

3. STATE HISTORICAL PROPERTIES RISK ASSESSMENT



INTRODUCTION

Based on a programmatic agreement between the State Historical Preservation Office (SHPO), the Governor’s Office of Homeland Security and Emergency Preparedness (GOHSEP), and the Federal Emergency Management Agency (FEMA), the State Hazard Mitigation Planning Committee (SHMPC) selected a new goal for its mitigation strategy in this 2014 Plan Update. That goal, as stated in Section 5 of this Plan Update, is to integrate the vulnerability assessment of historic and cultural resources into hazard mitigation planning in order to improve their ability to withstand impacts of natural and human-influenced hazards while protecting character-defining architectural features. This Plan Update is only concerned with natural hazards.

THE SHPO CAPABILITY ASSESSMENT

Louisiana’s Office of Cultural Development (OCD) is located within the Department of Culture, Recreation & Tourism (DCRT), which is overseen by the Lt. Governor of Louisiana. It is composed of three Divisions: Archaeology, Arts & Historic Preservation, and the Council for the Development of French in Louisiana (CODOFIL). The divisions of Archaeology and Historic Preservation both encompass the SHPO. The reasons for an alliance between the SHPO and the SHMPC can be defined well through a glance at the mission of the Historic Preservation division. That division is charged with preserving and restoring historic buildings “so they can enhance and enrich our environment and, thus, our lives.” As the Historic Preservation division website argues, these buildings leave a legacy of “cultural, educational, recreational, aesthetic, social, and environmental benefits [that] must be preserved for present and future generations.” Indeed, the destruction and threat of destruction of historical places in New Orleans following Hurricane Katrina highlighted the potential to lose historical markers that “play a special role in creating the distinctive character of each and every community.” Moreover, historical places energize Louisiana’s cultural economy. Protecting Louisiana’s history is not just a way of protecting its identity but its livelihood, as well.^{lxxxiv}

Hazard mitigation is also directly tied to Section 106 of the National Historic Preservation Act of 1966. This section, as amended, requires federal agencies to take into account the effects of their undertakings on historic properties and afford the Advisory Council on Historic Preservation an opportunity to comment on such undertakings. The Section 106 Regulations (36 CFR 800) specify that the SHPO reflects the interests of the State and its citizens in the preservation of their cultural heritage. As such, the SHPO is a key participant in the Section 106 process. They advise and assist federal agencies in carrying out their 106 responsibilities, and they cooperate with such agencies, local governments, and organizations and individuals to ensure that the preservation of historic properties is taken into consideration at all levels of planning and development. The SHPO is federally mandated by the National Park Service to review and consult on Section 106 projects.

While the SHPO does not directly administer hazard mitigation programs, it provides first-hand confirmation to all agencies regarding listed or eligible resources, per guidance from the National Park Service's National Register Criteria for Evaluation. Understanding which resources are listed or eligible for listing in the National Register is a critical step in the Section 106 process. In addition to determinations of eligibility, the SHPO also provides guidance regarding appropriate treatment measures to safeguard below-ground and above-ground historic resources. Up to seven employees would be available to provide technical assistance in carrying out mitigation actions. Four employees work in the Division of Historic Preservation to address the built environment, and three employees work in the Division of Archaeology to address below-ground resources.

GEOGRAPHIC INFORMATION SYSTEM CAPABILITIES

Archaeological site files and the areas that have been surveyed are available online as are various databases summarizing data from those files. Archaeological site files are accessible to preapproved Cultural Resource investigators and federal and state agencies only. The Division of Historic Preservation is currently mapping the resources and making them available to the public. Currently, no one on staff is devoted to Geographic Information Systems (GIS), though two staff members are familiar with the program and can assist where needed. The expansion of GIS capabilities would allow the SHPO to expedite its Section 106 review. It would also provide municipalities with the necessary information to understand their historic resources when addressing Section 106 and National Environmental Policy Act (NEPA) requirements or other programs that may affect cultural resources in their areas.

INTER-AGENCY COORDINATION

Typically, many state agencies are involved in some capacity with a federal action. Due to federal involvement (through licensing, permitting, funding, and so on), the SHPO reviews projects for other state agencies and comments on impacts to cultural resources. The following agencies have had or have projects reviewed by OCD/SHPO:

- Coastal Protection and Restoration Authority
- Department of Agriculture and Forestry
- Department of Environmental Quality
- Department of Health and Hospitals
- Department of Natural Resources
- Department of Transportation and Development
- Department of Wildlife and Fisheries
- Governor's Office of Homeland Security and Emergency Preparedness
- Louisiana Housing Corporation
- Louisiana National Guard

- Louisiana Office of Coastal Restoration and Management
- Louisiana Office of State Parks
- Louisiana Division of Administration/Facility Planning & Control
- Office of Community Development

The Section 106 process was not designed to stop a project but to allow the SHPO and all interested parties an opportunity to consult with a federal agency or its agent on ways to avoid, minimize, or mitigate any adverse effects to historic properties. When consultation occurs early and all interested parties are included, discussions could result in the relocation of a federal undertaking that might threaten historical preservation. Other consultations include informed discussions on how to incorporate extant historic resources in the planning of the undertaking or how other projects (above and beyond the undertaking) may be developed and offered to the public in lieu of the adverse effect. For instance, had discussion taken place prior to the construction of the Mississippi River–Gulf Outlet (MRGO) Canal in the 1960s, which connected the Gulf of Mexico more directly to New Orleans, historical properties like Fort Proctor in St. Bernard Parish (which is profiled in this section) could have been preserved. At the present, the fort is surrounded and filled with water, inaccessible by land after MRGO was constructed. Future projects could avoid the disastrous consequences of such projects.

The SHPO is involved in the Section 106 review process along with federal agencies or their agent, usually following disasters. The Section 106 process requires that consultations take place to ensure that the federal agency or its agent has an understanding of what the consulting parties expect for the undertaking. In doing so, ways to reduce losses due to hazards may be identified.

The 106 review process begins once a state agency determines that its project will be funded in some way (1) under direct or indirect jurisdiction of a federal agency (including those carried out by or on behalf of a federal agency), or (2) requiring federal assistance, license, permit, or approval. The state agency must then determine if any above- or below-ground historic properties will be impacted by the project. They must work with the SHPO, federally recognized tribes, a Tribal Historic Preservation Officer (THPO), local governments, and public and private individuals to address any adverse effects. The state agency must also contact the Advisory Council to notify them and allow an opportunity to take part in the consultation process. When adverse effects are identified, consultation may result in a Memorandum of Agreement or a Programmatic Agreement document being finalized to outline minimization and/or mitigation measures to be completed within a determined period. The final document must be filed with the Advisory Council on Historic Preservation Office.

State agencies rely on federal funds to assist their constituent base, and pass on such funding (e.g., National Park Service funding or U.S. Department of the Interior funding) through awards to local governments, agencies, and organizations on an annual competitive basis to address safeguarding resources. Typical recipients include historical organizations, parish governments, economic development districts, planning commissions, museum houses, state agencies, municipal governments, educational institutions, and historic district commissions. Typical

projects include public education proposals, survey projects (in which buildings over 50 years old in a geographical region are recorded and mapped), publications, projects to develop nominations to the National Register of Historic Places, and Historic American Buildings Survey projects (in which architecture students develop measured drawings of important and endangered buildings). All proposed projects must relate to the Goals and Objectives outlined in the recently approved Louisiana Comprehensive Plan (*Our Places, Our Heritage: A Plan for Historic Preservation and Archaeological Conservation in Louisiana*). These funds must be matched by non-federal monies on at least a 50/50 basis, though grantees may elect to overmatch. In addition, funds are distributed on a reimbursable basis—the recipient disburses monies and is subsequently reimbursed once the necessary billing documentation is received.

PROFILE OF SELECTED HISTORICAL PROPERTIES

For the following profiles, the SHMPC selected several properties to represent the range of historical sites in the state. The vast majority of such sites are engineered buildings, and so those sites comprise the bulk of the profiles (31), but this section also profiles archeological/monolithic sites (4), public squares (2), extant fortifications (3), and one museum ship. Funding limitations restricted this list to 41 historic sites evaluated for hazard vulnerability, resulting in an assessment of over 60 individual buildings.

The historical sites, divided by site type and in order of profiling in this section, are as follows:

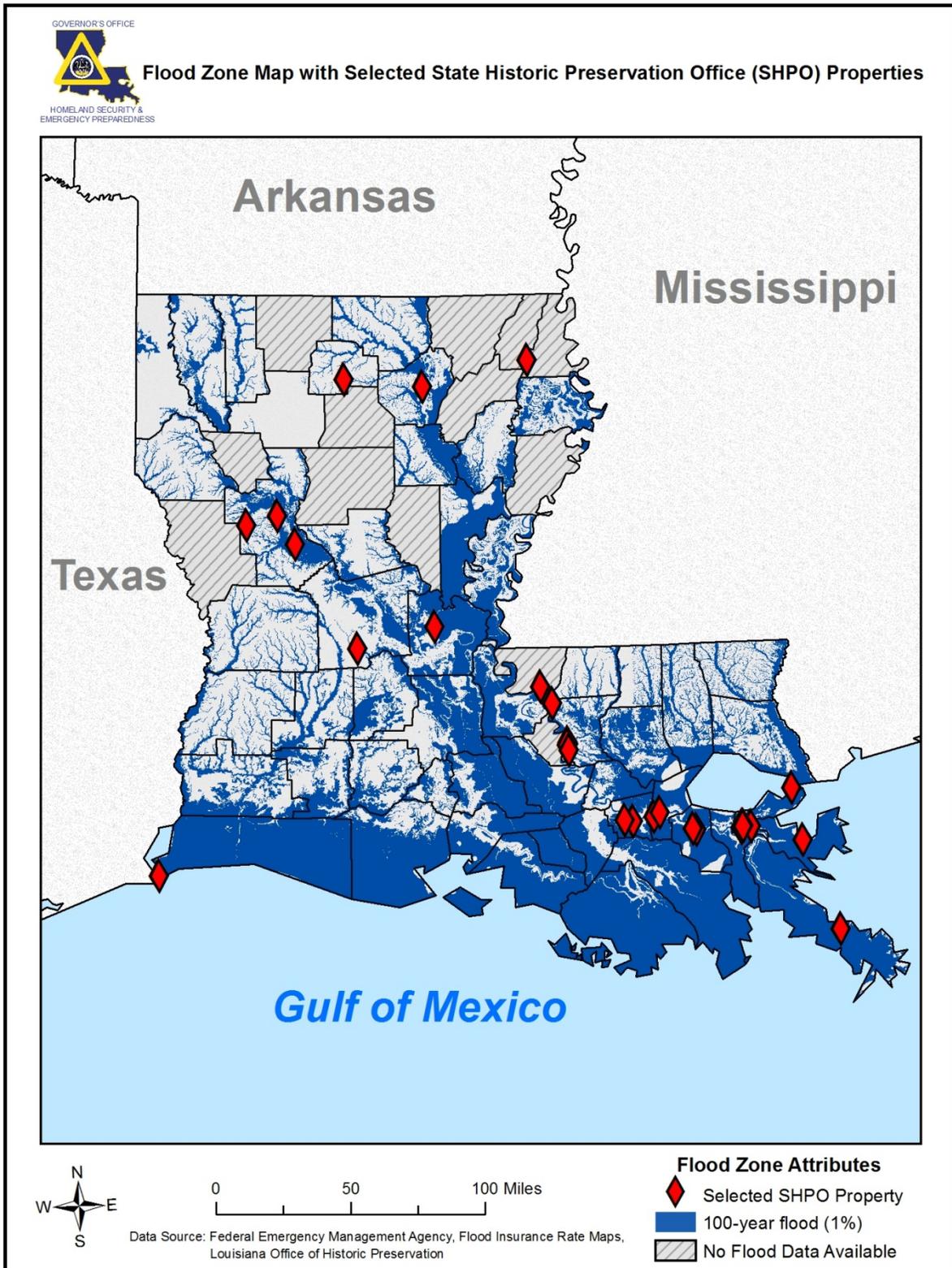
- **Archaeological/Monolithic Sites**
 - LSU Campus Mounds
 - Marksville State Historic Site
 - Port Hudson State Historic Site
 - Poverty Point
- **Public Squares**
 - Congo Square
 - Jackson Square
- **Engineered Structures**
 - Blanchard Building
 - Brown Hall – Grambling State University
 - Cabildo
 - Ducournau Square
 - Foster Hall – Grambling State University
 - G.B. Cooley House
 - Gallier Hall
 - Jackson Barracks
 - Kaffie-Frederick Hardware Store
 - Madame John’s Legacy
 - Natchitoches Parish Courthouse
 - Old Courthouse

- Old Governor’s Mansion
- Old State Capitol
- Old U.S. Mint
- Old Ursuline Convent
- Pontalba Buildings
- The Presbytere
- Prudhomme Building
- Ruston POW Camps
- Sabine Pass Lighthouse
- St. Louis Cathedral
- State Capitol
- Southern Forest Heritage Museum & Research Center
- **Plantations**
 - Destrehan Plantation
 - Melrose Plantation
 - Oak Alley Plantation
 - Oakley Plantation
 - Ormond Plantation
 - Poche Plantation
 - San Francisco Plantation
- **Extant Fortifications**
 - Ft. Jackson
 - Ft. Pike State Historic Site
 - Ft. Proctor
- **Museum Ship**
 - *USS Kidd*

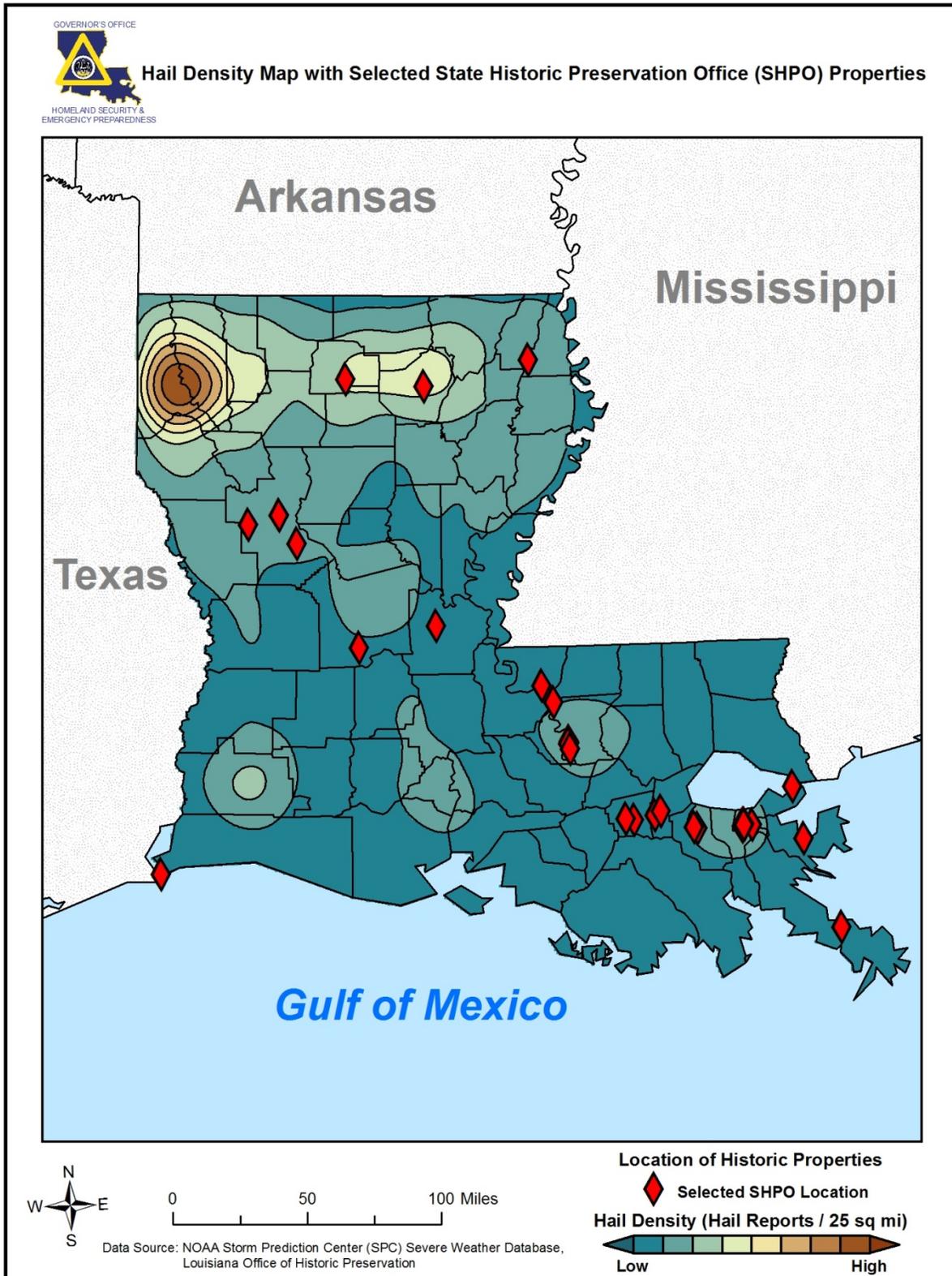
CONCLUSIONS

In terms of the major hazards profiled in the preceding section, the selected SHPO properties profiled are in most danger of damage from flooding, hail, high winds, and tornadoes. In Maps 3.1, 3.2, 3.3, and 3.4, these properties are imposed on maps of Louisiana flood zones (3.1), hail density (3.2), high wind zones (3.3), and tornado density (3.4).

