



Hurricane House Passes the Test

Full Mitigation Best Practice Story

Saint Lucie County, Florida



Fort Pierce, FL - Hurricane Frances struck Florida's east coast September 5, 2004, with winds up to 115 mph. Many homes in the Fort Pierce area sustained moderate to severe damage, but the "Hurricane House" training center was hardly scratched.

The Fort Pierce "Hurricane House" is officially known as the St. Lucie Windstorm Education Center. The 3,000 square foot facility is one of four Regional Windstorm Damage Mitigation Centers established by Florida's Department of Community Affairs and Department of Insurance as part of a \$2.3 million Residential Construction Mitigation Program launched in 1997.

The demonstration and training facility had been built to meet or exceed building codes enacted 2 years ago. As a result, only a segment of fascia was bent by windborne debris. From anywhere in Florida, at least one of the centers is within a two-hour drive. In addition to the Ft. Pierce location, centers are found in Pensacola, St Augustine, and Ft. Lauderdale (under construction).

The Hurricane House contains publications, exhibits, displays and a classroom for training and seminars. Class topics include mitigation, environmental issues, energy conservation, wind resistant construction, new building materials, and high-tech construction techniques.

For illustration purposes, portions of the walls and ceiling have been cut away and shielded by plastic, so components can be examined. When new products are brought in for evaluation, they are sometimes incorporated into the building, replacing older components. So whether a visitor is a professional builder, an inspector or a homeowner wanting to learn about latest innovations, he or she can do an examination of up-to-date high-wind construction materials and techniques.

The structures are also models for energy efficient building materials. For example, a homeowner, building with the exhibited Insulated Concrete Form System (ICF) filled with concrete, creates a structure with high insulation value walls that produce a more energy-efficient structure. Windows are also double pane, gas filled, and wind rated to 130 miles per hour. These and other materials can be used in new construction or for retrofitting existing homes. Compared to homes built using conventional materials and methods, savings of 30 to 50 percent on energy consumption have been reported.

Activity/Project Location

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

FEMA Region: **Region IV**

State: **Florida**

County: **Saint Lucie County**

City/Community: **Fort Pierce**

Key Activity/Project Information

Sector: **Public**
Hazard Type: **Hurricane/Tropical Storm**
Activity/Project Type: **Education/Outreach/Public Awareness**
Activity/Project Start Date: **10/1995**
Activity/Project End Date: **10/1997**
Funding Source: **State sources**
Funding Recipient: **Local Government**

Activity/Project Economic Analysis

Cost: **\$2,300,000.00 (Estimated)**
Non FEMA Cost:

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: **2004**
Repetitive Loss Property? **No**

Reference URLs

Reference URL 1: <http://www.nhc.noaa.gov/>
Reference URL 2: http://www.floridadisaster.org/BRM/brm_pubs.htm

Main Points

- Many homes in the Fort Pierce area sustained moderate to severe damage, but the "Hurricane House" training center was hardly scratched.
- From anywhere in Florida, at least one of the centers is within a two-hour drive. In addition to the Ft. Pierce location, centers are found in Pensacola, St Augustine, and Ft. Lauderdale (under construction).
- The structures are also models for energy-efficient building materials.



"Hurricane House" at Fort Pierce incurred no structural damage during Hurricanes Frances and Jeanne.



Dianne Franzen Shows the Insulating Concrete Forms.