

ANNAPOLIS MARITIME HARBOR

City Dock, Annapolis



Source: http://www.noaanews.noaa.gov/stories2014/20140728_nuisanceflooding.html

How can we protect the culture and people of the City Dock area?

Presentation Outline

- Issues Addressed
- Precedents
- Design proposal
- Impacts of the Design
- Questions

Key Issues Addressed

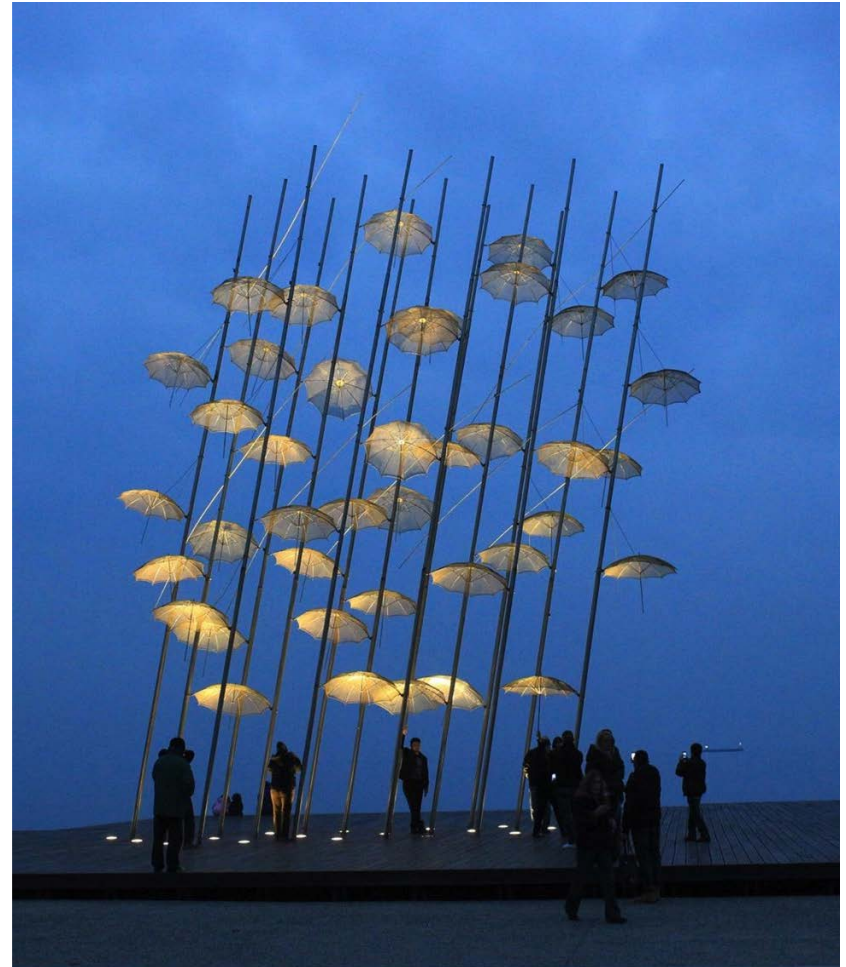
- Sea level rise at the 5 foot inundation and storm surge
- Enhance the current event space by providing multifaceted spaces
- Keeping the working waterfront
- Connect Annapolis maritime history and protect current memorials and waterfront stores