(Continued on next page)



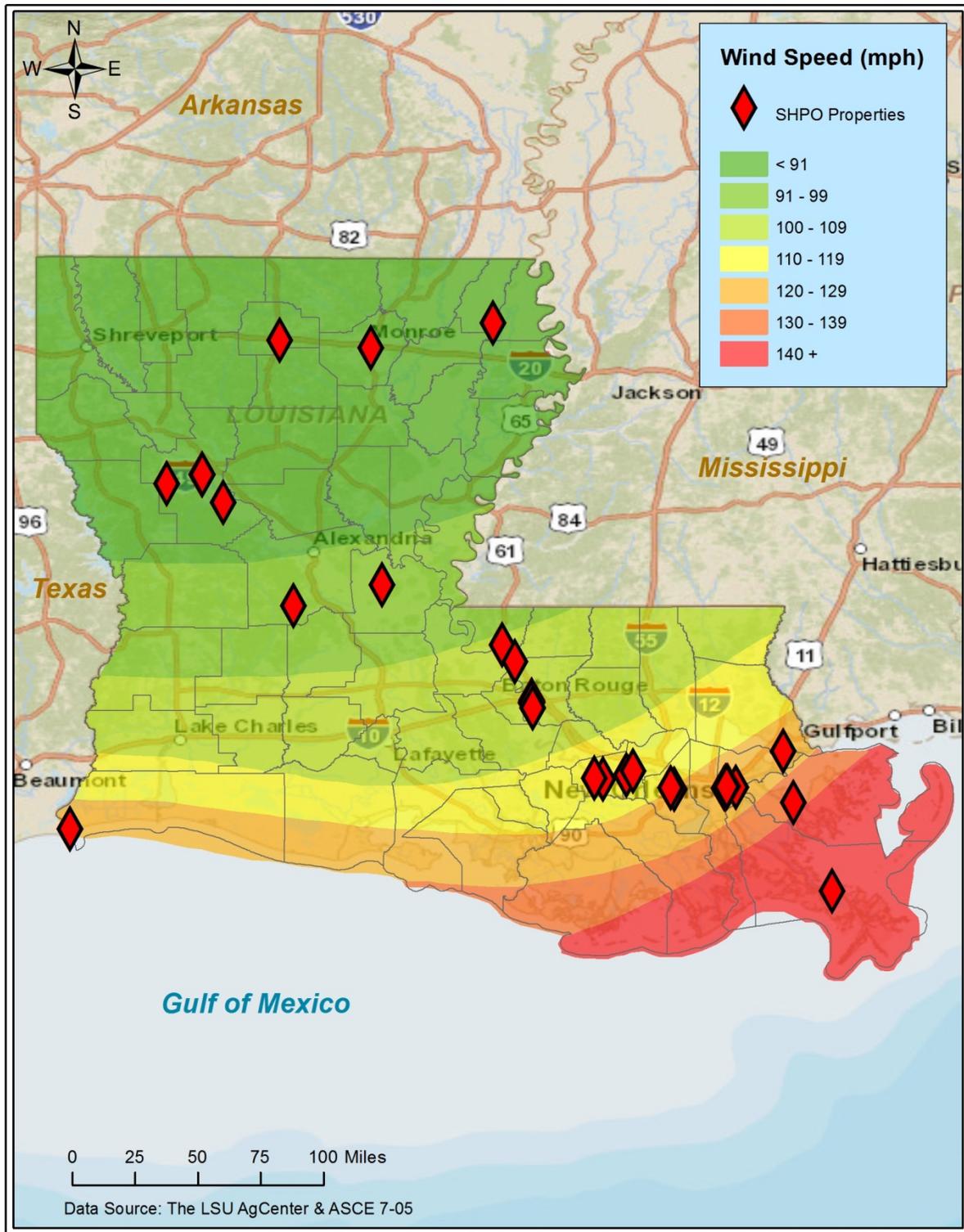
Map 3.1. The selected SHPO profiled properties in relation to 100-yr flood zones in Louisiana.



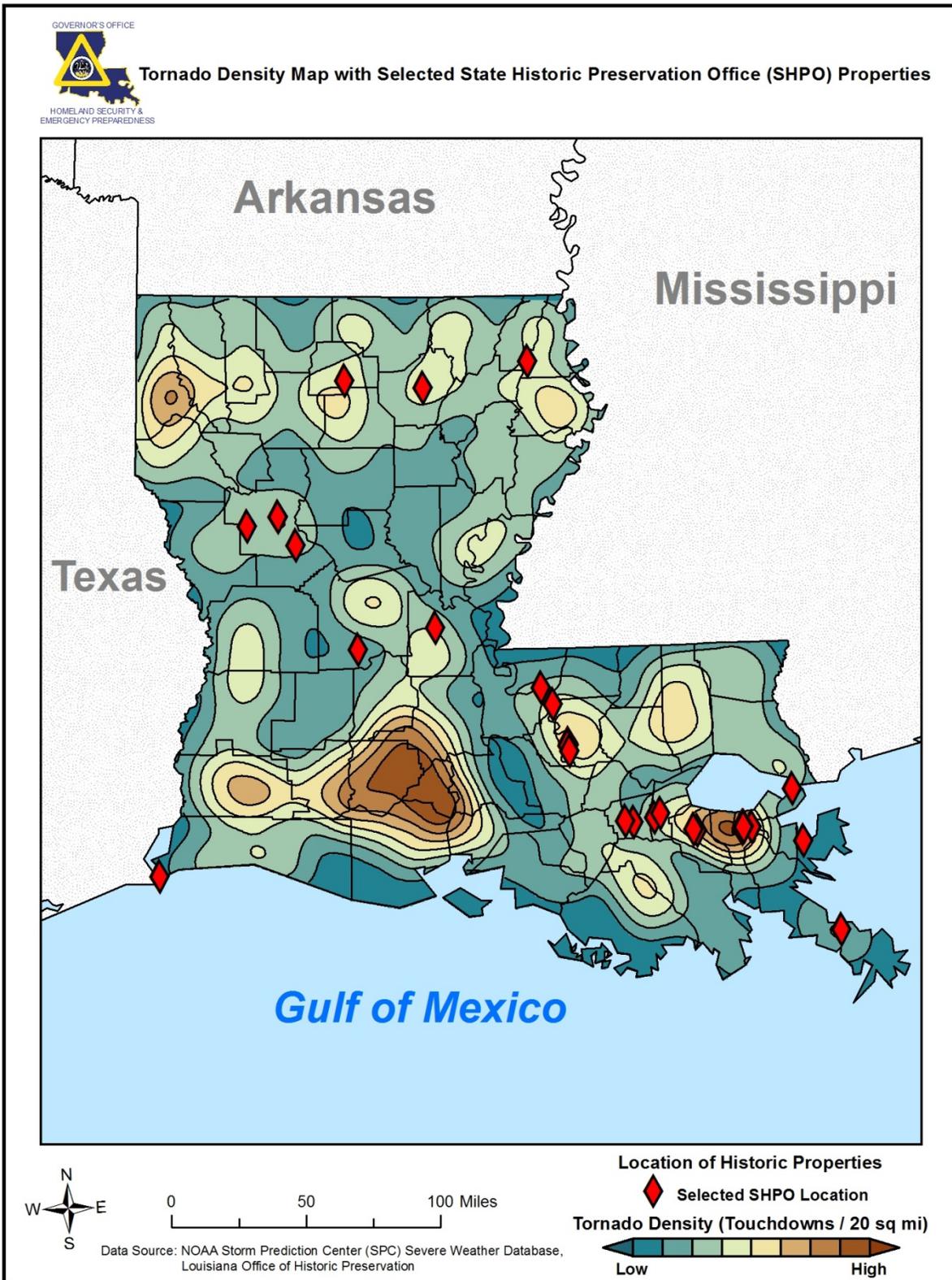
Map 3.2. The selected SHPO profiled properties in relation to hail density in Louisiana.



Wind Zones Map with State Historic Preservation Office (SHPO) Properties



Map 3.3. The selected SHPO profiled properties in relation to high-wind zones in Louisiana.



Map 3.4. The selected SHPO profiled properties in relation to tornado touchdown density in Louisiana.

The selected sites were found to have the following common vulnerabilities:

- **Window Protection for Non-Impact Resistant Windows:** Because non-impact resistant windows are susceptible to water infiltration once broken, window protection should be used in the case of high-wind events.
- **Condition of Non-Impact Resistant Windows:** Deterioration of the window, including the window frame and/or glazing, was observed at multiple locations. Windows with damaged frames or glazing are vulnerable to moisture intrusion, which can cause damage to the interior of the structure.
- **Deterioration of Exterior Building Envelope:** Deterioration of the exterior cladding, roof covering, doors, and windows was detected. Exterior building elements that are in poor condition can lead to moisture intrusion in the interior of the building. Holes in the building envelope can cause structural damage due to pressurization in the interior during high-wind events.
- **Moisture Damage:** Moisture damage was detected on building exteriors and/or interiors at multiple locations
- **Interior Moisture Damage:** Deterioration of plaster that has been applied over brick structural walls was detected. Mortar joints should be tuck-pointed to prevent water from penetrating the wall, causing further moisture damage to the plaster, and to prevent brick failure and cracking.
- **Ponding Issues:** Ponding was detected on multiple flat roof structures. Roof drainage assemblies should be cleaned any of debris, such as foliage, that restricts rainfall runoff. Supplemental roof drainage may also warrant consideration.
- **Cracks and Movement in Structural Walls:** Large cracks were found in exterior masonry walls, suggesting that buildings have settled or experienced gradual differential movement.
- **Moisture Damage to the Exterior Building Envelope:** Moisture in exterior masonry walls can cause plaster damage and brick failure. Mortar joints of exterior masonry walls should be tuck-pointed as needed to prevent water from penetrating the wall.
- **Non-Structural Component Attachment:** Insufficient attachment of non-structural components was detected. Such components include gutters, awnings, and roof top equipment. Non-structural components that are not properly attached can become wind-borne debris sources in high-wind events.

VULNERABILITY ASSESSMENT REPORT OF HISTORIC LOUISIANA SITES

LSU Campus Mounds

Louisiana State University, Baton Rouge, LA 70803
East Baton Rouge Parish



Historical Profile: The LSU Campus Mounds are two Native American mounds from the Archaic Period, located on the campus of Louisiana State University in Baton Rouge. They are part of a larger, statewide system of mounds and are believed to have been used for ceremonial purposes, rather than burial mounds. The mounds are thought to be more than 6,000 years old, making them part of the oldest mound system in North America, Mesoamerica, or South America.

Primary Use: Historical site

Geographic Profile & Vulnerabilities



Geographic Profile: The LSU Indian Mounds are situated northwest of the LSU Quadangle and are less than a mile from the east bank of the Mississippi River.

Coordinates: 30°24'54"N, 91°10'56"W

Wind Zone: 91–99 mph

Flood Zone: X, levee protection

SFHA: No

Hail Density: Low-medium

Tornado Density: Medium

Site Attributes & Vulnerability Data

Location: Suburban

Site Conditions: Historical earthworks, surrounded by pedestrian walking paths, roads, and parking lots

Trees: Large/mature trees (live oaks)

Wind Exposure: Shielded by buildings and trees

Wind-Borne Debris Source: Large/mature trees

Levee/Flood Protection: Yes

Building(s) Present on Site: Campus buildings surrounding site

Vulnerabilities & Mitigation Recommendations



Erosion of Historic Earthworks: The LSU Campus Mounds have experienced 6,000 years of natural erosion, but they are also being damaged by human activity, primarily during LSU football games. University officials have stated that “the mounds have suffered internal structural damage that would lead to their eventual collapse.” In 2010, temporary fencing was used during football weekends to prevent access to the mounds. The fencing was quickly torn down by tailgaters, however. Permanent fencing may be considered to restrict human activity on the mounds.

VULNERABILITY ASSESSMENT REPORT OF HISTORIC LOUISIANA SITES

Marksville State Historic Site

837 Martin Luther King Dr., Marksville, LA 71351
Avoyelles Parish



Historical Profile: Two thousand years ago, Marksville State Historic Site was home to the Marksville culture, a southeastern variant of the Hopewell Native American cultures centered in Ohio and Illinois. They practiced elaborate mortuary rituals, constructed conical burial mounds and other earthworks, and had complex trade networks. The seven mounds, one of which is a large burial mound, are surrounded by a horseshoe-shaped earthen embankment about 3,000 feet long.

Primary Use: Archaeological/historic site, museum

Contents: Museum exhibits, office equipment, documents

Year Built: 1952 (structure)

Occupied: Yes

Temperature/Moisture

Emergency

Under Renovation: No

Year Remodeled: Unknown

Sensitive Contents: No

Generators:
No

Geographic Profile & Vulnerabilities



Geographic Profile:

The 42-acre Marksville State Historic Site is located approximately 25 miles west of the Mississippi border. The site sits on a bluff overlooking the Old River, adjacent to the town of Marksville.

Wind Zone: 90 mph

Flood Zone: X

SFHA: No

Hail Density: Low

Tornado Density: Medium

Site Attributes & Vulnerability Data

Location: Suburban, rural

Site Conditions: Engineered site

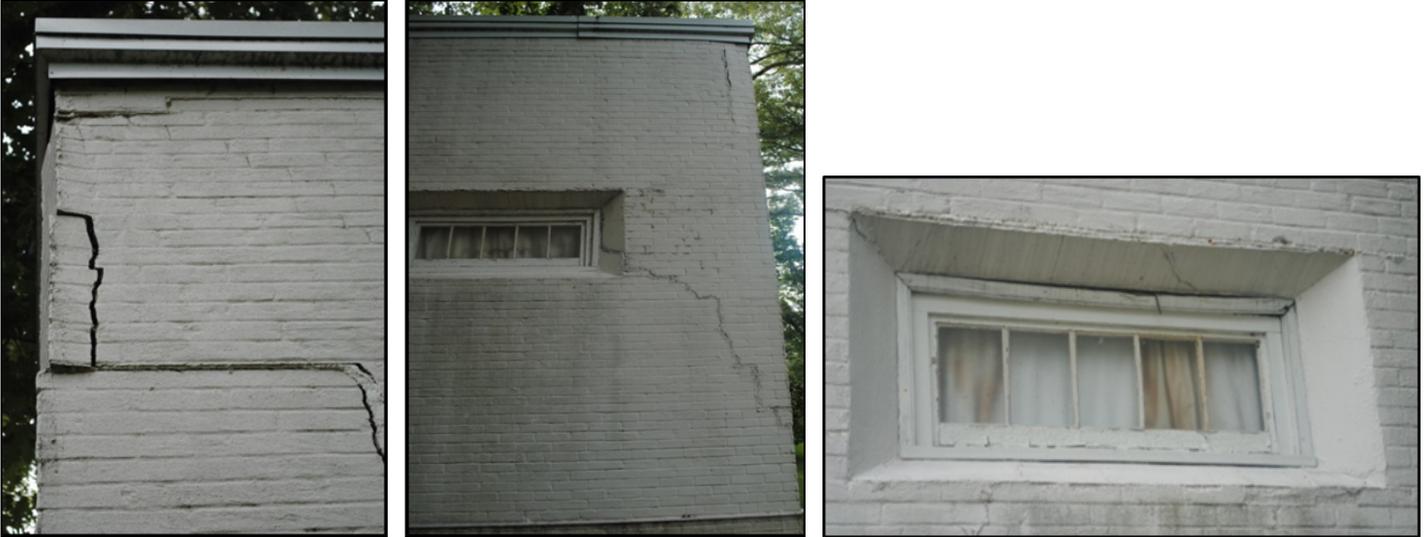
Trees: Large/mature

Wind Exposure: Shielded by trees

Wind-Borne Debris Source: Fallen trees

Levee/Flood Protection: No

Vulnerabilities & Mitigation Recommendations



Deterioration of Exterior Building Envelope: (Structural Walls) Severe cracking and movement of the masonry walls is occurring in the southwestern corner of the museum building. The exterior wall coating is in need of new application. **(Windows)** The structure contains 22 windows with metal lintels that are in poor condition. Rusting and swelling of the metal lintels has caused drooping in the window opening and deterioration of the wood window units. **(Roof)** In slow rainstorm events, the flat roof leaks into the interior of the building.



Large/Mature Trees: Thirty large oaks were lost during Hurricane Gustav. Large water oaks, which have shallow root systems and are vulnerable to uprooting during high-wind events and slumping in waterlogged conditions, are near the museum structure and surround another structure on the property.

VULNERABILITY ASSESSMENT REPORT OF HISTORIC LOUISIANA SITES

Port Hudson State Historic Site

U.S. 61, Jackson, LA 70748
East Feliciana Parish



Historical Profile:
The Confederacy chose the site to protect the Mississippi River against Union control. Soldiers began building earthwork fortifications in 1862. At this site, the longest siege in American history took place, lasting a total of 48 days. Approximately 7,500 Confederates resisted approximately 40,000 Union soldiers for almost two months during 1863. Among the troops to fight in this battle were the First and Third Louisiana Native Guards, comprised of free Blacks and former slaves.

Primary Use: Civil War battleground, tourism site

Contents: Site contains Civil War earthwork fortifications; Civil War artifacts are housed in the Visitor Center

Geographic Profile & Vulnerabilities



Geographic Profile:
889 acres of unpopulated land, 2.4 miles from the east bank of the Mississippi River
Coordinates: 30°41'36"N, 91°16'32"W

Wind Zone: 91–99 mph

Flood Zone: X, A

SFHA: Yes

Hail Density: Low

Tornado Density: Medium

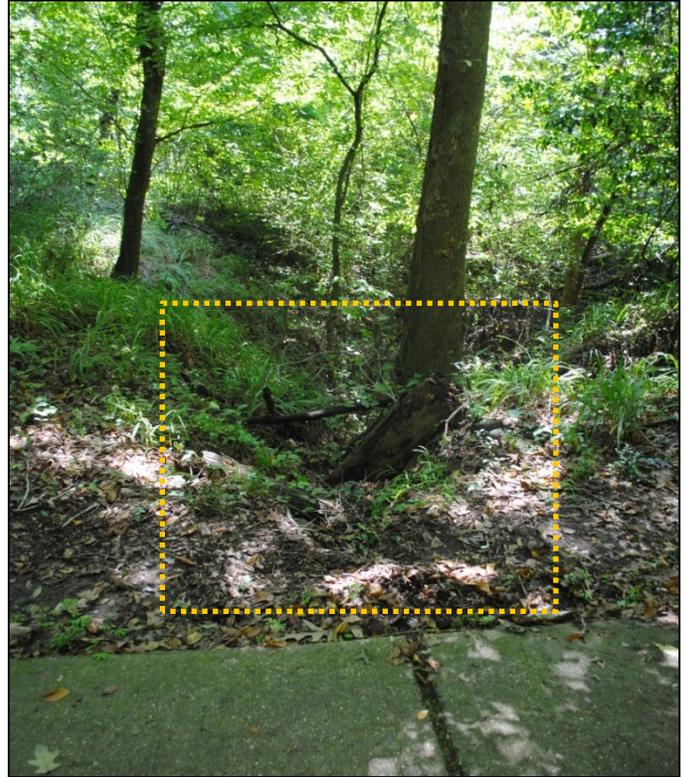
Site Attributes & Vulnerability Data

Location: Rural	Site Conditions: Open fields, hills, steep bluffs, tributary canals, and forests	Trees: Large/mature trees (water oak and other species), overhanging
Wind Exposure: Open, shielded by trees	Wind-Borne Debris Source: Large/mature trees	Levee/Flood Protection: No
Building(s) Present on Site: Yes; Visitor Center, which houses artifacts and historic relics of the Civil War period and site		

Vulnerabilities & Mitigation Recommendations



Runoff-Induced Erosion: Access trails throughout the park are eroding due to runoff and flooding events.



