

Gibson Park Resiliency Project

City of Revere
April 7, 2022





AGENDA

- Background and History
- Project Activities
- Design Ideas
- Projected Timeline
- Future Steps
- Questions & Answers

HISTORY

- The Riverfront MasterPlan Process identified several upgrades at Gibson Park
 - Resiliency and stormwater measures to mitigate severity of flooding and ameliorate changing climate conditions
 - Improve Recreational Facility to support a wider range of programming
- The City applied for and was awarded a Municipal Vulnerability Program Grant from the State to pursue this project



PROJECT ACTIVITIES

- **3 Community Forums –**
- **Site Survey and Wetland Delineation**
 - Started in January
- **Soil Borings and laboratory testing**
 - Borings Performed first week of April
- **Engineering Design Process**
 - Park infrastructure
 - Stormwater Management
 - Resiliency Measures
- **Landscape Architecture**
 - Park Infrastructure
 - River's Edge
- **Regulatory Review**
 - Preliminary Meetings with Regulators
 - Preparation of Permit Packages
- **Engineering Design Report**





DESIGN IDEAS

CREATE NEW SALTMARSH

- Natural Shoreline Protection against erosion and wave action
- Provides habitat
- Provide a soft, vegetated waters-edge
- Grading to allow for marsh migration with rising seas





DESIGN IDEAS

STORMWATER MANAGEMENT

- On-site – decentralized low impact strategies
 - Raingardens and Bioswales
 - Treat runoff close to the source, provide water quality treatment as well as control peak rates and volumes





DESIGN IDEAS

STORMWATER MANAGEMENT

- Off-site (from the neighborhood) – Subsurface storage and recharge
 - Use the space under the multi-purpose field and new courts
 - Retain water during higher ends of the tidal cycle
 - Install pump chamber with controls to move water



Image from ConTech



Image from ADS



Image from StormTrap

DESIGN IDEAS

FLOOD MANAGEMENT

- Provide Temporary Berm Protection along Mills Ave
 - Consistent with the Point of Pines/ Riverside Resilience Study
 - Will protect close to the project 10 yr storm in 2030
 - Create a stable vegetated berm along post and beam guardrail
 - Maintain access to River



DJ12

ALIGNMENT A | 2030 1% STORM

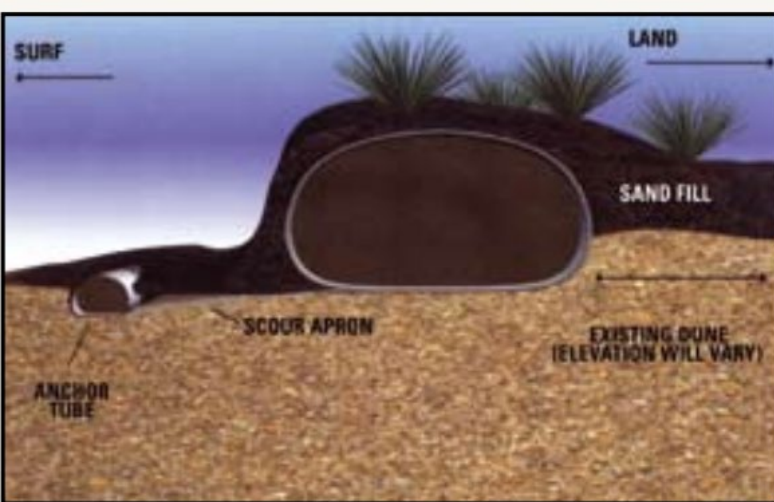


POINT OF PINES / RIVERSIDE RESILIENCE City of Revere

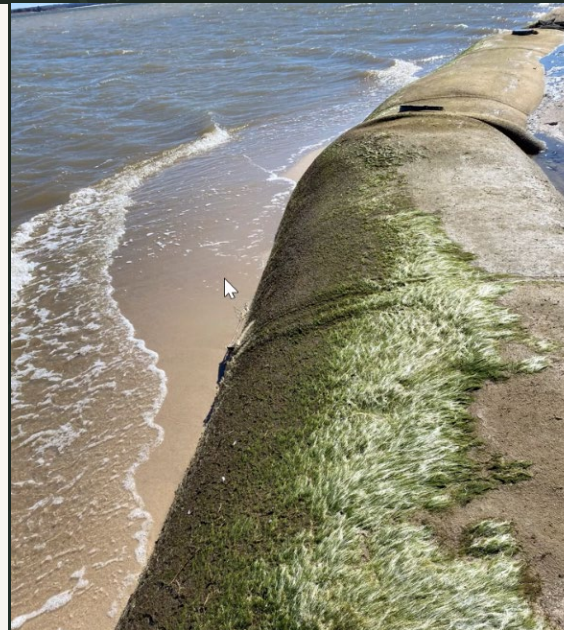
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AECOM

