

# A PLAN FOR SALISBURY, MD

## URBAN DESIGN TRANSFORMATIONS IN RESPONSE TO SEA LEVEL RISE

This Master's Thesis in architecture and real estate development proposes a plan for downtown Salisbury, MD. Four goals grew out of a diagrammatic analysis of existing conditions - improve street connectivity, create distinct neighborhoods, develop transformative responses to sea rise, and propose a catalytic first phase of development.

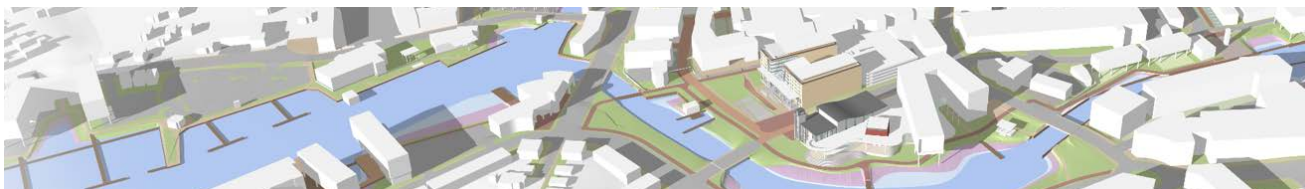
**Improve Street Connectivity** - Redundant, overbuilt streets, a poor relationship to the river, and inconsistent pedestrian networks create an island condition for downtown. The proposed design develops clear street hierarchy and improves cyclist and pedestrian networks, reconnecting the city's core to its surrounding neighborhoods.

**Create Distinct Neighborhoods** - Downtown lacks distinct places, with little diversity and destinations. The proposal builds on existing economic, historic, and cultural assets, such as historic Main Street, the city hospital, and industrial waterfront buildings to create distinct neighborhoods and vibrant destinations.

**Transformative Responses to Sea Rise** - Sea rise is a significant threat to the city, affecting downtown neighborhoods in diverse ways. This project proposes transformative solutions to turn this threat into an ecological, economic, and cultural asset.

**Catalytic First Phase** - Downtown has struggled to develop due to low rents and a lack of incentives. A first phase which includes a new library, University Performing Arts center, and expansion to the University's adult learning center is developed through a partnership with the city's economic stakeholders. These amenities frame a vibrant waterfront plaza, creating a downtown destination and reducing development risk.

Many stakeholders were interviewed for this thesis, including the current and former mayor, president of Salisbury University, local developers, sea rise urban design experts, and traffic engineers. The project's awards include the architecture thesis prize, 2nd place in the real estate capstone competition, and the ARCC King Student Medal for Excellence in Architectural & Environmental Design Research.



