

To code, and beyond?

A renovation project on Siesta Key illustrates how new construction requirements are designed to make houses stronger in a hurricane.

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If a hurricane were to sweep through the area, builder John King is confident that the home at 5232 Siesta Cove Drive will withstand it.

"This will be standing. It's a far safer house than before the renovation," said King, owner of Rampart Homes and state chairman of the Florida Remodelers Council. "The windows can take the impact of a 2-by-4 flying at 50 miles per hour."

King met the challenge of bringing a 1978 house on the Siesta Key bayfront up to current hurricane standards mandated by the Florida Unified Building Code, which went into effect in March 2002. It took a year to put the plan together and go for permits. Construction is taking about 10 months, with completion expected in December.

The owner preferred a renovation because the existing home had a large storage area with a bath on the ground level. With plans by Courville Creative Concepts, King expanded the house by closing in a porch on what is now the main living area and adding a master suite above with 1,458 square feet, bringing the total area to 5,544 square feet, or 4,582 living area.

Michael Courville changed the style of the home from California contemporary to Mediterranean. Adding to the style are precast columns in the family room and in the top level.

King concedes it would have been easier to tear down the 1970s house and build anew. All the plumbing, wiring and higher-efficiency air conditioning are new.

The entire house was re-engineered by Brian Snell Engineering to meet Florida's new building code. That meant retrofitting the structure and reinforcing the existing masonry support walls by adding steel and concrete.

Code called for a massive amount of tie-downs from the foundation to the roof system. Metal tie-down straps were hand drilled every 16 inches; every 12 inches in some areas, based on uplift forces.

Impact-resistant windows and the framing around windows meet the year-old code for windloads, as do the impact-resistant sliders. Roof tiles and exterior doors also meet the stringent Miami-Dade standards.

"Light years beyond"

"It was quite an undertaking. People aren't aware of how different structural requirements are, even since 1978," King said. "Structurally, the house is light years beyond what was here. It's virtually a new house."

A steel I-beam and concrete perimeter beams on three sides support the third level. Subfloors are a strong composite that's impervious to water. The main floor and the master suite floor above will be finished with travertine marble.

The kitchen ceiling was raised to a cathedral ceiling by replacing trusses with one exposed beam. King put in a gas system for the commercial-grade kitchen. The kitchen adjoins the enlarged, vaulted family room overlooking the dock, mangroves and bay.

The great room wall was reinforced as a shear wall for lateral support. Only the fireplace looks about the same as before the renovation, and it needed an expensive custom stack extension.

Because of the third level, a fire sprinkler system is required. The large master suite features bay windows in the treetops. A spa tub and double shower are in the large master bath.

The original master on the main level will be the media room. A guest bedroom, den and powder room also are on that level.

The original house was seven inches out of square. That had to be corrected on two levels before the third level could be added.

A radiant barrier under the barrel tile roof and insulation in both exterior and interior walls will make the house more energy efficient. From anywhere in the house or even from another state, the owner can dial up the security system and view the front door or boat dock. The system will control lighting, pool temperature and other home functions from afar. Home computers will be networked together and the home will have Category 5 wiring and surround sound.

The most elaborate

King grew up in the building business. His father, Rolland, developed South Gate, Gulf Gate, Forest Lakes and other areas. King is active in the Home Builders Association of Sarasota County and is a Certified Graduate Remodeler.

"I've done more expensive jobs, but this is the most elaborate," said King.

He has "before" and "during" photos on his Web site: www.ramparthomesinc.com.

The Web site also has information on the home King built for the family of Paul Salter, who was paralyzed in a youth football accident. King won a national award from the National Association of Home Builders for that project.