Precedents

- Inspirational photos
- Sea level rise strategies

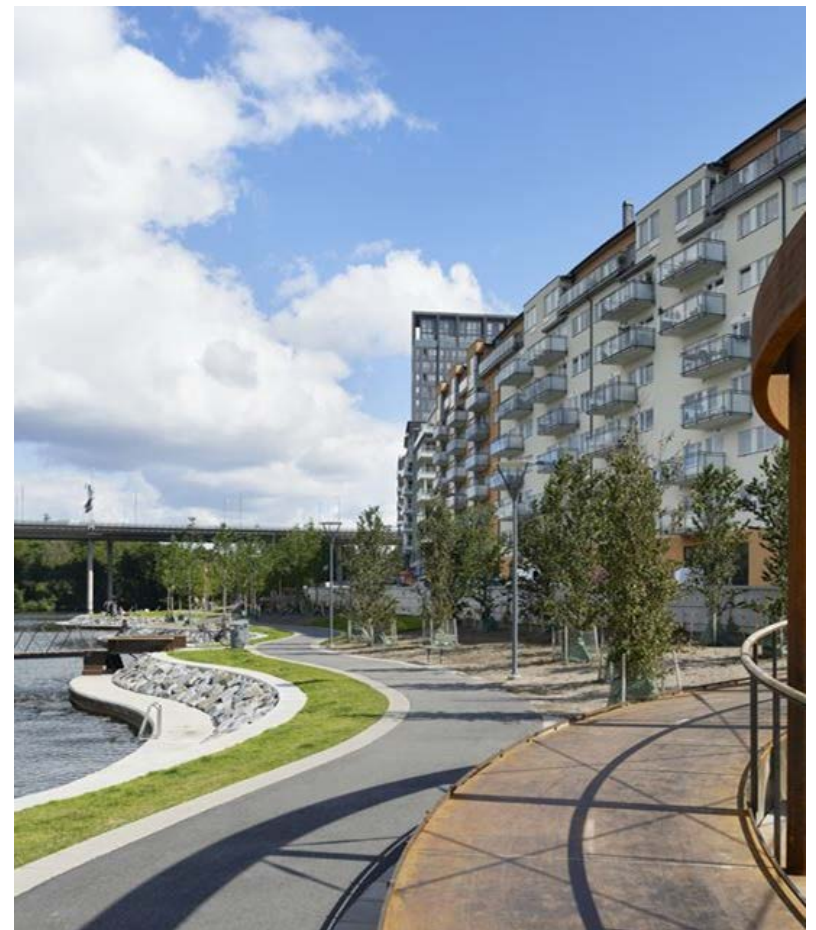
The New Waterfront Thessaloniki

Arts and lights are introduced into this landscape as well as a promenade that is soften by trees



Hornsbergs Strandpark, Sweden

The different ways the landscape can be layered to provide protection against sea level rise while still having usable waterfront space





South Boston Maritime Park, Boston, MA
 In each of the three wheels are mosaic images of the marine life in the harbor waters, the shipping industry operating at Conley Terminal

Maritime Sculptures



London Headquarters of IMO



Moveable Seawall Protection

Defense all around the harbor with moveable seawalls



Mobile Gates- MOSE

Project MOSE (Modulo Sperimentale Elettromeccanico) is the acronym for the experimental model for a series of 79 hollow steel gates that will be raised to hold back the sea in time of acqua alta