### Intervention Area

Reach Healthy Urban Fabric & Transform Relationship to Water

Project Location:  
Salisbury, MD

Project Category:  
**Graduate Submission -  
Studio Project**



3' Projected 50 Year Sea Level Rise



6' Projected 100 Year Sea Level Rise



8' 10 Year Storm in 100 Years



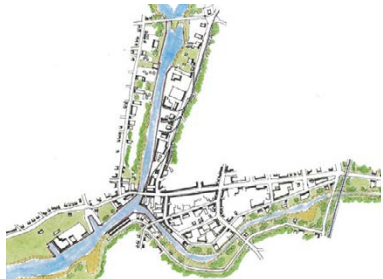
# ANALYSIS



1750s Natural Waterways



1877 Mill Dams & Rail



1931 Collapsed Dam, High Density



2015 Underutilized Waterfront, Constricted River

## History of Waterfront



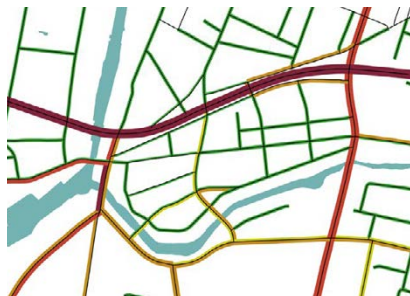
Bldg. Frontages & Sidewalks



Uses



Contributing Buildings



Traffic Analysis

## Existing Conditions Analysis



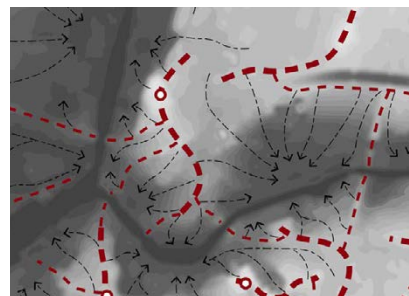
Underground Utilities



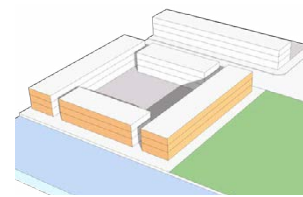
Pervious Surface & Trees



Flooding & Contributing Buildings



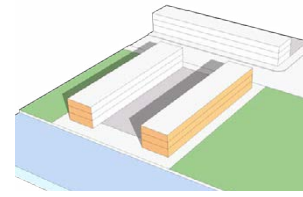
Contours & Runoff



Typ. Townhouse Block



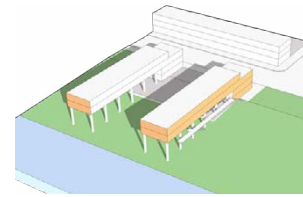
Typ. Multifamily Block



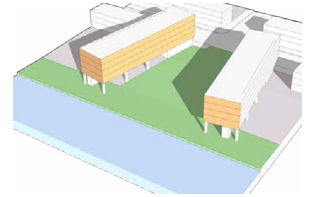
Orient to Waterfront



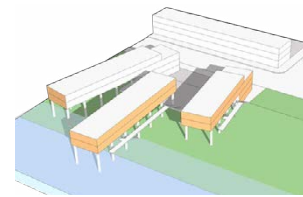
Orient to Water, Single Load Corridor to Maximize Views



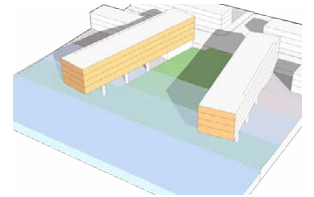
Raise Streets to Meet Bldgs. Bldgs. on pilotis in Low Areas



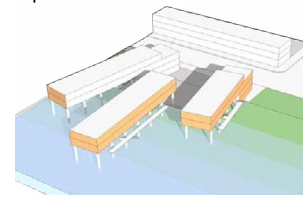
Raise Low Lying Portions on Pilotis, Entry at Raised Street



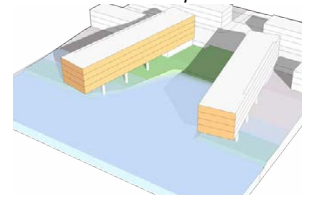
Create Defensible Space, Maximize Views



Lengthen to Improve Core Efficiency



Relationship to Water Changes Over Time



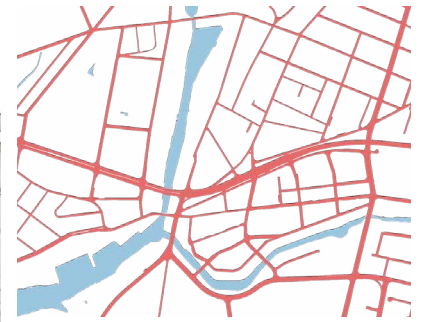
Dynamic Interplay of Landscape and Building

## Bldg & Block Type Transformations

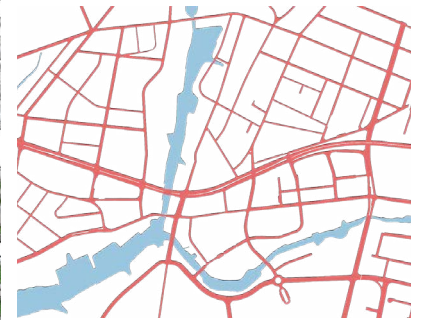


# PROPOSED MASTER PLAN

□ Existing    □ Proposed



Existing Street Network



Proposed Street Network



Existing Figure Ground



Proposed Figure Ground



# DISTINCT NEIGHBORHOODS

Destinations include a dining corridor with a market & brewery adapted from a historic industrial building, a health & wellness district adjacent to the city hospital, & a waterfront civic plaza next to historic Main Street.





