



Pass Christian House Stands Strong Against Katrina

Full Mitigation Best Practice Story

Harrison County, Mississippi

Pass Christian, MS - After suffering damage from Hurricane Lili and Tropical Storm Isidore in 2002, Don Blanchard, a retired aerospace engineer, and his wife Rose were determined to rebuild their house to withstand future hurricanes and floods.



The Blanchards' old home was demolished and a new, stronger house rose up higher in its place. Ten months after the couple moved into their "new and improved" house, Hurricane Katrina (2005) hit their community. Don and Rose evacuated before the storm. When they returned to survey the damage, they found that their house was one of the few still standing in their devastated neighborhood.

"When we first came back to see the damage to our house, this area was so hard hit that I was told that our home was completely destroyed," said Mr. Blanchard, who stayed with his sister in Mobile, Alabama, during the storm. "They didn't believe me when I told them it would still be standing, but I was very confident, and in fact, it was."

In 2003, the Mississippi Emergency Management Agency (MEMA) approved the Blanchards' plans for a Modified Elevation Retrofit, where an old house is demolished and a new mitigated house is built in its place. A standard elevation could not be attempted on their old house because the original foundation was not reinforced and the house was not built on a single slab. The new home was built on eighteen round concrete piles that were spaced 6 to 10 feet apart and elevated the house to 13.1 feet above mean sea level. The foundation alone cost \$40,000 to construct.

The house was also built to withstand high winds. It has a metal roof with hurricane straps securing it to the support beams on the sides of the house. Six-inch steel "I" beams support the house along the front and back.

"The Blanchards' home is a model for mitigation along the Gulf Coast," said Robert Latham, Director of MEMA. "Not only was it built well, but they wisely used the grant funds available to them to reduce their construction costs."

The Blanchards used a \$70,000 flood insurance claim to pay for some of the costs of the demolition of the old house and construction of the new house. The couple also received FEMA Hazard Mitigation Grant Program funds totaling \$76,410, which was administered by MEMA. The remaining cost of more than \$241,000 was paid for by a loan from the U.S. Small Business Administration and the Blanchards' personal funds.

Hurricane Katrina's 30-foot storm surge caused four feet of water damage to the first story of the Blanchards' new elevated home. The second floor was left unscathed. "The second story of the house was untouched," noted Blanchard. "The beds were still made. It was unbelievable. If we had put our cherished things like our pictures on the second floor of the house they would have been saved."

Despite the flooding, the Blanchards' house stood up against the 135 mile per hour winds and powerful storm surge of the Category 4 hurricane that destroyed most nearby homes. Trees and power lines were forced down, and 14 of the couple's neighbors lost their lives.

Mr. Blanchard credits his home's survival to the mitigation techniques incorporated into its construction, especially during construction of the foundation. "I think the strong foundation is one of the main reasons why our house is still standing," said Mr. Blanchard. "It was expensive, but it was worth it."

Activity/Project Location

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

FEMA Region: **Region IV**

State: **Mississippi**

County: **Harrison County**

City/Community: **Pass Christian**

Key Activity/Project Information

Sector: **Private**

Hazard Type: **Hurricane/Tropical Storm**

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

Activity/Project Start Date: **10/2003**

Activity/Project End Date: **11/2004**

Funding Source: **Hazard Mitigation Grant Program (HMGP); Homeowner; National Flood Insurance Program (NFIP)**

Funding Recipient: **Property Owner - Residential**

Application/Project Number: **9999**

Activity/Project Economic Analysis

Cost: **\$241,000.00 (Actual)**

Activity/Project Disaster Information

Mitigation Resulted From Federal
Disaster? **Yes**

Federal Disaster #: **1436 , 10/01/2002**

Federal Disaster Year: **2002**

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.msema.org>

Main Points

- After suffering repetitive hurricane damage, a Pass Christian couple were determined to rebuild their house to withstand future hurricanes and floods.
- In 2003, the Mississippi Emergency Management Agency approved the couple's plans for a Modified Elevation Retrofit, where an old house is demolished and a new mitigated house is built in its place.
- The new house is elevated to 13.1 feet above mean sea level.
- The house was also built to withstand high winds. It has a strong foundation and a metal roof with hurricane straps securing it to the support beams on the sides of the house.
- The home is a model for mitigation along the Gulf Coast. It was built well, and the couple wisely used a flood insurance claim and HMGP funds to reduce their construction costs.
- The mitigated house was one of the few still standing in the couple's devastated neighborhood after Hurricane Katrina in 2005.



The Blanchards' mitigated house is still standing after Hurricane Katrina hit on August 29, 2005.



A house next door to the Blanchards' was destroyed.