Property Located in SFHA:

Portions of the property fall in a Special Flood Hazard Area (SFHA) A zone. In previous floods, several bridges that connect access trails were washed away.

VULNERABILITY ASSESSMENT REPORT OF HISTORIC LOUISIANA SITES

Poverty Point State Historic Site

6859 Hwy. 577, Pioneer LA 71266
West Carroll Parish



Historical Profile: The Poverty Point earthwork complex was constructed between 1700 and 1100 BC by a hunter-gatherer society. It consists of four earthen mounds, a series of six elliptical earthen ridges, and a large flat plaza, and required nearly 1 million cubic yards of earth-moving. In its time, the settlement was the largest in North America and was the center of a major exchange network.

Primary Use: Tourism site, archaeological research center

Contents: Artifacts from the Poverty Point settlement still remain throughout the grounds, and a large collection of archaeological finds are housed in the Visitor Center and Research Center

Geographic Profile & Vulnerabilities



Geographic Profile:
Unpopulated, located along Bayou Macon (a marshy tributary) not far from the west bank of the Mississippi River.
Coordinates: 32°38'10"N, 91°24'12"W

Wind Zone: 90 mph

Flood Zone: X, A

SFHA: No

Hail Density: Low-medium

Tornado Density: Medium

Site Attributes & Vulnerability Data

Location: Rural

Site Conditions: 35 acre site, containing a historical earthworks complex, open fields, forests, waterways

Trees: Large/mature trees (water oak and other species), overhanging

Wind Exposure: Open, shielded by trees

Wind-Borne Debris Source: Large/mature trees

Levee/Flood Protection: No

Building(s) Present on Site: Yes. Two buildings were assessed that house hundreds of thousands of priceless archaeological artifacts from the site, including copper artifacts that are moisture sensitive. The Visitor Center has no back-up generators. The Curation Facility has back-up power for the fire suppression system, but not for the climate control of the building. This facility is used to archive the archaeological collections, so it should have a way to monitor temperature and moisture and dehumidify the air.

Vulnerabilities & Mitigation Recommendations



Erosion of Earthworks: The Poverty Point earthworks have undergone over 3,000 years of erosion. They were even used as farmland in the nineteenth and twentieth centuries, significantly decreasing the height of the original mounds and elliptical ridges. Rain runoff, mature tree growth, and armadillo holes (which retain water and cause slumping) are common problems that the park must solve to reduce further erosion.



Runoff-Induced Erosion: Increased runoff into a tributary that joins Bayou Macon has caused landslides to a portion of Ridge 6 and the property housing the archaeological research center. According to the Poverty Point Park manager, increased runoff is likely due to neighboring farms that have altered the landscape.



Large/Mature Trees: Most of the Poverty Point site is heavily wooded with trees that are prone to high winds and oversaturation of the ground. The root balls of mature trees create large holes in the landscape that must be filled and repaired, and the trees must be removed off site. Staff should perform selective cutting or removal of trees on the earthworks or near facilities housing historic artifacts.



Deterioration of Exterior Openings: The exterior doors of the Visitor Center are in need of repair or replacement due to age and moisture damage.



Large/Mature Tree Vulnerability: Several mature water oaks are situated directly behind the Curation Facility. Many similar trees have fallen throughout the site during past high-wind events. The subject trees could pose a hazard to the structure and its contents.

VULNERABILITY ASSESSMENT REPORT OF HISTORIC LOUISIANA SITES

Congo Square

700 North Rampart St., New Orleans, LA 70116

Orleans Parish



Historical Profile: Before the arrival of the French, the site of Congo Square was deemed sacred ground by the Houma Indians, who celebrated their annual corn harvest there. As early as the late 1740s, it became a mercantile center and gathering spot for slaves. In the early 1800s, Congo Square became famous for the Sunday afternoon gatherings of African slaves who performed native music and dancing that would influence jazz and rhythm and blues music. Congo Square was also the original site of the New Orleans Jazz Fest in 1970.

Primary Use: Open space/square used for music festivals, concerts, and other community gatherings

Geographic Profile & Vulnerabilities



Geographic Profile:

Congo Square is an open space within Louis Armstrong Park, located in the Tremé neighborhood of New Orleans, just north of the French Quarter.

Coordinates: 29°57'39"N, 90°4'6"W

Wind Zone: 110-119 mph

Flood Zone: X, levee protection

SFHA: No

Hail Density: Low-medium

Tornado Density: Medium-high

Site Attributes & Vulnerability Data

Location: Urban	Site Conditions: Engineered site	Trees: Large/mature, medium
Wind Exposure: Shielded by buildings	Wind-Borne Debris Source: Other buildings	Levee/Flood Protection: Yes
Building(s) Present on Site: Yes; New Orleans Municipal Auditorium		

VULNERABILITY ASSESSMENT REPORT OF HISTORIC LOUISIANA SITES

Jackson Square

700 Decatur St., New Orleans, LA 70116

Orleans Parish



Historical Profile: The center of early, French colonial New Orleans was originally called the Place d'Armes. After the Battle of New Orleans, in 1815, the Place d'Armes was renamed Jackson Square after the victorious United States general Andrew Jackson, whose statue is at the center of the park. Place d'Armes was the prime site for public executions and served as an arsenal in the Reconstruction era. A political uprising also took place on the site after the 1872 gubernatorial election when a several-thousand-man militia defeated the New Orleans militia, seizing control of the state's buildings and armory for a few days.

Primary Use: City common area, tourist attraction, site for artists, musicians, and street performers

Geographic Profile & Vulnerabilities



Geographic Profile:

Jackson Square is bounded by Decatur, St. Peter, St. Ann, and Chartres streets in the historic French Quarter. The site was constructed atop a ridge created by the Mississippi River Basin and is approximately 400 feet from the Mississippi River.

Coordinates: 29°57'26"N, 90°3'47"W

Wind Zone: 110-119 mph

Flood Zone: X, levee protection

SFHA: No

Hail Density: Low-medium

Tornado Density: Medium

Site Attributes & Vulnerability Data

Location: Urban	Site Conditions: Open square surrounded by trees	Trees: Large/mature trees (live oak)
Wind Exposure: Shielded by buildings	Wind-Borne Debris Source: Large/mature trees	Levee/Flood Protection: Yes
Building(s) Present on Site: No		

VULNERABILITY ASSESSMENT REPORT OF HISTORIC LOUISIANA SITES

Blanchard Building

732-746 Front St., Natchitoches, LA 71457

Natchitoches Parish



Historical Profile: Also known as the LaCoste Building, this building is one of two in Natchitoches that retains its original carriage drive from the street into the rear courtyard. In the early twentieth century, the second floor was a popular dance hall called the Comus Club. Damaged by fire, the building was renovated in the mid-twentieth century.

Primary Use: Shops (first floor), offices (second floor)

Contents: Shops (first floor): furniture, art, accessories, and kitchen products (approx. \$200K value). Offices (second floor and attic): furniture, computer systems, and art (approx. \$200K value); engineering and surveying documents, electronic data, intellectual property (approx. \$200K value)

Year Built: 1853	Occupied: Yes	Temperature/Moisture Sensitive Contents: Yes; engineering documents	Emergency Generators: No
Under Renovation: No	Year Remodeled: 1994		

Geographic Profile & Vulnerabilities



Geographic Profile: The Blanchard Building is located along Front St., atop the western ridge of the Cane River in the Natchitoches Historic District.

Wind Zone: 90 mph	
Flood Zone: X	SFHA: No
Hail Density: Low-medium	
Tornado Density: Medium	

Site Attributes & Vulnerability Data

Location: Urban	Site Conditions: Engineered site	Trees: None
Wind Exposure: Shielded by buildings	Wind-Borne Debris Source: None	Levee/Flood Protection: No

Structural Attributes & Vulnerability Data

Construction Type: Masonry, timber	Foundation Type: Pier and beam		Roof Type: Gable	
Stories: 2	Basement: Partial	Attic: Yes	Roof Covering: Metal	
Building Condition: Good	Window Condition: Fair		Roof Condition: Unknown; roof sustained minor damage at various times	
Safe Room/Storm Shelter: No	Impact Resistant Windows: No		Roof Overhang >2 feet: Yes	
Lowest Floor Height (from ground): 0.5 feet	Mechanical Equipment Height (from ground): 0.5 feet	Floodproofing: No	Flood Vents: N/A	
Sufficient Attachment of Non-Structural Building Component: N/A				

Vulnerabilities & Mitigation Recommendations



Roof Decking Deterioration: Deterioration of the wood-plank roof decking was detected throughout the span of the front porch. Some of this decking damage occurred at rafter connections, which could pose issues for that portion of the roof structure.



Interior Moisture Damage: Deterioration of the plaster application over brick structural walls was detected. Mortar joints should be tuck-pointed to prevent water intrusion (which causes moisture damage to the plaster) and to prevent brick failure (such as cracking).



Non-Impact Resistant Windows: Non-impact resistant windows are susceptible to water infiltration once broken.

VULNERABILITY ASSESSMENT REPORT OF HISTORIC LOUISIANA SITES

Brown Hall

Grambling State University Campus, Ruston LA 71245

Lincoln Parish



Historical Profile: Brown Hall was originally used as a first-year women’s dormitory. Brown Hall was named after Hallie Q. Brown, a distinguished lecturer and elocutionist who traveled extensively. From 1939 to 1960, Grambling State University was the only institution of higher learning available to African-Americans in northern Louisiana.

Primary Use: Classrooms/administration

Contents: Office, school furniture and equipment

Year Built: 1956

Occupied: Yes

Temperature/Moisture

Emergency

Under Renovation: No

Year Remodeled: Unknown

Sensitive Contents:

Generators:

Unknown

No

Geographic Profile & Vulnerabilities



Geographic Profile:

Brown Hall is located within the Grambling State University campus, approximately 33 miles from the Arkansas border and 78 miles from the Texas border.

Wind Zone: 90 mph

Flood Zone: X

SFHA: No

Hail Density: Medium

Tornado Density: Medium

Site Attributes & Vulnerability Data

Location: Suburban

Site Conditions: Engineered site

Trees: Yes

Wind Exposure: Open, shielded on one side by a smaller building

Wind-Borne Debris Source: Building components (loose siding, other buildings)

Levee/Flood Protection: No

Structural Attributes & Vulnerability Data

Construction Type: Masonry	Foundation Type: Unknown		Roof Type: Hip
Stories: 2	Basement: Unknown	Attic: Yes	Roof Covering: Shingle
Building Condition: Fair	Window Condition: Fair		Roof Condition: Fair
Safe Room/Storm Shelter: No	Impact Resistant Windows: No		Roof Overhang >2 feet: No
Lowest Floor Height (from ground): 2 feet	Mechanical Equipment Height (from ground): Unknown	Floodproofing: No	Flood Vents: N/A
Sufficient Attachment of Non-Structural Building Component: Awning (no), Gutter (no)			

Vulnerabilities & Mitigation Recommendations



Deterioration of Exterior Building Envelope: Exterior wood siding (specifically used on the dormers, soffits, and fascia perimeter) is in need of replacement.



Insufficient Attachment of Non-Structural Building Features: Metal awning supports are deteriorated (one was missing on the north side of the building). Missing/broken gutters were also observed.



Condition of Non-Impact Resistant Windows: Deterioration of the window frames can lead to leaking between glazing, window frames, and exterior walls due to flashing, sealant, or gasket failure. Non-impact resistant windows are susceptible to water infiltration once broken.

VULNERABILITY ASSESSMENT REPORT OF HISTORIC LOUISIANA SITES

The Cabildo

701 Chartres St., New Orleans, LA 70116

Orleans Parish



Historical Profile: The Cabildo was rebuilt after the Great Fire of New Orleans (1788) to house the Spanish municipal government in New Orleans. The Cabildo was the site of the Louisiana Purchase transfer ceremonies in 1803. The New Orleans City Council continued to use the building until the mid-1850s.

Primary Use: Museum

Contents: Historic paintings, prints, photographs, textiles, three-dimensional objects, furniture, decorative arts, musical instruments, and other medias. The collection holds many irreplaceable artifacts that require a constant temperature in the range of 70 degrees and a constant humidity of 50%.

Year Built: 1722

Occupied: Yes

Temperature/Moisture

Emergency

Under Renovation: No

Year Remodeled: 1988

Sensitive Contents: Yes

Generators:

No

Geographic Profile & Vulnerabilities



Geographic Profile:

The Cabildo is located along Jackson Square, next to St. Louis Cathedral in the historic French Quarter. The site was constructed atop a ridge created by the Mississippi River Basin and is approximately 800 feet from the Mississippi River.

Wind Zone: 110-119 mph

Flood Zone: X, levee protection

SFHA: No

Hail Density: Low-medium

Tornado Density: Medium

Site Attributes & Vulnerability Data

Location: Urban

Site Conditions: Engineered site

Trees: None

Wind Exposure: Shielded by buildings

Wind-Borne Debris Source: Building components (slate tiles, other buildings)

Levee/Flood Protection: Yes

Structural Attributes & Vulnerability Data

Construction Type: Wood and masonry	Foundation Type: Pier and beam		Roof Type: Mansard
Stories: 3	Basement: No	Attic: Yes	Roof Covering: Slate
Building Condition: Good	Window Condition: Fair		Roof Condition: Unknown
Safe Room/Storm Shelter: No	Impact Resistant Windows: No		Roof Overhang >2 feet: No
Lowest Floor Height (from ground): 1 foot	Mechanical Equipment Height (from ground): 1.5 feet	Floodproofing: No	Flood Vents: N/A
Sufficient Attachment of Non-Structural Building Component: Shutters (yes), gutters (yes)			

Vulnerabilities & Mitigation Recommendations



Moisture Damage to the Exterior Building Envelope: Mortar joints should be tuck-pointed to prevent water intrusion (which causes moisture damage to the plaster) and to prevent brick failure (such as cracking)



Vulnerable Openings: During Hurricane Isaac, the gallery doors facing Jackson Square, as well as the dormer windows facing Pirate’s Alley, blew open, causing interior damage from wind-driven rain. Exterior window and door protection should be used in the case of high-wind events, to prevent opening and breakage of the non-impact resistant glass units.

VULNERABILITY ASSESSMENT REPORT OF HISTORIC LOUISIANA SITES

Ducournau Building

750 Front St., Natchitoches, LA 71457

Natchitoches Parish



Historical Profile: The Ducournau Building is one of two commercial structures (the other being the neighboring Blanchard Building), which includes a carriage drive from the front to a rear courtyard—a feature primarily associated with French Quarter architecture in New Orleans.

Primary Use: Restaurant and bar (first floor), bed and breakfast (second & third floors)

Contents: Restaurant and Bar (first floor): restaurant/kitchen equipment, food inventory (\$200K).
Bed and breakfast (second & third floors): furniture, artwork, antiques (>\$100K).

Year Built: 1935

Occupied: Yes

Temperature/Moisture

Emergency

Under Renovation: No

Year Remodeled: 1999, 2006

Sensitive Contents: Yes;
Food in restaurant

Generators:
No

Geographic Profile & Vulnerabilities



Geographic Profile:

The Ducournau Building is located along Front St., atop the west ridge of the Cane River in the Natchitoches Historic District.

Wind Zone: 90 mph

Flood Zone: X

SFHA: No

Hail Density: Low-medium

Tornado Density: Medium

Site Attributes & Vulnerability Data

Location: Urban

Site Conditions: Engineered site

Trees: None

Wind Exposure: Shielded by buildings

Wind-Borne Debris Source: Metal roof panels - roof sustained damage in 2011 (>\$70K)

Levee/Flood Protection: No

Structural Attributes & Vulnerability Data

Construction Type: Masonry	Foundation Type: Pier and beam		Roof Type: Gable, flat	
Stories: 3	Basement: No	Attic: Partial	Roof Covering: Metal, single-ply membrane	
Building Condition: Good	Window Condition: Good		Roof Condition: Unknown (gable), flat (fair). Roof damage sustained in 2011 (>\$70K)	
Safe Room/Storm Shelter: No	Impact Resistant Windows: No		Roof Overhang >2 feet: Yes	
Lowest Floor Height (from ground): 0.5 feet	Mechanical Equipment Height (from ground): 0.5 feet	Floodproofing: No	Flood Vents: N/A	
Sufficient Attachment of Non-Structural Building Component: N/A				

Vulnerabilities & Mitigation Recommendations



Ponding Issue: Ponding was detected on the carriage house in the rear of the property. Tree debris should be removed from the roof to prevent the restriction of rain runoff, and supplemental roof drainage should be considered for use.

VULNERABILITY ASSESSMENT REPORT OF HISTORIC LOUISIANA SITES

Foster Hall

Grambling State University Campus, Ruston, LA 71245

Lincoln Parish



Historical Profile: Foster–Johnson Health Center was named after Madison Foster, a physician from Monroe, and Edward A. Johnson, who drove 200 miles roundtrip from Natchitoches to serve Grambling Campus and community residents. They were the first two college physicians at Grambling College. From 1939 to 1960, Grambling State University was the only institution of higher learning available to African-Americans in northern Louisiana.

Primary Use:
Infirmary/Counseling Center

Contents: Medical and office equipment, medical supplies, furniture, documents, and records

Year Built: 1943	Occupied: Yes	Temperature/Moisture Sensitive Contents: Yes	Emergency Generators: No
Under Renovation: No	Year Remodeled: Unknown		

Geographic Profile & Vulnerabilities



Geographic Profile:
Foster Hall is located within the Grambling State University campus, approximately 33 miles from the Arkansas border and 78 miles from the Texas border.

Wind Zone: 90 mph	
Flood Zone: X	SFHA: No
Hail Density: Medium	
Tornado Density: Medium	

Site Attributes & Vulnerability Data

Location: Suburban	Site Conditions: Engineered site	Trees: Yes
Wind Exposure: Shielded by buildings	Wind-Borne Debris Source: Building components (roof/soffit)	Levee/Flood Protection: No

Structural Attributes & Vulnerability Data

Construction Type: Wood and masonry	Foundation Type: Unknown		Roof Type: Gable
Stories: 1	Basement: Unknown	Attic: Yes	Roof Covering: Shingle
Building Condition: Fair	Window Condition: Fair-poor		Roof Condition: Fair-poor
Safe Room/Storm Shelter: No	Impact Resistant Windows: No		Roof Overhang >2 feet: No
Lowest Floor Height (from ground): 0.5 feet	Mechanical Equipment Height (from ground): 1 foot	Floodproofing: No	Flood Vents: N/A
Sufficient Attachment of Non-Structural Building Component: Gutters (no)			

Vulnerabilities & Mitigation Recommendations



Deterioration of Exterior Building Envelope: Severe deterioration of the wood soffits, siding, and trim were observed. The roof covering has warped and is missing shingles throughout, exposing the roof deck underlayment. The windows and doors were graded to be in fair condition but are in need of replacement. Each of these vulnerabilities can cause moisture damage in the interior and induce mold growth—in a facility used for health care.



