

# DAMMON ENGINEERING, INC.

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## STRUCTURAL INSPECTION

Date: November 10, 2005

Type: Residential/Commercial

RE: Post-Hurricane Katrina Structural Inspection

Structure: CMU red brick/vinyl siding on concrete foundation

Owner(s): Jim Warden

Property: 1922 3<sup>rd</sup> St.  
Slidell, La  
(985)643-3428

### History:

Mr. Warden contacted Dammon Engineering to perform a structural inspection on the referenced office/residence. He was concerned that wind and blown in water had caused damage to the building he resides and works in. The water flooded to approximately 3 ft. inside of the building.

### Findings:

The following items are noted on the visual inspection of the residence and store above.

1. The northwest wall has cracks in the corners.
2. 80% of the vinyl siding on the east wall blew off.
3. Shingles on the roof are loose and some have been blown off.
4. There are cracks in the CMU wall at the base of the front window.
5. There are cracks in the concrete slab starting at the window in the front of the building (north end) and arching inside the building to the north wall.
6. Separation of the sheetrock ceiling at the tape joints has occurred on the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> floors.
7. The kitchen floor is not level and slopes to the east side.
8. Water damage has occurred to the laundry room floor and ceiling.
9. Water damage has occurred to the ceiling in the master bathroom, the master bedroom and generally all ceilings of the 2<sup>nd</sup> and 3<sup>rd</sup> floors resulting in separation of the gypsum board tape system.
10. Water blew in under the door in the control room, ruining the carpet there as well as the bedrooms.
11. Water damaged the ceiling of the bottom floor and the owner reported that artwork stacked in the storage room that was above the flood line, was damaged by water from the ceiling.

Analysis:

1. Wind driven rainwater entered the building through the east wall where there was no siding and the CMU wall through the mortar joints.
2. The cracks in the concrete foundation indicate some settling of the foundation on the northwest corner of the building.
3. The kitchen ceiling, laundry room, master bedroom and master bathroom sustained water damage from the wind driven rain and the fact that the siding was blown off on the east side exterior wall.
4. Roof leaks and/or wind driven water caused leaks in the control room (3<sup>rd</sup> floor) to wet sound equipment and carpet.
5. The CMU on the northwest corner of the building did not crack because of the crack in the foundation.
6. The owner reported that he stayed for the storm and witnessed water coming through the ceilings and into both the living areas and his sound lab. The sound lab contained a lot of expensive equipment that was ruined or damaged.

Conclusion:

The wind driven rainwater was forced into the building through the open east wall and also through the mortar on the brick walls.

The wind and water combination has caused a multitude of cracks in walls and ceiling that require reworking.

Cracks in the exterior brick system were found to be due to expansion and contraction of the brick, which has no expansion joints. Cracks in the slab were found to be normal and unlikely to be storm related.

It is my professional opinion that this residence and commercial site is structurally sound.

Sincerely,

Emmett G. (Pete) Dammon, P.E.  
Louisiana License No. 8796

Attachments: Photos  
Lake Pontchartrain Synopsis

This inspection is limited to the apparent visual conditions of the structural components of this building. It does not cover, nor attempts to cover, any components, items, and/or conditions which, by their nature or location, are concealed or are difficult or hazardous to inspect, or which require the moving of furniture, flooring materials, rugs, fixtures, appliances, or any component-part nailed, bolted, or screwed down or shut. No opinions are expressed regarding conditions which could be discovered only by the disassembly of any component parts, special testing, or removal of any concealing objects.

Inspections are made under normal weather conditions, and are not opinions of the conditions of the property and/or structure which may exist under unusual weather conditions, such as, but not limited to floods, heavy rains or snows, high winds, temperature extremes, or any act of God. Specific hazardous wastes, toxic substances, toxic mold, air and water quality, communicable diseases, asbestos, soil, environmental, radon, carbon monoxide, formaldehyde, building code and termite conditions are not included in this report unless otherwise stipulated.

This report is not a warranty or guarantee of the property inspected, but it is our opinion of its condition at the time inspected. Our liability shall be limited to reimbursement of the total cost of inspection.