# FIRST PHASE-RIVERWALK PLAZA Protection + Retreat

Civic Plaza Captures  
Changing Tides



View A - S.U. Performance Center & Library

6' Projected 100 Year Sea Level Rise

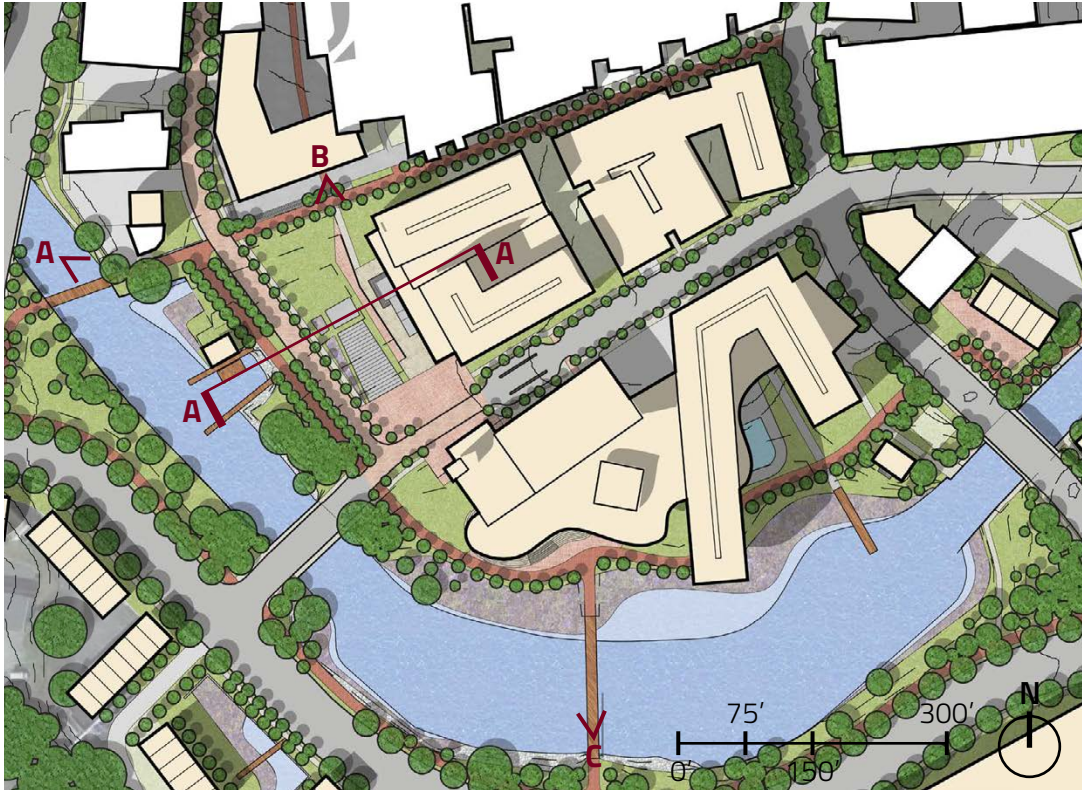
8' 10 Year Storm in 100 Years



Location Map







First Phase Site Plan



Ground Plan - 3' Projected 50 Year Sea Level Rise



Ground Plan - 6' Projected 100 Year Sea Level Rise



Ground Plan - 8' 10 Year Storm in 100 Years



View B - Riverwalk Plaza & Dining

**Note:** This project uses a mix of site (roof) plans and ground plans. The effects of sea rise present opportunities for dynamic relationships between the ground plane and above.



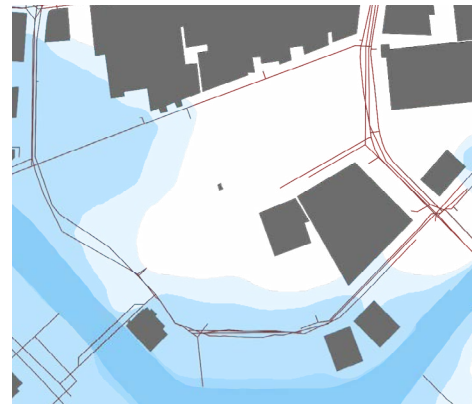


**ESTABLISHING PLACE**



**PROPOSED USES**

- Residential
- Office
- Hotel
- Civic
- Retail
- Parking



**Existing** Buildings in Flood Zone, Sea Rise Impacts Historic Main Street



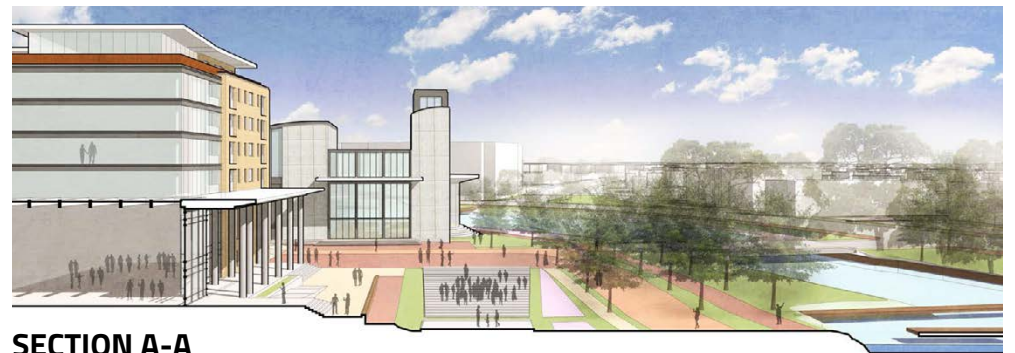
**Existing** Buildings Orient to Street (Not River), Undersized Blocks



