



FEMA

Elevation is Not Enough: Utilizing Smart Building Practices

Slidell, LA – Everett and Carol Brugier's home in Pirates Cove in Slidell suffered only minor damage during Hurricane Katrina, thanks to several special hurricane-resistant features built into it. The Slidell area is at high risk for hurricanes, and the Brugiers knew that they would have to elevate their home to avoid flood damage as well as incorporate wind-resistant features into its construction.

Their home is in a V-Zone within a Special Flood Hazard Area, as designated by the National Flood Insurance Program. V-Zones are coastal areas subject to the additional hazard associated with storm-induced velocity wave action. The design of the Brugier home had to be reviewed and the plans approved by a licensed architect before they could obtain a building permit from St. Tammany Parish.

The local building code requires homes in Pirates Cove to be elevated to 13 feet above sea level, which is four feet above the Base Flood Elevation, the average floodwater depth for a 100-year flood event. The Brugiers chose to elevate their home to 16.4 feet, which provided enough height to park their motor home underneath the house. The additional height prevented several feet of water from reaching into their living level during the 2005 hurricane season.

The Brugiers' house incorporated several hurricane-resistant features, such as a bulkhead of vinyl panels to prevent erosion, reinforced concrete block support columns, hurricane clips, durable windows, and breakaway walls. The Brugiers moved into their new home in November 2004.

The incorporation of hurricane-resistant features (beyond the basic elevation of the structure) into the Brugiers' house increased construction costs by an estimated \$12,000, but they consider it a worthwhile investment, especially after the 2005 hurricane season. Although the floodwaters beneath their home rose to 15 feet, within about one and a half feet of the floor joists, the breakaway walls survived intact, no water entered the home, and the roof was not damaged.

"I came out a lot better than my neighbors. There was extensive water damage on either side of me and most of the other houses in my area were badly affected," said Mr. Brugier. He noted that there were 40-foot boats on top of some houses, and other houses were blown two or three miles out into the marsh to the east of the highway.

Mr. Brugier offers the following advice to homeowners who plan to build in areas of high flood risk: "Get it up in the air and build it strong!"



Saint Tammany Parish,
Louisiana



Quick Facts

Sector:

Private

Cost:

Amount Not Available

Primary Activity/Project:

Building Codes

Primary Funding:

Homeowner