Hotel Gets The Look Of Brick And Exceeds Energy Code Requirements







Developer **Raj Patel** had long wanted to put up a hotel near Hartsfield-Jackson Atlanta International Airport for the obvious reason: "It is the busiest airport in the world." In 2014, Patel's company, **Rossmore Management Group**, achieved that goal, opening the doors in September to the 122-room **Homewood Suites by Hilton Atlanta Airport North** in the city of East Point north of the big airport.

But Patel would hit a number of hurdles along the development path before the 92,000 square foot hotel would become a reality.

Prior to the 2007 recession, **Ponder & Ponder, Architects'** preliminary design featured a brick-faced first floor with a Dryvit Outsulation Plus MD system cladding on the top five floors. When the economy tanked in 2007, the project was shelved. Post-recession with the development back on track, building officials at the city of East Point told the developer they wanted the entire six-story building envelope (not just the first floor) to be clad in a product such as brick.

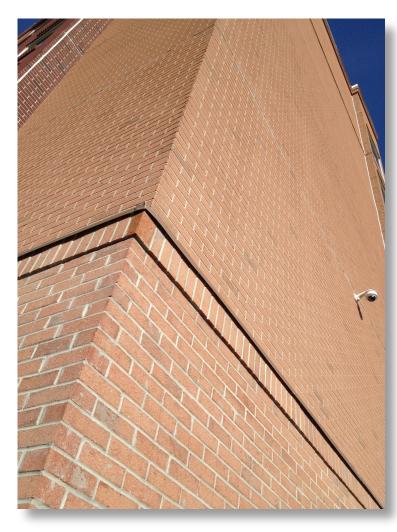
Project Summary:

Size: 92,000 sq. ft.

System: Outsulation® X

(35,000 sq. ft.)

Finish: Custom Brick™



But a full-height brick façade would come at additional expense. And, the then newly adopted 2009 edition of the International Energy Conservation Code (IECC), required continuous insulation (CI) with an R-7.5 energy value. "My architect (Ponder & Ponder) had found a product that would allow us to do brick with a special insulation behind and a brick tie that doesn't conduct heat or cold through the insulation but the cost was astronomical," says Patel.

Rob Ponder, principal of Ponder & Ponder, turned to Dryvit for a solution. **Charlie Bailey**, Dryvit's technical sales associate on the job, had an answer: Custom Brick finish over the Outsulation X system for the top five floors of the six-story hotel. The system provides the look of brick while offering exterior continuous insulation with an R-10 value – surpassing the IECC 2009 requirements.

Furthermore, it offered a significant savings - 20 percent less for Dryvit's Custom Brick finish and

Outsulation X than the price for brick veneer with continuous insulation on the 2nd to 6th floors. That translates to a savings of roughly \$175,000, says Bailey.

"In the EIFS world, Custom Brick is a value engineering alternative to brick veneer with continuous insulation. It is a huge savings (upfront) for the owner -- not to mention the life cycle savings on energy costs," he says, noting that the Dryvit system covers about 35,000 square feet of the Homewood Suites lodging.

Ponder adds that the Outsulation X with DOW's Xnergy[™] insulation board is "a very efficient one" and it obtains a high energy rating using rigid insulation board (extruded polystyrene foam board also known as Blue Board) that can be easily and cleanly rasped.

The DOW product is made using a foaming agent

Interesting project quotes:

- "In the EIFS world, Custom Brick is a value engineering alternative to brick veneer with continuous insulation. It is a huge savings (upfront) for the owner—not to mention the life cycle savings on energy costs." Charlie Bailey, Dryvit
- "We didn't have to worry about the transition detail between the brick and the EIFS because we used one product (Backstop® NT) for continuity behind both claddings." Charlie Bailey, Dryvit
- "This masonry material (brick) that everyone likes and thinks of as an incredibly durable material actually expands and shrinks through temperature changes." Rob Ponder, Ponder & Ponder, Architects
- "A good Custom Brick installer is an artist." Rob Ponder, Ponder & Ponder, Architects
- "Rasping the foam was actually easier than we expected due to the fact it was the Xnergy board rather than the plain DOW board." Rodney Childers, RJCHILDERS Contracting, Inc.

Project Name:

Homewood Suites by Hilton Atlanta Airport North Atlanta, GA

Owner:

Rossmore Management Group

Architect:

Ponder & Ponder, Architects Norcross, GA <u>www.ponder2.com</u> General Contractor:
Pinkerton & Laws

Marietta, GA www.pinkerton-laws.com

Dryvit Installer:

RJCHILDERS Contracting, Inc. Cartersville, GA www.rjchilders.com

Patel says while Custom Brick wasn't on the city of East Point's radar, educating city officials on a product such as Custom Brick can be the difference between acceptance and rejection.

One of the challenges was coming up with a Custom Brick finish to look like the brick facing covering the first floor of the hotel. Patel says the general contractor **Pinkerton & Laws** found a contractor **(RJCHILDERS Contracting, Inc.)** qualified to do the installation.

The first step was to devise a color formulation that was a perfect match for the most common color in the traditional bricks, says

Rodney Childers, president,

RJCHILDERS. "Then we made stains to blend the other colors and applied the stains to the Custom Brick wall to get the effect of the traditional brick. We added stain to some bricks but not all of them just like the original brick façade."