**Proposed** Plaza Captures Flooding & Protects Downtown



**Proposed** Activated Waterfront, Removal of Redundant Streets



**SECTION A-A**

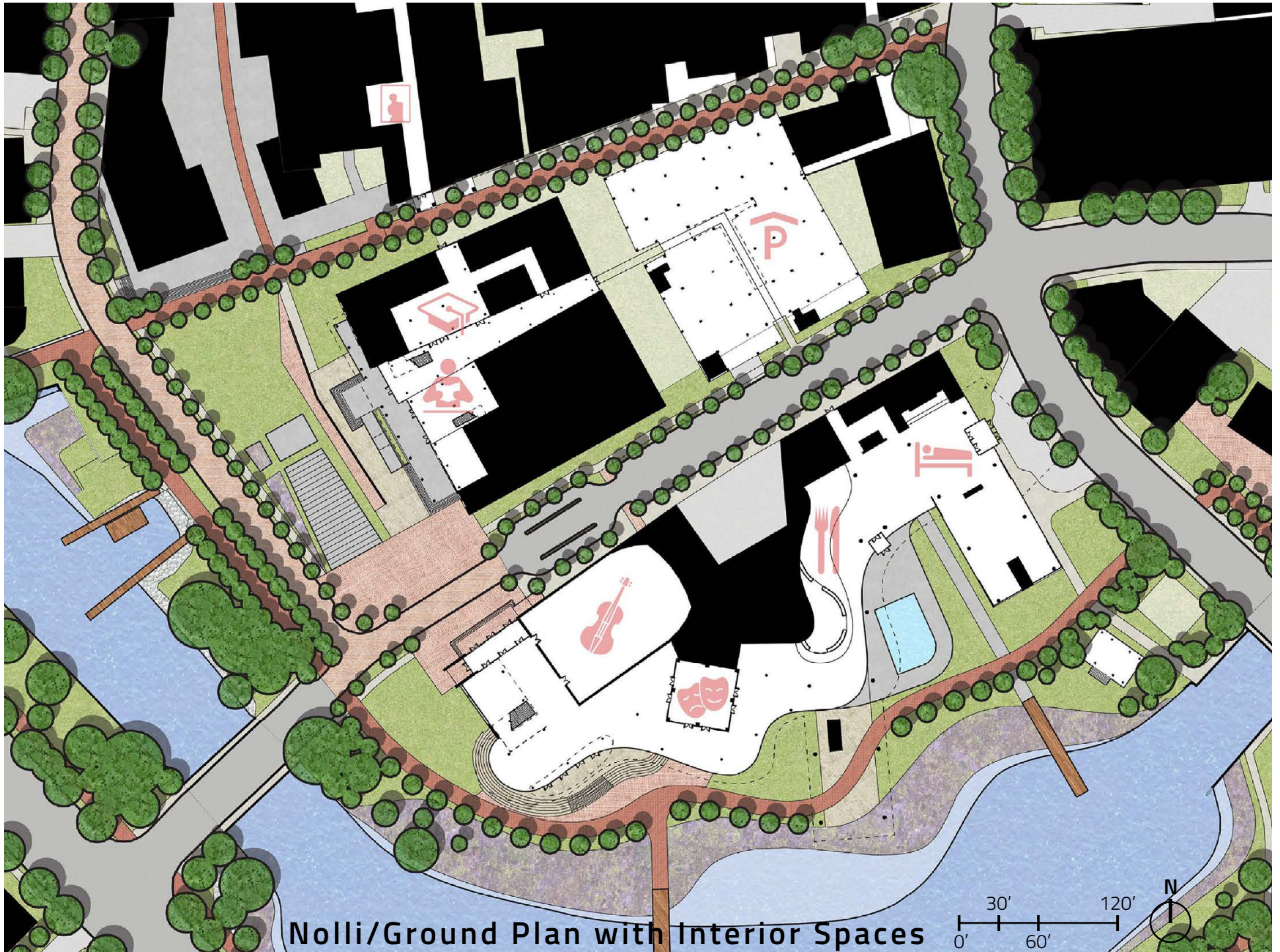




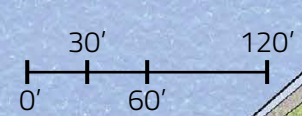


View C - Performance Center from Across River





Nolli/Ground Plan with Interior Spaces





# SOUTH PRONG Protection + Adaptation

Levee/Multi-Modal Path Activates Waterfront  
Dense Main St. Capitalizes on Protection