Broken Non-Impact Resistant Windows: Broken windows at the rear of the building were detected. Non-impact resistant windows are susceptible to water infiltration once broken.



Overhanging Tree: Branches from an overhanging tree that are resting on a portion of the roof need to be trimmed. The subject tree is located in the rear of the property, approximately 1.5 feet away from the structure.

VULNERABILITY ASSESSMENT REPORT OF HISTORIC LOUISIANA SITES

G.B. Cooley House

1011 South Grand St., Monroe, LA 71201
Ouachita Parish



Historical Profile: Designed in 1908 by internationally renowned architect Walter Burley Griffin, the G.B. Cooley House was built for entrepreneur Gilbert Brian ‘Captain’ Cooley and his wife. The Cooley House is Griffin’s last structure to be completed in the United States, and it is one of the last surviving examples of Prairie School residential architecture in the South.

Primary Use: Property of City of Monroe

Contents: Original cork flooring, decorative woodwork and windows, and period table. Non-functioning, yet still in place: central vacuum system, central steam heating, an incinerator, a steam shower, and a sunken tub.

Year Built: 1925

Occupied: No

Temperature/Moisture Sensitive Contents: No

Emergency Generators: No

Under Renovation: No

Year Remodeled: 1976

Geographic Profile & Vulnerabilities



Geographic Profile:

The G.B. Cooley house is bounded at the intersection of South Grand St. and Texas Ave. The Ouachita River is located directly west of the site.

Wind Zone: 90 mph

Flood Zone: X, levee protection

SFHA: No

Hail Density: Medium

Tornado Density: Medium

Site Attributes & Vulnerability Data

Location: Suburban

Site Conditions: Engineered site

Trees: Large/mature (away from structure)

Wind Exposure: Shielded by buildings and trees

Wind-Borne Debris Source: Slate tiles

Levee/Flood Protection: Yes

Structural Attributes & Vulnerability Data

Construction Type: Wood, masonry	Foundation Type: Slab on grade		Roof Type: Gable, complex	
Stories: 2	Basement: Partial	Attic: No	Roof Covering: Slate	
Building Condition: Good	Window Condition: Fair		Roof Condition: Good	
Safe Room/Storm Shelter: No	Impact Resistant Windows: No		Roof Overhang >2 feet: Yes	
Lowest Floor Height (from ground): 0.5 feet	Mechanical Equipment Height (from ground): 1 foot	Floodproofing: No	Flood Vents: N/A	
Sufficient Attachment of Non-Structural Building Component: N/A				

Vulnerabilities & Mitigation Recommendations



Deterioration of Exterior Building Envelope: Deterioration of the stucco cladding was detected at numerous locations around the soffit parameter, exposing the wood roof frame and sheathing to water damage.



Non-Impact Resistant Windows:

A cracked glass pane was observed on the southern side of the structure.

VULNERABILITY ASSESSMENT REPORT OF HISTORIC LOUISIANA SITES

Gallier Hall

545 St. Charles Ave., New Orleans, LA 70130

Orleans Parish



Historical Profile: Gallier Hall served as City Hall for just over a century and has been the site of many important events in New Orleans' history, especially during Reconstruction and the Huey Long era. Several important figures in Louisiana history lay in state in Gallier Hall, including Jefferson Davis and General Beauregard.

Primary Use: Event hall/theatre

Contents: Paintings, draperies, lighting fixtures, furniture, office equipment

Year Built: 1845-1853

Occupied: Yes

Temperature/Moisture Sensitive Contents: Yes

Emergency Generators: Unknown

Under Renovation: No

Year Remodeled: Unknown

Geographic Profile & Vulnerabilities



Geographic Profile:

Gallier Hall is located in the New Orleans Central Business District and is approximately 3,000 feet from the west bank of the Mississippi River.

Wind Zone: 110-119 mph

Flood Zone: X, levee protection

SFHA: No

Hail Density: Low-medium

Tornado Density: Medium

Site Attributes & Vulnerability Data

Location: Urban

Site Conditions: Engineered site

Trees: None

Wind Exposure: Shielded by buildings

Wind-Borne Debris Source: None

Levee/Flood Protection: Yes

Structural Attributes & Vulnerability Data

Construction Type: Masonry (stone)	Foundation Type: Unknown		Roof Type: Gable, hip, complex	
Stories: 3	Basement: Yes	Attic: Yes	Roof Covering: Unknown	
Building Condition: Good	Window Condition: Fair-poor		Roof Condition: Unknown	
Safe Room/Storm Shelter: No	Impact Resistant Windows: No		Roof Overhang >2 feet: No	
Lowest Floor Height (from ground): 1 foot	Mechanical Equipment Height (from ground): 1 foot	Floodproofing: No	Flood Vents: N/A	
Sufficient Attachment of Non-Structural Building Component: N/A				

Vulnerabilities & Mitigation Recommendations



Window Protection for Non-Impact Resistant Windows & Condition of Openings:

Several broken windows were found throughout the structure. Window protection should be used in the case of high-wind events because non-impact resistant windows are susceptible to water infiltration once broken.

Exterior doors to the basement portion of the structure were found to be in fair-poor condition, which could lead to wind-driven rain intrusion or opening during high-wind events.



Moisture Damage: Moisture damage was detected on numerous interior walls throughout the building.

VULNERABILITY ASSESSMENT REPORT OF HISTORIC LOUISIANA SITES

Jackson Barracks Campus

6400 St. Claude Ave., New Orleans, LA 70117
Orleans Parish



Historical Profile: President Andrew Jackson signed a Congressional bill on July 19, 1832, that provided \$87,000 for the building of a post to house U.S. troops. An additional \$107,500 from the Federal Fortifications Act was appropriated by Congress, who realized after the War of 1812 that coastal cities were not adequately defended. The site for Jackson Barracks was purchased on December 16, 1833, from Pierre Cotteret due to its proximity to the city and the four forts (Forts Pike, Macomb, Jackson, Livingston, and St. Philip) guarding it against a seaborne invasion such as Jackson faced there in 1815. The Jackson Barracks campus suffered severe flood damage due to levee failure in Hurricane Katrina.

Primary Use: Military housing/administrative use/chapel
Contents: Furniture, residential contents, office items and equipment

Year Built: 1834	Occupied: Yes	Temperature/Moisture Sensitive Contents: Yes	Emergency Generators: No
Under Renovation: No	Year Remodeled: Unknown		

Geographic Profile & Vulnerabilities

	Geographic Profile: Fort Jackson is located in the Lower 9th Ward of New Orleans. The southwest portion of the campus dead ends at the Mississippi River levee system.	Wind Zone: 110-119 mph	
		Flood Zone: X (500 yr. Flood Zone), AE	SFHA: Yes
		Hail Density: Low-medium	
		Tornado Density: Medium	

Site Attributes & Vulnerability Data

Location: Urban	Site Conditions: Engineered site	Trees: Large/mature
Wind Exposure: Shielded by buildings and trees	Wind-Borne Debris Source: Building components (slate tiles)	Levee/Flood Protection: Yes; located along MS River levee system

Structural Attributes & Vulnerability Data

Construction Type: Masonry, wood	Foundation Type: Pier and beam		Roof Type: Gable, hip, flat
Stories: 1, 2	Basement: No	Attic: Yes	Roof Covering: Slate
Building Condition: Good	Window Condition: Good		Roof Condition: Good
Safe Room/Storm Shelter: No	Impact Resistant Windows: No		Roof Overhang >2 feet: No
Lowest Floor Height (from ground): 0.5 feet	Mechanical Equipment Height (from ground): 1 foot	Floodproofing: No	Flood Vents: N/A
Sufficient Attachment of Non-Structural Building Component: Shutters (yes), gutters (yes)			

Vulnerabilities & Mitigation Recommendations



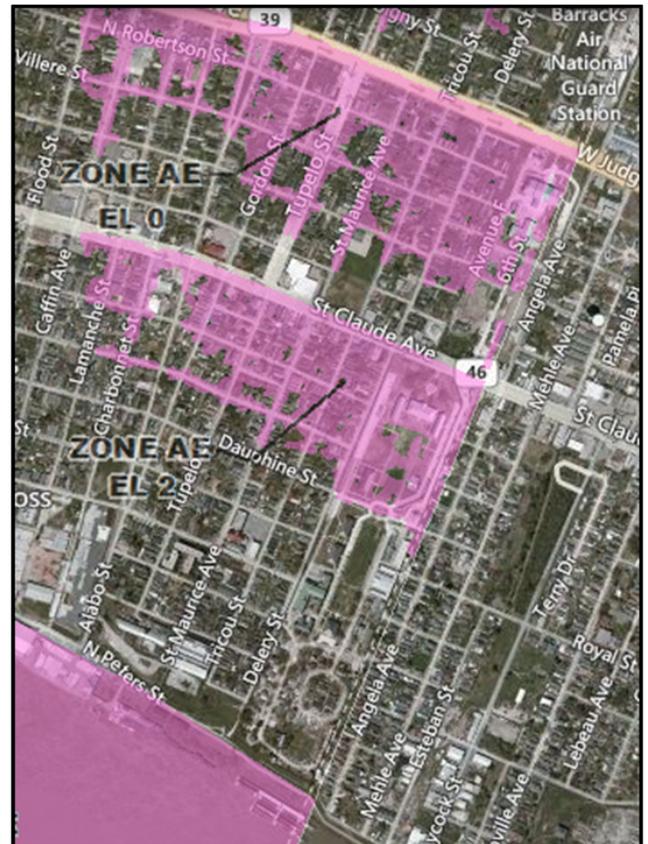
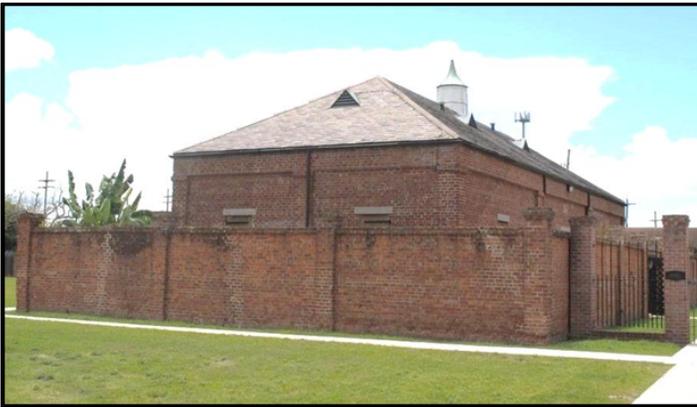
Exterior Building Envelope Damage: Missing/poorly attached siding and insufficiently attached ridge tiles were detected on the office/administration buildings. These items can become wind-borne debris sources during high-wind events, and failure of the building envelope material can lead to water infiltration into the interior portion of the structure.



Window Protection for Non-Impact Resistant Windows: Window protection should be used in the case of high-wind events because non-impact resistant windows are susceptible to water infiltration once broken.



Overhanging Trees: Large branches were found hanging over several of the residential structures and one had been struck by lightning. The subject trees should be selectively trimmed to avoid damage to the building in a high-wind event.



Campus within Special Flood Hazard Area (SFHA)/Flood History: Although the historic buildings that were assessed were not in the SFHA, portions of the Jackson Barracks campus do fall in the SFHA AE Zone. Moreover, the subject buildings sustained substantial flood damage during Hurricane Katrina, measuring up to 8 feet in some areas.

Grade-level air conditioning condensers and electrical were typical at each building, but generators were elevated.

VULNERABILITY ASSESSMENT REPORT OF HISTORIC LOUISIANA SITES

Kaffie-Frederick Hardware Store

758 Front St., Natchitoches, LA 71457

Natchitoches Parish



Historical Profile: Adolph and Harris Kaffie, Jewish–Prussian immigrants, opened for business in 1863. Their store has been in this building since 1892. The store is the oldest continuously operated hardware store in Louisiana.

Primary Use: Hardware store

Contents: Store inventory (\$300K), furniture and fixtures (\$128K)

Year Built: 1863

Occupied: Yes

Temperature/Moisture Sensitive Contents: Yes

Emergency Generators: No

Under Renovation: No

Year Remodeled: 1932

Geographic Profile & Vulnerabilities



Geographic Profile: Kaffie-Frederick Hardware Store is located along Front St., atop the west ridge of the Cane River in the Natchitoches Historic District.

Wind Zone: 90 mph

Flood Zone: X

SFHA: No

Hail Density: Low-medium

Tornado Density: Medium

Site Attributes & Vulnerability Data

Location: Urban

Site Conditions: Engineered site

Trees: None

Wind Exposure: Shielded by buildings

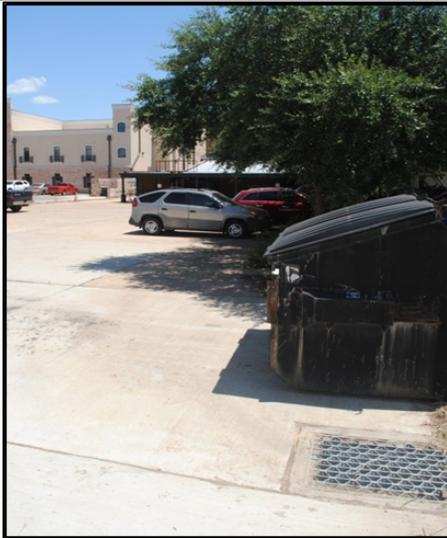
Wind-Borne Debris Source: None

Levee/Flood Protection: No

Structural Attributes & Vulnerability Data

Construction Type: Masonry, wood	Foundation Type: Pier and beam, slab		Roof Type: Flat
Stories: 2	Basement: No	Attic: No	Roof Covering: Unknown
Building Condition: Good	Window Condition: Fair		Roof Condition: Good-fair; several places on roof need to be permanently fixed
Safe Room/Storm Shelter: No	Impact Resistant Windows: No		Roof Overhang >2 feet: No
Lowest Floor Height (from ground): 0.5 feet	Mechanical Equipment Height (from ground): 1 foot	Floodproofing: No	Flood Vents: N/A
Sufficient Attachment of Non-Structural Building Component: Shutters (yes)			

Vulnerabilities & Mitigation Recommendations



Flooding Inside Structure: The storeroom in the back of the property has previously experienced flooding caused by drainage problems. Numerous buildings along Front St. have had flooding issues from the same source, and these episodes seem to be precipitated by periods of heavy rainfall. Drainage improvement projects should be explored to prevent further flooding events.



Fire Hazard: Since most of the building’s interior is primarily built of wood, the current owner is concerned with fire vulnerabilities due to lightning strikes. Consideration of a lightning protection system is recommended to prevent possible loss.

VULNERABILITY ASSESSMENT REPORT OF HISTORIC LOUISIANA SITES

Madame John's Legacy

632 Dumaine St., New Orleans, LA 70116

Orleans Parish



Historical Profile: Madame John's Legacy is a product of the fire of 1788. It is a rare example of Creole French colonial design in the French Quarter. It is also of special interest because it escaped the Great Fire of 1795, which leveled much of New Orleans and changed the architectural look of the city.

Primary Use: Museum

Contents: Rotating museum exhibits (currently housing collection of Newcomb pottery), furniture

Year Built: 1789

Occupied: Yes

Temperature/Moisture

Emergency

Under Renovation: No

Year Remodeled: 1948, 1972, 1996

Sensitive Contents: Yes

Generators:

No

Geographic Profile & Vulnerabilities



Geographic Profile:

Madame John's Legacy is located in the middle of the historic French Quarter. The site was constructed atop a ridge created by the Mississippi River Basin and is approximately 1,000 feet from the Mississippi River.

Wind Zone: 110-119 mph

Flood Zone: X, levee protection

SFHA: No

Hail Density: Low-medium

Tornado Density: Medium

Site Attributes & Vulnerability Data

Location: Urban

Site Conditions: Engineered site

Trees: None

Wind Exposure: Shielded by buildings

Wind-Borne Debris Source: Building components (slate tiles)

Levee/Flood Protection: Yes

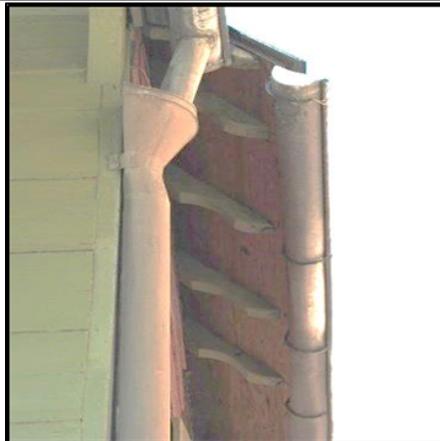
Structural Attributes & Vulnerability Data

Construction Type: Wood and masonry	Foundation Type: Pier (brick)		Roof Type: Mansard
Stories: 2	Basement: Yes	Attic: Yes	Roof Covering: Slate
Building Condition: Good	Window Condition: Fair		Roof Condition: Unknown
Safe Room/Storm Shelter: No	Impact Resistant Windows: No		Roof Overhang >2 feet: Yes
Lowest Floor Height (from ground): 8 feet	Mechanical Equipment Height (from ground): 1 foot	Floodproofing: No	Flood Vents: N/A
Sufficient Attachment of Non-Structural Building Component: Shutters (yes), gutters (partial)			

Vulnerabilities & Mitigation Recommendations



Exterior & Interior Building Envelope Damage: Plaster that was applied over the brick structural walls has caused serious and recurring moisture issues to the exterior and interior building envelope. The bricks, which naturally retain moisture, are not able to dry properly due to the plaster application.



Non-Structural Component Attachment: The gutter system on the side of the building needs additional support to prevent the gutter from tilting. Non-structural components not properly attached can become wind-borne debris sources in high-wind events.



Interior Moisture Damage: Slate tiles around the central chimney are causing moisture intrusion into the interior of the structure. Plaster that was applied over the brick structural walls has caused serious and recurring moisture issues to the interior of the structure. It is recommended that an ice and water shield be installed on the roof structure to prevent further damage and that the mortar of the chimney be tuck-pointed.



Wind-Borne Debris Source: Loose Slate tiles were detected on the roof of the neighboring building, to the rear of the property. Since loose tiles can become wind-borne debris sources in high-wind events, it is recommended that routine checks of roof tile attachment be made.

VULNERABILITY ASSESSMENT REPORT OF HISTORIC LOUISIANA SITES

Natchitoches Parish Courthouse

226 Church St., Natchitoches, LA 71457

Natchitoches Parish



Historical Profile: The Natchitoches Parish Courthouse was built during President Roosevelt's Works Progress Administration.

