Living Long Wharf
May 22, 2019

Resilient Connecticut Workshop: Developing A Planning Framework for New Haven and Fairfield Counties
CIRCA/ UConn Stamford

Giovanni Zinn, City Engineer and Aicha Woods, Exec Dir of City Plan
Mayor Toni N. Harp
City of New Haven Board of Alders
LIVING LONG WHARF:
Coastal Resiliency, Community Engagement, and Responsible Economic Planning

Over 300 Acres total

160 Acres underutilized land

Site A Total Area: 168 acres

Site B Total Area: 68 acres

77.6 acres

56.2 acres

90.4 acres

11.6 acres

Under utilized area

Over 5000 Jobs

May 2019
Existing conditions

EXISTING CONDITIONS

May 2019

LONG WHARF
New Long Wharf Plan

A number of city departments are working collaboratively with the community to develop a plan for responsible growth in the Long Wharf District to include coastal resiliency, job growth, urban design and transportation improvements.

- Funding partners: CT OPM, City.
- Current projects:
  - Long Wharf Flood Protection and Resiliency Study
  - Long Wharf Responsible Growth Plan
Flood Hazard Zones

Flood Hazard Zones
- AE (High risk)
- VE (High risk w/storm surge)
- X (Protected)
Flood Intrusion Points
4- Part Strategy

• **Increase Capacity:**
  Install storage and provide more conveyance.

• **Green Infrastructure:**
  Reduce flow to problem areas by capturing and infiltrating rain where it falls.

• **Flood Protection System:**
  Prevent storm surge from entering low-lying areas of concern.

• **Living Shoreline:**
  Protect eroding shorelines while maintaining and improving natural habitat.
LONG WHARF LIVING SHORELINE PROJECT

CONCEPT PLAN WITH AMENITIES

LONG WHARF PARK, NEW HAVEN, CONNECTICUT
Temporary Flood Barriers

Sunbury, PA

New Orleans, LA

May 2019
USACE Flood Wall

• Alternative 3 – Municipal-Scale Permanent, Deployable Flood Protection

• Approach: This alternative is similar to Alternative 2 but utilizes permanent deployable flood protection measures at the highway underpasses.

• Alternative 3 relies upon the use of I-95 and I-91 as a flood protection levee and utilizes temporary deployable measures to prevent flooding through the highway underpasses.

• This alternative also requires construction of permanent earthen berms or flood walls along low-lying areas of I-95.

• This alternative also includes installation (where not already present) of backflow preventers for stormwater outfalls located along New Haven Harbor, to prevent flood infiltration via the stormwater infrastructure.

• This alternative requires the designation of responsibility (e.g., the City of New Haven) for purchasing, maintaining and implementing the temporary flood protection measures.
USACE Flood Wall

- Alternative 4 – Municipal-Scale Permanent Flood and Shoreline Protection Measures

- Approach: This alternative provides a completely different approach than the previous three alternatives.

- Alternative 4 includes a combination of:
  - 1) a Living Shoreline to enhance both the recreational and environmental values of the Long Wharf shoreline and to support the survivability of the shoreline in response to sea level rise;
  - 2) shoreline protection to prevent erosion and provide protection of existing structures and utilities;
  - 3) a floodwall, located approximately parallel to Long Wharf Drive, to provide flood protection; and
  - 4) ancillary features such as a timber boardwalk. This alternative provides flood protection, shoreline protection and added recreational, environmental and economic benefits.
Green Stormwater Infrastructure

Sunbury, PA

New Orleans, LA

May 2019
The New Long Wharf
Our Waterfront Transformed

City of New Haven
Toni N. Harp, Mayor
LIVING LONG WHARF

Process and Funding

- **CT OPM Responsible Growth Grant**
  - Construction (Aesthetic and Mobility Improvements) = $500,000
  - Planning & Design = $435,000

- **Planning and Design Efforts**
  - Economic Development Strategy
  - Park Design
  - Streetscape & Gateways
  - Transportation

- **Community Engagement**
  - Hill Community Management Teams
  - Hill South Stakeholder Group
  - Long Wharf Business Community
  - Community Meetings
  - Board of Alders

**Current**

- **FEMA Grant**
  - $400,000 (Long Wharf Park Restoration)

- **State Bond**

- **$8 M for Living Shorelines (split with East Shore Park)**

- **USACE Flood Protection Feasibility Study**

May 2019
# LIVING LONG WHARF

## The Team

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<td>New Haven Harbor Navigation Improvement Study, Long Wharf Flood Wall FS</td>
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5 WALKABLE NEIGHBORHOODS

Key recommendations:
- Retain and improve existing assets
- Infill development

Figure 1. Long Wharf Responsible Growth Vision Plan
Key recommendations:
• Make distinctive public spaces for each neighborhood
• Link together with multimodal loop
INFRASTRUCTURE INVESTMENTS

A. LONG WHARF GREENWAY

B. NEW PARK

C. WATERFRONT WHARF

D. WATER PLAN PERMITTING & DREDGING

E. CITY STORMWATER IMPROVEMENTS

F. LONG WHARF PARK RESILIENCY: LIVING SHORELINE & FLOOD BARRIER

G. EXTEND THE UNION STATION TUNNEL
LONG WHARF FUTURE

May 2019
Thank You

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