ABOVE Slide from AECOM's presentation "Revere MVP Resiliency Recommendations"



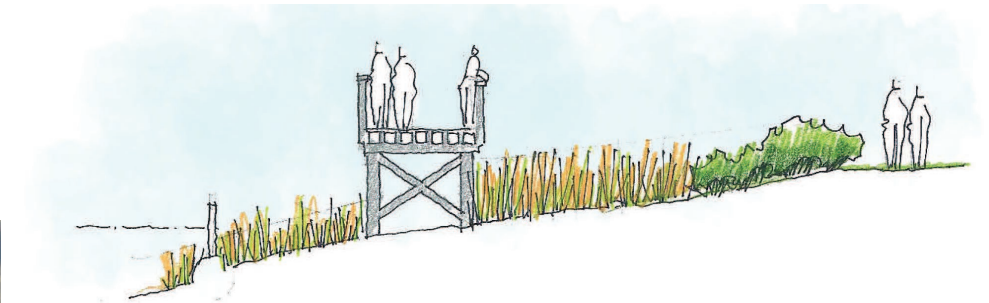
TenCate Geotube® system sand dune cross section.



DESIGN IDEAS

ELEVATED BOARDWALK

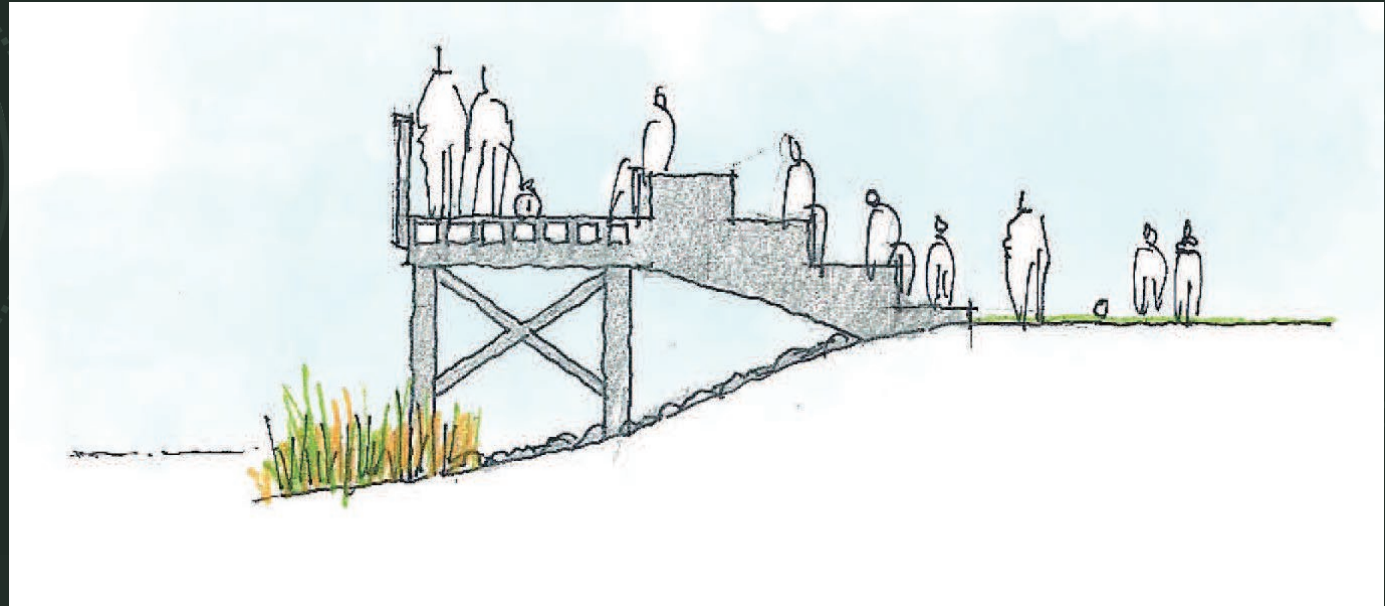
- Connections from the Boatworks to Gibson Point
 - Allow People to get out over the water
 - Resting Areas with Seating