Primary Use: Courthouse, government offices

Contents: Books, furniture, photographs, artwork, government records, electronics, records (parish meetings & ordinances, court, property ownership, zoning, & tax records)

Year Built: 1940

Occupied: Yes

Temperature/Moisture

Emergency

Under Renovation: No

Year Remodeled: 1959 (addition)

Sensitive Contents: Yes; records

Generators: No

Geographic Profile & Vulnerabilities



Geographic Profile:

The Natchitoches Parish Courthouse is located in the center of the Natchitoches Historic District, one block west of the Cane River.

Wind Zone: 90 mph

Flood Zone: X

SFHA: No

Hail Density: Low-medium

Tornado Density: Medium

Site Attributes & Vulnerability Data

Location: Urban

Site Conditions: Engineered site

Trees: Large/mature (evergreen)

Wind Exposure: Shielded by buildings

Wind-Borne Debris Source: Building components (rooftop communication equipment)

Levee/Flood Protection: No

Structural Attributes & Vulnerability Data

Construction Type: Concrete, masonry	Foundation Type: Slab		Roof Type: Flat
Stories: 4	Basement: Yes	Attic: Yes	Roof Covering: Asphalt section
Building Condition: Good	Window Condition: Fair		Roof Condition: Good
Safe Room/Storm Shelter: No	Impact Resistant Windows: No		Roof Overhang >2 feet: No
Lowest Floor Height (from ground): -8 feet	Mechanical Equipment Height (from ground): -7 feet	Floodproofing: No	Flood Vents: N/A
Sufficient Attachment of Non-Structural Building Component: Rooftop equipment (corroded attachments should be replaced in the near future).			

Vulnerabilities & Mitigation Recommendations



Ponding Issue: Roof membrane damage was detected on the roof of the rear building. Debris should be removed periodically from the roof drain to prevent the restriction of rain runoff, and supplemental roof drainage should be considered.



Non-Impact Resistant Windows: Broken glass panes were found on the first and fourth floor.



Moisture Damage to Exterior Building Envelope and Interior: The concrete overhang at the back of the rear building is causing moisture issues that are deteriorating exterior and interior building components. The tar covering of the concrete overhang is in poor condition. Other moisture problems were observed around the windows (pictured above in separate comment) of the same building.

VULNERABILITY ASSESSMENT REPORT OF HISTORIC LOUISIANA SITES

Old Courthouse Museum

600 2nd St., Natchitoches, LA 71457
Natchitoches Parish



Historical Profile: Constructed in 1896, the old courthouse serves as the library for the Natchitoches Genealogical and Historical Association

Primary Use: Museum

Contents: Genealogical records, books, furniture, photographs, artwork, artifacts, electronics, and microfilm

Year Built: 1896

Occupied: Yes

Temperature/Moisture

Emergency

Under Renovation: No

Year Remodeled: 1935, 1977

Sensitive Contents: Yes; historic relics, books, documents

Generators: No

Geographic Profile & Vulnerabilities



Geographic Profile:

The Old Courthouse Museum is located in the center of the Natchitoches Historic District, one block west of the Cane River.

Wind Zone: 90 mph

Flood Zone: X

SFHA: No

Hail Density: Low-medium

Tornado Density: Medium

Site Attributes & Vulnerability Data

Location: Urban

Site Conditions: Engineered site

Trees: Small

Wind Exposure: Shielded by buildings

Wind-Borne Debris Source: Rooftop equipment from Natchitoches Parish Courthouse

Levee/Flood Protection: No

Structural Attributes & Vulnerability Data

Construction Type: Masonry	Foundation Type: Pier and beam		Roof Type: Hip, complex
Stories: 3	Basement: No	Attic: Yes	Roof Covering: Shingle
Building Condition: Fair	Window Condition: Fair		Roof Condition: Unknown
Safe Room/Storm Shelter: No	Impact Resistant Windows: No		Roof Overhang >2 feet: No
Lowest Floor Height (from ground): 1.5 feet	Mechanical Equipment Height (from ground): 2 feet	Floodproofing: No	Flood Vents: N/A
Sufficient Attachment of Non-Structural Building Component: N/A			

Vulnerabilities & Mitigation Recommendations



Cracks in Structural Walls: Large cracks were observed on the north-facing interior, structural wall, which supports the two story loft and large hipped roof.



Interior Moisture Damage: Deterioration of the plaster application over the brick structural walls was detected. Mortar joints should be tuck-pointed to prevent water intrusion, causing moisture damage to the plaster, and to prevent brick failure, such as cracking.



Non-Impact Resistant Windows: The building envelope is comprised of numerous non-impact resistant windows, some measuring approximately 8 feet tall, that are in fair condition.

VULNERABILITY ASSESSMENT REPORT OF HISTORIC LOUISIANA SITES

Old Governor's Mansion

502 North Blvd., Baton Rouge, LA 70802
East Baton Rouge Parish



Historical Profile: The Old Louisiana Governor's Mansion was used between 1930 and 1961 and was the home of Huey Long and family during the beginning of his governorship. The governor's mansion is modeled after the White House in Washington D.C., supposedly because Governor Long wanted to become familiar with Washington's White House.

Primary Use: Museum, event venue

Contents: Historic house museum collections (artifacts, furnishings, fine art, and collectables) related to the history of the landmark, office equipment (\$800K)

Year Built: 1929

Occupied: Yes

Temperature/Moisture Sensitive Contents: Yes; contents and building finishes

Emergency Generators: No

Under Renovation: No

Year Remodeled: Multiple times

Geographic Profile & Vulnerabilities



Geographic Profile:

The Old Louisiana Governor's Mansion is located at 502 North Blvd. between Royal and St. Charles streets in downtown Baton Rouge and is five blocks east of the Mississippi River

Wind Zone: 91-99 mph

Flood Zone: X, levee protection

SFHA: No

Hail Density: Low-medium

Tornado Density: Medium

Site Attributes & Vulnerability Data

Location: Urban

Site Conditions: Engineered site

Trees: Small/Mature

Wind Exposure: Shielded by buildings and trees

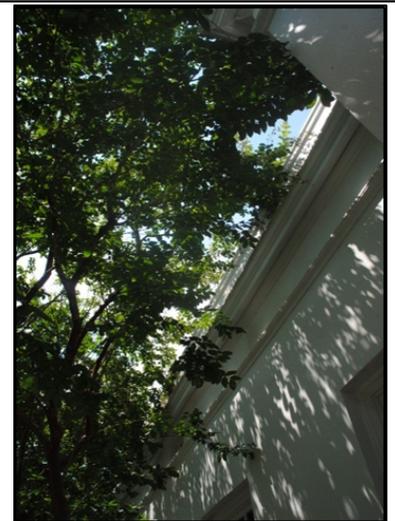
Wind-Borne Debris Source: None

Levee/Flood Protection: Yes

Structural Attributes & Vulnerability Data

Construction Type: Masonry	Foundation Type: Unknown		Roof Type: Flat
Stories: 3	Basement: Yes	Attic: Yes	Roof Covering: Unknown
Building Condition: Good	Window Condition: Good		Roof Condition: Unknown
Safe Room/Storm Shelter: No	Impact Resistant Windows: No		Roof Overhang >2 feet: No
Lowest Floor Height (from ground): -9 feet	Mechanical Equipment Height (from ground): Unknown	Floodproofing: No	Flood Vents: N/A
Sufficient Attachment of Non-Structural Building Component: N/A			

Vulnerabilities & Mitigation Recommendations



Interior Moisture Damage & Possible Roof Ponding:

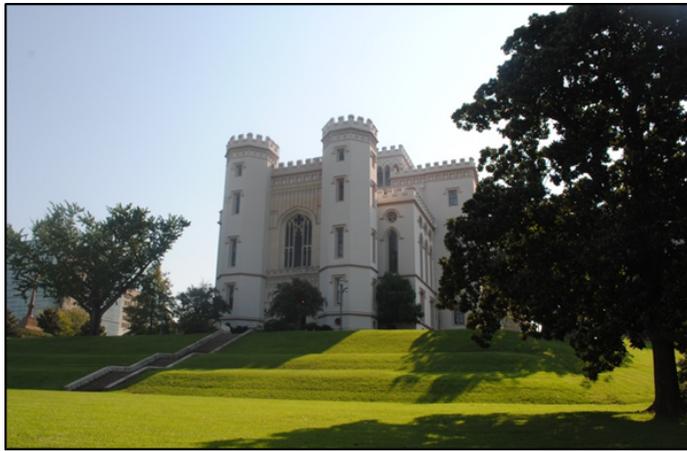
Interior moisture damage was detected in the walls and ceilings of several rooms, causing serious and recurring moisture issues with the plaster.

Analysis of the roof from aerial imagery suggests that roof ponding exists over the ceiling portion that is damaged by moisture. The debris of an overhanging tree in this area may be clogging the roof drain, aggravating the moisture issue.

VULNERABILITY ASSESSMENT REPORT OF HISTORIC LOUISIANA SITES

Old State Capital

100 North Blvd., Baton Rouge, LA 70801
East Baton Rouge Parish



Historical Profile: The Old State Capital was built to accommodate the move of the seat of government from New Orleans to Baton Rouge. Gutted by fire in the Civil War, the state house has been completely refurbished and is one of the most distinguished examples of Gothic Revival architecture in the United States.

Primary Use: Museum, event venue

Contents: Furniture, draperies, office equipment, electronic equipment

Year Built: 1850

Occupied: Yes

Temperature/Moisture Sensitive Contents: Yes

Emergency Generators: No

Under Renovation: No

Year Remodeled: 1990-1994

Geographic Profile & Vulnerabilities



Geographic Profile:

The Old State Capital building is located atop a bluff, approximately 600 feet from the Mississippi River.

Wind Zone: 91-99 mph

Flood Zone: X, levee protection

SFHA: No

Hail Density: Low-medium

Tornado Density: Medium

Site Attributes & Vulnerability Data

Location: Urban

Site Conditions: Engineered site

Trees: Large/mature, medium

Wind Exposure: Shielded by buildings

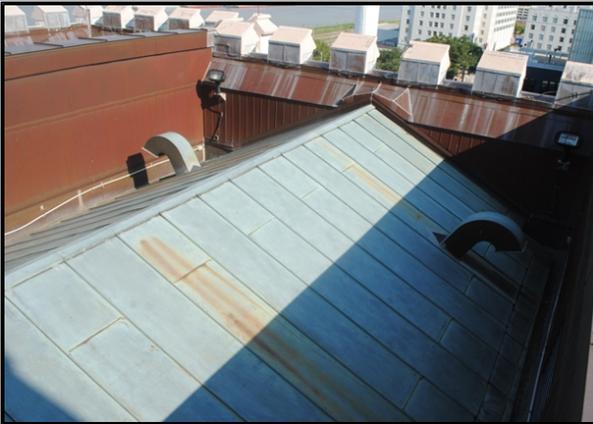
Wind-Borne Debris Source: Other buildings

Levee/Flood Protection: Yes

Structural Attributes & Vulnerability Data

Construction Type: Masonry	Foundation Type: Slab on grade		Roof Type: Gable, flat
Stories: 3	Basement: No	Attic: Yes	Roof Covering: Metal (copper)
Building Condition: Good	Window Condition: Fair		Roof Condition: Good-fair; several places on roof need to be permanently fixed
Safe Room/Storm Shelter: No	Impact Resistant Windows: No		Roof Overhang >2 feet: No
Lowest Floor Height (from ground): 3 feet	Mechanical Equipment Height (from ground): 3.5 feet	Floodproofing: No	Flood Vents: N/A
Sufficient Attachment of Non-Structural Building Component: Lightning protection (yes)			

Vulnerabilities & Mitigation Recommendations



Deterioration of Exterior Building Envelope: While the roof structure and covering is very well maintained, temporary fixes are in place on several locations throughout the roof system that could become problematic in the event of a major storm. The exact locations of the problem areas exist in the valleys of the gable roof structures, which have caused leaking in the interior. Such water damage includes interior walls (pictured above) and hardwood flooring.



Deterioration of Non-Impact Resistant Windows: Many of the windows were reported to have insufficient insulation and/or sealing, causing water intrusion of wind-driven rain. If left unattended during a major rain event, the windows can cause damage to wood floors, draperies, or furniture. Non-impact resistant windows are susceptible to water infiltration once broken.

VULNERABILITY ASSESSMENT REPORT OF HISTORIC LOUISIANA SITES

Old U.S. Mint

400 Esplanade Ave., New Orleans, LA 70116

Orleans Parish



Historical Profile: The Old U.S. Mint holds the distinct title of being the only mint to produce both American and Confederate coinage. A product of Andrew Jackson's "Bank War" and westward expansion, the mint was built in 1835 and constructed on the site of Fort St. Charles. Minting began in 1838 and ended in 1909.

Primary Use: Museum

Contents: Wide variety of priceless collections exhibited and stored on-site

Year Built: 1835	Occupied: Yes	Temperature/Moisture Sensitive Contents: Yes	Emergency Generators: No
Under Renovation: No	Year Remodeled: 1854, 1970s		

Geographic Profile & Vulnerabilities

	Geographic Profile: The Old U.S. Mint is located at the edge of the northeastern end of the French Quarter. The site was constructed atop a ridge created by the Mississippi River Basin and is approximately 450 feet from the Mississippi River.	Wind Zone: 110-119 mph	
		Flood Zone: X, levee protection	SFHA: No
		Hail Density: Low-medium	
		Tornado Density: Medium	

Site Attributes & Vulnerability Data

Location: Urban	Site Conditions: Engineered site	Trees: Large/mature
Wind Exposure: Shielded by buildings on three sides	Wind-Borne Debris Source: Building components (roof panels, other buildings)	Levee/Flood Protection: Yes

Structural Attributes & Vulnerability Data

Construction Type: Wood, masonry	Foundation Type: Brick footing		Roof Type: Gable
Stories: 3	Basement: No	Attic: Yes	Roof Covering: Metal (Copper)
Building Condition: Good	Window Condition: Fair		Roof Condition: Unknown; damage sustained in Hurricanes Katrina & Isaac
Safe Room/Storm Shelter: No	Impact Resistant Windows: No		Roof Overhang >2 feet: No
Lowest Floor Height (from ground): 0.5 feet	Mechanical Equipment Height (from ground): 1 foot	Floodproofing: No	Flood Vents: N/A
Sufficient Attachment of Non-Structural Building Component: Railing between columns (no)			

Vulnerabilities & Mitigation Recommendations



Window Protection for Non-Impact Resistant Windows: Non-impact resistant windows are susceptible to water infiltration once broken. It is recommended that window protection be used in the case of high-wind events.

Deterioration of wood trim was observed on the south end of the building.



Interior Moisture Damage: Deterioration of the plaster application over the brick structural walls was detected. Mortar joints should be tuck-pointed to prevent water intrusion (which causes moisture damage to the plaster) and to prevent brick failure (such as cracking).



Deterioration of Exterior Building Components:

VULNERABILITY ASSESSMENT REPORT OF HISTORIC LOUISIANA SITES

Old Ursuline Convent

1100 Chartres St., New Orleans, LA 70116

Orleans Parish



Historical Profile: The Old Ursuline Convent holds the title of being the oldest existing building in the Mississippi Valley. The structure has been a convent for the Ursuline nuns, a school, an archbishop’s residence, and a meeting place for the Louisiana Legislature. Presently, it is part of the Catholic Cultural Heritage Center of the Archdiocese of New Orleans.

Primary Use: Museum

Contents: Historic archives, religious relics and statues, antique furniture, original fixtures, hand painted murals, antique books, office equipment

Year Built: 1752-1753

Occupied: Yes

Temperature/Moisture Sensitive Contents: Yes

Emergency Generators: Unknown

Under Renovation: No

Year Remodeled: Unknown

Geographic Profile & Vulnerabilities



Geographic Profile:

The Old Ursuline Convent is located in the historic French Quarter and is approximately 850 feet from the Mississippi River.

Wind Zone: 110-119 mph

Flood Zone: X, levee protection

SFHA: No

Hail Density: Low-medium

Tornado Density: Medium

Site Attributes & Vulnerability Data

Location: Urban

Site Conditions: Engineered site

Trees: Small, medium

Wind Exposure: Shielded by buildings and trees

Wind-Borne Debris Source: Building components (slate tiles, other buildings)

Levee/Flood Protection: Yes

Structural Attributes & Vulnerability Data

Construction Type: Wood and masonry	Foundation Type: Pier and beam		Roof Type: Hip, gable, complex
Stories: 3	Basement: No	Attic: Yes	Roof Covering: Slate
Building Condition: Good	Window Condition: Fair		Roof Condition: Good
Safe Room/Storm Shelter: No	Impact Resistant Windows: No		Roof Overhang >2 feet: No
Lowest Floor Height (from ground): 0 feet	Mechanical Equipment Height (from ground): 1 foot	Floodproofing: No	Flood Vents: N/A
Sufficient Attachment of Non-Structural Building Component: Shutters (yes), gutters (yes)			

Vulnerabilities & Mitigation Recommendations



Non-Impact Resistant Windows: Non-impact resistant windows (single pane/annealed) are susceptible to water infiltration once broken. Leaking can occur between glazing, window frames, and exterior walls due to flashing, sealant, or gasket failure.



Condition of Non-Impact Resistant Glass Windows and Doors Frames: Deterioration of the most of window frames and second floor French doors was observed. Moisture intrusion, from wind-driven rain and humidity, will cause further deterioration to the opening systems. It could also cause water intrusion in the interior of the building. Window protection for non-impact resistant glass units should be used in the case of high-wind events because such windows are susceptible to water infiltration once broken.

VULNERABILITY ASSESSMENT REPORT OF HISTORIC LOUISIANA SITES

Upper & Lower Pontalba Buildings 500 St. Ann St. & 500 St. Peter St., New Orleans, LA 70116 Orleans Parish



Historical Profile: The Pontalba Buildings are matching redbrick, one-block long, four-story buildings that form Two sides of Jackson Square in the French Quarter. The upper floors are apartments that are purportedly the oldest continuously rented apartments in the United States.

Primary Use: Retail and restaurants (ground floors), apartments (upper floors)

Contents: Furniture, artwork, decorative art, music instruments, period fixtures, restaurant equipment, retail goods, personal possessions of tenants

Year Built: 1840
Under Renovation: Yes; cosmetic

Occupied: Yes
Year Remodeled: 1940, 1994

Temperature/Moisture Sensitive Contents: Yes; food inventory, furnishings

Emergency Generators: No

Geographic Profile & Vulnerabilities



Geographic Profile: The building fronting Rue St. Peter, upriver from Jackson Square, is the Upper Pontalba, and the building on the other side, fronting Rue St. Ann, the Lower Pontalba. The site was constructed atop a ridge created by the Mississippi River Basin and is approximately 400 feet from the Mississippi River.

