

REVELATORY KINGSTON

Rachel Liu Samuel Packer Susan Rhodes

Block Park and Island Dock will become a destination for both people and ecology along the Hudson River watershed, now and into the future. Climate-adaptive design reveals the resilience of man in partnership with nature, by stitching together urban and natural assets to enhance and protect Kingston’s scenic Rondout waterfront.

View of elevated boardwalk and Beacon of Hope, Island Dock (2020)



EXISTING CONDITIONS
(2016)

TOPOGRAPHY

Surrounding steep slopes cause frequent flooding

Culvert causes sedimentation and stagnant water in the inner channel

HYDROLOGY

ECOLOGY

Globally rare freshwater tidal wetlands provide a crucial link for fish and bird migration along the Hudson River

High habitat value of abandoned and overgrown Island Dock

CIRCULATION

Poor pedestrian and bicycle infrastructure

Limited public access to waterfront

Dangerous sharp turn for major truck route

No access on site to public transit

RECREATION

Community interest in active, nature-based recreation e.g. boating, kayaking, birdwatching

Potential connection to the Kingston Greenline

DEVELOPMENT

Historical value of abandoned cinder block factory

Rondout neighborhood spatially separated from Broadway and the waterfront

STRATEGIES



Net zero cut and fill to improve drainage and strategically promote accretion



Reduce stormwater flooding and CSOs with green infrastructure



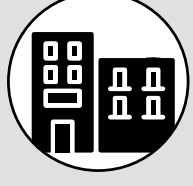
Protect and create freshwater tidal marsh habitat



Improve accessibility for people, bikes and cars



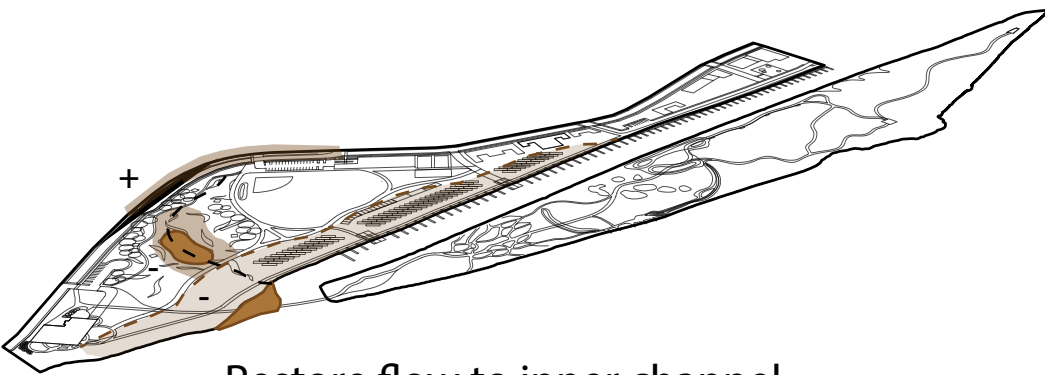
Provide attractive options for active and passive play



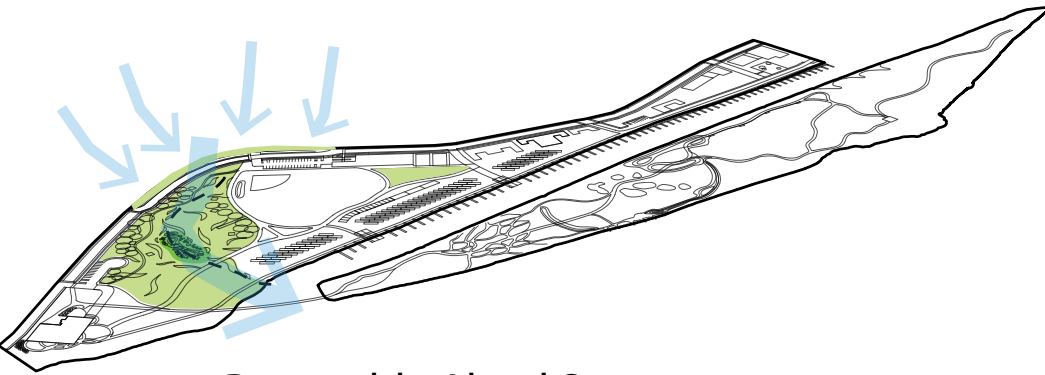
Vibrant connections to Broadway and the waterfront

PHASE 1

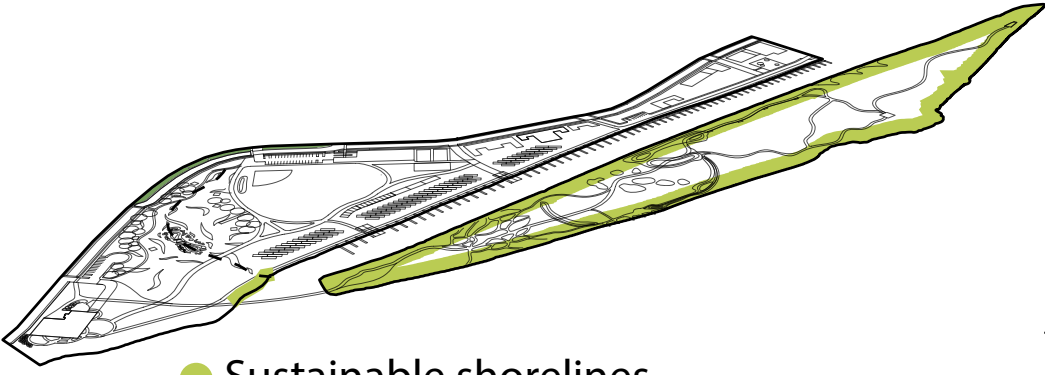
(2020 - 2025)



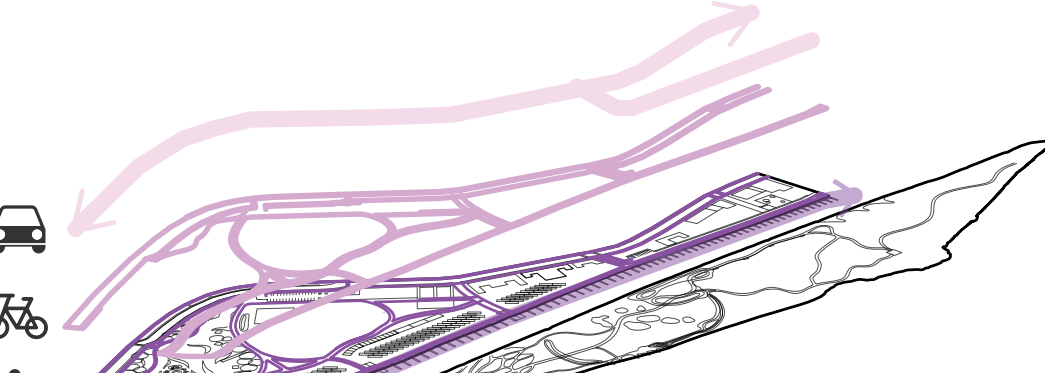
Restore flow to inner channel
Shift & raise Abeel St
Bioswale playground
Create a predictable future shoreline



