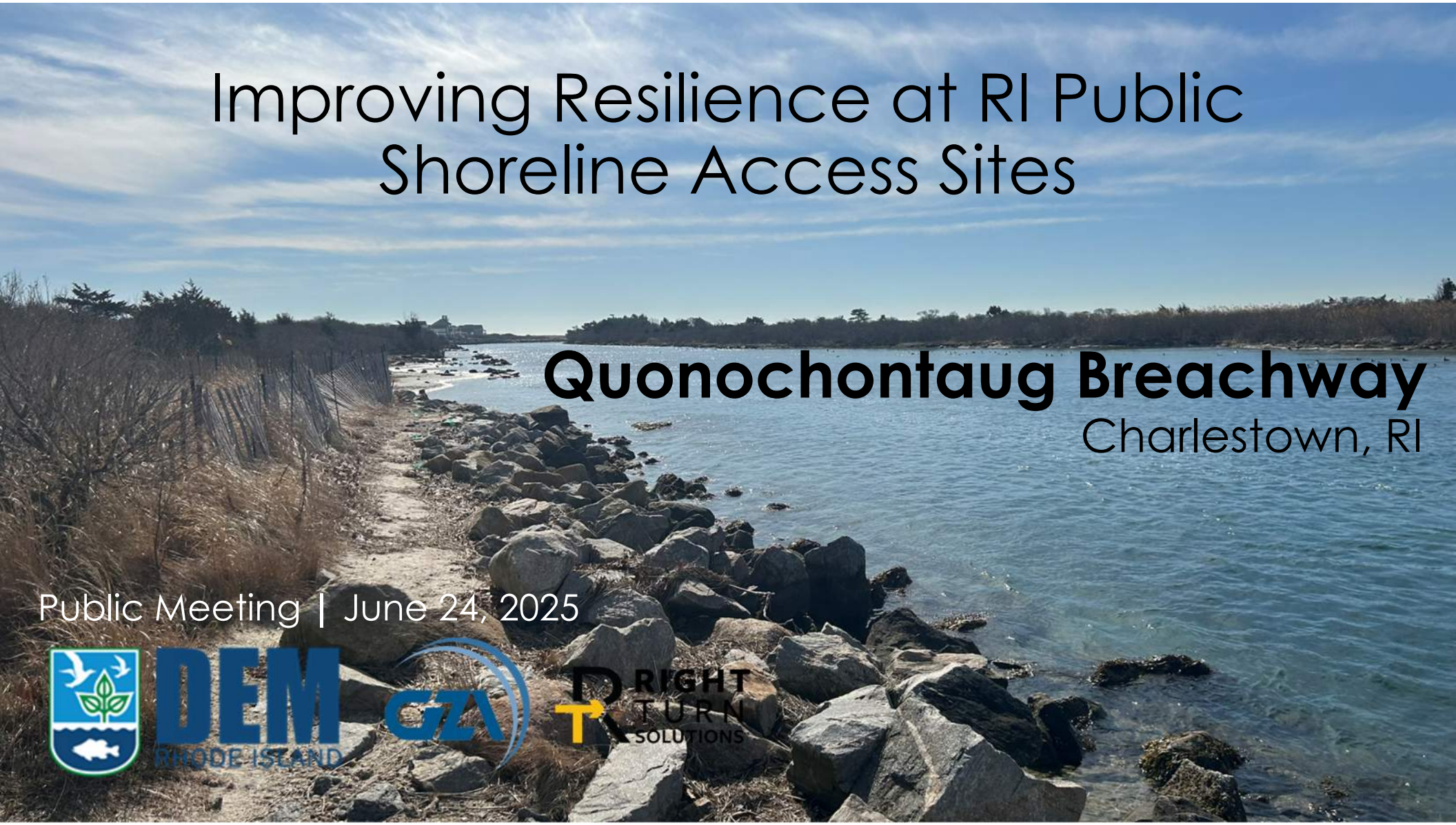
Improving Resilience at RI Public Shoreline Access Sites