Wind Zone: 110-119 mph
Flood Zone: X, levee protection **SFHA:** No
Hail Density: Low-medium
Tornado Density: Medium

Site Attributes & Vulnerability Data

Location: Urban	Site Conditions: Engineered site	Trees: Large/mature (live oak)
Wind Exposure: Shielded by buildings and trees	Wind-Borne Debris Source: Building components (slate tiles, trees)	Levee/Flood Protection: Yes

Structural Attributes & Vulnerability Data

Construction Type: Wood and masonry	Foundation Type: Pier and beam		Roof Type: Gable
Stories: 4	Basement: No	Attic: Yes	Roof Covering: Slate
Building Condition: Good	Window Condition: Fair		Roof Condition: Unknown; roof damage sustained during Hurricane Isaac in 2012
Safe Room/Storm Shelter: No	Impact Resistant Windows: No		Roof Overhang >2 feet: No
Lowest Floor Height (from ground): 0.5 feet	Mechanical Equipment Height (from ground): 1 foot	Floodproofing: No	Flood Vents: N/A
Sufficient Attachment of Non-Structural Building Component: Shutters (yes), gutters (yes)			

Vulnerabilities & Mitigation Recommendations



Non-Impact Resistant Windows: Non-impact resistant windows are susceptible to water infiltration once broken. It is recommended that window protection be used in a high-wind event.



Deterioration of Exterior Building Components: Deterioration of wood trim was observed on the South Upper Pontalba building.

VULNERABILITY ASSESSMENT REPORT OF HISTORIC LOUISIANA SITES

The Presbytere

751 Chartres St., New Orleans, LA 70116

Orleans Parish



Historical Profile: The Presbytere, originally called the Casa Curial (Ecclesiastical House), derives its name from the fact that it was built on the site of the residence, or presbytere, of the Capuchin monks. The building was used for commercial purposes until 1834 when it became a courthouse, until 1911.

Primary Use: Museum

Contents: A wide variety of priceless collections are stored and exhibited in the building

Year Built: 1791

Occupied: Yes

Temperature/Moisture

Emergency

Under Renovation: No

Year Remodeled: 1813, 1837, 1911, 1962

Sensitive Contents: Yes

Generators:
No

Geographic Profile & Vulnerabilities



Geographic Profile:

The Presbytere is located along Jackson Square, next to St. Louis Cathedral. The site was constructed atop a ridge created by the Mississippi River Basin and is approximately 800 feet from the Mississippi River.

Wind Zone: 110-119 mph

Flood Zone: X, levee protection

SFHA: No

Hail Density: Low-medium

Tornado Density: Medium

Site Attributes & Vulnerability Data

Location: Urban

Site Conditions: Engineered site

Trees: None

Wind Exposure: Shielded by buildings on three sides

Wind-Borne Debris Source: Building components (slate tiles, other buildings)

Levee/Flood Protection: Yes

Structural Attributes & Vulnerability Data

Construction Type: Wood and masonry	Foundation Type: Pier and beam		Roof Type: Mansard
Stories: 3	Basement: No	Attic: Yes	Roof Covering: Slate
Building Condition: Good	Window Condition: Fair		Roof Condition: Unknown; roof damage sustained during Hurricane Isaac in 2012
Safe Room/Storm Shelter: No	Impact Resistant Windows: No		Roof Overhang >2 feet: No
Lowest Floor Height (from ground): 1 foot	Mechanical Equipment Height (from ground): 1.5 feet	Floodproofing: No	Flood Vents: N/A
Sufficient Attachment of Non-Structural Building Component: Shutters (yes), gutters (yes), conduit (no)			

Vulnerabilities & Mitigation Recommendations



Moisture Damage to the Exterior Building Envelope Damage: Deterioration to the front building façade was detected. The damage was reportedly caused during Hurricane Isaac in 2012. Mortar joints should be tuck-pointed to prevent water intrusion (which causes moisture damage to the plaster) and to prevent brick failure (such as cracking).



Non-Structural Component Attachment:

Unattached conduit was observed below the second-story ledge on St. Ann St. Non-structural components not properly attached can become wind-borne debris sources in high-wind events.

VULNERABILITY ASSESSMENT REPORT OF HISTORIC LOUISIANA SITES

Prudhomme Building

Front St., Natchitoches, LA 71457
Natchitoches Parish



Historical Profile: Considered the oldest building on Front St., this structure has an original second-story facade. The cast iron, including a staircase in the rear, dates back to the 1850s. The building sustained fire damage in the 1970s and the top has remained vacant ever since.

Primary Use: Retail

Contents: Home décor, gifts, jewelry, candles, furniture, displays, store equipment (\$215K)

Year Built: 1827

Occupied: Yes

Temperature/Moisture Sensitive

Emergency

Under Renovation: No

Year Remodeled: Unknown

Contents: Yes; candles, wall décor

Generators: No

Geographic Profile & Vulnerabilities



Geographic Profile:

The Prudhomme Building is located along Front St., atop the western ridge of the Cane River in the Natchitoches Historic District.

Wind Zone: 90 mph

Flood Zone: X

SFHA: No

Hail Density: Low-medium

Tornado Density: Medium

Site Attributes & Vulnerability Data

Location: Urban

Site Conditions: Engineered site

Trees: Small

Wind Exposure: Shielded by buildings

Wind-Borne Debris Source: None

Levee/Flood Protection: No

Structural Attributes & Vulnerability Data

Construction Type: Masonry	Foundation Type: Pier and beam		Roof Type: Gable
Stories: 2	Basement: No	Attic: Yes	Roof Covering: Unknown
Building Condition: Fair-poor	Window Condition: Fair		Roof Condition: Unknown
Safe Room/Storm Shelter: No	Impact Resistant Windows: No		Roof Overhang >2 feet: Yes
Lowest Floor Height (from ground): 0 feet	Mechanical Equipment Height (from ground): 1 foot	Floodproofing: No	Flood Vents: N/A
Sufficient Attachment of Non-Structural Building Component: N/A			

Vulnerabilities & Mitigation Recommendations



Cracks in Structural Walls: Large cracks were found at numerous locations on the south- and west-facing exterior masonry walls. At the bottom of the south-facing masonry wall, a half inch gap between the wall and the flooring material was observed, suggesting that the wall has moved outward over time. A large gap between the glass and frame of the storefront window display also suggests movement of the structure. The second floor interior was not assessed, since it has never been repaired after a 1970s fire. An exterior assessment of the second floor further confirmed that the south-facing exterior wall has moved outward, causing severe cracks in the structural wall.



Flooding Inside Structure: The storeroom attached to the back of the main structure has experienced flooding due to drainage problems in the back of the property. A 1.5-inch water line and mold damage was discovered. Numerous buildings along Front St. have had flooding issues from the same source, and these episodes seem to be precipitated by periods of heavy rainfall. Drainage improvement projects should be explored to prevent further flooding events.



Roof Leak and Evidence of Ponding: A frequent roof leak in the back portion of the building is most likely attributable to the ponding issue detected on the built-up roof system. The roof covering appears to be in fair-poor condition and should be replaced in the near future.

VULNERABILITY ASSESSMENT REPORT OF HISTORIC LOUISIANA SITES

Ruston P.O.W. Camp Building

Grambling State University Campus Extension,

Ruston, LA 71270

Lincoln Parish



Historical Profile: In 1943, after being used as Branch "A" of the 5 The Women's Army Auxiliary Corps Training Center, Camp Ruston began operation as a WWII P.O.W. Camp for captured and impressed Nazi soldiers. The camp housed thousands of men from the Afrika Korps, Italy, Yugoslavia, Russia, Bosnia, Poland, Romania, and France. Most notably, Camp Ruston housed the entire crew from the captured U-505 U-boat, which carried an Enigma code machine; a new, acoustic torpedo; and over 1,000 lbs. of codebooks, charts, and maps. In February 3, 1946, the last prisoners were transferred out. On June 5, 1946, Camp Ruston officially closed and was formally transferred to the state in 1947.

Primary Use:
N/A

Contents:
Furniture

Year Built: 1942

Occupied: No

Temperature/Moisture Sensitive

Emergency

Under Renovation: No

Year Remodeled: Unknown

Contents: No

Generators:

No

Geographic Profile & Vulnerabilities



Geographic Profile:

The site of the former Camp Ruston is located approximately two miles northwest of the Grambling State University campus, 33 miles from the Arkansas border and 80 miles from the Texas border.

Wind Zone: 90 mph

Flood Zone: X

SFHA: No

Hail Density: Medium

Tornado Density: Medium

Site Attributes & Vulnerability Data

Location: Suburban/rural

Site Conditions: Open lot, surrounded by heavily wooded area

Trees: None

Wind Exposure: Open

Wind-Borne Debris Source: Building components and neighboring building in poor condition

Levee/Flood Protection: No

Structural Attributes & Vulnerability Data

Construction Type: Wood	Foundation Type: Pier and beam/stem wall		Roof Type: Gable
Stories: 1	Basement: No	Attic: Yes	Roof Covering: Asphalt shingle
Building Condition: Poor	Window Condition: Poor		Roof Condition: Poor
Safe Room/Storm Shelter: No	Impact Resistant Windows: No		Roof Overhang >2 feet: No
Lowest Floor Height (from ground): 3 feet (structure)	Mechanical Equipment Height (from ground): 4 feet	Floodproofing: No	Flood Vents: N/A
Sufficient Attachment of Non-Structural Building Component: Shutters (yes), gutters (yes)			

Vulnerabilities & Mitigation Recommendations



Building Condition: While there are two remaining P.O.W. Camp buildings on-site, one was severely damaged and partially crushed by a fallen tree and was not chosen for the assessment. The unharmed building, pictured above, is still intact with original fixtures, but it is in severe condition due to years of neglect. The damages are as follows: large hole in the roof covering; holes in the ceiling; no exterior door; broken windows; deterioration of wood siding; large sinkhole at southern end of the foundation; foundation damage; and water damage to interior walls and wood floors.

VULNERABILITY ASSESSMENT REPORT OF HISTORIC LOUISIANA SITES

Sabine Pass Lighthouse

29°43'0"N, 93°51'0"W

Cameron Parish



Historical Profile: The Sabine Pass Lighthouse, one of only three built in the United States of similar design, went into operation in 1857. It remained lit for 95 years, with the exception of a brief period during the Civil War when it was temporarily shut down. The light was permanently extinguished by the Coast Guard in 1952 when modern technology made it obsolete. The wharfs, keeper's house, and wooden outbuilding have all been destroyed by marsh fire. Restoration plans have been proposed and the local preservation alliance is seeking funding for the repair of the structure.

Primary Use:
Cultural Site

Contents: None

Year Built: 1857

Occupied: No

Temperature/Moisture

Emergency

Under Renovation: No

Year Remodeled: N/A

Sensitive Contents: No

Generators: No

Geographic Profile & Vulnerabilities



Geographic Profile:

The Sabine Pass Lighthouse is located along the Sabine Pass ship channel, 2 miles north of the Gulf of Mexico in southwestern Louisiana. It is 0.7 miles from the Texas border.

Wind Zone: 110-119 mph

Flood Zone: AE

SFHA: Yes

Hail Density: Low

Tornado Density: Low

Site Attributes & Vulnerability Data

Location: Rural

Site Conditions: Engineered site, inlet surrounded by coastal marshland

Trees: Scrub vegetation

Wind Exposure: Open

Wind-Borne Debris Source: None

Levee/Flood Protection: No

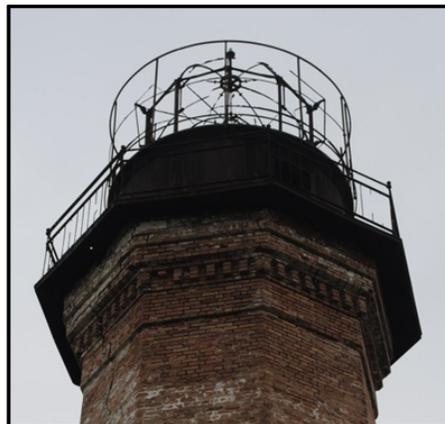
Structural Attributes & Vulnerability Data

Construction Type: Masonry, shell crete	Foundation Type: Wood pile		Roof Type: Domed
Height: 85 feet	Basement: No	Attic: No	Roof Covering: None
Building Condition: Fair-poor	Window Condition: N/A		Roof Condition: Poor (structure)
Safe Room/Storm Shelter: N/A	Impact Resistant Windows: N/A		Roof Overhang >2 feet: No
Lowest Floor Height (from ground): 4 feet (structure)	Mechanical Equipment Height (from ground): N/A	Floodproofing: Wet floodproofing	Flood Vents: N/A
Sufficient Attachment of Non-Structural Building Component: N/A			

Vulnerabilities & Mitigation Recommendations



Cracks and Deterioration in Structural Walls: A large crack (estimated 20 feet in length) was found on the southern face of the structure. Motor deterioration has caused some masonry units to fall off the structure, especially on the buttresses and corners of the octagonal walls. Mortar joints should be tuck-pointed to prevent further brick failure and cracking.



Missing Roof Covering: The copper roof covering was stolen in the 1970s, leaving the interior portion of the structure exposed to the elements.

VULNERABILITY ASSESSMENT REPORT OF HISTORIC LOUISIANA SITES

St. Louis Cathedral

615 Pierre Antoine Alley, New Orleans, LA 70116

Orleans Parish



Historical Profile: St. Louis Cathedral is the seat of the Archdiocese of New Orleans and is the oldest continuously active Roman Catholic Cathedral in the United States. Originally built in 1727 and dedicated to King Louis IX of France, the original structure burned during the great fire of 1788, but it was rebuilt into its present structure. In 1987, Pope John Paul II visited the cathedral.

Primary Use: Church

Contents: Furniture, religious relics and artifacts, musical instruments

Year Built: 1850

Occupied: Yes

Temperature/Moisture

Emergency

Under Renovation: No

Year Remodeled: Unknown

Sensitive Contents: Yes

Generators:

Unknown

Geographic Profile & Vulnerabilities



Geographic Profile:

St. Louis Cathedral is located along Jackson Square in the historic French Quarter. The site was constructed atop a ridge created by the Mississippi River Basin and is approximately 800 feet from the Mississippi River.

Wind Zone: > 110-119 mph

Flood Zone: X, levee protection

SFHA: No

Hail Density: Low-medium

Tornado Density: Medium

Site Attributes & Vulnerability Data

Location: Urban

Site Conditions: Engineered site

Trees: Small

Wind Exposure: Shielded by buildings on three sides

Wind-Borne Debris Source: Building components (slate tiles, other buildings)

Levee/Flood Protection: Yes

Structural Attributes & Vulnerability Data

Construction Type: Masonry	Foundation Type: Unknown		Roof Type: Gable, complex, steeple
Number of Stories: 3	Basement: No	Attic: No	Roof Covering: Slate
Building Condition: Good	Window Condition: Fair		Roof Condition: Unknown
Safe Room/Storm Shelter: No	Impact Resistant Windows: No		Roof Overhang >2 feet: No
Lowest Floor Height (from ground): 1 foot (structure)	Mechanical Equipment Height (from ground): 1.5 feet	Floodproofing: No	Flood Vents: N/A
Sufficient Attachment of Non-Structural Building Component: Gutters (yes), window protection (yes), exterior lighting (yes)			

Vulnerabilities & Mitigation Recommendations

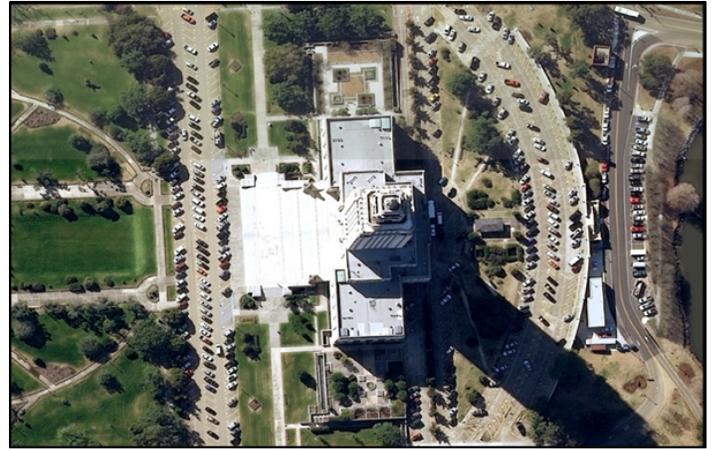


Interior Moisture Damage: Deterioration of the plaster application over the brick structural walls was detected. Mortar joints should be tuck-pointed to prevent water intrusion (which causes moisture damage to the plaster) and to prevent brick failure (such as cracking).

VULNERABILITY ASSESSMENT REPORT OF HISTORIC LOUISIANA SITES

Louisiana State Capitol

900 N 3rd St., Baton Rouge, LA 70802
East Baton Rouge Parish



Historical Profile: The 1932 construction of the current Louisiana State Capitol was influenced by then-former Governor Huey P. Long, and it has remained the seat of government for the U.S. state of Louisiana since then. It is the tallest building in Baton Rouge, the seventh tallest building in Louisiana, and the tallest capitol in the United States.

Primary Use: Houses the chambers for the Louisiana State Legislature, offices, including the Governor of Louisiana, tourist attraction

Contents: Furniture, office equipment, documents

Year Built: 1932
Under Renovation: Yes

Occupied: Yes
Year Remodeled: 2005-2014

Temperature/Moisture Sensitive Contents: Yes

Emergency Generators: Unknown

Geographic Profile & Vulnerabilities



Geographic Profile:
The Louisiana State Capitol is located in downtown Baton Rouge on the east bank of the Mississippi River.

