Nonstructural Mitigation Assessment for the City of Annapolis Historic District - Annapolis, MD

Evaluation of Flood Proofing Measures

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9 July 2015
PROJECT SCOPE

What did we do?

• Visual Reconnaissance Level Assessment of Protypes Structures
  • Various building Types
  • Exterior
  • Interior (some structures)

What were our goals?

• Assess structures and determine viable measures to reduce flood damages for:
  • Flood event/level
  • Or maximum height flood event/level
• Recommend multiple measures and/or combination of measures
• Different flood levels 1% (100 yr), 0.2% (500 yr) Design Flood Elevation
• Basic / Fundamental → → → Best / Optimum
• Identify Pros & Cons
• Costs – Provide a cost magnitude
Document Structure

Visualize Risk

Assess & Recommend
COMMON NONSTRUCTURAL MEASURES

- Elevation
- Acquisition (buyout / demolition)
- Relocation
  - Individual Structures
  - Multiple Structures / Communities
- Dry Flood Proofing
- Wet Flood Proofing
- Berms and Walls
- Flood Warning & Emergency Evacuation Plans / Systems
- Other
  - National Flood Insurance Program (NFIP)
  - Floodplain Management
  - Land Use Regulation (Zoning / Building Codes / Green Construction)
ASSESSING THE SITUATION

**Flood Characteristics**
Flood depth, Flood velocity, Flood duration, Rate of rise, Debris/Ice flows, Wave action, Floodway, Other(?)

**Site Characteristics**
Location, Soil type, Topography, Site size, Urban/Rural

**Building/Structure Characteristics**
Type of construction, Foundation, *Condition of the building*, Lower levels (Basement), *Historical Significance*, Building modifications

**Other Considerations**
Gibsons Lodgings
110 Prince George Street
Basement Storage
Basement Storage / Electric Panel
Basement- Water Heater
Basement- Storage/Appliances/Utilities
Basement – Sump
Elevate / Relocate Utilities & Appliances

BUILDING SECTION (at Grade)
Not to Scale

BUILDING STRONG®
Historic Annapolis Museum
99 Main Street
Annapolis Summer Garden Theater
99 Main Street

SITE PLAN
Not to Scale

BUILDING SECTION (at Grade)
Not to Scale

Interior Opening
Closure/Shield
Elevated Equipment
Temporary Barrier

Annapolis Summer Garden Theater
Residence
65 Conduit Street

Basement Equipment/Utilities/Storage

BUILDING STRONG®
Elevated Equipment

Closure/Shield

Elevate / Relocate Utilities & Appliances