Quonochontaug Breachway

Charlestown, RI

Public Meeting | June 24, 2025

DEM RHODE ISLAND

GZA

RIGHT TURN SOLUTIONS

QUONOCHONTAUG BREACHWAY

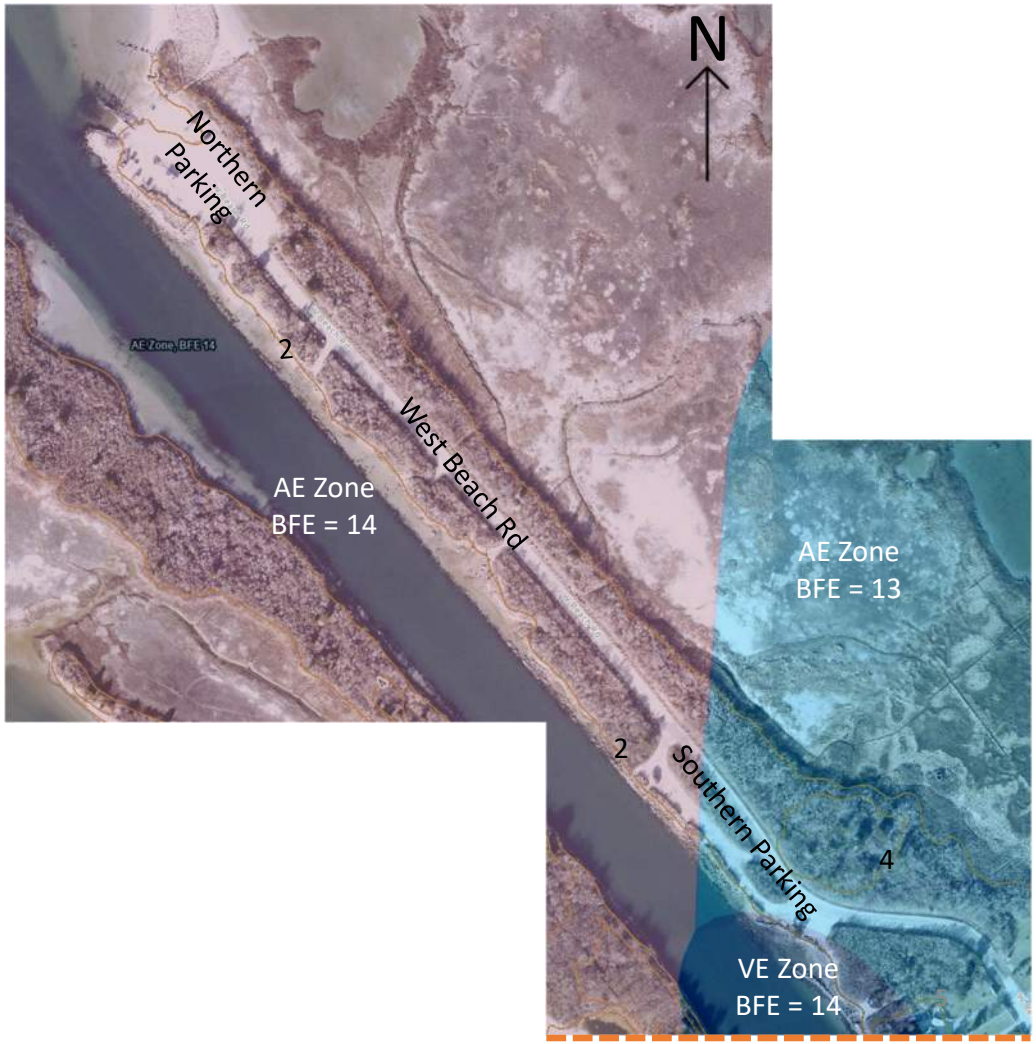
Agenda:

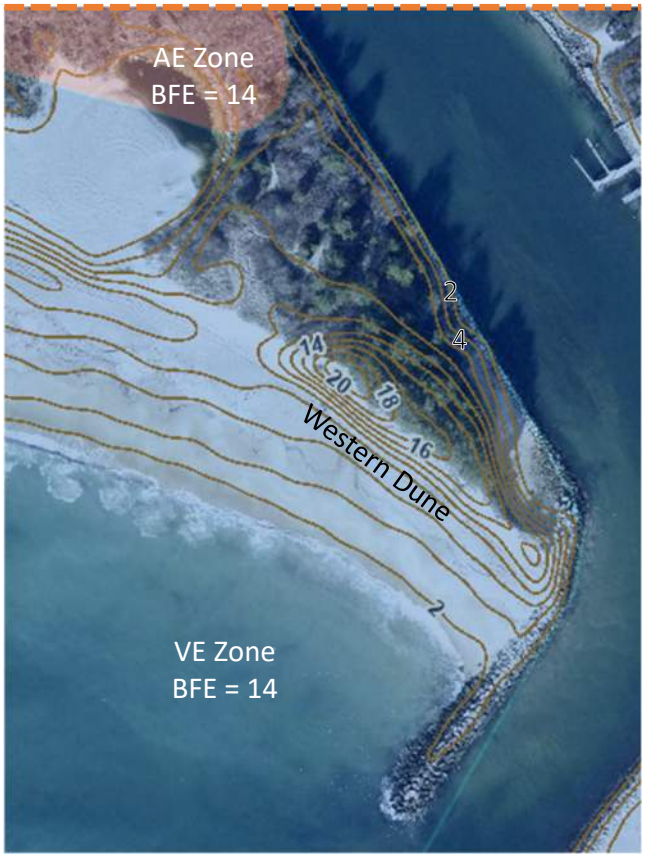
- Welcome and Introduction (DEM)
- Project Background (DEM)
- Project Objectives (GZA)
- Existing Conditions (GZA)
- Proposed Concept Design (GZA)
- Q/As and Discussions (ALL)