Wind Zone: 91-99 mph

Flood Zone: X, levee protection
SFHA: No

Hail Density: Low-medium

Tornado Density: Medium

Site Attributes & Vulnerability Data

Location: Urban
Wind Exposure: Open, situated on large site and is tallest building downtown

Site Conditions: Engineered site
Wind-Borne Debris Source: Building components (rooftop equipment)

Trees: None
Levee/Flood Protection: Yes

Structural Attributes & Vulnerability Data

Construction Type: Reinforced Masonry	Foundation Type: Slab and Piling		Roof Type: Flat
Number of Stories: 34	Basement: Yes	Attic: Yes	Roof Covering: Asphalt section
Building Condition: Good	Window Condition: Good		Roof Condition: Good, roof leaking due to blow off from vents
Safe Room/Storm Shelter: No	Impact Resistant Windows: No		Roof Overhang >2 feet: No
Lowest Floor Height (from ground): 0 feet (structure)	Mechanical Equipment Height (from ground): 1 foot	Floodproofing: No	Flood Vents: N/A
Sufficient Attachment of Non-Structural Building Component: Rooftop vents (partial)			

Vulnerabilities & Mitigation Recommendations



Insufficient Attachment of Fan Cowlings and Fan Base to Roof Curb: Attach exhaust fans and air intakes to the curb with corrosion resistant fasteners not exceeding 6 inches on center between the equipment, transition pieces, and the roof curb. Fan cowlings should be attached to the curb with steel cables. Two cables are recommended for areas with less than 120 mph wind speed and cowlings less than 4 feet in diameter, 1/8-inch-diameter stainless steel cables are recommended.



Interior Moisture Damage: Moisture damage to the interior plaster walls was detected on several floors of the structure. It is recommended that flashing around the ledges be repaired to prevent wind driven rain intrusion.

VULNERABILITY ASSESSMENT REPORT OF HISTORIC LOUISIANA SITES

Southern Forest Heritage Museum & Research Center

77 Long Leaf Rd., Long Leaf, LA 71448
Rapides Parish



Historical Profile: The Long Leaf Saw Mill is the oldest complete sawmill facility in the South. This complex is unique in that it is a complete sawmill complex dating from the early twentieth century, and that it has the most complete collection of steam-powered logging and milling equipment known to exist. The Long Leaf Saw Mill contributed lumber for many projects and endeavors during World War II, especially Higgins Landing Craft.

Primary Use: Museum and research center

Contents: Antique lumber mill equipment, vehicles and motor equipment, shop tools, milled lumber, office equipment, museum artifacts, general store inventory and souvenirs

Year Built: 1900

Occupied: Yes

Temperature/Moisture

Emergency

Under Renovation: No

Year Remodeled: 1988

Sensitive Contents: Yes

Generators: No

Geographic Profile & Vulnerabilities



Geographic Profile:

The Southern Forest Heritage Museum and Research Center is located 35 miles north of Eunice and is 100 miles off the Gulf Coast.

Wind Zone: 90 mph

Flood Zone: X

SFHA: No

Hail Density: Low

Tornado Density: Low-medium

Site Attributes & Vulnerability Data

Location: Rural

Site Conditions: Engineered site

Trees: Large/mature

Wind Exposure: Shielded by trees

Wind-Borne Debris Source: Building components (metal Panels, other buildings)

Levee/Flood Protection: No

Structural Attributes & Vulnerability Data

Construction Type: Wood, metal	Foundation Type: Pier and beam		Roof Type: Gable, complex
Number of Stories: 3	Basement: No	Attic: Yes	Roof Covering: Asphalt shingle, metal
Building Condition: Fair	Window Condition: Fair		Roof Condition: Fair
Safe Room/Storm Shelter: No	Impact Resistant Windows: No		Roof Overhang >2 feet: No
Lowest Floor Height (from ground): 1 foot	Mechanical Equipment Height (from ground): 2 feet	Floodproofing: No	Flood Vents: N/A
Sufficient Attachment of Non-Structural Building Component: Shutters (yes), gutters (yes)			

Vulnerabilities & Mitigation Recommendations



Erosion of Foundation: Storm water runoff from an uphill area is eroding and destabilizing the soil at the base of the machine shop, round house, and car knocker shed. As a result, the foundations are being undermined, threatening the stability of the structures.



Foundation Issue: The foundation the antique steam engine sits on appears to be sinking. The train car is situated atop a hill that may be sloughing off due to runoff.



Foundation Issue: The pier foundation of the museum must be leveled and is in need of permanent repair.



can cause water infiltration into the interior of the building.

Non-Impact Resistant Windows: Several non-impact resistant windows were observed during the inspection. Non-impact resistant windows are susceptible to water infiltration once broken and

VULNERABILITY ASSESSMENT REPORT OF HISTORIC LOUISIANA SITES

Destrehan Plantation

13034 River Rd., Destrehan, LA 70047
St. Charles Parish



Historical Profile: Destrehan Plantation is one of the few remaining examples of a colonial Louisiana house that has changed substantially and yet remained a functioning house for the past empires of indigo, sugar, and petrochemical production. The property was saved from neglect and vandalism by the River Road Historical Society.

Primary Use: Plantation Museum

Contents: Antique furniture (\$450K), artwork (\$100K), historic documents (\$75K)

Year Built: 1787

Occupied: Yes

Temperature/Moisture Sensitive Contents: Yes; historic documents.

Emergency Generators: No

Under Renovation: No

Year Remodeled: 1972

Geographic Profile & Vulnerabilities



Geographic Profile: Destrehan Plantation is located in rural, Southeast Louisiana. It is located directly across the road from the east bank of the Mississippi River Levee System and is approximately 800 feet from the Mississippi River.

Wind Zone: 110-119 mph

Flood Zone: X, levee protection
SFHA: No

Hail Density: Low-medium

Tornado Density: Medium

Site Attributes & Vulnerability Data

Location: Rural

Site Conditions: Acreage, with multiple buildings and large trees

Trees: Large/mature (live oaks)

Wind Exposure: Shielded by trees

Wind-Borne Debris Source: Trees

Levee/Flood Protection: Yes

Structural Attributes & Vulnerability Data			
Construction Type: Wood and masonry	Foundation Type: Pier and beam		Roof Type: Mansard
Stories: 2	Basement: No	Attic: Yes	Roof Covering: Wood Shingles
Building Condition: Good	Window Condition: Fair		Roof Condition: Good
Safe Room/Storm Shelter: No	Impact Resistant Windows: No		Roof Overhang >2 feet: Yes (porch connection)
Lowest Floor Height (from ground): 0 feet	Mechanical Equipment Height (from ground): 1 foot	Floodproofing: No	Flood Vents: N/A
Sufficient Attachment of Non-Structural Building Component: Shutters (yes)			

Vulnerabilities & Mitigation Recommendations



Moisture Damage: Moisture damage was detected on the exterior and interior walls, as well as the ceilings.



Condition of Non-Impact Resistant Windows: Deterioration of the dormer window frames was observed. Window protection should be used in the case of high-wind events because non-impact resistant windows are susceptible to water infiltration once broken.

VULNERABILITY ASSESSMENT REPORT OF HISTORIC LOUISIANA SITES

Melrose Plantation

3533 Hwy 119, Melrose, LA 71452
Natchitoches Parish



Historical Profile: Melrose Plantation is one of the largest plantations in the United States built by and for free Blacks. The land was granted to Louis Metoyer, the son of Marie Therese Coincoin, a former slave who became a wealthy businesswoman in the area. The Metoyers were free people of color for four generations before the American Civil War. Eight structures were built to create the Melrose complex and indigo, tobacco, cotton, and other crops were farmed on the property. In the late 1800s, the Henry family purchased the property and invited artists and writers to stay as long as they wished, so long as they were working on some creative project.

Primary Use: Plantation site/tourism

Contents: Period furniture, priceless wall murals by artist Clementine Hunter, antique books, and artifacts.

Year Built: 1796-1833	Occupied: Yes	Temperature/Moisture Sensitive Contents: Yes	Emergency Generators: No
Under Renovation: No	Year Remodeled: Unknown		

Geographic Profile & Vulnerabilities

	Geographic Profile: Melrose Plantation is located along the east bank of the Cane River, approximately 12 miles southeast of the city of Natchitoches.	Wind Zone: 90 mph	
		Flood Zone: X, levee protection	SFHA: No
		Hail Density: Low-medium	
		Tornado Density: Low-medium	

Site Attributes & Vulnerability Data

Location: Rural	Site Conditions: Engineered site	Trees: Large/mature
Wind Exposure: Shielded by trees	Wind-Borne Debris Source: Building components (other buildings)	Levee/Flood Protection: Yes

Structural Attributes & Vulnerability Data

Construction Type: Wood, bousillage, masonry	Foundation Type: Brick slab, pier and beam		Roof Type: Hip
Stories: 1, 2	Basement: No	Attic: Yes	Roof Covering: Wood shingles
Building Condition: Good	Window Condition: Fair		Roof Condition: Good
Safe Room/Storm Shelter: No	Impact Resistant Windows: No		Roof Overhang >2 feet: Yes
Lowest Floor Height (from ground): 0 feet	Mechanical Equipment Height (from ground): 1 foot	Floodproofing: No	Flood Vents: N/A
Sufficient Attachment of Non-Structural Building Component: Shutters (yes), gutters (yes)			

Vulnerabilities & Mitigation Recommendations



Structural Stability Concern: A two-story portion of the main house, located in the rear of the structure, shakes when persons walk in the upstairs portion. Upon inspection of the upstairs room (Candy Henry bedroom), a gap under the baseboard was observed and the floor drooped in that same area. Inspection of the ground floor room reflected the findings above, revealing a drooped ceiling above a window. Further inspection of the ground floor revealed that the interior masonry wall has suffered mortar deterioration. Exterior inspection of the wing showed deterioration of the foundation, directly under the window with the drooped ceiling above.



Protection of Wall Murals: The second floor of the Africa House includes painted wall murals by local folk artist Clementine Hunter. These murals are vulnerable to wind-driven rain, through the second story windows and roof. Water damage was detected on the ceilings and walls of the room housing the murals. Plantation caretakers feel that a plastic covering, or equivalent, that would either wrap around the second floor or cover the murals, during prolonged rain events, would provide sufficient protection.



Window Protection for Non-Impact Resistant Windows: Broken windows were detected in the rear room of the Main House and in the Admissions building. Non-Impact resistant windows are susceptible to water infiltration once broken and could cause moisture issues in the interior of the building.

VULNERABILITY ASSESSMENT REPORT OF HISTORIC LOUISIANA SITES

Oak Alley Plantation

3645 Louisiana 18, Vacherie, LA 70090

St. James Parish



Historical Profile: Oak Alley operated as a sugar cane plantation until late 1860s, after the Civil War. The Heritage live oak trees that line the alley, leading to the front entrance of the plantation, were planted in the early 18th century, long before the present house was built. Restoration in 1925, by Mr. and Mrs. Andrew Stewart, was the first example of antebellum restoration along River Road.

Primary Use: Plantation Museum

Contents: Period furniture, draperies, art, fixtures, documents

Year Built: 1837

Occupied: Yes

Temperature/Moisture

Emergency

Under Renovation: No

Year Remodeled: Unknown

Sensitive Contents: Yes

Generators:

Unknown

Geographic Profile & Vulnerabilities



Geographic Profile:
Oak Alley Plantation is located in rural, Southeast Louisiana. It is located directly across the road from the south bank of the Mississippi River Levee System and is approximately 1,150 feet from the Mississippi River.

Wind Zone: 100-109 mph

Flood Zone: X (500 yr. flood zone)

SFHA: No

Hail Density: Low

Tornado Density: Low-medium

Site Attributes & Vulnerability Data

Location: Rural

Site Conditions: Acreage, with multiple buildings and large trees

Trees: Large/mature (live oaks)

Wind Exposure: Shielded by trees

Wind-Borne Debris Source: Building components (slate tiles), trees

Levee/Flood Protection: Yes

Structural Attributes & Vulnerability Data

Construction Type: Wood and masonry	Foundation Type: Unknown		Roof Type: Hip, with widow's watch
Stories: 2	Basement: No	Attic: Yes	Roof Covering: Slate
Building Condition: Good	Window Condition: Fair		Roof Condition: Unknown
Safe Room/Storm Shelter: No	Impact Resistant Windows: No		Roof Overhang >2 feet: Yes (porch connection)
Lowest Floor Height (from ground): 0 feet	Mechanical Equipment Height (from ground): 1 foot	Floodproofing: No	Flood Vents: N/A
Sufficient Attachment of Non-Structural Building Component: Shutters (yes)			

Vulnerabilities & Mitigation Recommendations



Tree Protection: Oak Alley is famous for its Heritage live oak trees that reside on the property, especially those that line the alley walkway to the front entrance of the plantation. The lightning protection systems of individual trees were severely damaged during Hurricane Gustav, and seven unprotected trees are in need of lightning protection installation. Currently the subject trees are at risk of injury or death from a lightning strike.



Interior Moisture Damage: Deterioration of the plaster application over the brick structural walls was detected. Mortar joints should be tuck-pointed to prevent water intrusion, causing moisture damage to the plaster, and to prevent brick failure, such as cracking.

VULNERABILITY ASSESSMENT REPORT OF HISTORIC LOUISIANA SITES

Oakley Plantation & Audubon State Historic Site

Louisiana 965, St. Francisville, LA 70775
West Feliciana Parish



Historical Profile: Oakley Plantation House was constructed for Ruffin Gray, a successful planter from Natchez, Mississippi. Gray died before the house was completed, and his widow, Lucy Alston, oversaw its completion. Ms. Alston remarried James Pirrie, and their daughter Lucy (born 1805) was the pupil of John James Audubon. Audubon's stay at Oakley lasted only four months, but he painted 32 of his famous bird pictures there.

Primary Use: Museum/tourism site

Contents: Museum/gallery of original John James Audubon artwork, period furniture, draperies, and textiles, historic artifacts, photographs, and documents

Year Built: 1799-2

Occupied: Yes

Temperature/Moisture Sensitive Contents: Yes; artwork and museum exhibits.

Emergency Generators: No

Under Renovation: No

Year Remodeled: Unknown

Geographic Profile & Vulnerabilities



Geographic Profile: Audubon State Historic Site is located approximately 4.5 miles from the east bank of the Mississippi River and northeast of the town of St. Francisville.

Wind Zone: 90 mph

Flood Zone: C

SFHA: No

Hail Density: Low

Tornado Density: Low-medium

Site Attributes & Vulnerability Data

Location: Rural

Site Conditions: Engineered site

Trees: Large/mature

Wind Exposure: Shielded by trees

Wind-Borne Debris Source: Trees

Levee/Flood Protection: No

Structural Attributes & Vulnerability Data

Construction Type: Wood and masonry	Foundation Type: Brick on grade, Pier and beam, slab-on-grade		Roof Type: Gable	
Stories: 1, 2, 3	Basement: No	Attic: Yes	Roof Covering: Wood Shingles, metal	
Building Condition: Good	Window Condition: Good		Roof Condition: Good	
Safe Room/Storm Shelter: No	Impact Resistant Windows: No		Roof Overhang >2 feet: Yes	
Lowest Floor Height (from ground): 0 feet	Mechanical Equipment Height (from ground): 1 foot	Floodproofing: No	Flood Vents: N/A	
Sufficient Attachment of Non-Structural Building Component: Lightning equipment (yes)				

Vulnerabilities & Mitigation Recommendations



Cracks and Movement in Structure: Large shear cracks and gaps were found on the rear facing exterior masonry wall and rear porch structure. Gaps between the main structure and each fireplace show that the chimney is separating from the house. Each of these issues is likely attributed to foundation issues.



Interior Moisture Damage: Deterioration of the plaster application over the brick structural walls was detected. Mortar joints should be tuck-pointed to prevent water intrusion (which causes moisture damage to the plaster), and to prevent brick failure (such as cracking).



Deterioration of Exterior Door: Exterior doors were found to be in fair-poor condition due to gaps in the wood joints, which make the interior prone to wind-driven rain intrusion.

VULNERABILITY ASSESSMENT REPORT OF HISTORIC LOUISIANA SITES

Ormond Plantation

13786 River Rd., Destrehan, LA 70047

St. Charles Parish



Historical Profile: Ormond Plantation is the oldest French West Indies style Creole Plantation on the Mississippi, and shares the title of being the oldest restored plantation in the lower Mississippi River Valley. When used for crop production, it boasted a lucrative indigo and sugar operation.

Primary Use: Restaurant, special event facility, lodging

Contents: Dining and lodging furniture, restaurant equipment, food inventory, artwork, fixtures

Year Built: 1790

Occupied: Yes

Temperature/Moisture Sensitive Contents: Yes; food inventory.

Emergency Generators: No

Under Renovation: No

Year Remodeled: Unknown

Geographic Profile & Vulnerabilities



Geographic Profile: Ormond Plantation is located directly across the road from the east bank of the Mississippi River Levee System and is approximately 550 feet from the Mississippi River.

Wind Zone: 110-119 mph

Flood Zone: X, levee protection

SFHA: No

Hail Density: Low-medium

Tornado Density: Medium

Site Attributes & Vulnerability Data

Location: Suburban

Site Conditions: Acreage, with numerous buildings and mature trees

Trees: Large/mature (overhanging)

Wind Exposure: Shielded by trees on three sides

Wind-Borne Debris Source: Building components (broken slate tiles on small, rear building), overhanging trees

Levee/Flood Protection: Yes

Structural Attributes & Vulnerability Data

Construction Type: Masonry and wood	Foundation Type: Unknown		Roof Type: Hip, 3 connected systems
Stories: 2	Basement: No	Attic: Yes	Roof Covering: Slate
Building Condition: Good	Window Condition: Fair-good		Roof Condition: Good
Safe Room/Storm Shelter: No	Impact Resistant Windows: No		Roof Overhang >2 feet: No
Lowest Floor Height (from ground): 0.5 feet	Mechanical Equipment Height (from ground): 0.5 feet	Floodproofing: No	Flood Vents: N/A
Sufficient Attachment of Non-Structural Building Component: Shutters (yes), gutters (yes)			

Vulnerabilities & Mitigation Recommendations



Opening Protection: The French doors, located on the second and first story, have a history of blowing open during high-wind events. It is recommended that wind-rated plantation shutters be installed for use.



Latch Mechanism Failure: Roof hatches have a history of blowing open, during high-wind events, subjecting the interior to rain infiltration.



Window Protection for Non-Impact Resistant Windows: Window protection should be used during high-wind events, since non-Impact resistant windows are susceptible to water infiltration once broken. Locking mechanisms of shutters should be inspected regularly.



Moisture Damage: Moisture damage was detected on the interior wall.

VULNERABILITY ASSESSMENT REPORT OF HISTORIC LOUISIANA SITES

Poche Plantation

6554 Louisiana 44, Convent, LA 70723
St. James Parish



Historical Profile: Poche Plantation is a post-Civil War structure that was built by Felix Poché, an accomplished attorney, Louisiana Supreme Court Justice, and co-founder of the American Bar Association. The plantation was built on a site that had already been a large sugar cane plantation, and its Victorian Renaissance Revival style architecture is unique, compared to surrounding plantations of the region.