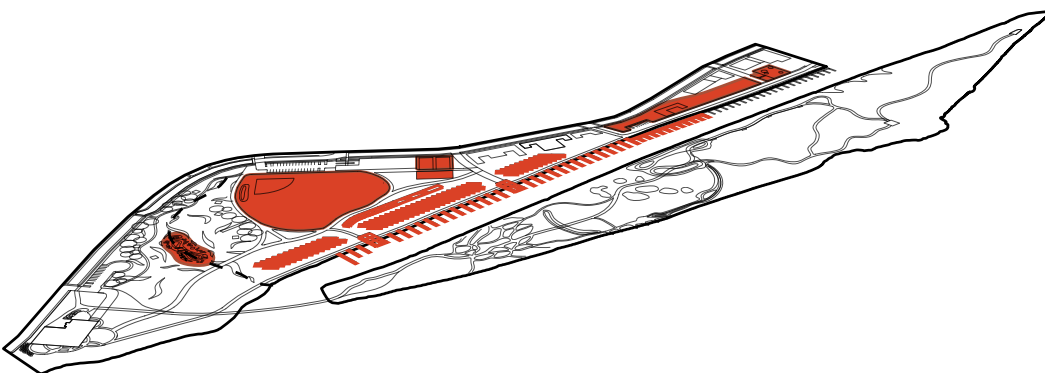
Permeable Abeel St
Bioswale playground
Rain garden for Community center



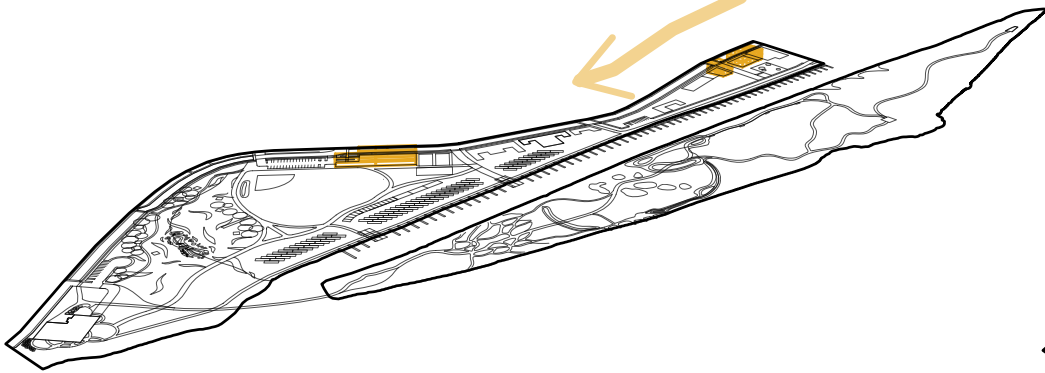
Sustainable shorelines



Complete Abeel St
Public waterfront access



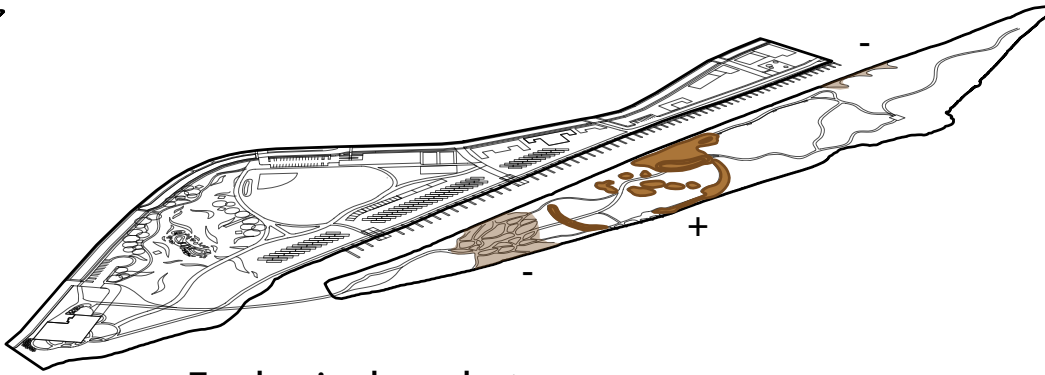
Improve active recreation amenities
Activate the Strand
Refurbish marina



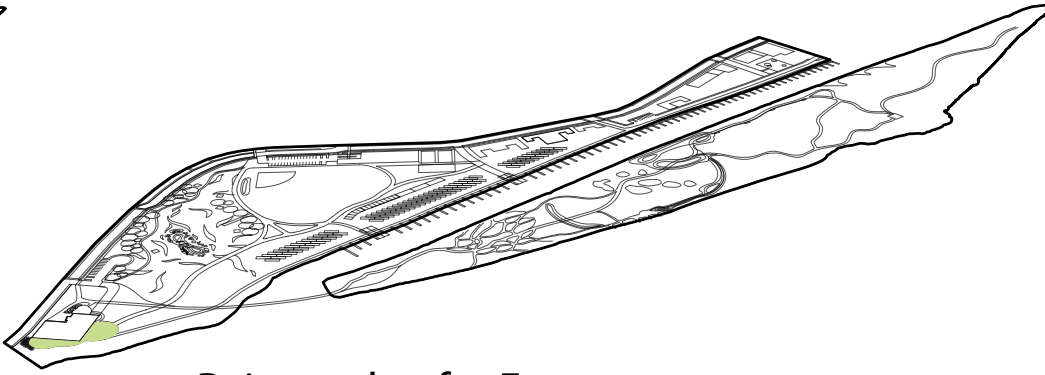
Community center
Extend commerce from Broadway

PHASE 2

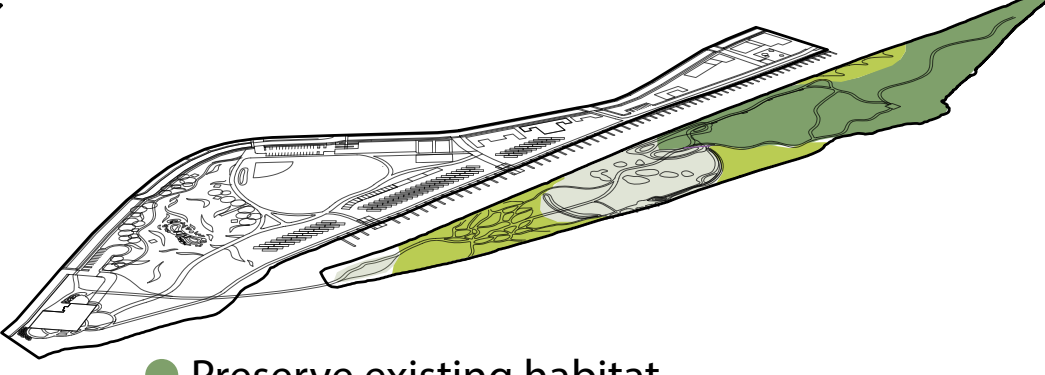
(2025 - 2040)