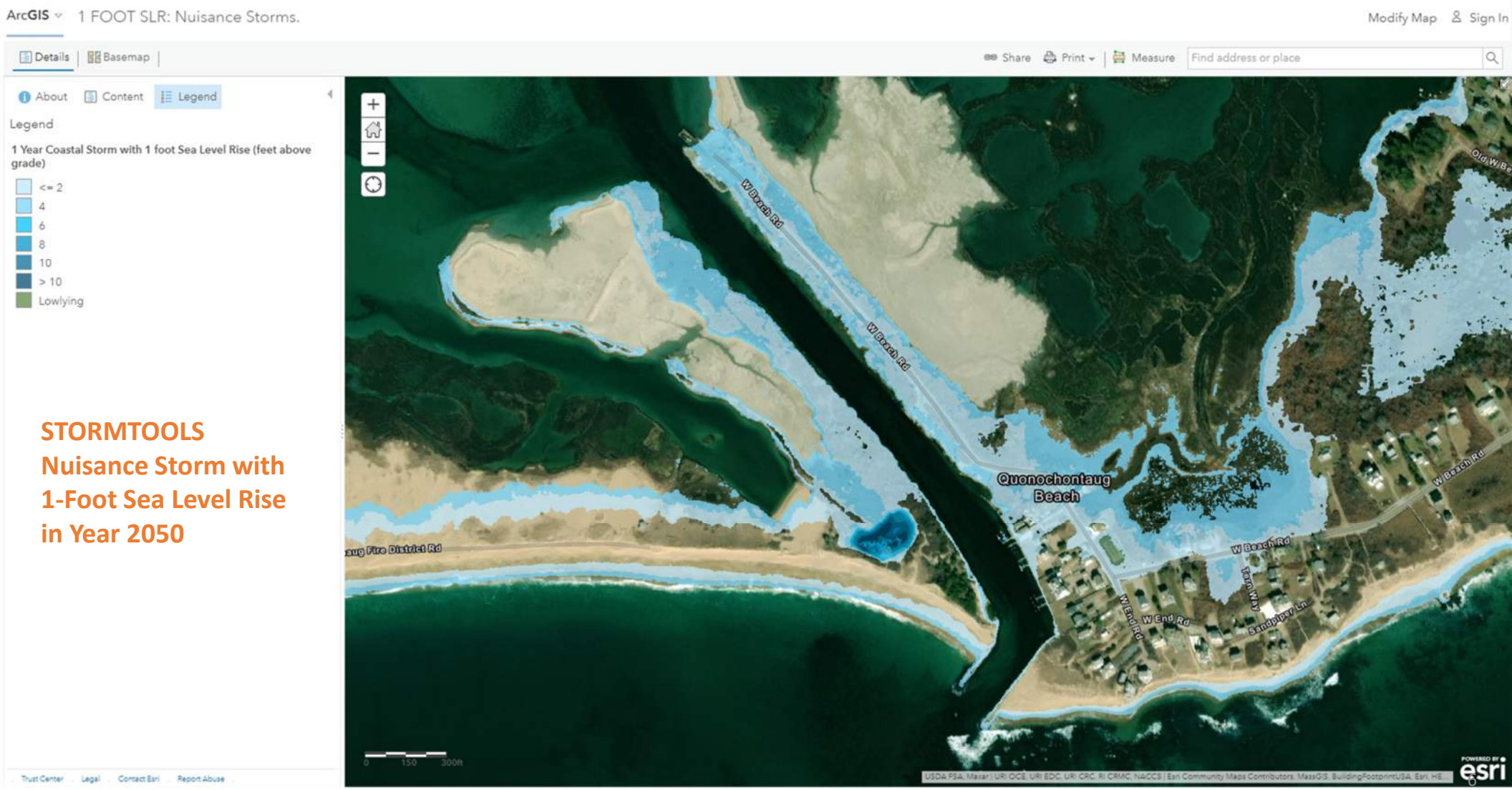
Project Background

Project Background

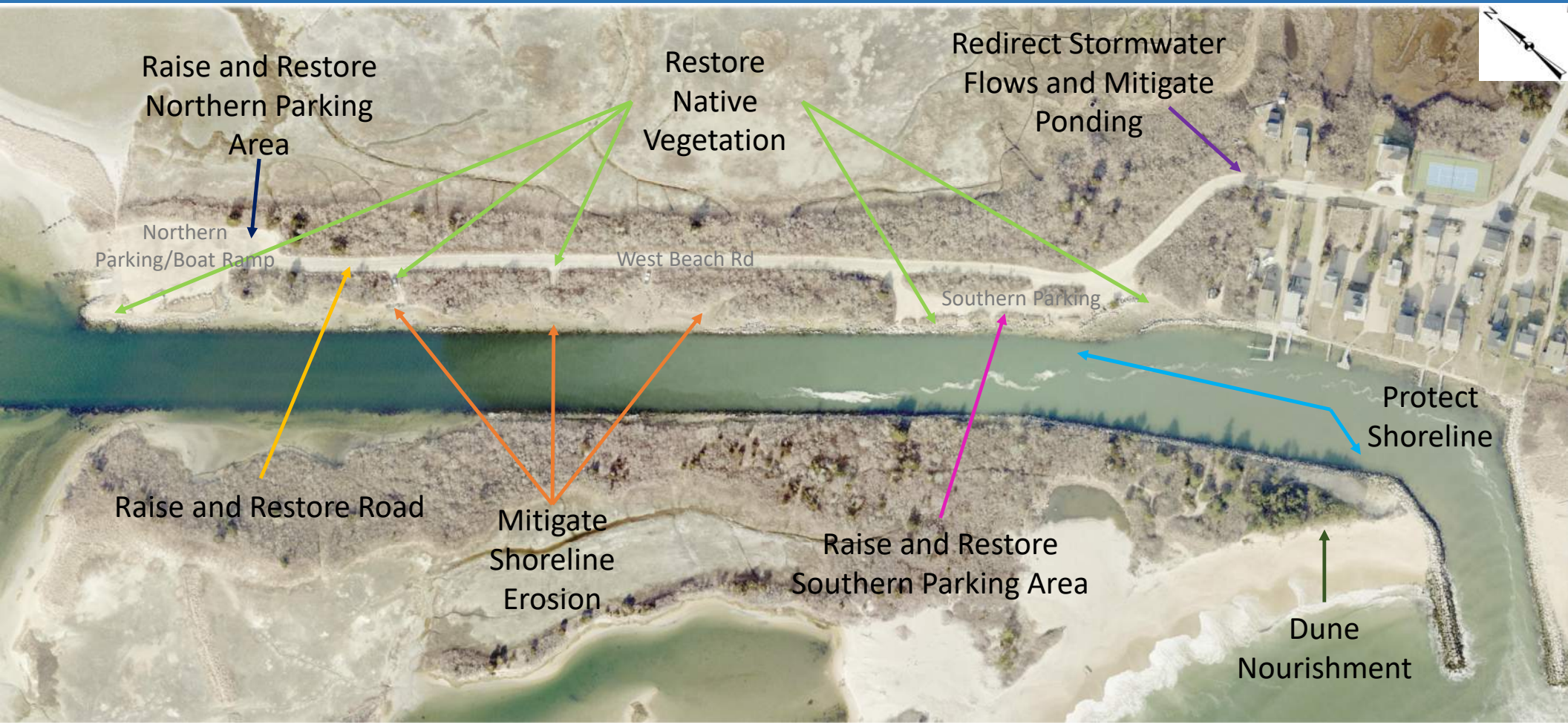
Flood Elevations





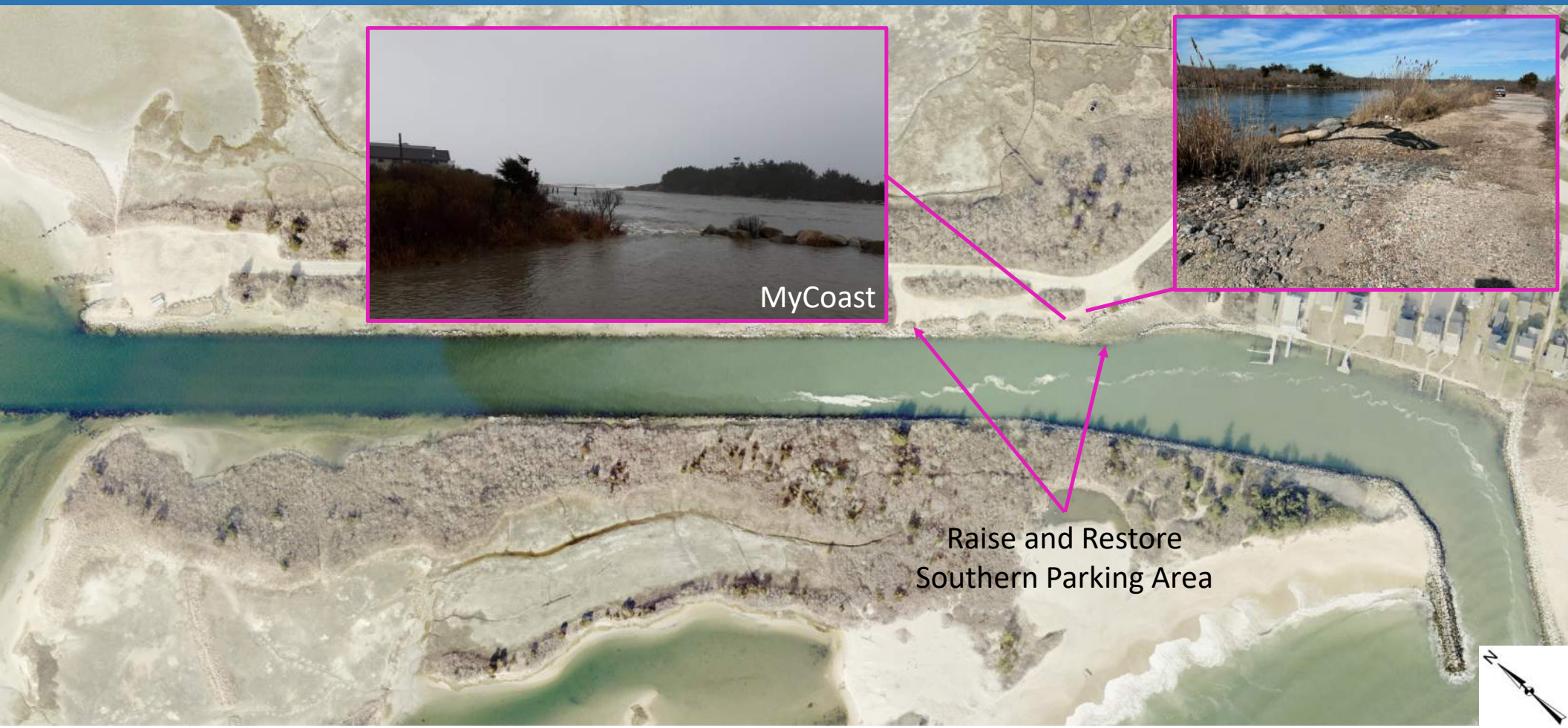

ArcGIS
1 FOOT SLR: Nuisance Storms.
Modify Map
Sign In
Details
Basemap
Share
Print
Measure
Find address or place
About
Content
Legend
Legend
1 Year Coastal Storm with 1 foot Sea Level Rise (feet above grade)
<= 2
4
6
8
10
> 10
Lowlying
STORMTOOLS
Nuisance Storm with
1-Foot Sea Level Rise
in Year 2050
W Beach Rd
Quonochontaug Beach
W End Rd
Sandpiper Ln
Trust Center
Legal
Contact Esri
Report Abuse
esri