Design Proposal

- Goals
- The Vision for City Dock

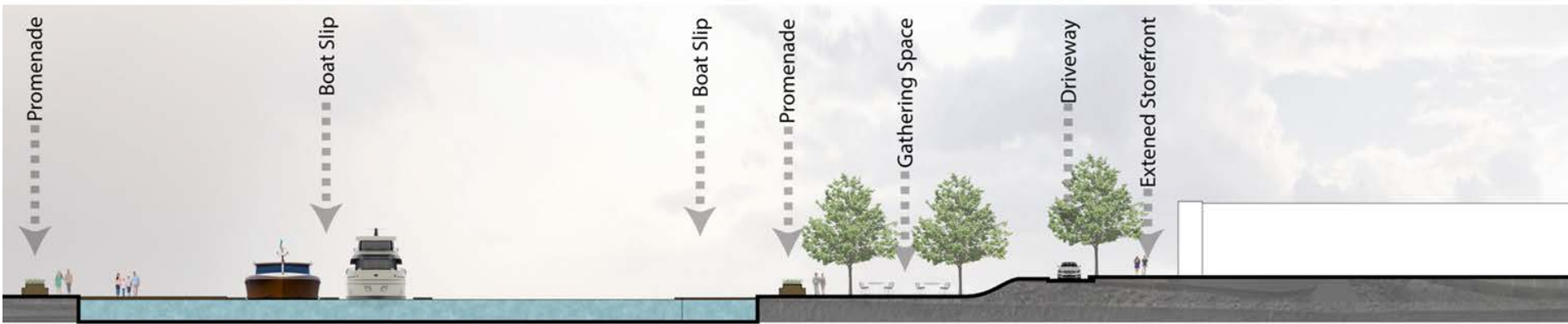
Goals

- To celebrate Annapolis maritime history through the use of art installations.
- To create multilayered spaces that can be used for different events all year around
- To increase boat docking and the connection to the water's edge in order to boost the functionality of the working waterfront
- To protect the city dock area from sea level rise impacts and nuisance flooding events

Vision for City Dock

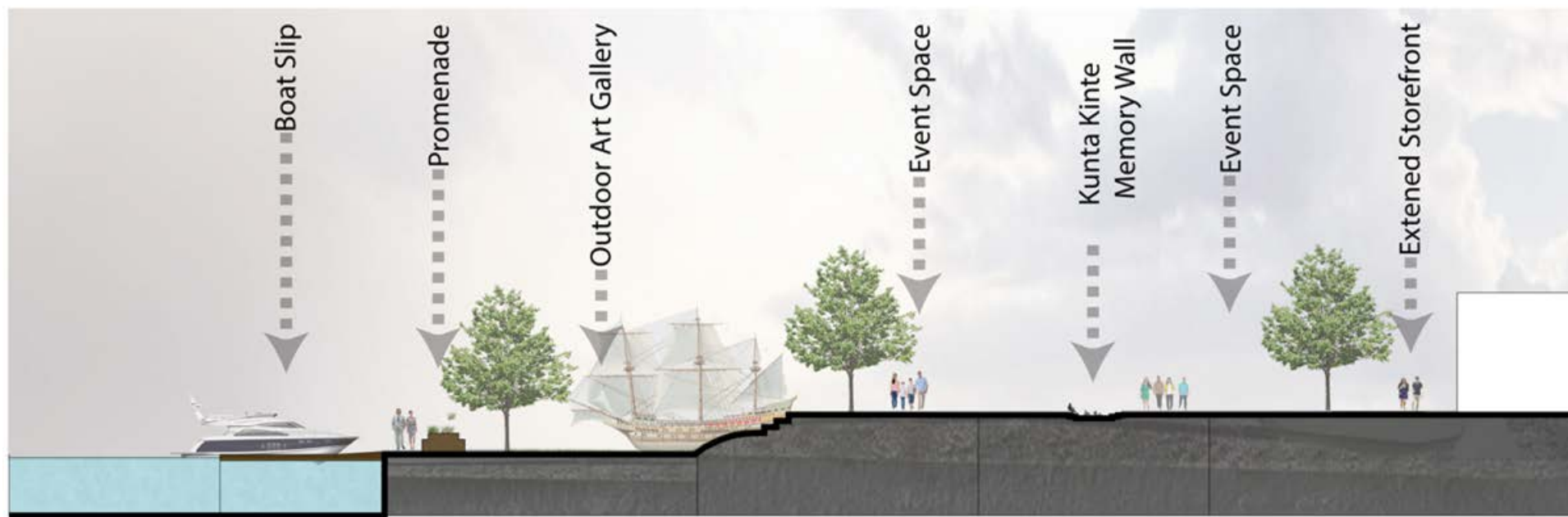


This section shows the extended Ego Alley, the new boat slip areas and raised storefronts



It shows the change in elevation from the water's edge to the storefronts and the waterfront promenade has been extended and the existing parking has been changed into a gathering space/event space with moveable tables and chairs.