Ecological pockets
Marsh matrix
Berm park



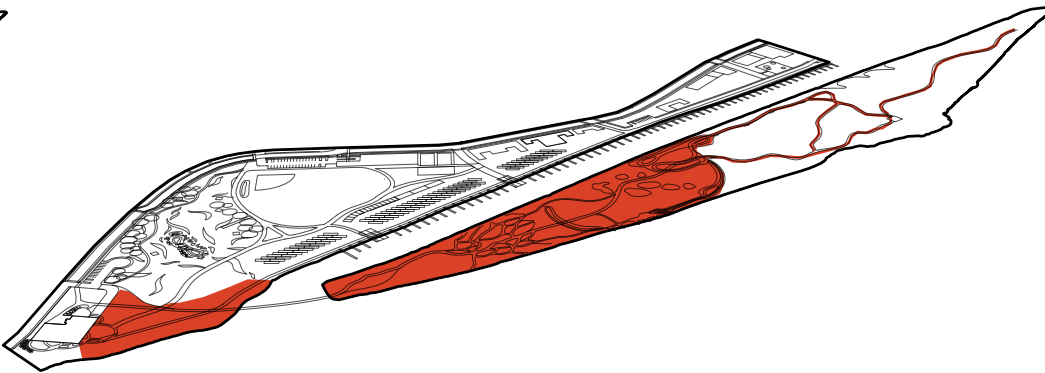
Rain garden for Factory



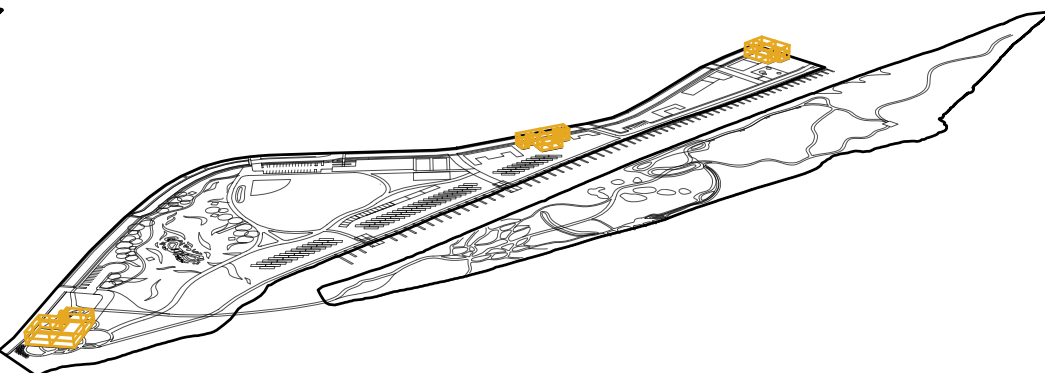
Preserve existing habitat
Construct wetlands
Construct mixed floodplain forest



Strand viewing staircase
Ground paths & elevated boardwalk



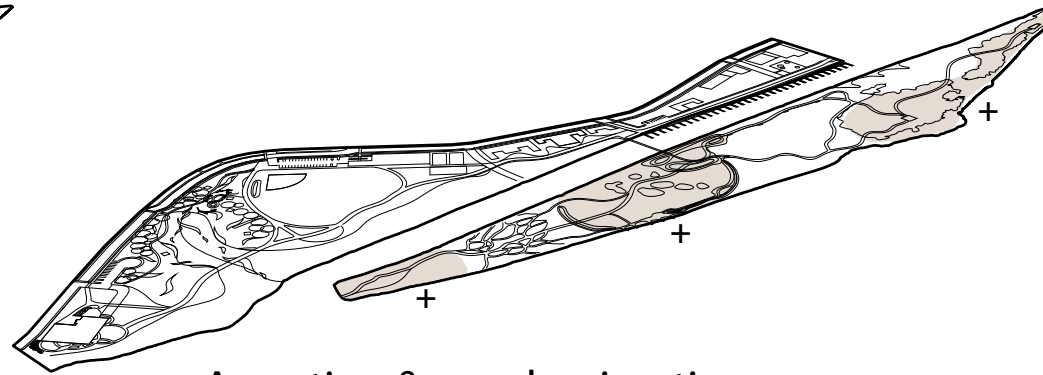
Open Island Dock Park
Waterfront plaza & beach



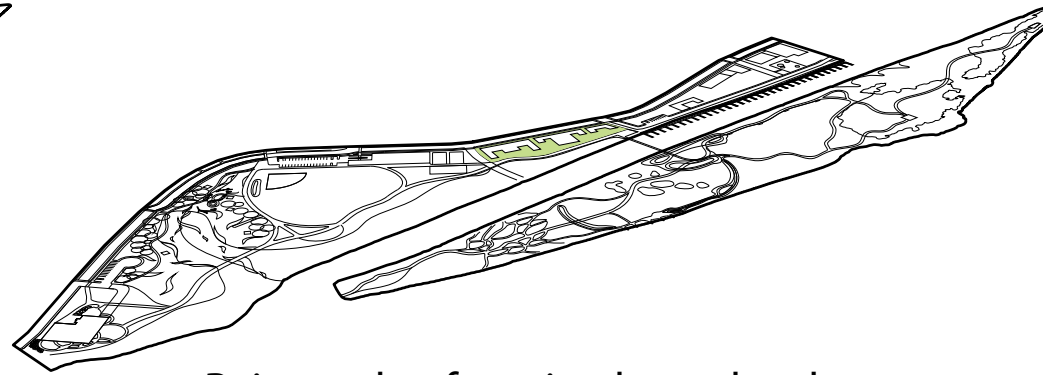
Adaptive reuse of Factory
Flood-adaptive reconstruction of marina buildings
Hotel

PHASE 3

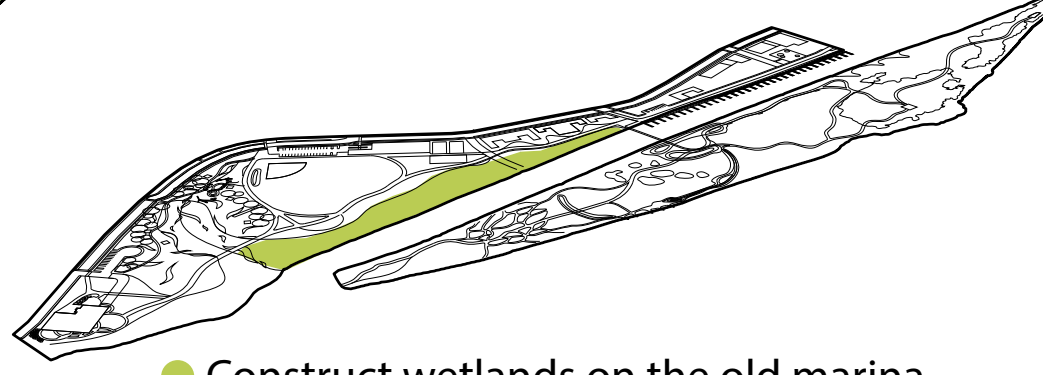
(2040 - 2060)