Project Objectives



Redirect Stormwater Flows and Mitigate Ponding

Raise and Restore Southern Parking Area



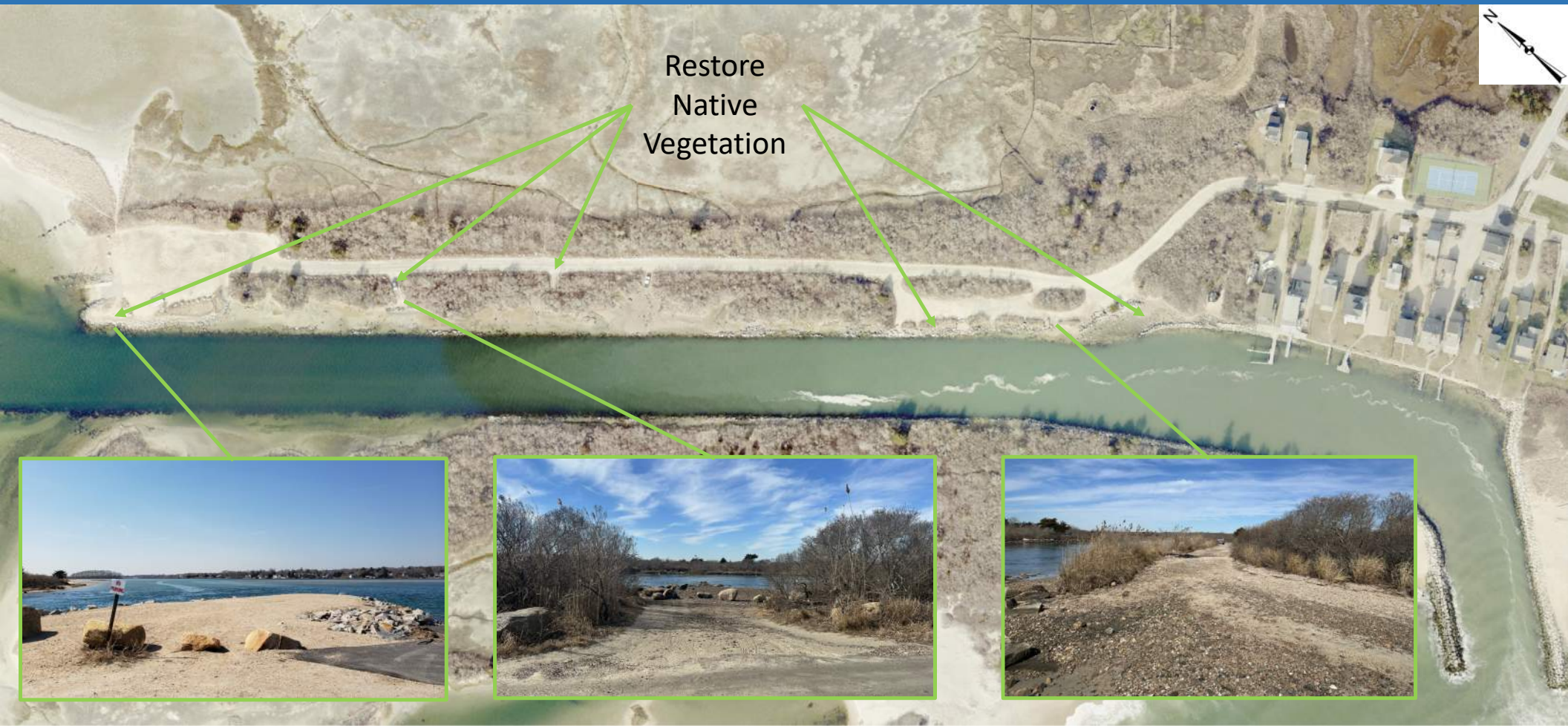
Raise and Restore Road

