCEL-E panels allowed for design flexibility, while also promising construction efficiency – always a key consideration.

"The product was introduced in the local market about a year and a half ago, and once it was brought to my attention, I saw an opportunity in terms of what it could do because of the time savings on labor-intensive work," Toye said.

Replacing conventional framing and insulation with pre-engineered ACCEL-E panels streamlines the construction process, and can reduce labor and onsite disposal costs. Window and door openings are pre-cut, and pre-cut channels also simplify the installation of electrical, plumbing and mechanical systems.

Despite early snowstorms that delayed construction, the 25,000 square feet of ACCEL-E panels were installed successfully, Toye said.

SYNTHEON™

We Value Engineered Sustainability™

www.SYNTHEONInc.com/ACCEL-E

SYNTHEON™

ACCEL-E®

STEEL THERMAL EFFICIENT PANEL

Design Flexibility and Construction Efficiency

"I saw an opportunity in terms of what it could do because of the time savings on labor-intensive work."

"Overall, the product has done what it's supposed to do," he said. "I definitely see advantages to having a full wall surface, being able to cut in openings, and do everything that the product has done. Would I use it again? Definitely I would."

ENERGY SAVINGS...AN ADDED BENEFIT

Toye added that, although energy concerns were not the prime reason for the choice of ACCEL-E panels, the potential energy savings offered by ACCEL-E have already benefited the building owner.

ACCEL-E fuses steel framing components and expanded polystyrene (EPS) insulating panels together into a single continuous system, greatly reducing thermal bridging, and eliminating air gaps, sagging and irregularities that can greatly diminish the performance of conventional framing and insulation.

"They did an energy audit calculation and earned some energy tax credits based on the insulated wall panels, along with the mechanical and roof systems designs," Toye said. "In addition, there are the long-term savings they'll be realizing. Since it's an owner-occupied building, that will be of direct benefit to them."

PRODUCT PROFILE

The SYNTHEON ACCEL-E Steel Thermal Efficient Panel is a lightweight, easy-to-install, high performance wall system that shortens construction time, optimizes crew use, greatly improves energy efficiency – and does it all in just one step. The secret behind the exceptional construction efficiency of ACCEL-E is an exclusive manufacturing process that combines the strength and performance of cold-formed steel framing with the superior insulation properties of expanded polystyrene (EPS). This unique fusion process provides each panel with the highest levels of engineered performance, yet delivers thermal efficiency so exceptional it exceeds new ASHRAE 2007 90.1 and IECC 2009 requirements for the building envelope. Plus, the materials used in the panels resist mold and mildew. No other wall system combines framing, cavity insulation and continuous rigid foam insulation in such an easy, one-step installation process.

The ACCEL-E panels are produced in thicknesses of 5-1/2, 6 and 8 inches, and can be manufactured in virtually any height, limited only by the mode of transport.

ACCEL-E is a contributor to LEED points.

SYNTHEON Inc.
1555 Coraopolis Heights Road
Moon Township, PA 15108 USA
888-922-2353

SYNTHEON™

We Value Engineered Sustainability™

www.SYNTHEONInc.com/ACCEL-E