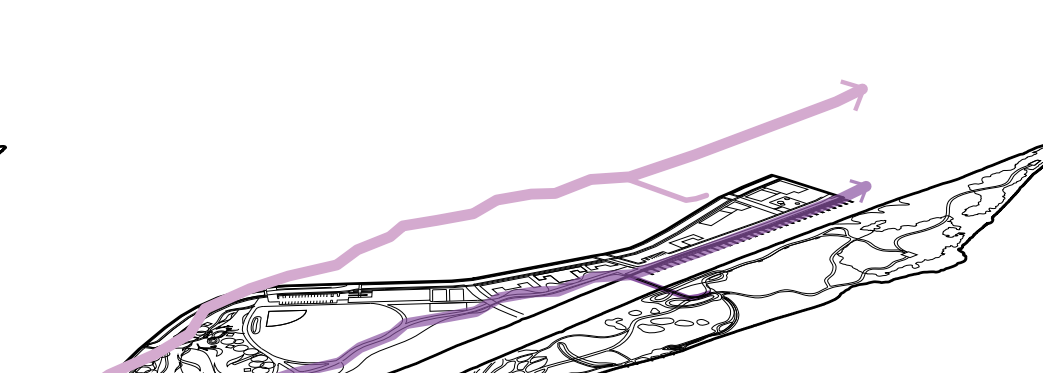
Accretion & marsh migration



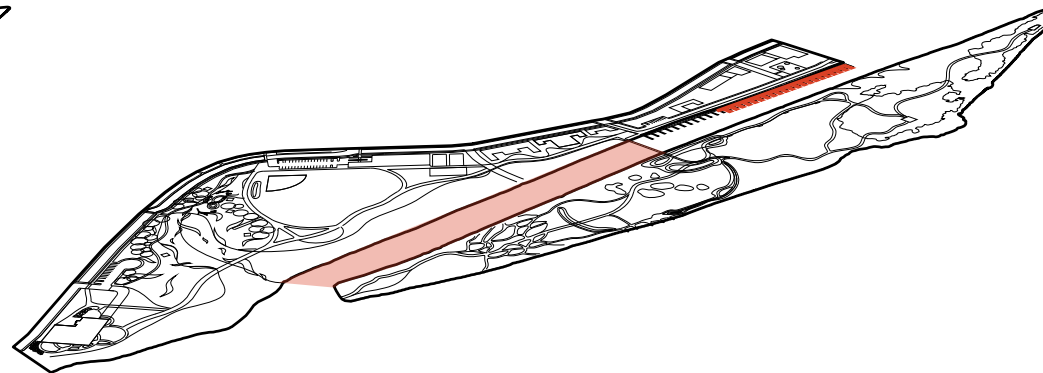
Rain garden for mixed-use development



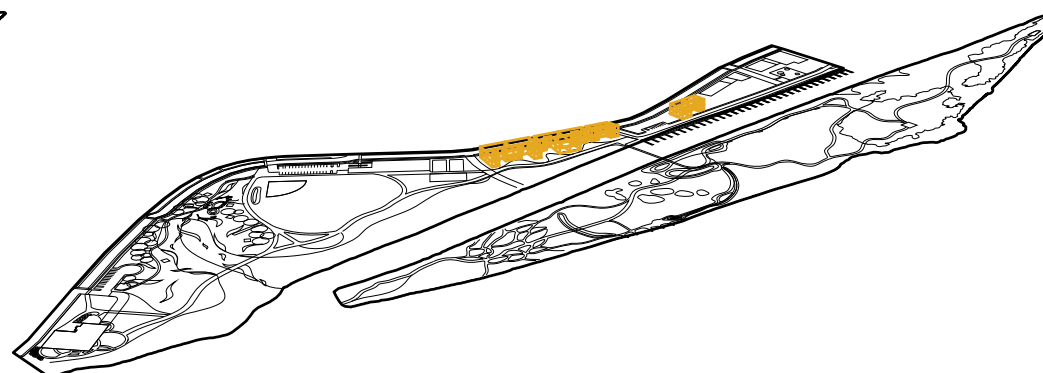
Construct wetlands on the old marina waterfront



Bridge connection from the Strand to Island Dock
Retreat of waterfront promenade



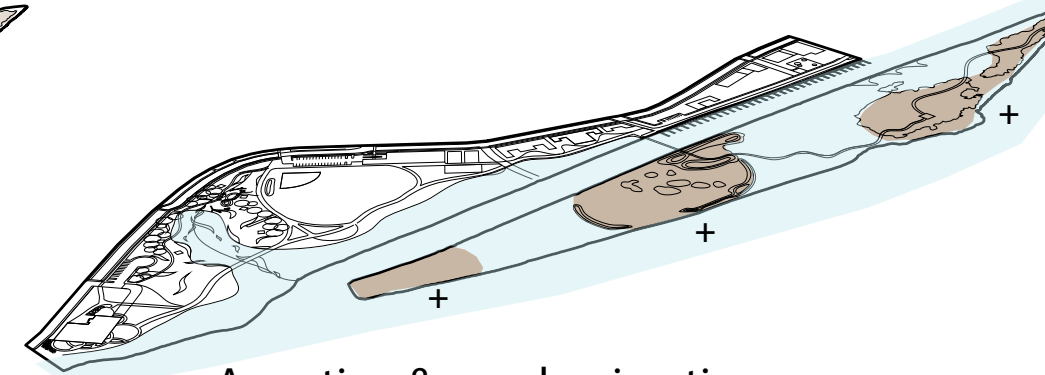
Extend public marina along the Strand
Kayak racing channel



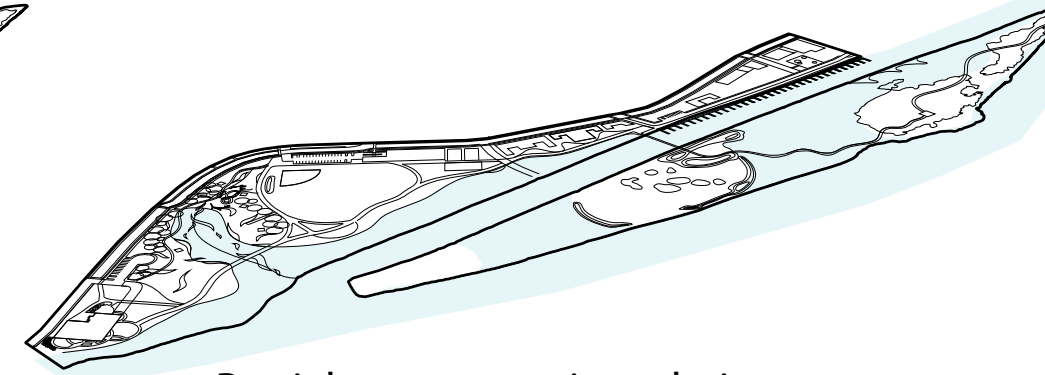
Flood buyout of marina
Adaptive mixed-reuse of marina buildings
Strand Boating Center

PHASE 4

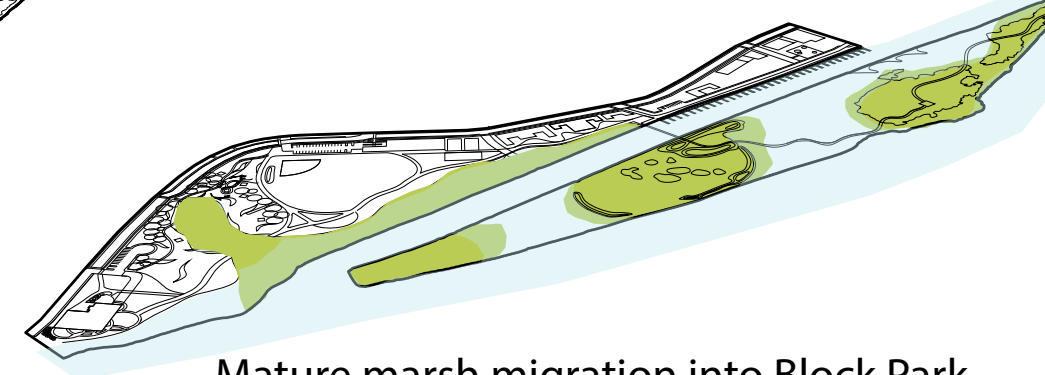
(2060 - 2080)