Raise and Restore Northern Parking Area

Shoreline Protection

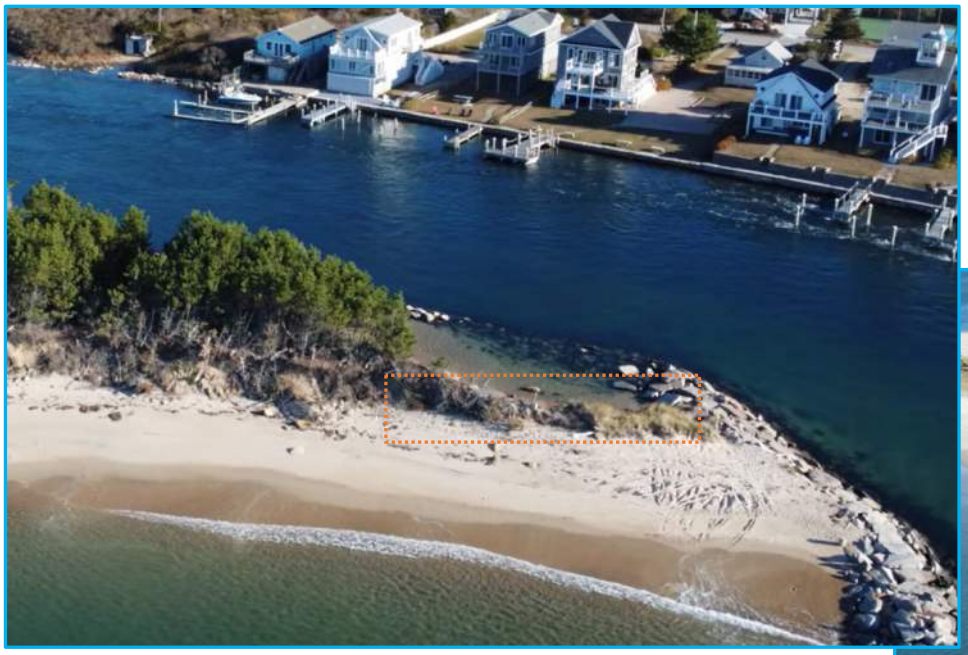
Mitigate Shoreline Erosion

Native Vegetation Growth

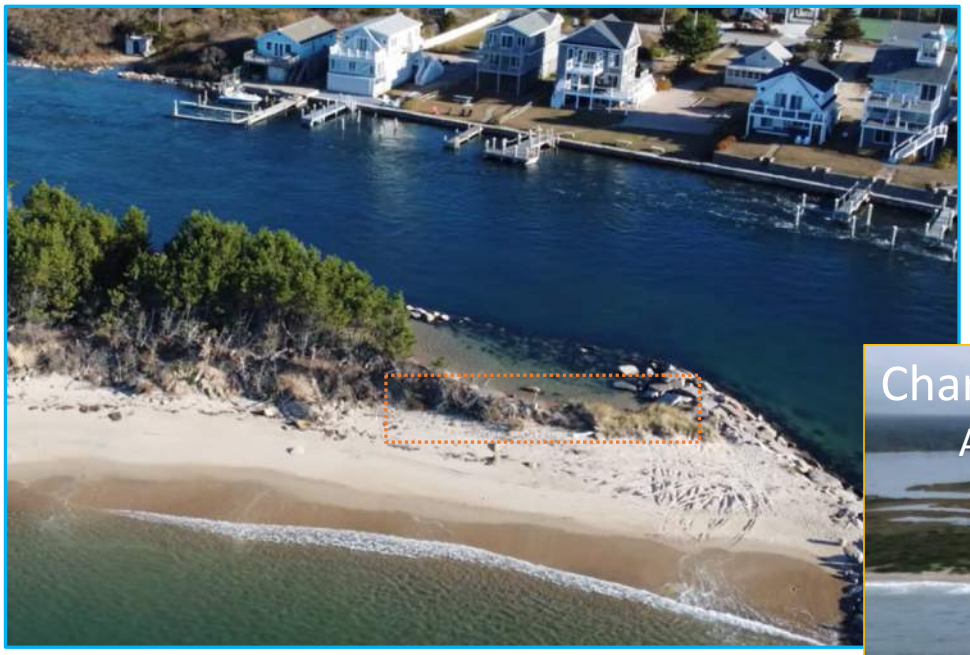


