Resilient Together

Bridgeport’s Campus and City Come Back Stronger After Sandy (CNO34)
Presenters

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State of Connecticut
Agenda

• Planning Context (Leveraging Partnerships)
• Introduction
• Campus Planning Drivers
• Physical Strategies for Resilience
Learning Outcomes

After this session, you will have learned how to:

• Make connections with new or unlikely partners who have compatible goals

• Create a resilient land use plan for your campus that maximizes developable land

• Identify sites for multi-benefit project opportunities on campus at the site and building scale

• Access new or alternative funding sources for campus projects by working with partners to achieve multi-benefit solutions
Planning Context (Leveraging Partnerships)
Previous and Concurrent Planning Efforts

- City of Bridgeport
- BFJ Planning
- Urbanomics
- Stantec

- Bridgeport Regional Business Council
- Global Infrastructure Strategies
- Meridian Institute
- MP & Associates
- Regional Plan Association

- Sasaki Associates
- Heller + Heller

- WB unabridged
- Yale Arcadis
- U.S. Dept. H.U.D.
- National Disaster Resilience Competition
- The Rockefeller Foundation
Bridgeport 2020

Relevant Strategies

• Encourage mixed-use (residential, commercial, and recreational)
• Improve public access to and recreational use of the waterfront
• Capture regional growth industries
• Build work force preparedness through education
BGreen 2020

Relevant Strategies

• Zoning that encourages redevelopment to reclaim city’s vacant and contaminated land for taxpaying buildings

• A parks plan that will bring open space and the waterfront within reach of every city resident
Brownfield Sites

- Brownfields and vacant lots cost the city $30M-$50M each year.
- Contribute to a negative sense of place, deterring investment.

Redevelopment opportunities adjacent to University of Bridgeport offer compelling waterfront sites for mixed-use development.
Rebuild By Design

Relevant Strategies

- Elevate roadways to provide emergency access routes away from floodplain parcels
- Green streetscapes to absorb stormwater and mitigate runoff and flash flooding

2013 Design Competition sponsored by the U.S. Department of Housing and Urban Development in response to Super Storm Sandy

$10M + $42M (NDRC) in awards
Rebuild By Design | Existing Conditions

Base Map

Legend
- FEMA Flood Zone
- PSEG Harbor Unit 5 (Under Construction)

Resilient Bridgeport
Rebuild By Design | Concept

Legend

- FEMA Flood Zone
- Coastal Defense System
- Area of Reducd Flood Risk
- Flood Plain Area Requiring Further Investigation
- PSEG Harbor Unit S (Under Construction)

64 Acres +/-

Resilient Bridgeport
Elevating University Avenue provides dry emergency egress for adjacent future redevelopment site.
Introduction
University of Bridgeport, Today

- 5,383 Students
- 3 colleges
  - 39 undergraduate programs
  - 34 graduate programs
- 13 varsity teams
Student Countries of Origin

60% Tri-State Area

30% International

2015 Enrollment Data
About University of Bridgeport

3,068 Undergraduate Students

27% Live Off-campus

70% American Students

Fastest Growing School: Engineering

2,315 Graduate Students

73% Live Off-campus

30% International Students

Newest School: Nursing

2015 Enrollment Data
100-Year Floodplain

Approximately ¼ of campus land is in the 100-year floodplain.
Campus Planning Drivers
Enhance Campus Facilities

Address aging buildings and infrastructure
Proposed Academic
Existing Academic
Proposed Quads
Proposed Promenade

Support Academic Growth

Accommodate academic growth and enhance creative collisions through adjacencies
Strengthen Connections

Connect the campus to the city and the Sound through gateway roads and pedestrian paths.
Create a Strong Sense of Place

Insert traditional campus landscapes to enhance the campus feel and help with stormwater management.
Apply a multi-layered (redundant) resilience strategy to protect the campus and the city
Physical Strategies for Resilience
Resilience Recommendations Across Scales Build In Redundancy

1. **Planning**
   Land use strategy

2. **Site**
   Barriers, stormwater management

3. **Buildings**
   Elevation, construction materials
Planning
University of Bridgeport, Today

Campus enjoys a seaside location

Flood risk poses a threat to campus buildings
Existing Campus Circulation Routes

- Circulation network includes major connections to Downtown
- Pedestrian path serves as the heart of campus

Long Island Sound
Proposed Open Space and Recreation Zones

Flood safe program components protect campus assets and maximize useable land.

- Recreation Fields
- Iconic Open Spaces
- Athletics Fields
- Surface Parking

Long Island Sound
Proposed Elevated Promenade

Promenade extends the campus character and identity

Elevating the promenade provides dry egress from adjacent sites in an emergency

*Long Island Sound*
Proposed Academic Zones

Elevation allows reclamation of a city block’s worth of floodplain parcels while enhancing campus character.
University Promenade and Health Sciences Building
Site & Building
Moving Beyond the Arrow

University Promenade

Seaside Park

Long Island Sound
Proposed Promenade Concept Plan
Proposed Design Elevations

Waggoner & Ball/Arcadis recommend that the Promenade be designed to meet 15' NAVD minimum at Broad and University.
Minimal excavation enables parking underneath the building, which is elevated to meet the raised promenade.

Parking will serve city residents visiting the Health Sciences Clinic.
Proposed Section | @ Knight’s Field

North

Elevated promenade provides spectator seating

South

KNIGHT’S FIELD
Proposed Character

Planting palette responds to New England and seaside flooding location
Loss of parking spaces mitigated by reconfigured access

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Existing utilities need some reconfiguration to accommodate new grading
Proposed grading respects existing buildings that may remain for years.
Proposed Site Plan | Concept Evolution
Preliminary Division of Responsibilities

**City/State**

- Berm structure, road improvements @ Lafayette and Broad Avenues; plaza reconstruction at Park and Broad Avenues and utilities
- Berm structure maintenance by the City of Bridgeport or the State.

**University of Bridgeport**

- Surface Finishes & Planting
- Promenade maintenance
- Existing microgrid provides security during emergencies.

As part of this future work, the City and UB must discuss deed restrictions, building setback requirements and easement conditions.
Redundancy Improves Resilience

Planning Strategies
- Land Use

Site Strategies
- Physical Barriers
- Green Infrastructure

Building Strategies
- Elevation
- Construction Process/Materials
Questions?