By only hand coloring some of the Custom Brick, the installer was able to create a mottling effect that the original brick has, explains Ponders. "A good Custom Brick installer is an artist."

Ponders adds one of the keys to getting Custom Brick to look like traditional

brick includes using a dark colored caulking which is less visible than lighter caulking.

Childers says installing the Xnergy board (XPS) required an adhesive to attach it to the substrate. A few mechanical fasteners were used to keep the foam board from moving until the adhesive dried. "Rasping the foam was actually easier than we expected due to the fact it was the Xnergy board rather than the plain DOW blue board. Xnergy is pre-sanded, which made rasping easier."

Backstop NT, Dryvit's fluid applied air and water resistive barrier, was installed behind the entire building system, including the brick veneer on the first floor. Backstop NT meets ASTM D-1970 nail sealability test.

"All in all, it was fairly easy to install; it just took a little more time and we needed good plasterers to apply it correctly," says Childers.

Ponders says while Custom Brick is a premium price over traditional EIFS finishes, "you get a lot of bang for your buck." He describes the finish as "looking like real brick. One of the project's neighbors who watched the building go up said that he was surprised to see the mason installing brick from the top of the building down.



He actually thought it (Custom Brick) was real brick put up in an unusual way."

While the owner could have found a contractor to install Dryvit's system for a lower price, Patel has no regrets about retaining RJCHILDERS. "The building's exterior is not the place to cut costs. You can't take a risk on the building envelope because if your contractor gets it wrong, you can run into extra weeks trying to get it right."

Jeff Jernigan, president of Pinkerton & Laws, says while Custom Brick takes longer to install than conventional EIFS finishes, the end result at the Homewood Suites "looks fabulous."

Ponder says his architectural firm tries to avoid specifying face brick beyond 23-foot heights because every 23-feet or so a metal angle support is required for a soft joint to allow for upwards of a ½-inch of expansion of the bricks. "This masonry material that everyone likes and thinks of as an incredibly durable material actually expands and shrinks through temperature changes."

Another disadvantage to full-height brick walls is the cost of transporting bricks to upper floors. "It's a

huge advantage when you get to the sixth floor if you don't have to lift all those bricks," Ponder says, noting that is where a lightweight system like Dryvit's system has an advantage.

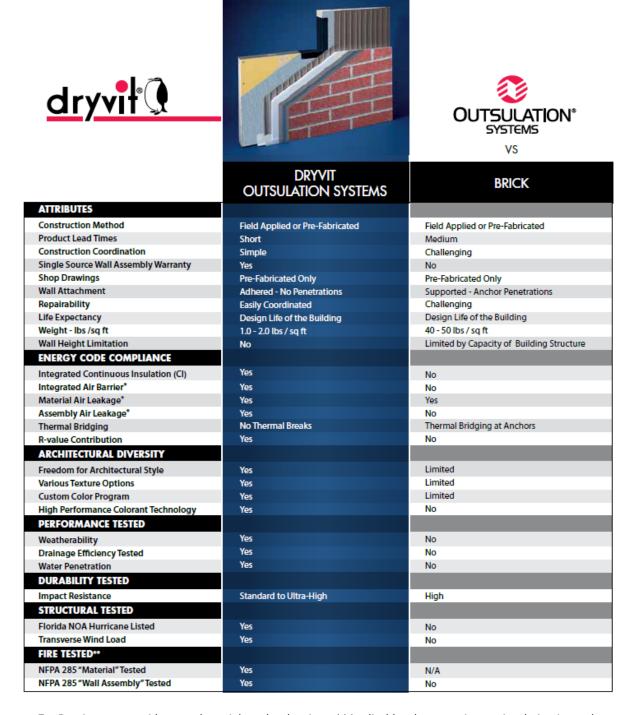
Bailey says Dryvit teamed up with DOW to manufacture Outsulation X with DOW Xnergy several years ago to deal with increasingly stringent energy codes and higher impact resistant demands. DOW's Extruded Polystyrene (XPS) board has an R-5 value per inch and a 76 inch pound rating, comparing favorably to expanded polystyrene (EPS) which has an R3.8 value per inch and a 56 inch pound rating. XPS is a continuous board of closed cells with no spaces.

Drvyit's air/water resistive barrier, Backstop NT, was applied over the entire building envelope. "We didn't have to worry about the transition detail between the brick and the EIFS because we used one product (Backstop NT) for continuity behind both the traditional brick and the Outsulation X System," says Bailey. Where the Custom Brick terminated at the veneer brick, metal flashing was incorporated for moisture drainage. The brick veneer has an air space behind it for drainage.



Ponder says he first specified Custom Brick about five years ago for a project in South Carolina. A successful job, the Custom Brick there is difficult to tell apart from the face brick.

Compare Dryvit Outsulation Systems to Brick



^{*}For Dryvit systems with secondary air/weather barriers **Applicable where continuous insulation is used

For complete system information and testing, call Dryvit's Technical Services at 1-800-556-7752 ext. 9, or visit us on the web at www.dryvit.com.