This section shows the waterfront promenade and the sculpture Garden which will have boat sculptures and other sculptures to celebrate the maritime history



The Kunta Kunta Kinte and the Memory wall have been moved up to the upper plaza to protect it from future sea level rise flooding.

This view shows the Sculpture Garden that will have kinetic art and Ship sculptures.



From the top plaza visitors will be able to see the ships in the rising waters during a storm event and as sea levels rise.

How will storm surge effect the New City Dock area?



The storefronts and the new plaza are protected by elevating these areas. Therefore in the event of a storm or has sea levels change the new waterfront edge will be at level with the storefronts.

View of the performance space from the top layer plaza



During Storm Event



This image shows the performance space during a storm event, people can still use the upper event space.

Impacts of the Design

- Sea level rise impacts
- Design Features

Sea Level Rise impacts

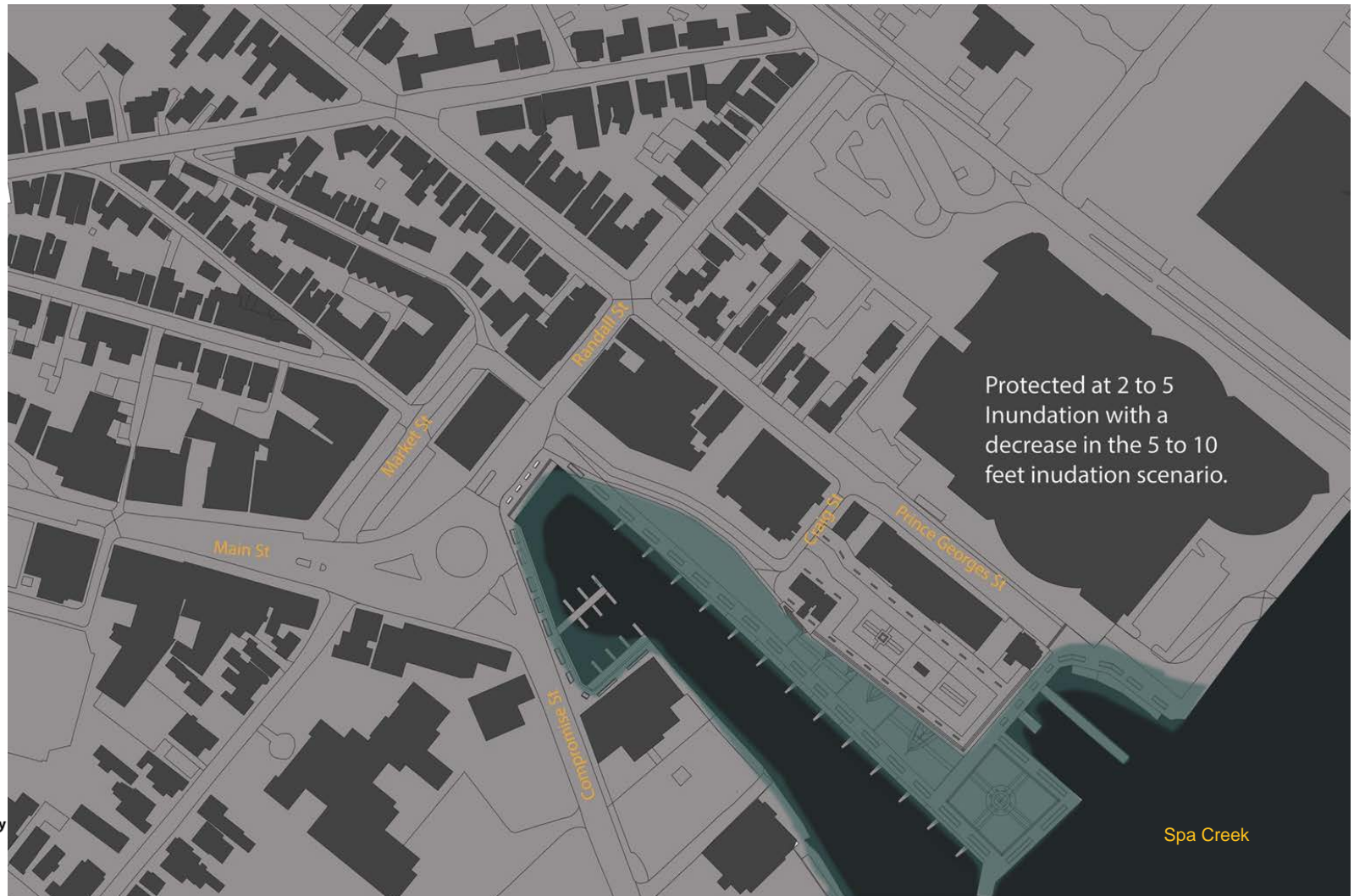
Pre-design storm vulnerability the City Dock area will experience a lot of damage and will be heavily affected by storm surge and sea level rise.



