

M2

3-foot sea level rise

B1+ 2100 A1FI+ 2075



sea level infiltration
Sea level will rise 3 feet above the 2000 level, at which point 9% of the 2000 peninsula footprint will be under water unless protective measures are taken.

order-of-magnitude 2
With sea level 3' higher than 2000 levels, the M2 peninsula will have to move to structured barriers to avoid significant water encroachment on the Ashley River shore and the northern parts of the Cooper River shore.

issues
SHORELINES: Rising water will encroach on most of the west shoreline and the northern half of the east shore.
STORM EVENTS: Storms and hurricanes will become increasingly severe, dropping more water on the peninsula.
ROADWAYS: Major access roads will be disrupted during high tide/heavy storm events, threatening emergency service, evacuation, and access to the medical complex.
RESIDENTIAL: Some residential areas will be displaced on the west bank, both south and north, unless seawalls are put in place.

principles
Deter water encroachment due to sea level rise.
MARCHES: Expand breadth and depth of marsh frontage on the northeastern shore; increase marsh protection and nourishment.
SEAWALLS: Build a Lockwood Seawall along the west shore, expanding the City's current proposal for a perimeter civic "necklace" around the peninsula.

Manage stormwater through parks & natural systems.
STORM PARKS: Create major storm retention parks at the peninsula edge, related to the new seawalls.
STORM SEWERS: Radically expand and improve City's storm infrastructure to deal with increased stormwater and higher tidal flows.
MARSH RETENTION: Expand marsh capacity to manage and filter runoff.
PARK RETENTION: Expand stormwater retention, per M1. Stormwater will probably have to be pumped for clearance.

Manage stormwater locally.
ON-SITE MEASURES: Require all residential and commercial property to retain their own stormwater; require graywater re-use systems City-wide.

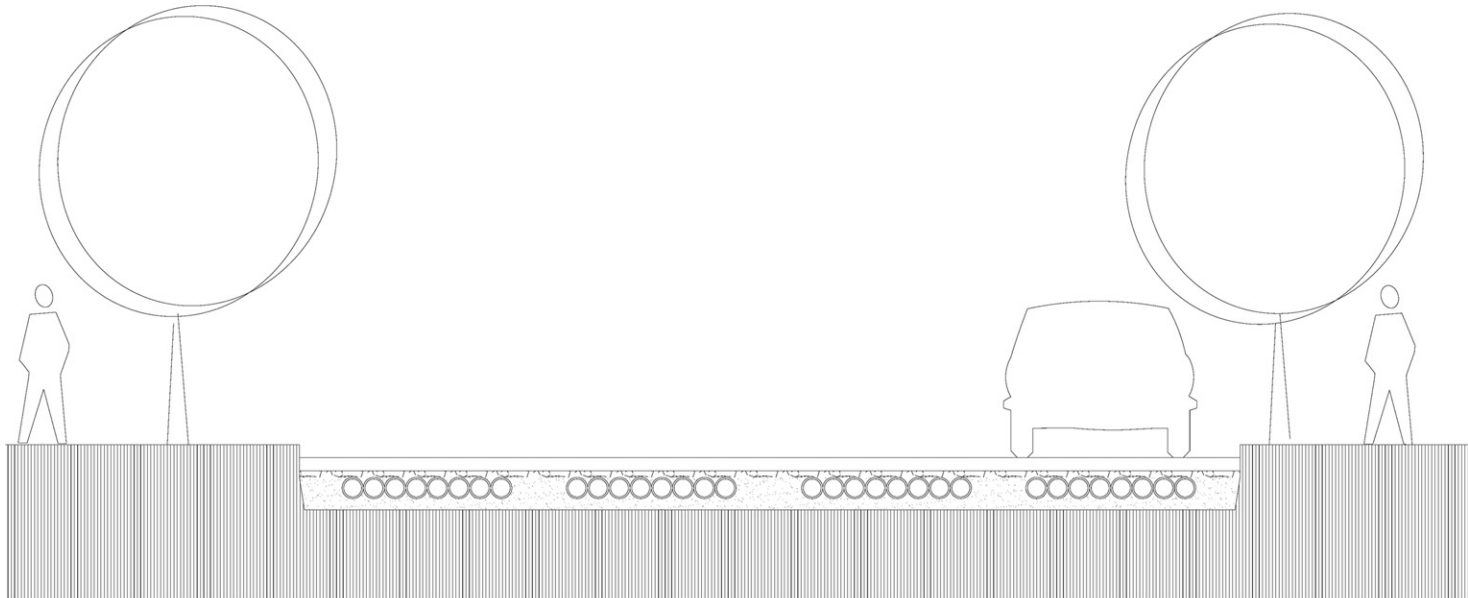
Elevate and protect critical transportation routes.
Road/Parks: Complete M1 proposal to raise the Cross-town, putting a water-park below. Raise all critical transportation routes in the City.