Primary Use: Plantation Museum/bed & breakfast

Contents: Period furniture, artwork, documents, fixtures

Year Built: 1867	Occupied: Yes	Temperature/Moisture Sensitive Contents: Yes	Emergency Generators: No
Under Renovation: Yes	Year Remodeled: 2013 (exterior)		

Geographic Profile & Vulnerabilities

	<p>Geographic Profile: Poche Plantation located in rural, Southeast Louisiana, directly across the road from the east bank of the Mississippi River levee system and is approximately 550 feet from the Mississippi River.</p>	Wind Zone: 100-109 mph	
		Flood Zone: X (500 yr. flood zone)	SFHA: No
		Hail Density: Low	
		Tornado Density: Medium	

Site Attributes & Vulnerability Data

Location: Rural	Site Conditions: Acreage, with large trees and surrounding buildings	Trees: Large/mature
Wind Exposure: Shielded by trees and buildings on three sides	Wind-Borne Debris Source: Building components (slate tiles), trees	Levee/Flood Protection: Yes

Structural Attributes & Vulnerability Data

Construction Type: Wood and masonry	Foundation Type: Pier and beam		Roof Type: Gable, complex
Stories: 2	Basement: No	Attic: Yes	Roof Covering: Slate
Building Condition: Good	Window Condition: Fair		Roof Condition: Excellent
Safe Room/Storm Shelter: No	Impact Resistant Windows: No		Roof Overhang >2 feet: Yes (porch connection)
Lowest Floor Height (from ground): 2.5 feet	Mechanical Equipment Height (from ground): 0.5 feet	Floodproofing: No	Flood Vents: N/A
Sufficient Attachment of Non-Structural Building Component: Gutters (yes)			

Vulnerabilities & Mitigation Recommendations



Window Protection for Non-Impact Resistant Windows: Several broken window panes were found throughout the first floor and storm shutters have been removed from the structure. Window protection should be used during high-wind events, since non-impact resistant windows are susceptible to water infiltration once broken.



Crack in Masonry Fireplace: A large crack was found on the front-facing fireplace.

VULNERABILITY ASSESSMENT REPORT OF HISTORIC LOUISIANA SITES

San Francisco Plantation

2646, Louisiana 44, Garyville, LA 70051
St. John the Baptist Parish



Historical Profile: San Francisco Plantation was built by sugar planter Edmond Bozonier Marmillion. The Steam Boat Gothic style structure has been noted for its unusual and opulent architecture and décor. Novelist Frances Parkinson Keyes even wrote about the plantation, entitled “Steamboat Gothic,” a story about a family she imagined living there.

Primary Use: Plantation Museum

Contents: Hand-painted ceilings, period furniture, artwork, draperies, textiles, photographs, and documents

Year Built: 1856

Occupied: Yes

Temperature/Moisture Sensitive Contents: Yes; historic relics vulnerable to mold

Emergency Generators: No

Under Renovation: Preparing for structure leveling and interior work, scheduled for 2014

Year Remodeled: 1977

Geographic Profile & Vulnerabilities



Geographic Profile:

San Francisco Plantation located in rural, Southeast Louisiana, less than 40 minutes from New Orleans. It is located directly across the road from the east bank of the Mississippi River levee system and is approximately 550 feet from the Mississippi River.

Wind Zone: 100-109 mph

Flood Zone: X (500 yr. Flood Zone)

SFHA: No

Hail Density: Low

Tornado Density: Medium

Site Attributes & Vulnerability Data

Location: Rural

Site Conditions: Acreage, with multiple buildings and large trees with multiple buildings and large trees, bordered by a large refinery.

Trees: Large/mature

Wind Exposure: Shielded on three sides by trees and buildings

Wind-Borne Debris Source: Building components (slate tiles, other buildings)

Levee/Flood Protection: Yes

Structural Attributes & Vulnerability Data

Construction Type: Wood, masonry	Foundation Type: Slab on grade		Roof Type: Hip, with dormers and widow's watch
Stories: 3	Basement: No	Attic: Yes	Roof Covering: Slate
Building Condition: Good	Window Condition: Fair		Roof Condition: Unknown
Safe Room/Storm Shelter: No	Impact Resistant Windows: No		Roof Overhang >2 feet: No
Lowest Floor Height (from ground): 0.5 feet	Mechanical Equipment Height (from ground): Unknown	Floodproofing: No	Flood Vents: N/A
Sufficient Attachment of Non-Structural Building Component: Shutters (yes)			

Vulnerabilities & Mitigation Recommendations



Shutter Protection of Non-Impact Resistant Windows: Window protection should be used in the case of high-wind events because non-impact resistant windows are susceptible to water infiltration once broken. Locking mechanisms of shutters should be inspected regularly, and large plantation shutters should have multiple locks. Interior of structure sustained water damage during Hurricane Katrina, due to shutter failure.



Interior Moisture Damage: Deterioration of the plaster application over the brick structural walls was detected. Mortar joints should be tuck-pointed to prevent water intrusion, causing moisture damage to the plaster, and to prevent brick failure, such as cracking.

VULNERABILITY ASSESSMENT REPORT OF HISTORIC LOUISIANA SITES

Fort Jackson

220 Herbert Harvey Dr., Buras, LA 70041
Plaquemines Parish



Historical Profile: Fort Jackson was the site of the American Civil War Battle of Forts Jackson and St. Philip from April 16 to April 28, 1862. The Confederate-controlled fort was besieged for 12 days by the fleet of U.S. Navy Flag Officer David Farragut. Fort Jackson fell on April 28 after the Union fleet bombarded it and then sailed past its guns. A mutiny against the officers and conditions then occurred and the fort fell to the Union. Union forces then went on to capture New Orleans. The fort was occupied off and on for various military purposes from its completion until after World War I, when it served as a training station.

Primary Use:
Tourist site

Contents:
None

Year Built: 1822	Occupied: No	Temperature/Moisture Sensitive Contents: No	Emergency Generators: No
Under Renovation: No	Year Remodeled: Unknown		

Geographic Profile & Vulnerabilities



Geographic Profile:
Fort Jackson is approximately 70 miles south of New Orleans on the west bank of the Mississippi, approximately 2.5 miles south of Triumph, Louisiana.

Wind Zone: 120-129 mph

Flood Zone: AE

SFHA: Yes

Hail Density: Low

Tornado Density: Low-medium

Site Attributes & Vulnerability Data

Location: Rural	Site Conditions: Engineered site	Trees: Medium – Large/mature
Wind Exposure: Open	Wind-Borne Debris Source: N/A	Levee/Flood Protection: Yes, earthen levee surrounding structure

Structural Attributes & Vulnerability Data

Construction Type: Masonry	Foundation Type: Cypress mats		Roof Type: N/A
Number of Stories: N/A	Basement: No	Attic: No	Roof Covering: N/A
Building Condition: Fair-poor	Window Condition: N/A		Roof Condition: N/A
Safe Room/Storm Shelter: N/A	Impact Resistant Windows: N/A		Roof Overhang >2 feet: No
Lowest Floor Height (from ground): 0 feet (structure)	Mechanical Equipment Height (from ground): N/A	Floodproofing: No	Flood Vents: N/A
Sufficient Attachment of Non-Structural Building Component: N/A			

Vulnerabilities & Mitigation Recommendations



Cracks and Movement in Structural Walls: Severe cracks of the outer, masonry structural walls were observed throughout the perimeter of the structure. Stepped shear cracks, specifically ones involving the widow openings, have resulted in the loss of masonry units.



Storm Surge/Flooding: Persons involved with the property have voiced concern about flood inundation in the event of future natural hazard events. The fort was damaged in Hurricanes Katrina and Isaac by storm surge and extended periods of flood inundation.

VULNERABILITY ASSESSMENT REPORT OF HISTORIC LOUISIANA SITES

Fort Pike State Historic Site

27100 Chef Menteur Hwy., New Orleans, LA 70129

Orleans Parish



Historical Profile: Fort Pike was built to guard Rigolets Pass against British reinvasion of the United States. Together with existing and newly built forts, it helped create an extensive coastal defense system that stretched along the entire Atlantic and Gulf coasts, protecting strategic ports and rivers such as New Orleans and the Mississippi.

Primary Use: Tourist site

Contents: Small number of artifacts

Year Built: 1819

Occupied: Yes

Temperature/Moisture

Emergency

Under Renovation: No

Year Remodeled: Unknown

Sensitive Contents: No

Generators: No

Geographic Profile & Vulnerabilities



Geographic Profile:

Fort Pike is located directly off the Rigolets waterway and is above Lake Borgne and the Chandeleur Sound. It is approximately 23 miles east of downtown New Orleans.

Wind Zone: 110-119 mph

Flood Zone: VE

SFHA: Yes

Hail Density: Low

Tornado Density: Low-medium

Site Attributes & Vulnerability Data

Location: Suburban

Site Conditions: Engineered site

Trees: None

Wind Exposure: Open

Wind-Borne Debris Source: N/A

Levee/Flood Protection: No

Structural Attributes & Vulnerability Data

Construction Type: Masonry	Foundation Type: Unknown		Roof Type: N/A
Number of Stories: 1	Basement: No	Attic: No	Roof Covering: N/A
Building Condition: Fair-good	Window Condition: N/A		Roof Condition: N/A
Safe Room/Storm Shelter: No	Impact Resistant Windows: No		Roof Overhang >2 feet: No
Lowest Floor Height (from ground): 0 feet (structure)	Mechanical Equipment Height (from ground): N/A	Floodproofing: No	Flood Vents: N/A
Sufficient Attachment of Non-Structural Building Component: N/A			

Vulnerabilities & Mitigation Recommendations



Cracking and Movement of Structural Walls and Water Intrusion: Severe cracking of masonry walls was observed on the corners of the structure and at window openings. Standing water was present in the rooms facing the open waterway. Deterioration of the brick and mortar was severe in numerous areas. This structure sustained substantial damage from storm surge during Hurricanes Katrina and Isaac.

VULNERABILITY ASSESSMENT REPORT OF HISTORIC LOUISIANA SITES

Fort Proctor

29°52'2.3"N, 89°40'41.82"W

St. Bernard Parish



Historical Profile: Also known as Fort Beauregard due to P.T. Beauregard’s supervision during construction, Fort Proctor was intended to be part of the fortification systems that protected the Gulf Coast against foreign invasion. Due to delays caused by hurricane damage and then the start of the American Civil War, the fort was never garrisoned. By the end of the war, improvements in artillery had made the fort's design obsolete. The fort was accessible by road until the 1960s, when the construction of the Mississippi River-Gulf Outlet Canal cut off all land access to the site. It is now surrounded and inundated by water about 1.5 feet deep.

Primary Use:
Ruined fort

Contents: N/A

Year Built: 1856

Occupied: No

Temperature/Moisture

Emergency

Under Renovation: No

Year Remodeled: Unknown

Sensitive Contents: No

Generators: No

Geographic Profile & Vulnerabilities



Geographic Profile:

Fort Proctor is located on the shore of Lake Borgne, just north of the mouth of Bayou Yscloskey, and can be seen in the distance from the settlement of Shell Beach, Louisiana.

Wind Zone: 110-119 mph

Flood Zone: VE

Hail Density: Low

Tornado Density: Low

Site Attributes & Vulnerability Data

Location: Rural

Site Conditions: Waterway/marshland

Trees: None

Wind Exposure: Open

Wind-Borne Debris Source: N/A

Levee/Flood Protection: No

Structural Attributes & Vulnerability Data

Construction Type: Masonry, steel	Foundation Type: Unknown		Roof Type: N/A
Number of Stories: 2	Basement: No	Attic: No	Roof Covering: N/A
Building Condition: Poor	Window Condition: N/A		Roof Condition: N/A
Safe Room/Storm Shelter: No	Impact Resistant Windows: No		Roof Overhang >2 feet: No
Lowest Floor Height (from ground): 1.5 feet (structure)	Mechanical Equipment Height (from ground): N/A	Floodproofing: No	Flood Vents: N/A
Sufficient Attachment of Non-Structural Building Component: N/A			

Vulnerabilities & Mitigation Recommendations

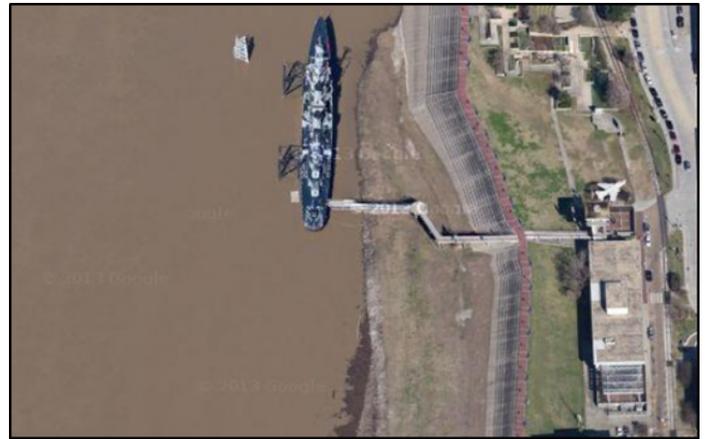


Coastal Erosion, Subsidence, Wind, and Storm Surge Damage: Fort Proctor is in serious disrepair and is currently inundated by 1.5 feet of water. Many of the second story masonry walls have collapsed and have fallen to the ground floor, presumably from hurricane wind and storm surge damage. With increased sea level rise, active coastal erosion, and subsidence issues, increased inundation of the ground floor is expected.

VULNERABILITY ASSESSMENT REPORT OF HISTORIC LOUISIANA SITES

USS Kidd Veterans Memorial

305 South River Rd., Baton Rouge, LA 70802
East Baton Rouge Parish



Historical Profile: The ship is named after Rear Admiral Isaac C. Kidd, who was killed aboard his flagship, the *USS Arizona*, during the attack on Pearl Harbor. The *USS Kidd* is a representative of the Fletcher-class destroyers that formed the backbone of U.S. destroyer forces in World War II. *Kidd* received a total of 12 battle stars and saw heavy action in World War II, participating in nearly every important naval campaign in the Pacific. In 1951, it was deployed to Korean waters. Decommissioned in 1964, the ship was never modernized, making it the only destroyer to retain its World War II appearance.

Primary Use:
Museum/memorial

Contents: Priceless furniture, historic documents, photos, and artifacts

Year Built: 1943 (Marine craft), 1986 (museum structure)

Occupied: Yes

Temperature/Moisture Sensitive Contents: Yes; historic documents, photos, and artifacts

Emergency Generators: No

Under Renovation: No

Year Remodeled: 2001, 2009 (structure)

Geographic Profile & Vulnerabilities



Geographic Profile:

The *USS Kidd* is docked on the eastern side of the Mississippi River, just north of the Horace Wilkinson Bridge. The *USS Kidd* Museum Facility is located southeast of the marine craft, aside the Mississippi River levee system.

Wind Zone: 91–99 mph

Flood Zone: X, levee protection

SFHA: No

Hail Density: Low-medium

Tornado Density: Medium

Site Attributes & Vulnerability Data

Location: Urban

Site Conditions: Engineered site

Trees: Medium

Wind Exposure: Shielded by buildings on two sides (structure), open (marine craft)

Wind-Borne Debris Source: Building components (roof aggregate, roof-top equipment), other buildings (structure)

Levee/Flood Protection: Yes (structure)

Structural Attributes & Vulnerability Data

Construction Type: Steel (marine craft), wood (structure)	Foundation Type: Slab-on-grade (structure)		Roof Type: Flat (structure)
Number of Stories: 2 (structure)	Basement: No	Attic: No	Roof Covering: Built-up, asphalt section (structure)
Building Condition: Good (structure), excellent (marine craft)	Window Condition: Good (structure)		Roof Condition: Fair (structure)
Safe Room/Storm Shelter: No	Impact Resistant Windows: No (structure)		Roof Overhang >2 feet: No
Lowest Floor Height (from ground): 0.5 feet (structure)	Mechanical Equipment Height (from ground): 1 foot	Floodproofing: No	Flood Vents: N/A
Sufficient Attachment of Non-Structural Building Component: Roof vents (no), lightweight aircraft (additional attachment recommended) (structure)			

Vulnerabilities & Mitigation Recommendations



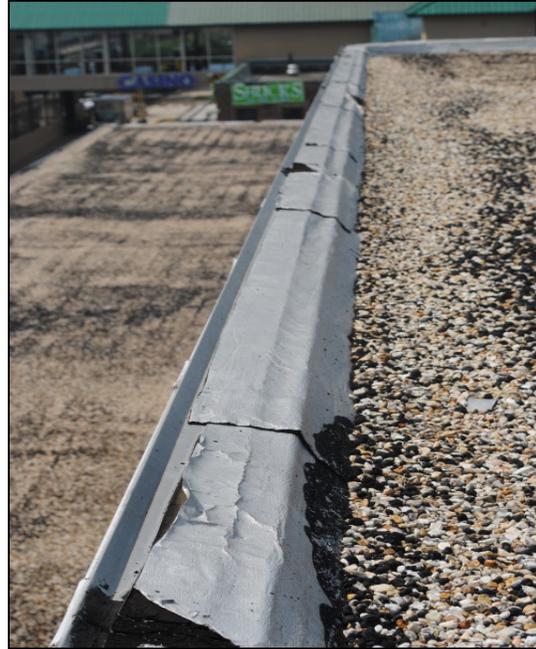
Flood Hazard: An electrical junction box that provides power to the *USS Kidd*, located underneath the walkway used to access the ship, is subject to damage when flood events occur. In past inundation events, repair has cost several thousand dollars. It is recommended that the junction box be re-located to a higher elevation.



Insufficient Attachment of Fan Cowls and Fan Base to Roof Curb: The exhaust fans were observed to have no mechanically screwed attachments to the roof curb. Exhaust fans and air intakes should be attached to the curb with corrosion resistant fasteners not exceeding 6 inches on center between the equipment, transition pieces, and the roof curb. Fan cowlings should be attached to the curb with steel cables. Two cables are recommended for areas with less than 120 mph wind speed and cowlings less than four feet in diameter, 1/8-inch-diameter stainless steel cables are recommended.



Flood By-Product: Riverine silt has buried the bottom portion of the propeller of the *USS Kidd*. While silt deposits are naturally occurring, the May 2011 flood event amplified the amount that currently exists over the propeller. Excavation of at least 3–4 feet of silt is needed to uncover the propeller and rear portion of the ship.



Roof Condition: The built-up roof system and flashing were found to be in fair condition. Loose aggregate was found throughout the rooftop and can become wind-borne debris sources in a high-wind event. Flashing atop the penthouse needs to be repaired to prevent water intrusion.



Window Protection for Non-Impact Resistant Windows: The exterior building envelope of the first and second floor is composed of floor to ceiling windows that are not impact resistant. Breakage of the subject windows has occurred within the last 5 years. It is recommended that window protection be used in the case of high-wind events.