

CertainTeed  
**GlasRoc**<sup>®</sup> BRAND  
 Exterior Sheathing

CASE STUDY: BONNET CREEK



*Because of GlasRoc<sup>®</sup> Embedded Glass Reinforced Gypsum™ Exterior Sheathing's unique ability to bend to curved design features, it wrapped around the columns in front of the Hilton Convention Center and Waldorf Astoria<sup>®</sup> without cracking.*

**Project:** Hotel & Convention Center Complex  
**Location:** Orlando, FL  
**Application:** Conventional stucco with metal lath exterior finish over GlasRoc<sup>®</sup> Sheathing  
**Square Footage:** 1,432,623 sq.ft.  
**Architect:** Smallwood, Reynolds, Stewart & Associates, Atlanta, GA  
**General Contractor:** Hunt Construction Group, Orlando, FL  
**Wall Subcontractors:** Burkett Stucco, Tampa, FL, for the Hilton Hotel and West Star Interiors, Tampa, FL, for the Waldorf Astoria<sup>®</sup> and Hilton Convention Center

Bonnet Creek, a 482-acre parcel of land in Orange County, Florida, could not be any closer to Walt Disney World<sup>®</sup> without becoming another one of its world-famous theme parks. Access to Bonnet Creek is through Buena Vista Drive, the main artery connecting visitors to Disney from Interstate 4, a freeway that transverses the state, tying Orlando to Daytona Beach, and Tampa. Orlando International Airport, the Orange County Convention Center, SeaWorld<sup>®</sup>, and Universal Studios<sup>®</sup> Orlando are also easily accessible from Bonnet Creek.

With that kind of proximity, it is no wonder that Hilton Hotels Corporation partnered with Bonnet Creek Venture, Ltd., to develop the three-building Bonnet Creek complex. The development includes the Hilton Bonnet Creek (the largest mainland U.S. Hilton hotel), the Hilton Convention Center, and the Waldorf Astoria<sup>®</sup> at Bonnet Creek (the first newly-built Waldorf Astoria<sup>®</sup> since the original New York City Art Deco landmark opened in 1931).

From Tom Keltner's vantage as CEO Americas & Global Brands, Hilton Hotels Corporation, Bonnet Creek is "an unbeatable and important location for business or pleasure, especially with the abundance of nearby attractions, terrific airlift, entertainment options and warm weather."

The 634,388 square-foot, 1,000-room Hilton and the 532,337 square-foot, 498-room ultra-luxury Waldorf Astoria<sup>®</sup> with Art Deco accents will be adjacent to a 265,898 square foot, two-story state-of-the-art conference center. There will be a 1,500-car precast parking garage; an 18-hole Rees Jones Championship designed golf course; 5,000 square feet of specialty retail; a 24,000 square-foot spa and fitness center with 23 treatment rooms; expansive, themed swimming pools and a water slide; and five casual-to-upscale dining options. Nearly all the 56-acre project site is occupied by one of the buildings or amenities.

KUD International, LLC, hired by Bonnet Creek Venture to manage the design and development of the \$500 Million project, retained Smallwood, Reynolds, Stewart & Stewart as architect and Hunt Construction Group as general contractor. Due to the size of the project, Hunt subcontracted the installation of 'exterior skin' (framing, sheathing, water barrier, lath and stucco) to Burkett Stucco for the 17-story Hilton and West Star Interiors for the 15-story Waldorf Astoria<sup>®</sup> and two-story Hilton Convention Center.

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CertainTeed's GlasRoc® Exterior Sheathing was not initially designated on the master spec sheet, but because West Star Interiors Vice President Robert Shortt preferred GlasRoc® over other exterior sheathings, he encouraged CertainTeed Gypsum's Territory Manager Doug Looney to send a Product Submittal to the architect. Looney turned in a submittal for each of the three structures requesting that GlasRoc® be approved.

GlasRoc® Exterior Sheathing's patented technology offers combined reinforcement of glass mats, fully embedded into a water-resistant gypsum core. The gypsum core is positioned beneath a paperless, polymer-modified gypsum surface, with a protective acrylic coating on the exterior face. The 5/8-inch fire-resistance rated panels conformed to Bonnet Creek's design specifications and met all applicable code requirements.

Looney provided the architect with a submittal packet that included product case studies, ASTM approvals, and technical data on cross-bracing of the materials, screw patterns and wind load/shear calculations (the Orange County Building Inspector required a professional engineering judgment to certify the wind load performance on steel framing). In addition to data ensuring proper testing had been done, a wall mock-up was built to mirror the wall systems for the three structures.

The rapid response time of CertainTeed Gypsum's Technical Department directly affected Looney's ability to relay product and product-systems data quickly and efficiently to all concerned parties. In construction, delays can be costly, especially with a job as sizeable as Bonnet Creek, so "keeping a job moving forward is an important factor," Looney points out. "Hunt Construction Group, Burkett Stucco, West Star Interiors and the Orange Country Building Inspector appreciated it and know firsthand that CertainTeed's technical support is as superior as its products."

Once the architect and county inspector approved GlasRoc®, both subcontractors were on board, which satisfied Hunt's Project Manager Lyle Miller. "It is better to maintain consistency throughout the project," he explained.

Post installation, Burkett Stucco Executive Vice President Don Genovese described one of GlasRoc® exterior sheathing's big advantages: "the ability to apply silicone over the joints



and achieve a rapid drying time. GlasRoc® seemed to hold up better in wet conditions and resulted in far less waste."

Silicone not only dries faster on GlasRoc®, it adheres better, too. With fully embedded fiberglass mats, GlasRoc® virtually eliminates any chance of separation or delamination, and though silicone is not always necessary (it depends on the exterior finish), it is typical for an architect to specify an application for a watertight wall system, as well as a wind and rain barrier during construction.

Genovese also noticed how well GlasRoc® performed "on the columns and radius areas." Because of GlasRoc® High Performance Exterior Sheathing's unique ability to curve, it wrapped around the columns in front of the Hilton Convention Center and Waldorf Astoria® without cracking.

Servi Sosa, Bonnet Creek project manager for West Star Interiors, said his installers found "with glass mats embedded, the board is sturdier, and much easier to handle, because you don't have to worry too much with it breaking. The easier it is to handle, the less time it takes to stock and install." Sosa also found the added strength in GlasRoc® allowed "more bending in a tighter radius than the comparable products."

GlasRoc® Exterior Sheathing provides a uniform field and edge hardness, which simplifies trimming and fastening. It is structurally strong, yet snaps free after simple scoring of one face. GlasRoc® requires no special installation tools or fasteners and is installed in the same manner as conventional gypsum board.

The new Waldorf Astoria® and Hilton Hotel and Convention Center at Bonnet Creek will certainly be a great destination, providing the world class hospitality and entertainment for which Orlando is known.

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