DESIGN IDEAS

Multi-Purpose Field

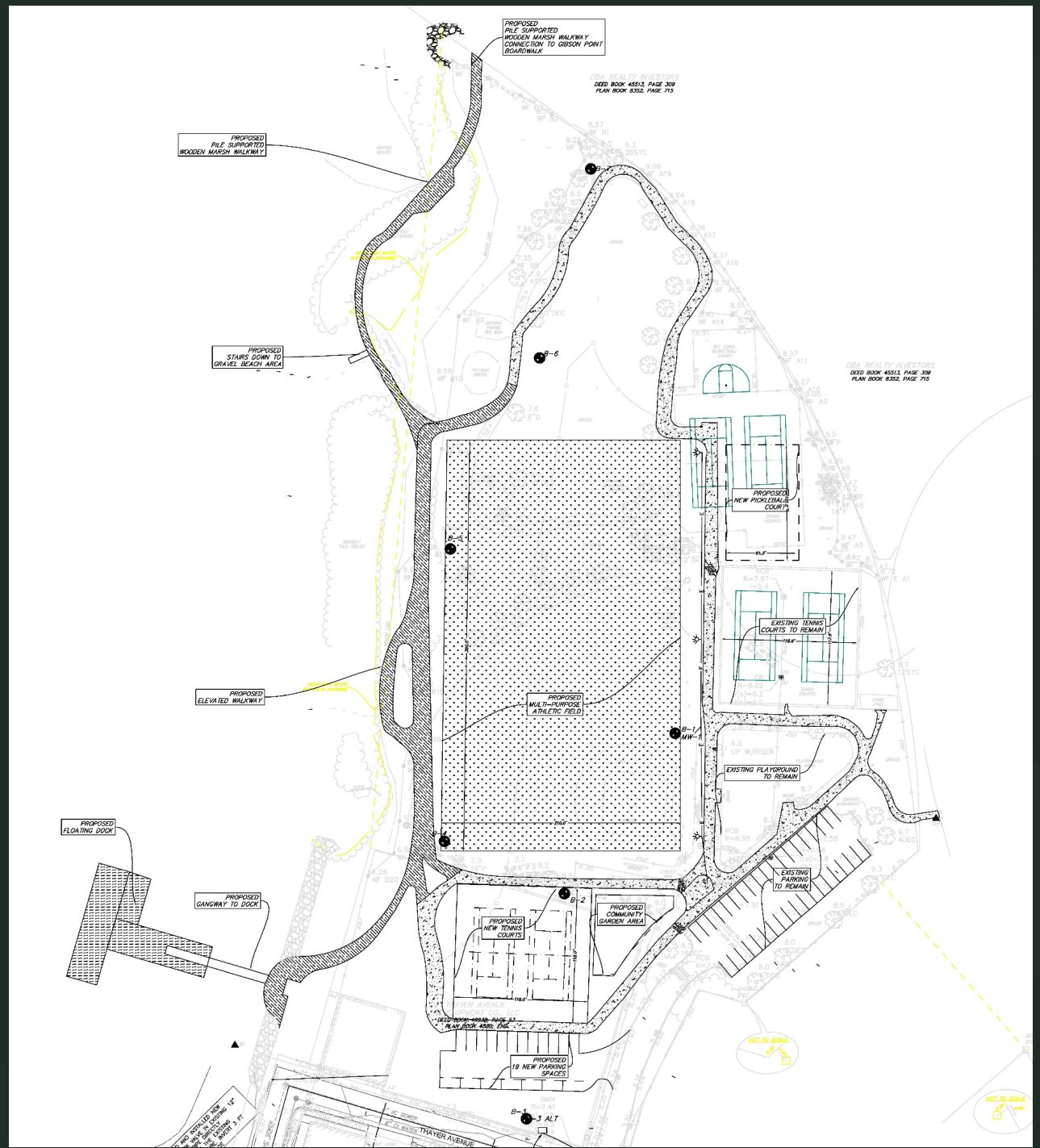
- Resiliency Measures along the edge as well as underneath
- Stepped Seating areas provide storm surge protection and functionality

