



View From the Top: An Elevation Story

Full Mitigation Best Practice Story

Harrison County, Mississippi



Biloxi, MS – A Biloxi couple has shown that home elevation not only prevents property loss, but can be pleasing to the eye as well. “We wanted a finished look,” said Judy Steckler of her family’s home. “We wanted our home to look like a home and we worked really hard to make it aesthetically pleasing.”

Judy and her husband Judge Sandy Steckler decided to elevate their house after five feet of water flooded its first floor during Hurricane Georges in 1998. “Georges was the third time that we had water in the house,” Judy Steckler recalled. “The first time we had about 18 inches. The next time water rose about three and a half feet over the counter tops in the kitchen, and then with Georges it came up five and a half feet to the upper kitchen cabinets.”

As they considered rebuilding, the Stecklers were advised by Harrison County officials that they would have to elevate their home in order to qualify for flood insurance. Then they were notified by the Mississippi Emergency Management Agency (MEMA) that they qualified for FEMA’s Hazard Mitigation Grant Program (HMGP). Following a major disaster declaration, the HMGP funds up to 75 percent of the eligible costs of a project that will reduce or eliminate damages from future natural hazard events. The Stecklers received \$50,000 in HMGP funds and paid the balance of the cost to elevate their home themselves.

The Stecklers discovered that the circular construction of their two-story house built in 1972 posed a unique challenge for a contractor to elevate. At first they had difficulty finding a contractor willing to do the work. The couple eventually hired a Louisiana contractor and work on the elevation began in 2002.

During the home elevation, two tropical storms struck the area and the Tchoutacabouffa River flooded the Stecklers’ neighborhood. Although the elevation was not yet complete, the house had already been raised eight feet and remained dry. “It was during this time that I was convinced that we had done the right thing,” said Judy Steckler. “From the time the elevation project started we would have had water in the house twice more and that would have been devastating.”

Instead of the typical staircase in front and back of the house that usually accompanies an elevation project, the Stecklers decided to use personal funds to build a large wooden porch along the entire backside of the house that faces the river. “We were accustomed to having the outside and living areas inside as one component and we utilized it so much that having stairs in the front and rear would not have worked for us,” she explained. “We chose to spend our own money to supplement grant funds on the porch to make the house [meet our needs].”

Builders added stone work under the house to match the stone on the first floor of the dwelling to give it a more finished and uniform look. The Stecklers had the front yard “graded up” and built a raised, semi-circular driveway that includes a covered breezeway. The driveway serves as a dry place to park cars and lawn mowers during a flood event.

As Hurricane Katrina approached in August 2005, the Stecklers were confident that their elevated house would survive. “We didn’t think that we would get water from Katrina. We said that if we got water then all of Biloxi will be covered, and that is basically what happened.”

The Stecklers’ elevated house received three feet of water, but the couple was grateful that they did not get the 11 and a half feet they would have if they had not elevated their property.

“We were confident about staying here during Katrina because this is a pole house,” said Judge Steckler. “The poles go all the way from the roof through the house and are tied into steel beams. Our home has a level of strength that rises from the slab all the way to the metal roof.”

The couple and their two grown children stayed in the house during Katrina. “We were here and all of a sudden we started seeing white caps in the river, and we knew that the surge was coming and that we were going to have water in the house again. So we started moving rugs, furniture and other items upstairs for as long as we could,” Judy recalled.

The Stecklers were able to clean and dry out the first floor of their home within a couple of days by using a sump pump. Flood-resistant mitigation renovations made in 2002 made the post-storm cleanup easier, such as the installation of hard-surfaced flooring, solid wood doors, and walls made out of a water-resistant material that will not mildew.

In addition to saving their home and reducing damages, the couple discovered another reason to love their elevated home. "We see sunsets better up here," Sandy proclaimed. "We aesthetically improved the house, and enjoy more beautiful vistas from the added elevation."

"If we hadn't raised the house we wouldn't have it today. Eleven feet of water would have been more than we could have dealt with," said Judy. "We would have bulldozed the place."

Activity/Project Location

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

FEMA Region: **Region IV**

State: **Mississippi**

County: **Harrison County**

City/Community: **Biloxi**

Key Activity/Project Information

Sector: **Private**

Hazard Type: **Hurricane/Tropical Storm**

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

Structure Type: **Masonry, Reinforced**

Activity/Project Start Date: **06/2000**

Activity/Project End Date: **09/2002**

Funding Source: **Hazard Mitigation Grant Program (HMGP); Homeowner**

Application/Project Number: **9999**

Activity/Project Economic Analysis

Cost: **Amount Not Available**

Non FEMA Cost: **0**

Activity/Project Disaster Information

Mitigation Resulted From Federal Disaster? **Yes**

Federal Disaster #: **1251 , 10/01/1998**

Federal Disaster Year: **1998**

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.msema.org>

Reference URL 2: <http://www.fema.gov/government/grant/hmgrp/index.shtm>

Main Points

- The Stecklers used a \$50,000 HMGP grant and personal funds to elevate their home to mitigate flooding, after experiencing several flood events.
- The house received three feet of water during Hurricane Katrina, but the couple was grateful that they did not get the 11 and a half feet they would have if they had not elevated their property.
- Mr. Steckler noted that his pole house has a level of strength that rises from the slab all the way to the metal roof.



Front view of the Stecklers' elevated house.



Backview of the elevated house.