



## Home Elevations Work: Rebuild Higher and Stronger

### Full Mitigation Best Practice Story

#### *Terrebonne Parish, Louisiana*

**Houma, LA** – Elevating a structure decreases its vulnerability to damage from floodwaters. This was demonstrated south of Houma in northern Terrebonne Parish, Louisiana, where elevated homes escaped damage from the several feet of water that inundated neighborhoods during Hurricane Rita in September 2005.



A total of 55 residents elevated their homes through an \$18 million cost-share Hazard Mitigation Grant Program (HMGP) project administered by the State of Louisiana in the wake of Hurricane Lili, a storm that flooded thousands of homes in 2002. Terrebonne Parish officials reported in the Houma Courier (October 16, 2005) that none of these mitigated homes were damaged by Rita's floodwaters. They also estimated that hundreds of other residents in flood-prone areas used insurance claim money or their own savings to elevate their homes from six to 15 feet after Lili.

Darlene and Wiltz Luke elevated their home along Grand Caillou Road after suffering damage during several storms. Although the local building code required their home to be elevated five feet, the Lukes chose to raise their home by nearly nine feet so they could use the space underneath for a parking and recreational area. Such uses, as well as limited storage and stairs and stairwells for access to the elevated structure, are permitted in spaces below the Base Flood Elevation (BFE). The BFE is the average floodwater depth for a flood event that has an estimated one percent chance of occurring during any given year; buildings constructed to this standard are expected to sit above the floodwater and avoid damage during all but the most severe inundations. Elevation of the Luke home, a 2,700-square-foot house on a concrete slab, was completed in 2004. The family was able to live in their home during a month of ground preparations, but they had to vacate during the two months it took to physically raise the house.

The cost of raising the Luke home along with the underlying slab was much greater than the cost of raising a structure of the same size without a slab. The Lukes elevated their home with the assistance of HMGP funding; their out-of-pocket expenses were reduced because they were only responsible for 25 percent of the cost of the mitigation project. In addition, they were able to apply for Increased Cost of Compliance (ICC) coverage, which is part of a standard flood insurance policy. When an insured building is declared substantially damaged by flood (meaning that the repair costs would be 50 percent or greater than the pre-damaged market value of the structure), ICC coverage will pay up to \$30,000 to bring the building into compliance with State or community floodplain management laws or ordinances by elevating, floodproofing, demolishing, or relocating the building. The Luke's home remains covered under the National Flood Insurance Program (NFIP), and their premium has been reduced by more than two-thirds – from \$1,000 to \$300 per year – since completion of the home elevation.

"We're really glad we elevated, and even though we had a mess around us, the water didn't get into our home this time," noted Darlene. She added that Rita's floodwaters inundated the homes of several of her neighbors, and that they were now considering elevating.

About four miles south of the Lukes' home, Rita Verdin's home on Shrimpers Row also escaped damage from the six feet of water that Hurricane Rita brought into her neighborhood. She elevated her home as it was being built in 1986. Although required by the local building code to elevate to three and a half feet, Verdin chose to elevate to a height of eight and a half feet above grade so that the space underneath the home could be used for parking. She elevated her home on eight-inch by eight-inch treated wood beams, but recommends the use of steel-reinforced concrete pylons to minimize long-term maintenance and to avoid termite and rot problems that affected her support beams. Verdin's brother's home across the street also escaped water damage from the most recent storm. He elevated his home by about ten feet in 2003 after being flooded by Hurricane Lili.

These examples illustrate that home elevation is a smart mitigation technique in southern Louisiana, an area at high risk for hurricanes.

### Activity/Project Location

Geographical Area: **Single County in a State**

FEMA Region: **Region VI**

State: **Louisiana**

County: **Terrebonne Parish**

City/Community: **Houma**

### Key Activity/Project Information

Sector: **Private**

Hazard Type: **Flooding; Hurricane/Tropical Storm**

Activity/Project Type: **Elevation, Structural**

Structure Type: **Wood Frame; Concrete, Reinforced**

Activity/Project Start Date: **10/2002**

Activity/Project End Date: **10/2004**

Funding Source: **Hazard Mitigation Grant Program (HMGP); Homeowner; Property Owner, Residential**

Funding Recipient: **State Government**

Funding Recipient Name: **State of Louisiana**

Application/Project Number: **9999**

### Activity/Project Economic Analysis

Cost: **Amount Not Available**

### Activity/Project Disaster Information

Mitigation Resulted From Federal  
Disaster? **Unknown**

Value Tested By Disaster? **Yes**

Tested By Federal Disaster #: **No Federal Disaster specified**

Year First Tested: **2005**

Repetitive Loss Property? **Yes**

## Reference URLs

Reference URL 1: <http://www.fema.gov/government/grant/hmgrp/index.shtm>

Reference URL 2: <http://www.floodsmart.gov>

## Main Points

- Elevating a structure decreases its vulnerability to damage from floodwaters.
- Home elevation is a smart mitigation technique in southern Louisiana, an area at high risk for hurricanes.
- A total of 55 residents in Terrebone Parish elevated their homes through an \$18 million cost-share Hazard Mitigation Grant Program (HMGP) project administered by the State of Louisiana following Hurricane Lili (2002).
- These elevated homes escaped damage from the several feet of water that inundated neighborhoods during Hurricane Rita in September 2005.
- The Lukes used HMGP and Increased Cost of Compliance (ICC) funds to elevate their home after suffering damage during several storms.



The Lukes' elevated home was not damaged by flooding during Hurricane Rita.



Rita Verdin's elevated home in Houma, Louisiana, was not damaged by flooding during Hurricane Rita.