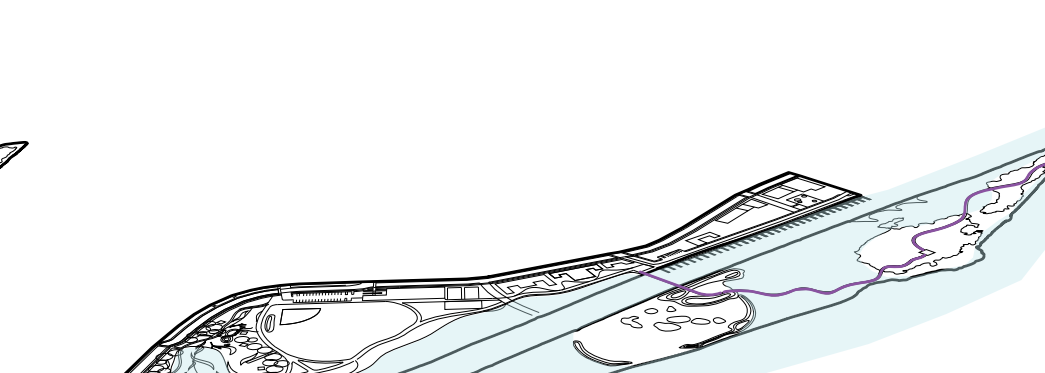
Accretion & marsh migration



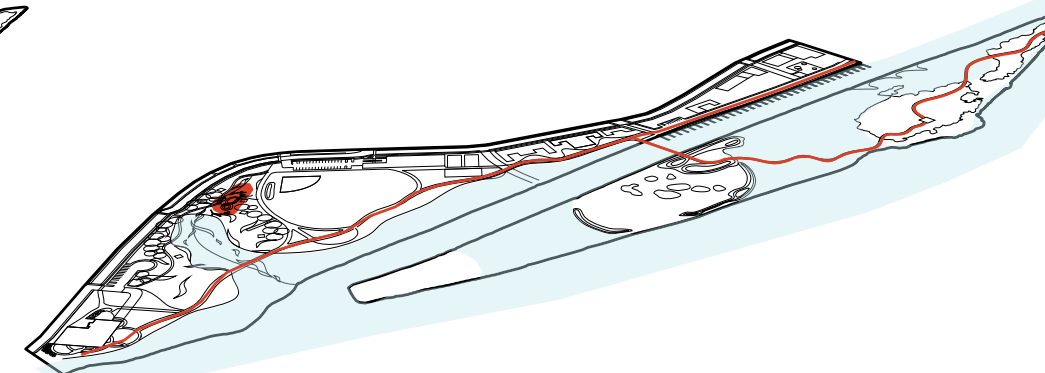
Partial permanent inundation



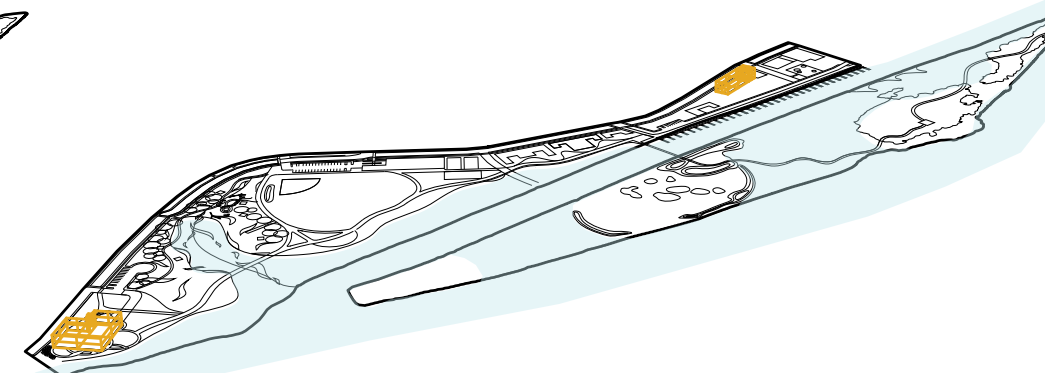
Mature marsh migration into Block Park & remaining islands



Remove ground trails on Island Dock Park

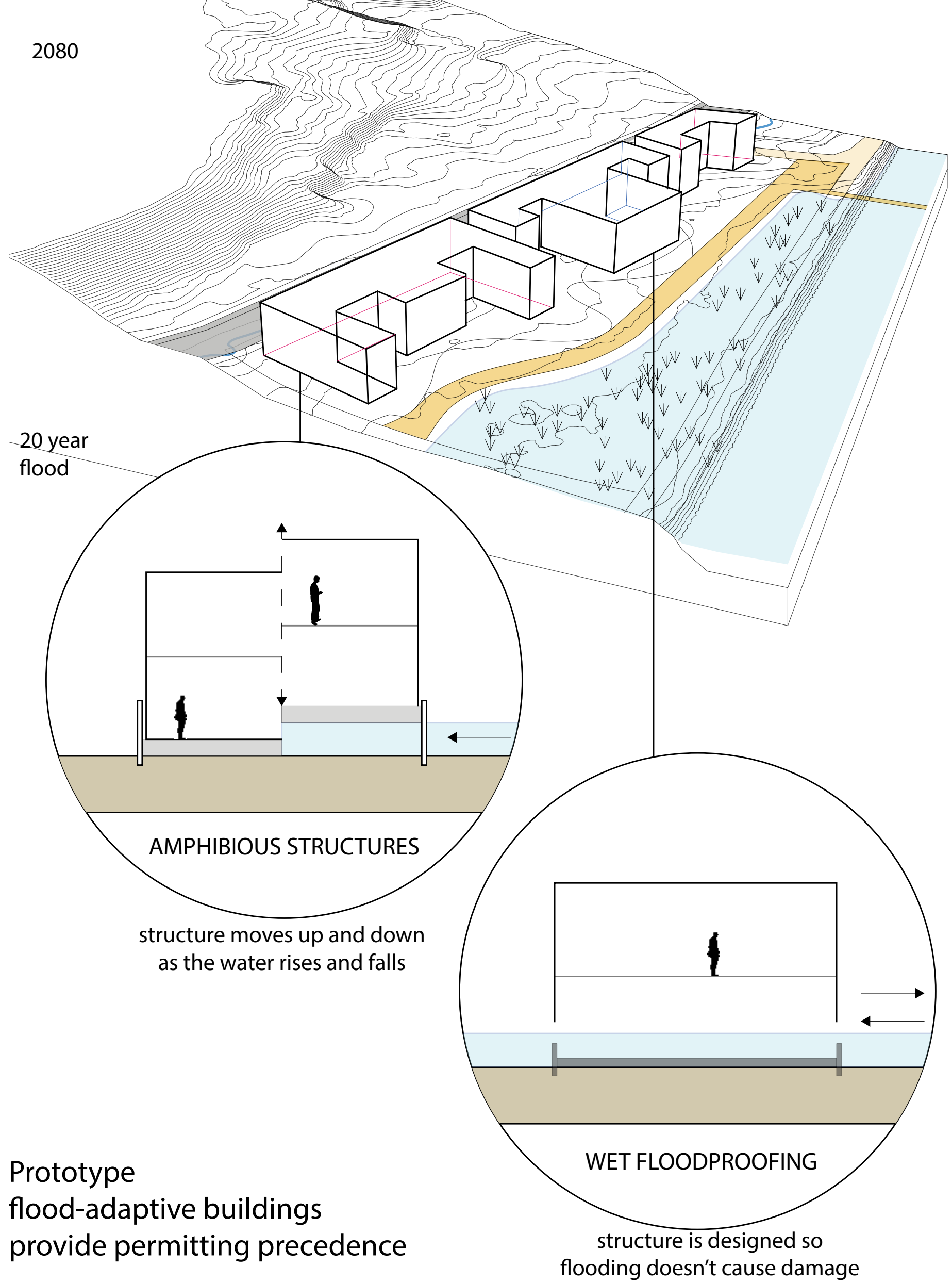


Immersive boardwalk experience over flooded marsh
Shift bioswale playground inland