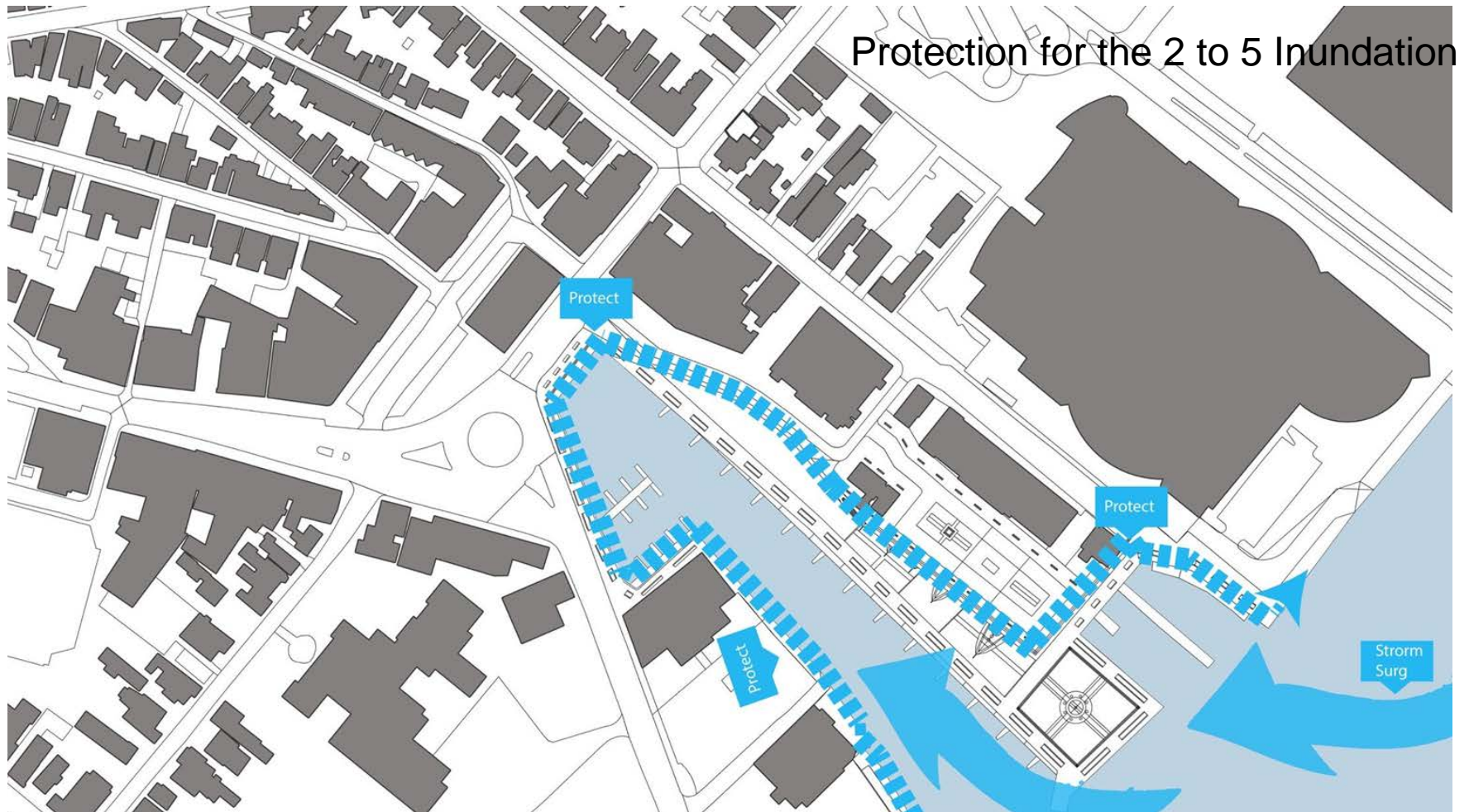
Source: <http://gisapps.dnr.state.md.us/coastalatlas/WAB/index.html>

