



## University of Mississippi Structural Seismic Evaluation

### Full Mitigation Best Practice Story

#### *Lafayette County, Mississippi*



**Lafayette County, MS** - The University of Mississippi, located within the New Madrid seismic risk zone, has a number of buildings subject to seismic risk. These buildings, at any given time, house a large number of students/faculty, and are all closely located within a high density area. An evaluation of the risk was needed in order to develop a mitigation strategy.

Mississippi Emergency Management Agency, Central United States Earthquake Consortium, University of Mississippi Schools of Engineering and Minerals Resource Institute, and the Mississippi Department of Geology developed a plan of action for conducting a structural evaluation of the buildings, a geological study of the area, and real time modeling of probable seismic events. Access to the University's CRAY Computer enabled the project to manage the complex data and run the seismic modeling. Geology and Engineering staff and graduate students provided data collection and evaluation that was not available or affordable from the private sector.

The findings of the seismic evaluation will be incorporated into future land-use and building/development plans. The project is also being used as a case study for the Schools of Engineering and Architecture at the University of Mississippi.

#### Activity/Project Location

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

FEMA Region: **Region IV**

State: **Mississippi**

County: **Lafayette County**

#### Key Activity/Project Information

Sector: **Private**

Hazard Type: **Earthquake**

Activity/Project Type: **Land Use/Planning; Retrofitting, Structural**

Activity/Project Start Date: **09/1995**

Activity/Project End Date: **12/1997**

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

Funding Recipient: **Critical Facility - School**

Funding Recipient Name: **University of Mississippi**

### Activity/Project Economic Analysis

Cost: **\$450,000.00 (Actual)**

### Activity/Project Disaster Information

Mitigation Resulted From Federal  
Disaster? **Unknown**

Value Tested By Disaster? **No**

Repetitive Loss Property? **Unknown**

### Reference URLs

Reference URL 1: <http://www.msema.org>

Reference URL 2: <http://neic.usgs.gov/>

### Main Points

- Developed a plan of action for conducting a structural evaluation of the buildings, a geological study of the area, and real time modeling of probable seismic events.
- Incorporated the findings of the seismic evaluation into future land-use and building/development plans.
- The project is also being used as a case study for the Schools of Engineering and Architecture at the University of Mississippi.