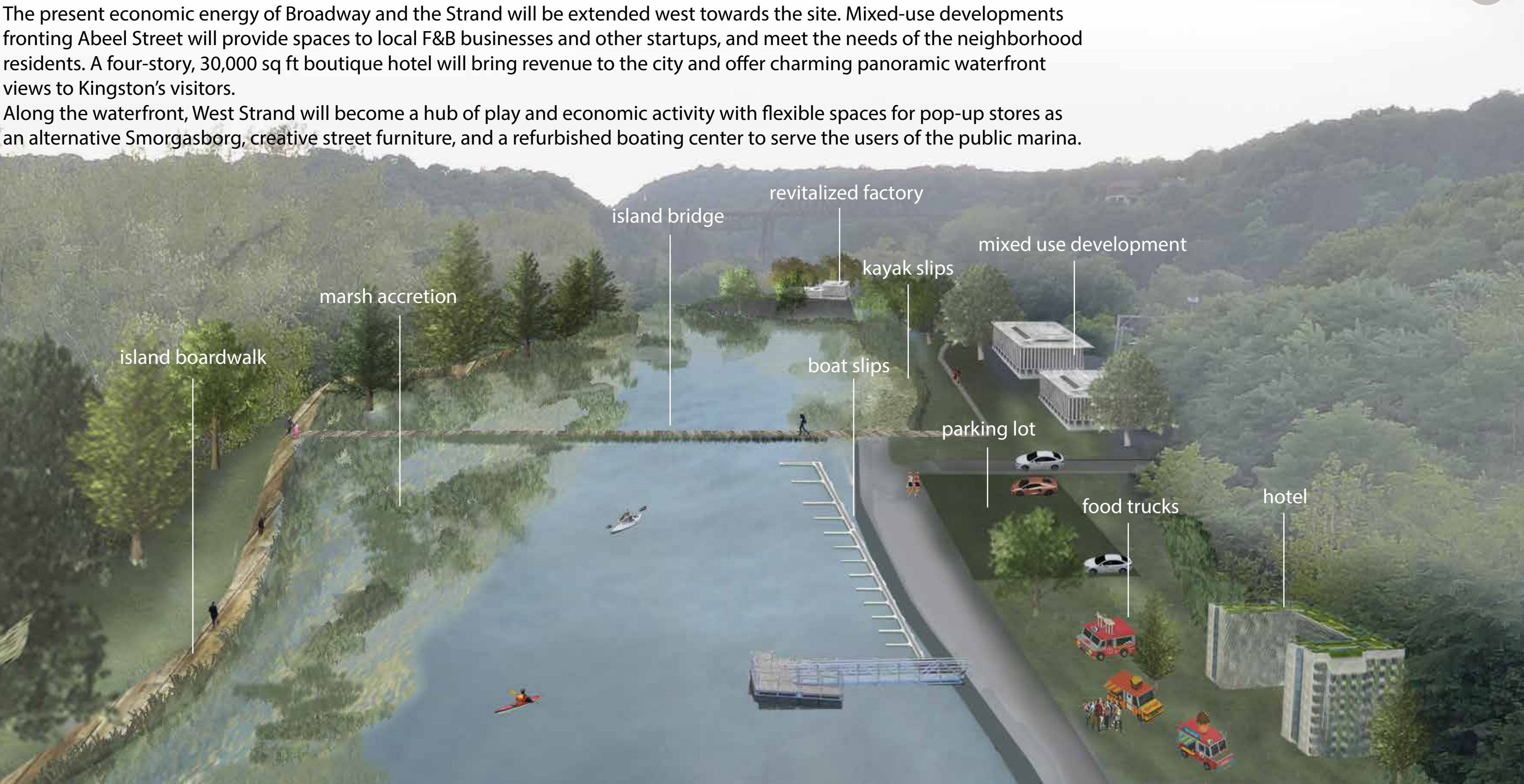


Complete Strand commercial extension
Re-adaptive reuse of Factory

ABEEL STREET, STRAND EXTENSION, AND BLOCK PARK COMMUNITY SPACE



Activating the Strand Waterfront



Active Recreation and Community Space at Block Park



BIOSWALE PARK AND ADAPTIVE REUSE FACTORY

4,800 sq ft of rain gardens for community recreation area
3,325 sq ft of rain gardens for mixed use residential area
4,900 sq ft of rain gardens for factory

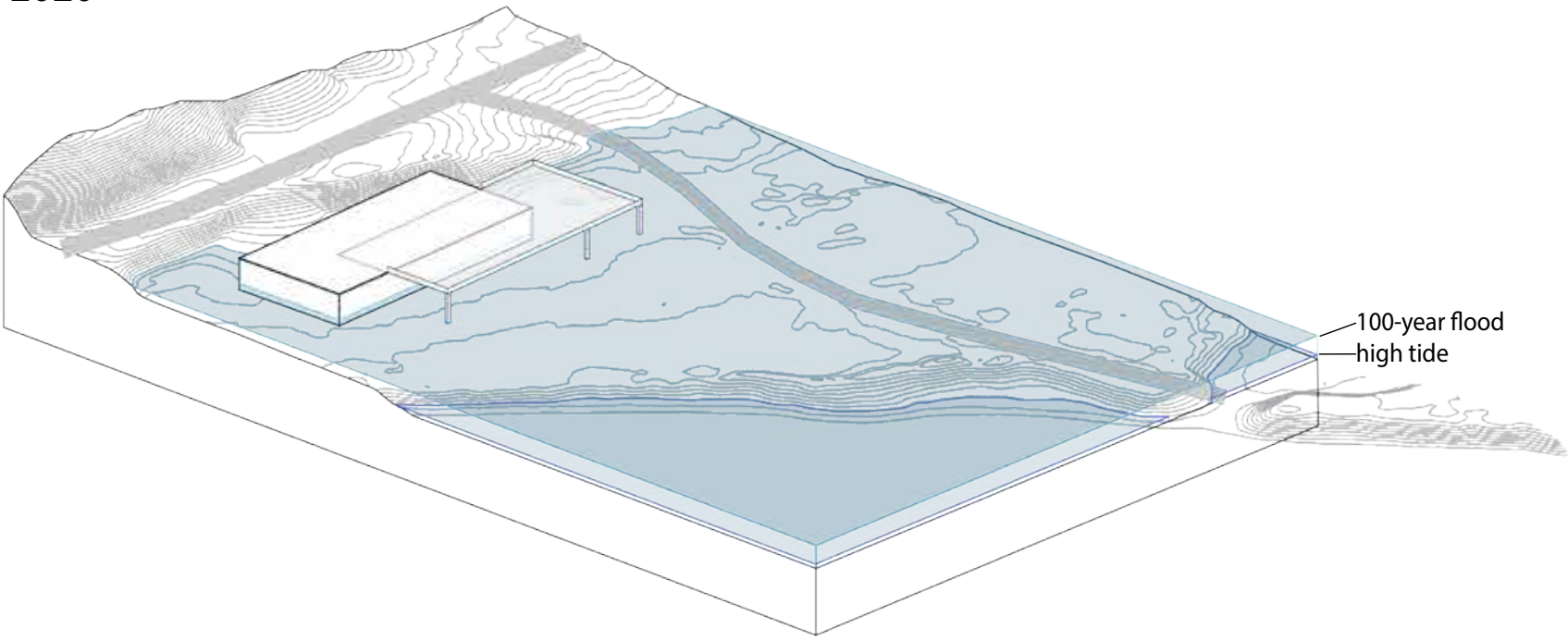
15% increase in precipitation from climate change

bioswale infiltration rate: 0.096 cfs
peak velocity of bioswale: 0.99 fps
peak flow rate of bioswale: 5.49 cfs