Sea Level Rise Impacts

This image shows post-design storm vulnerability in which the City Dock area will be more protected at the 2 to 5 feet scenario.



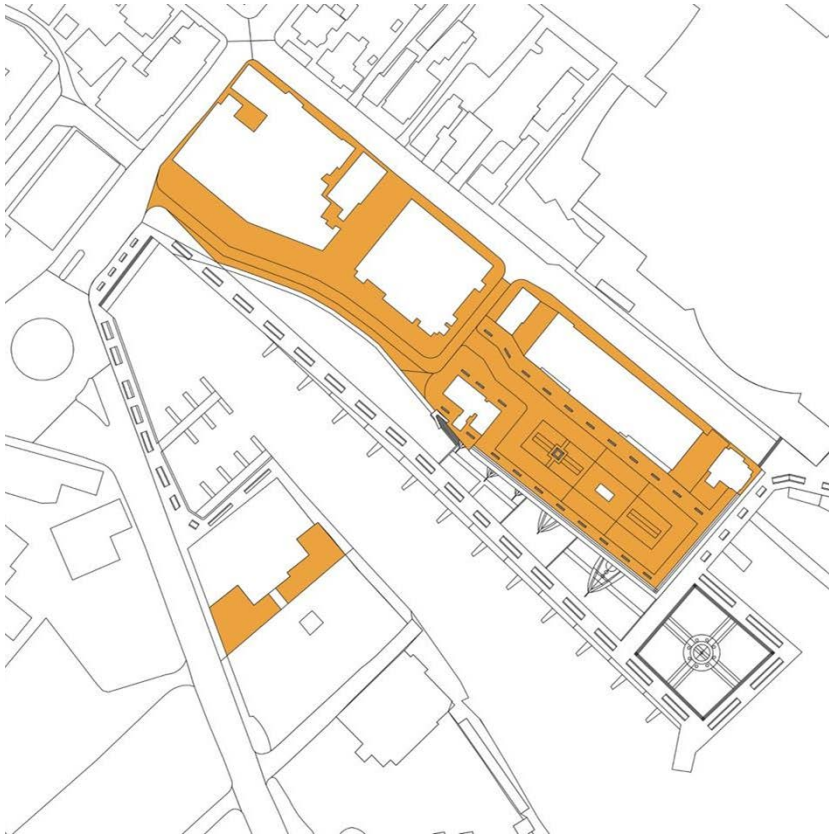
The solution is protection via seawalls and raised areas.



It is best to use removable sea walls so that visitors can continue to connect and be close to the water's edge.