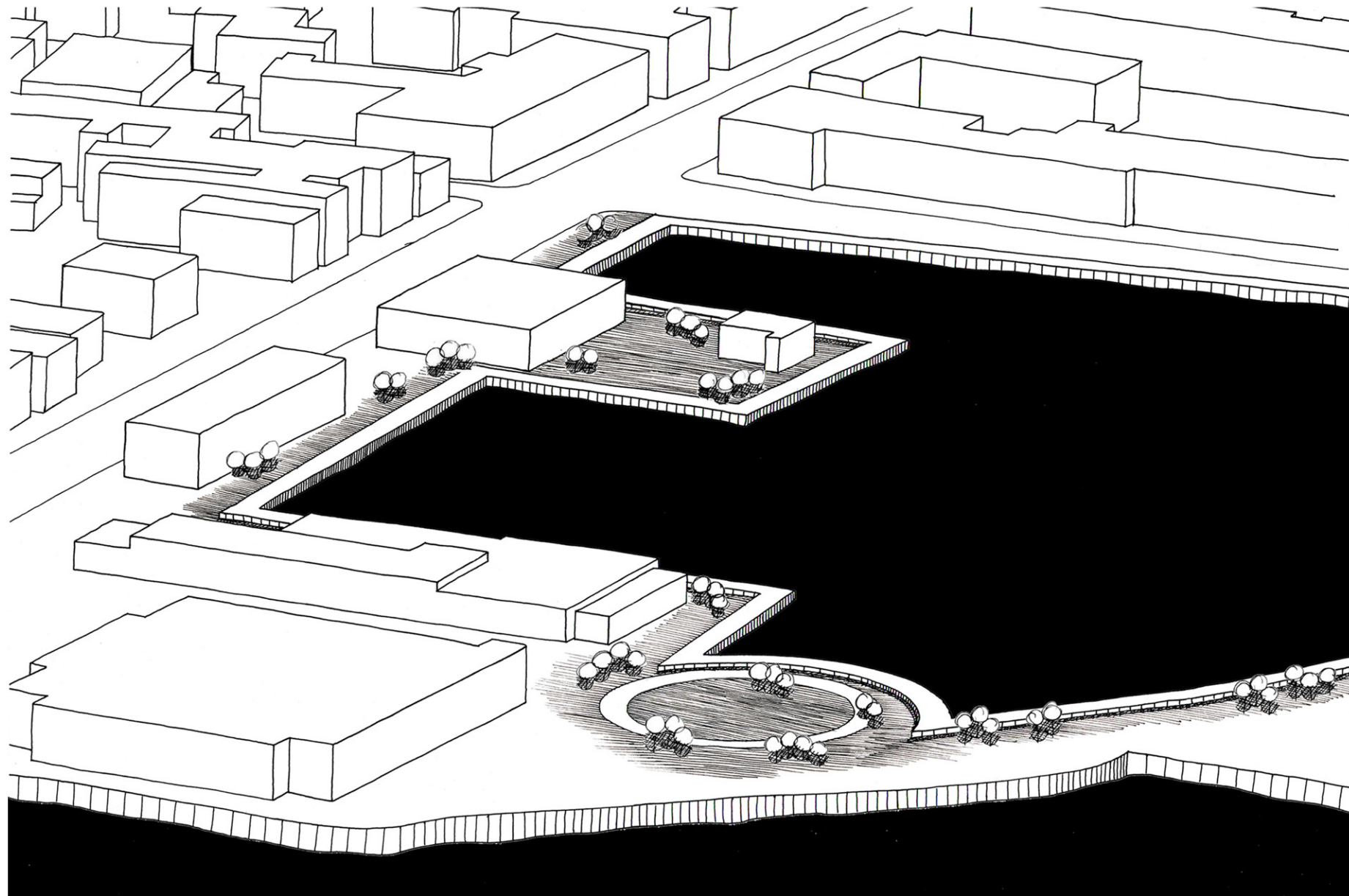
M2 peninsula plan
Stormwater and sea level encroachment are managed a partial perimeter wall and structured retainage areas.



lower waterfront park: water retainage area



lower port: pervious pavement/piping system



lower waterfront park