



Sto Case Study

StoGuard™ Featured on Discovery Network's "Renovation Nation"



Historic House in Decatur, GA. Updated with Sustainable, Earth-Friendly Products

Renewal Construction in Decatur, Ga., with the recommendation of Southface Energy Institute, completed a home renovation project in Decatur in June 2008 that aired in the summer of 2008 on Discovery Network's Channel, Planet Green's, new show, "Renovation Nation." The construction company was charged with finding sustainable, environmentally friendly products to renovate this house which added a second floor and doubled the square footage, while retaining the foundation, first-floor flooring system, existing bathroom, existing deck, and front porch.

"We have worked with Ernesto Medina of Stucco & Masonry Renovators in Atlanta for years, and knew he had just the right product for the building envelope," said Anna Carbone, pre-construction manager for Renewal Construction. "We chose an awesome product from Sto Corp., called StoGuard™, as our spray-on house wrap."

According to Carbone, they have used StoGuard on renovation projects for several months and have used various Sto Corp. products for years. The owners, members of Southface, were pleased to have StoGuard as a part of this renovation.

"The EarthCraft House standard requires air leakage of less than 0.5 exchanges per hour, measured through a blower door test. Our old house, with judicious application of caulk and weather-stripping, measured at 0.46 exchanges per hour. While this is tighter than

the standard, reflect that this means that over the course of two hours, all of the air in the house has exchanged places with outdoor air," said K.C. Boyce, owner of the Decatur house.

According to Boyce, some materials make a difference in getting a tighter building envelope, but mostly it's attention to detail.

"StoGuard is one of the worthwhile materials," said Boyce. "It's a spray/roll-on housewrap, in contrast to the more typical Tyvek[®] or felt paper housewrap. Think of it as Gore-Tex[®] for houses. Its advantages over typical housewraps are its ability to create a durable and structural air and water seal on the exterior of the house."

Medina had a three man crew on the StoGuard application to cover 3800 square feet of walls for the now 2140 square foot home. "It was a pretty complicated job as the sheathing was SIPs (structural insulated panels) with two sheets of OSB (oriented strand board) with insulation in between," said Medina.

According to Medina, Sto EmeraldCoat[®] (waterproof coating) was applied first at all joints and rough openings. StoGuard Tape, a self-adhering waterproof air barrier material, was then installed at all joints and around rough openings. StoGuard RediCorner, a pre-formed fabric piece, was applied in the corners of all windows and doors for extra protection and quicker installation. StoEmeraldCoat was then sprayed on using an airless sprayer over the entire house. Ladders were used when the barrier was applied to the second floor of the house.

The certified EarthCraft home incorporated other environmentally sound features into the Prairie-style home including: Energy Star-rated windows, dual flush toilets, recycled glass countertops, low-VOC (volatile organic compound) paints, geothermal heating and cooling, a tankless water heater, cisterns for rain water harvesting, and on-site materials recycling. All materials were carefully selected for recycled content and minimal travel distance from the supplier to the job site. Architectural plans for the renovation were created by local architect Eric Rawlings, AIA, who has dedicated his career on designing and promoting sustainable living. He puts a great deal of focus on features that a lot of designers overlook, such as solar heat gain and water harvesting.

"We are thrilled to be a part of this sustainable, energy efficient renovation," said Lisa Petsko, product manager of Sto Corp. "We are partners with EarthCraft House and have also worked with Renewal Construction, so we saw this as a perfect opportunity to show off our product on national television."

For more information on StoGuard, please visit www.stocorp.com. For information on the project, visit www.renewalconstruction.com/discovery.php and the homeowner's blog at www.601third.com.

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About StoGuard™

StoGuard™ is a spray-on building wrap that is waterproof and an air barrier. StoGuard provides superior protection against air leakage and moisture intrusion in a variety of applications. StoGuard can be used underneath brick, wood, vinyl, cement siding, cement stucco and other exterior insulation and finish systems.

The StoGuard assembly consists of the following:

- StoGuard joint treatment – various options available.
- Sto Gold Coat or Sto EmeraldCoat both waterproof coatings applied by spray, roller, or brush to wall sheathing, prepared concrete, or concrete masonry wall construction. Sto Gold Coat[®] is specially formulated for use under EIFS and other claddings while Sto EmeraldCoat is specially formulated for use under stucco and other claddings.

Together these components create a seamless, structural air and waterproof barrier that greatly improves indoor occupant comfort and reduces energy costs in comparison to house wraps in wall assemblies.