Proposed Features

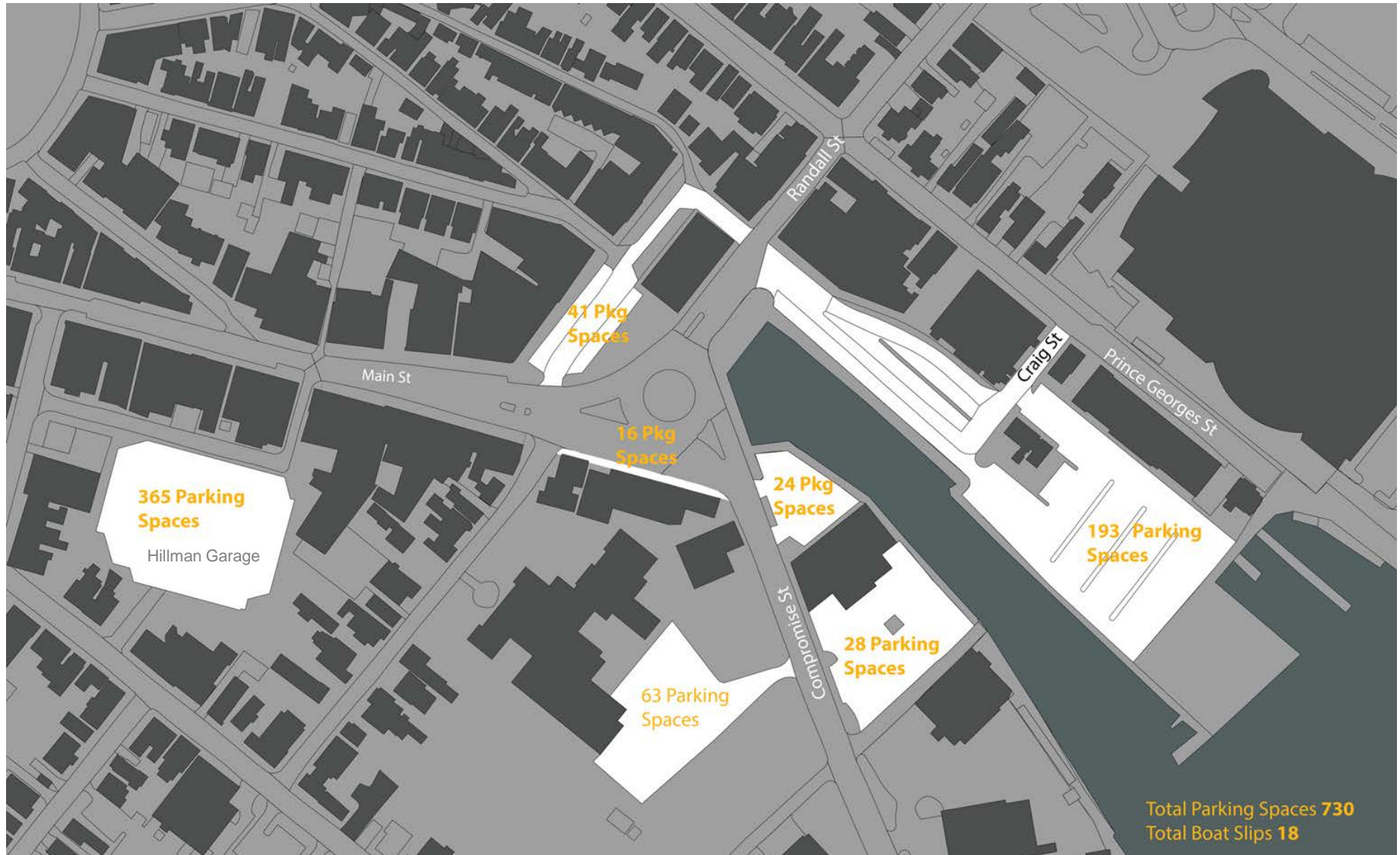
Elevated areas about 6ft to 7ft to protect against flooding and nuisance flooding



Bioretention Areas



Current Parking Count



Proposed Parking Changes



The new total parking spaces is 513 to accommodate for the multi-use event spaces and a total of 16 boats slips were added to Ego Alley.

Questions?