**View D - Aerial of Riverfront**

**View E** Activities by Levee & Under Elevated Bldgs.



**View D** 8' Sea Rise - Levee Protects Historic Downtown



**Location Map**





## South Prong Site Plan



### Ground Plan - 3'

Projected 50 Year Sea Level Rise



### Ground Plan - 6'

Projected 100 Year Sea Level Rise



### Ground Plan - 8'

10 Year Storm in 100 Years



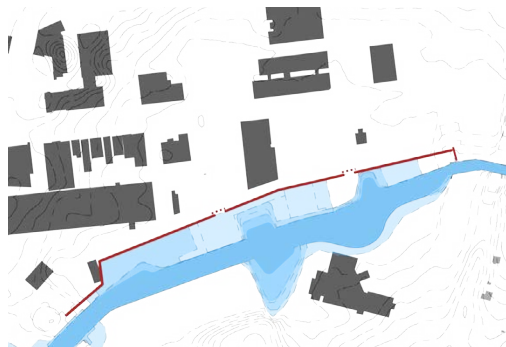




**Existing** Significant Flooding Along Historic Main St.



**Existing** Undersized Blocks, Poor Waterfront Condition



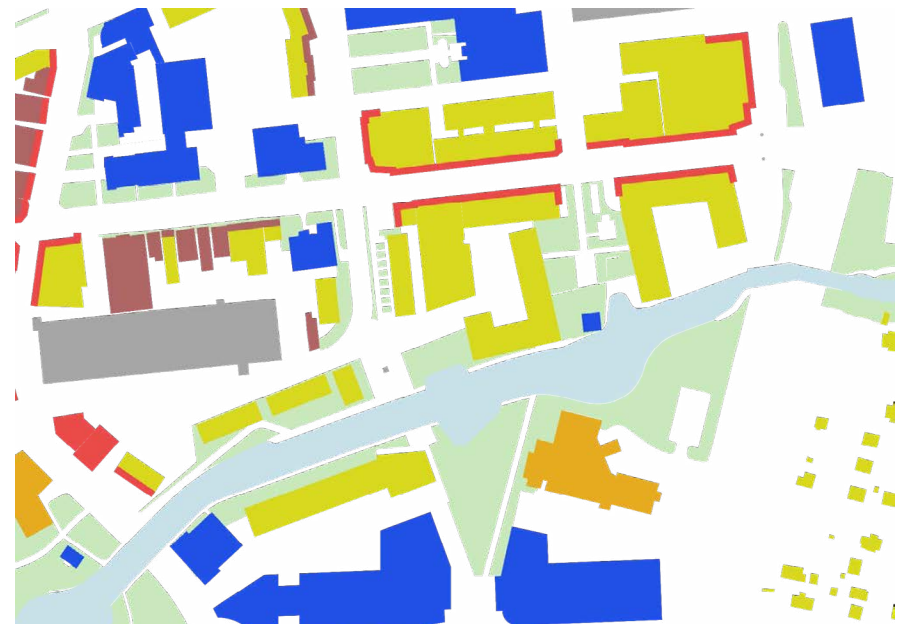
**Proposed** Levee/Multi-Modal Path Protects City & Activates Waterfront