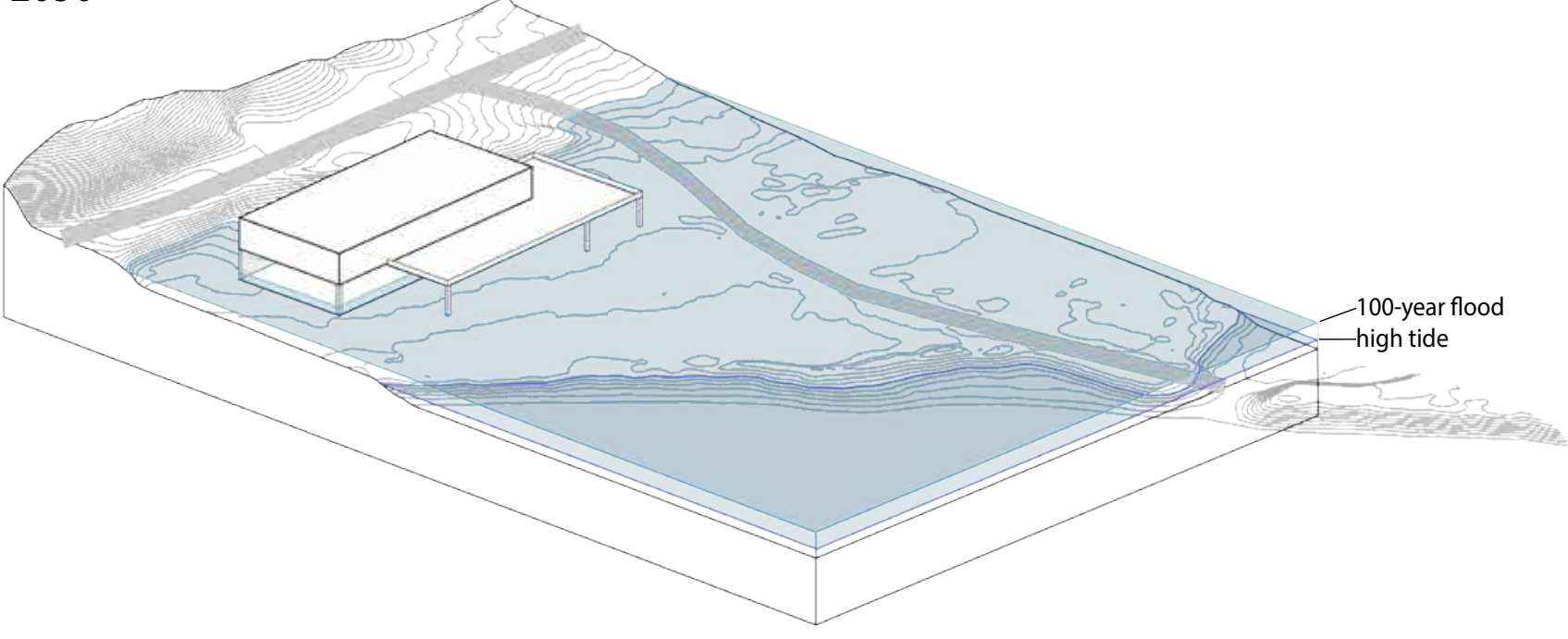
70% of site is proposed permeable surface