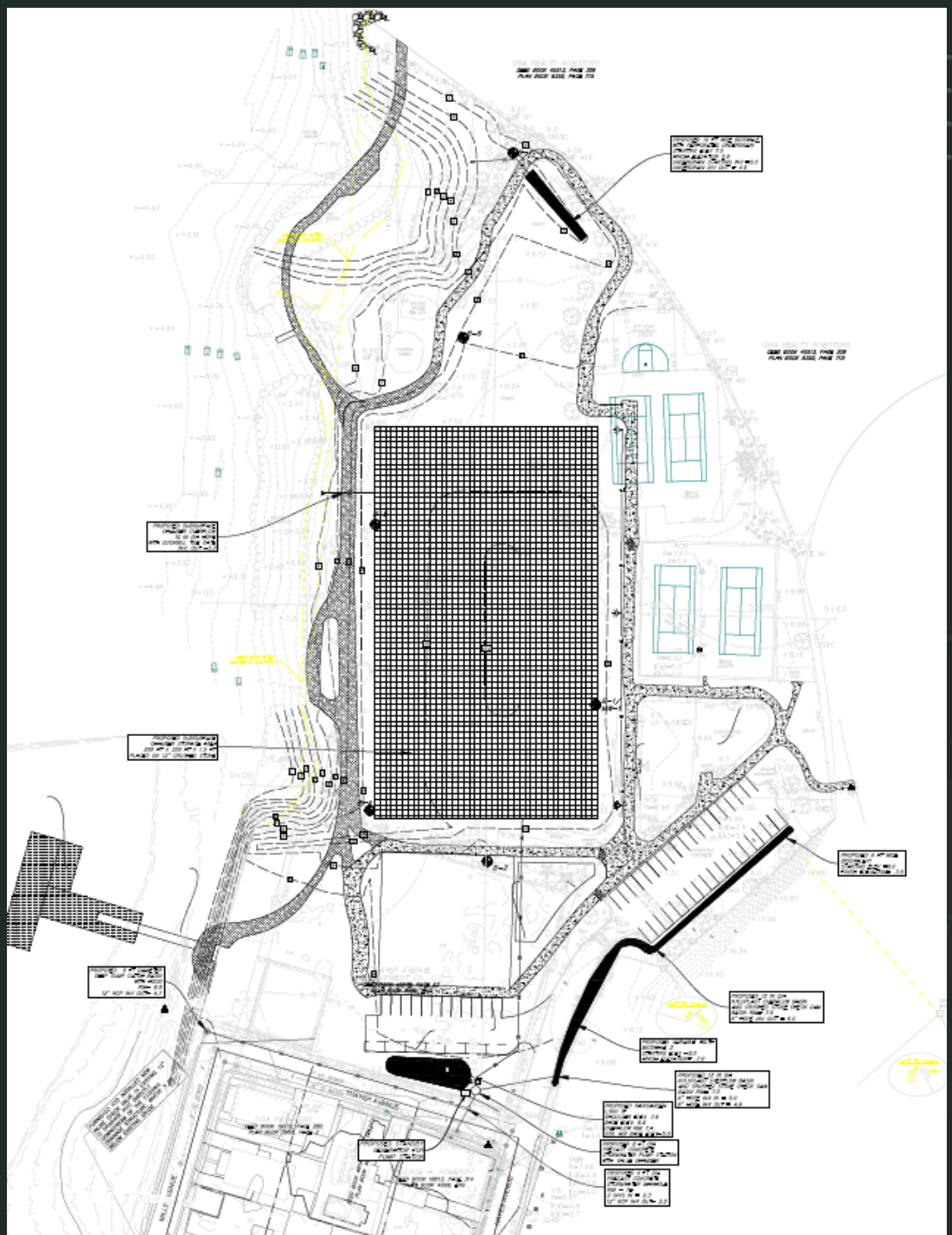


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1  Plan Duration

Year 2022





NEXT STEPS

- **1 More Community Forums – May**
- **Continue Engineering Design Process**
 - Use Groundwater and Soil Data to Size Infrastructure
- **Landscape Architecture**
 - Refine Park Infrastructure and Usage
 - River's Edge
- **Park Infrastructure**
 - Lighting
 - Court/Field Layouts
- **Regulatory Review**
 - Preliminary Meetings with Regulators
 - Preparation of Permit Packages
- **Engineering Design Report**



QUESTIONS AND ANSWERS