**Proposed** Blocks Open Up to Water, Density Reaches Over River on Pilotis

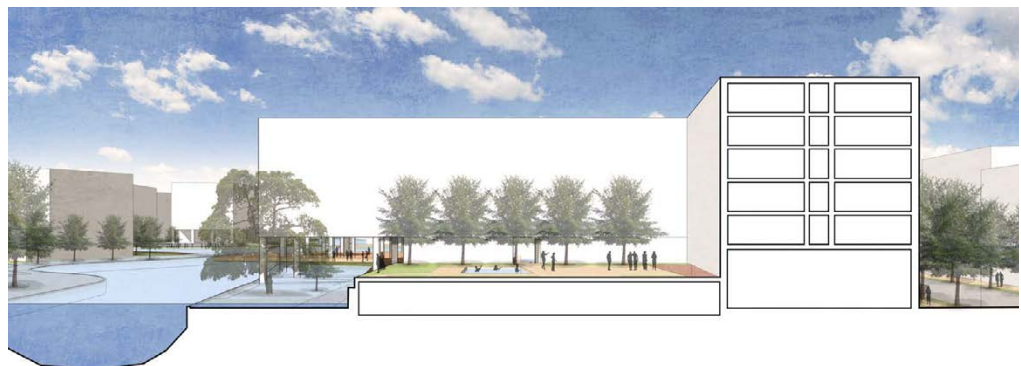


**ESTABLISHING PLACE**



**PROPOSED USES**

- Residential
- Office
- Hotel
- Civic
- Retail
- Parking



**SECTION B-B**



# NORTH PRONG Adaptation + Retreat

Park Acts as Catchment Basin, Typologies Adapt to Sea Rise



View F - North Prong Playing Fields

6' Relationship to Water Transforms



8' Infrastructure Elevated from Significant Storms

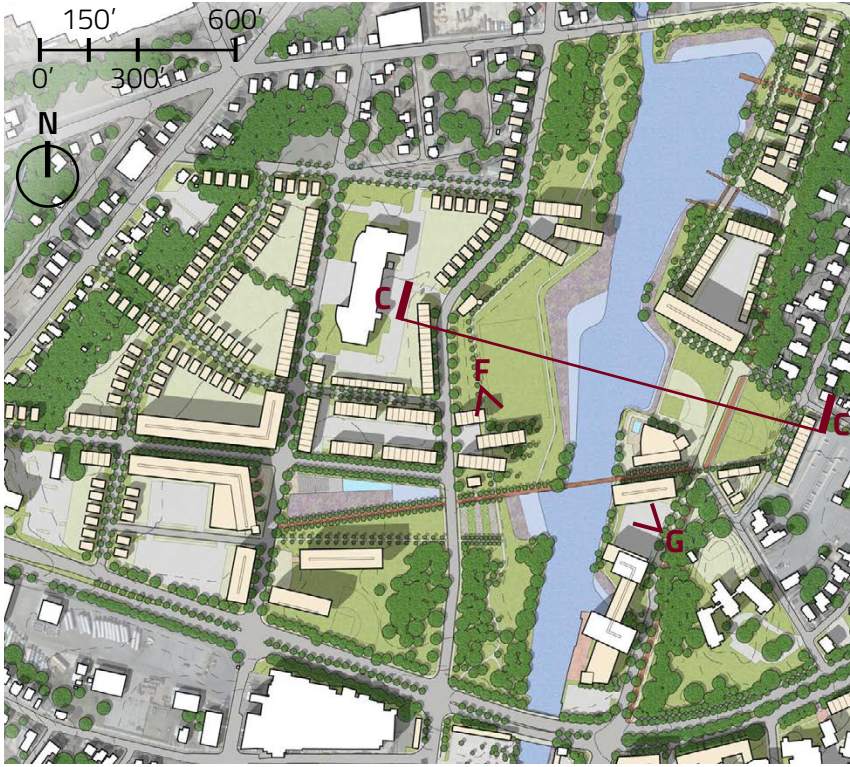


Location Map





# North Prong Site Plan



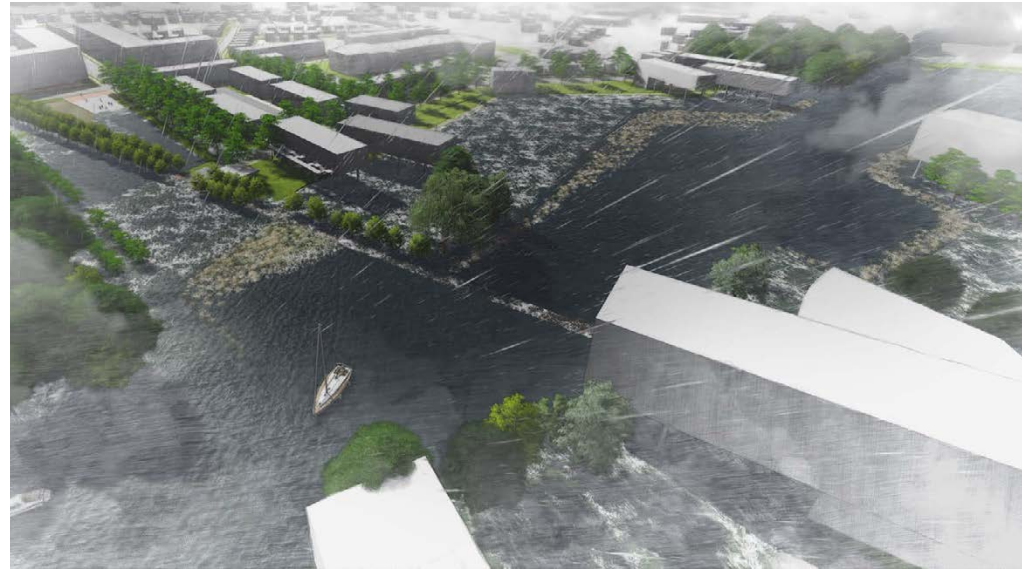