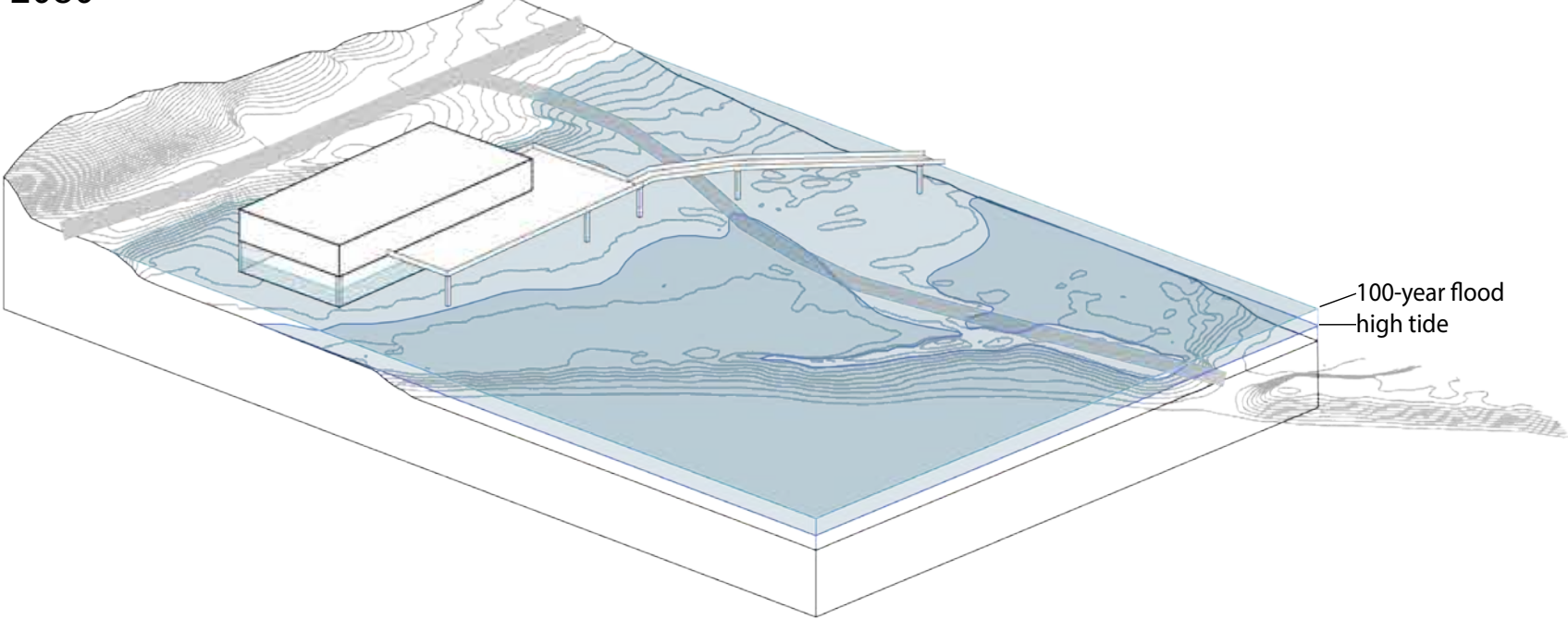
2020



2050



2080



ISLAND DOCK AND THE BEACON OF HOPE

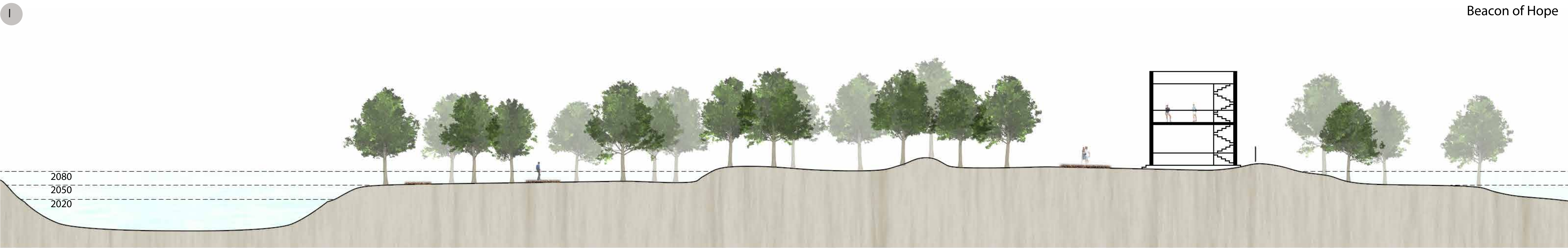
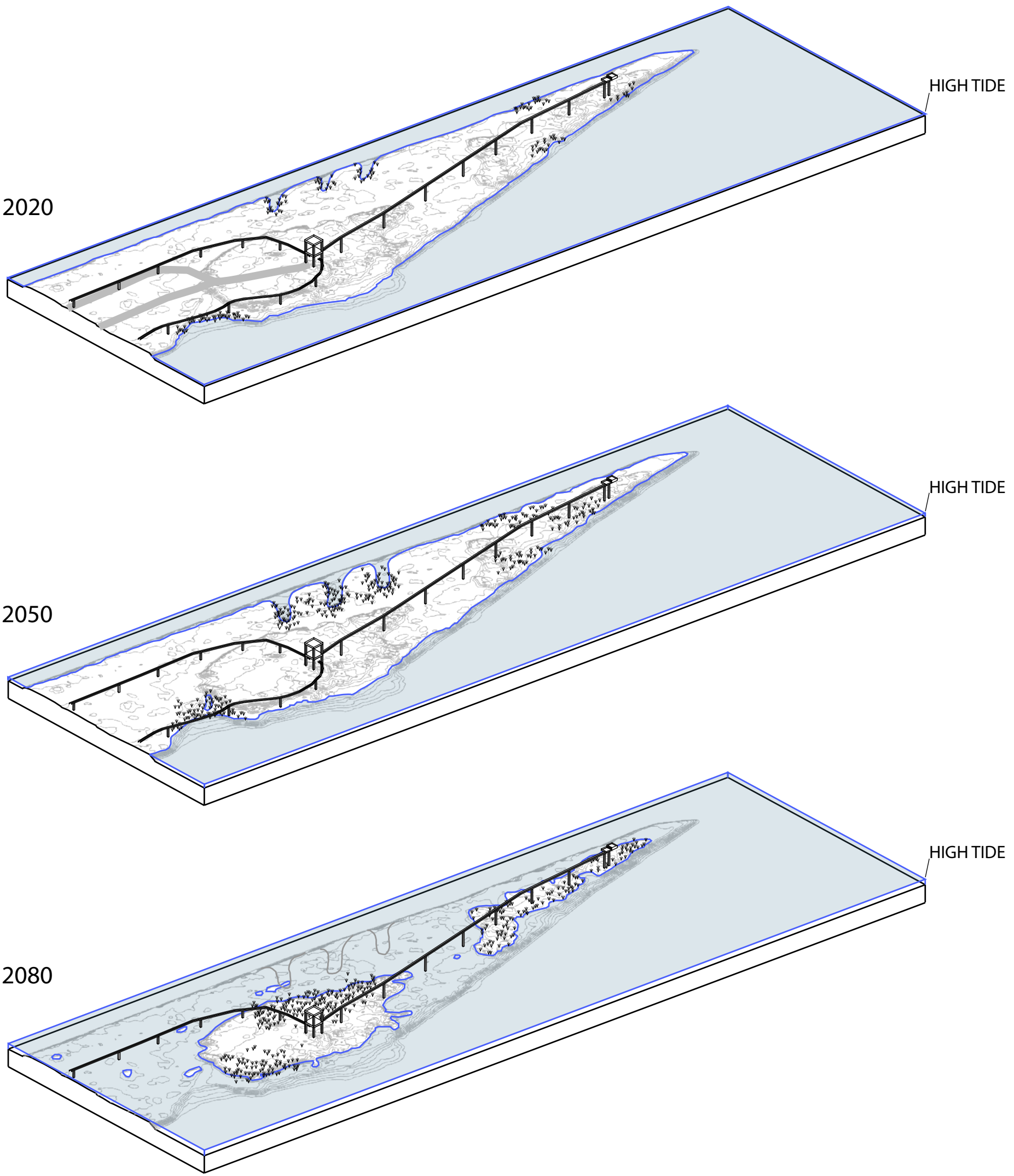
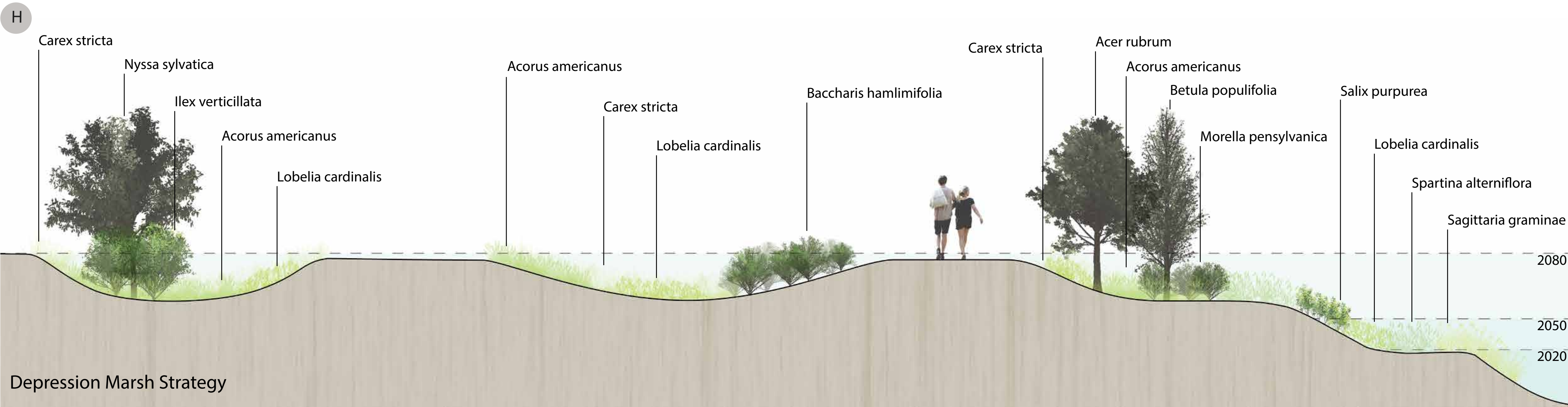
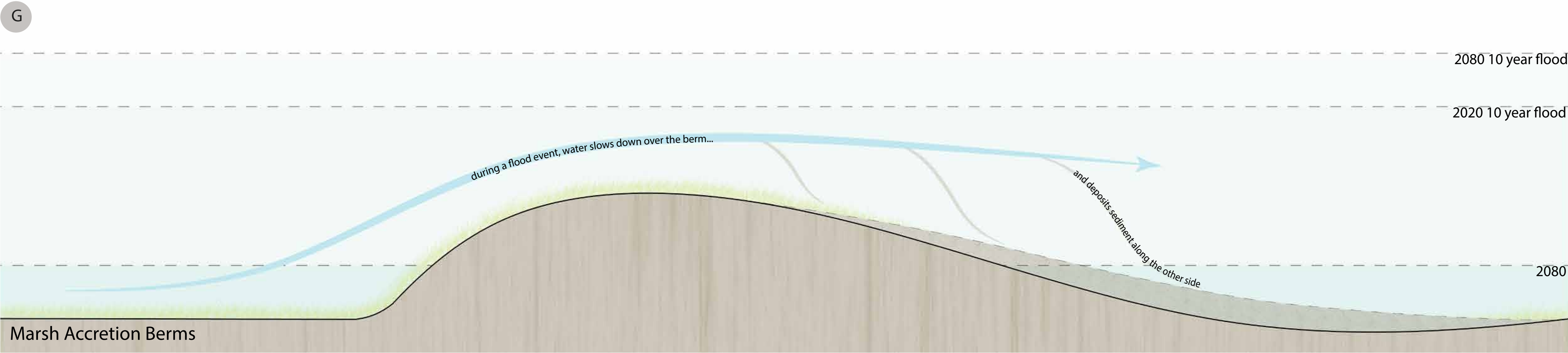
32,566 square ft of cut marsh in 2020

55% bioengineered green shoreline

234,227 square ft of protected habitat

150,190 square ft for marsh accretion

45% natural green shoreline



The Beacon of Hope serves as a place of refuge from sea level rise. The levels of the structure are delineated by the heights of major flood events. The structure offers views of the site from different heights and connects to an elevated walkway that leads the user through a protected habitat area.

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