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South Main Retrofit Demonstration Project
www.southmain-retrofit.org

SOUTH MAIN DISTRICT
SEISMIC RETROFIT AND HISTORIC CONSERVATION DEMONSTRATION PROJECT
“for a more resilient and sustainable community”

Our goal is to educate the public, the building industry, and local governments on the subject of multi-hazard preparedness and appropriate conservation measures for aging brick buildings.

Our plan is to organize and raise money for an initiative to construct a seismic retrofit demonstration project on South Main. After construction, the storefront space will be open to the public and used as a temporary event and educational space with displays and a product showcase.

Programming will include:
- For the public, events that increase understanding of the hazard and risk posed by earthquakes;
- For building industry folks, workshops of best methods and practices, and new technologies.

We want to:
1. Protect people and property from harm
2. Nurture local and small businesses
3. Preserve our cultural heritage
4. Showcase low cost solutions that bring big benefits

For more information, please contact: dmity@ozeryanskengineering.com or call 901-305-6540

A unique opportunity presents itself to “shock up” the dialogue on seismic preparedness in Memphis.
A seismic retrofit demonstration project is planned for a particularly vulnerable yet culturally important neighborhood. The project is intended to coincide with next year’s National Earthquake Conference held on the occasion of the 200th anniversary of the great 1811-1812 earthquakes on the New Madrid fault.
New Buildings Ok – Existing Buildings Marginal, Unimproved
Overcoming Barriers

• Top Down vs. Bottom Up – Government vs. Non-Profit

• Coalition Building – Developing Relationships: Community Partners

• Consensus Building – Inclusivity: Advisory Committee
Community Partners

• Both owners and tenants are independent and uniquely committed to the neighborhood.
• Specific Building Type – most vulnerable.
• Unique characteristics requires a novel approach.
• Culturally and Historically Important Neighborhood
  – Well defined
  – High Value, other than $$ value
South Main

We focus on “Main St” Storefront Type Bldgs:

1. One to Three stories
2. Wood floors/roof
Moderate Size Earthquake
Demonstration Site

Fundraising, Design, and Construction of Improvements for one building with temporary exhibits and events.

Finding a Building

Best candidate so far: 414 South Main, previously Safari Tapas
The Big Ideas: Structural

1. We are designing for a moderate earthquake, not the ‘big one’.

2. Low cost, affordable interventions can provide big benefit.

3. By addressing seismic, we will also be strengthening for wind forces.

Stars
Key partner:
The Big Ideas: General

1. **A worthwhile investment:** This building type is one of the most fragile in the region, yet in many ways one of the most valuable.

2. **Another 100 years:** Originally built to last 100 years, we want to make these buildings last another 100 years.

3. **Adding Beauty:** The most visible exterior feature will be the star-washers.
Long range programming and advocacy

Vision: In 25 years, the majority of these buildings could be retrofit.

If we can retrofit 100 main-street type buildings in downtown Memphis. We will create a paradigm shift where the rest of the city and the mid-South will begin to perform these retrofits.

Programming: Comprehensive

“21st Century Ready”

Priorities:
1. Seismic and Wind
2. Historic Conservation
3. Durability = Sustainability
Programming Goals:
1. Education
2. Attract resources (for programming & incentives)
3. Advocacy

Implementation Strategies:
1. Education (CE units, etc.)
2. Design Guidelines and Prescriptive Methods
3. Certification Program
4. Incentives: For Owners and Builders
5. Mitigation measures enacted by city/county

Community Partners

...and growing!
What we’ve done so far: Pilot Inventory

1. HAZUS Modeling
2. Incorporate data with other existing inventories.
3. Work with partners toward a comprehensive inventory project.

Case Study: 520 and 522 South Main
Critical Path

1. Fiscal Agent: Memphis Heritage
2. Advisory Committee: First meeting in early May
3. Find a building: 414 S. Main
4. Design Basis: Earthquake Scenario, Performance Objectives
5. Raise Money: Beginning this summer/fall
6. Design & Construction
7. Execute the program: Phase II

Balancing Priorities 1: Limited Resources

• Limited Resources – Lean Times
• Culturally and Historically Important Neighborhood – but shoestring budgets
• Resonant Need
Balancing Priorities 2: Performance Goals

• Scenario Selection
• Performance Target
• Will we find a solution that is viable?
• A bit of good news: URM buildings are currently the subject of much research.

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