**View G** North Prong Aerial



**Ground Plan - 6'**  
Projected 100 Year Sea Rise



**Ground Plan - 8'**  
10 Year Storm in 100 Years

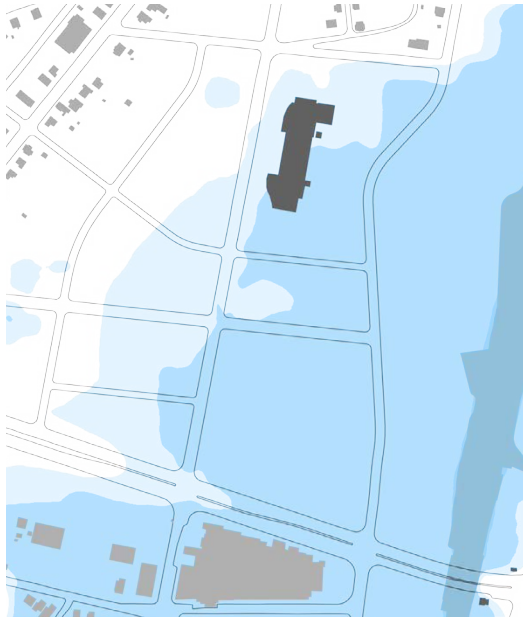


**View G** 8' Sea Rise - Park Buffers Storm Surge



**SECTION C-C**





**Existing** Underutilized, Low-Lying Area Sensitive to Sea Level Rise



**Existing** Poor Street Network, Underdeveloped Waterfront



**ESTABLISHING PLACE**



**Proposed** Raised Streets Act as Berm, Create Basin Along Low-Lying Areas



**Proposed** Streets Connect to Water, Adapt to Flooding



**PROPOSED USES**

- Residential
- Civic
- Office
- Retail
- Hotel
- Parking



# PROCESS

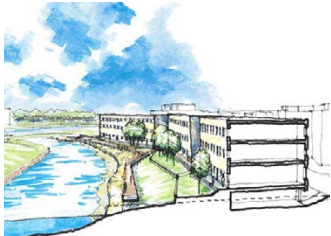


0' Sea Rise

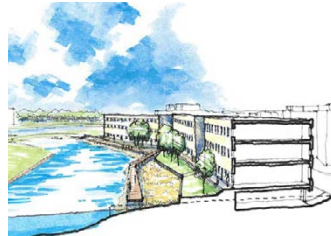


6' Sea Rise

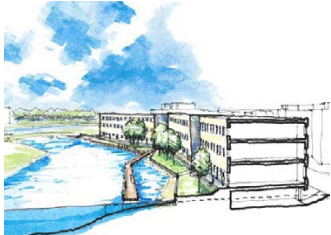
## NORTH PRONG Section Sketches



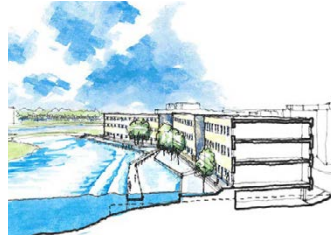
0' Sea Rise



3' Sea Rise

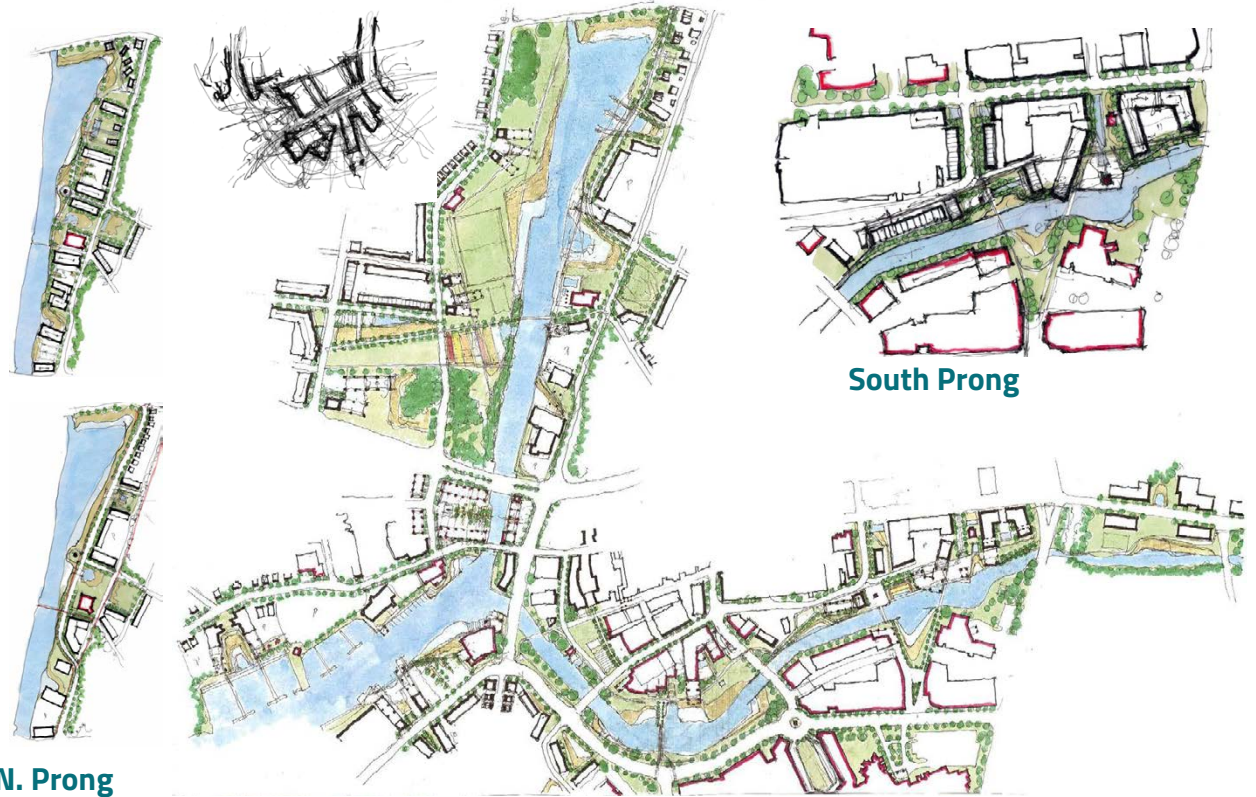


6' Sea Rise



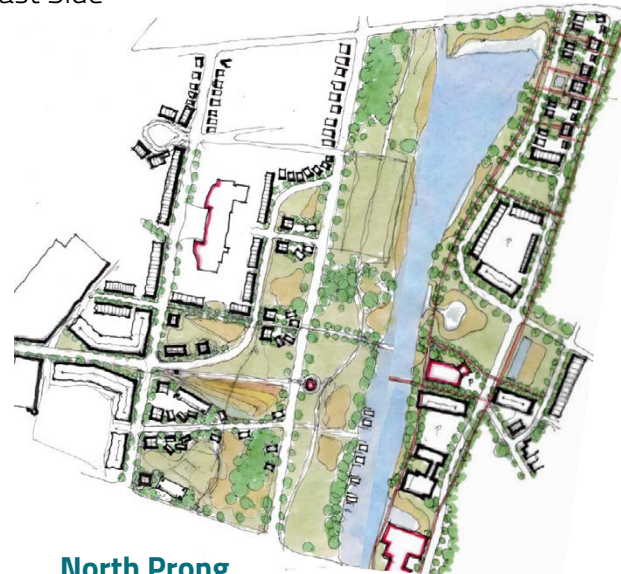
8' Sea Rise

## SOUTH PRONG Section Sketches



South Prong

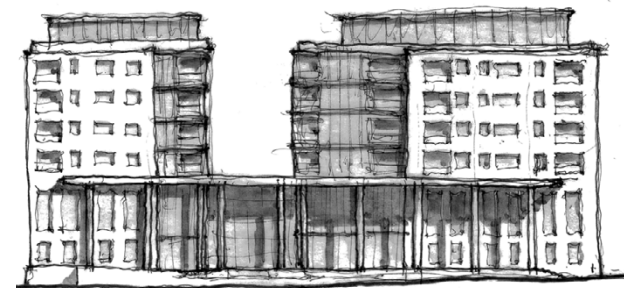
N. Prong  
East Side



North Prong



Riverwalk Plaza



Library Facade Sketch