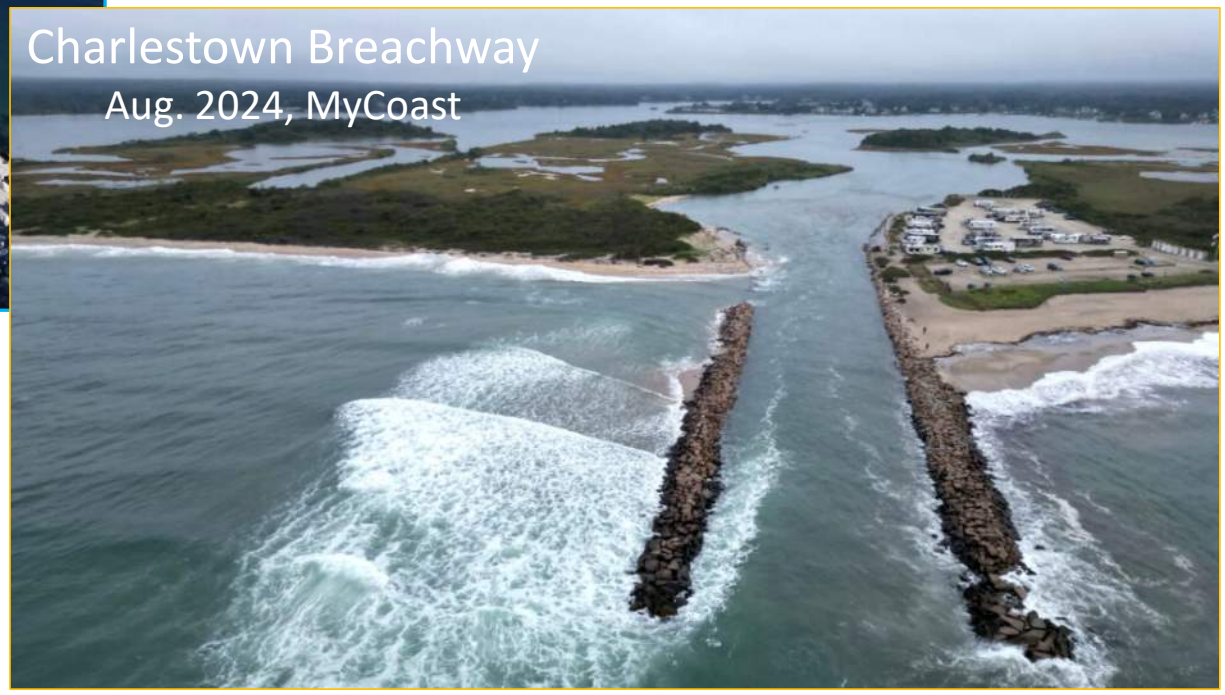
Dune Nourishment / Shoreline Protection

Dune Nourishment / Shoreline Protection

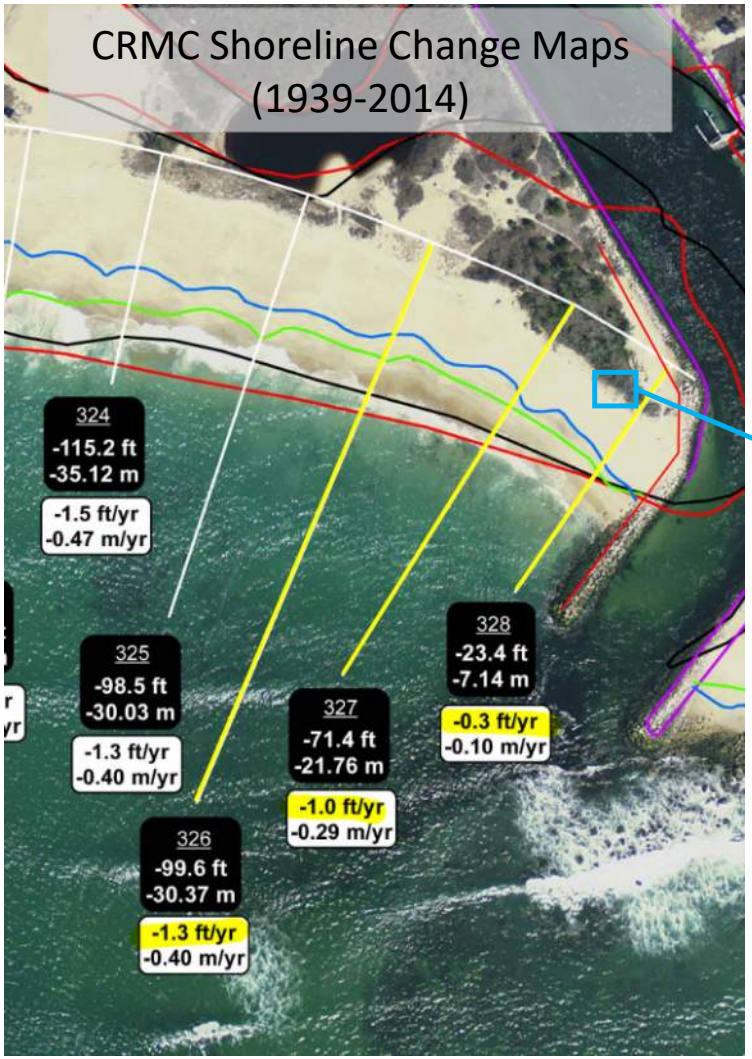


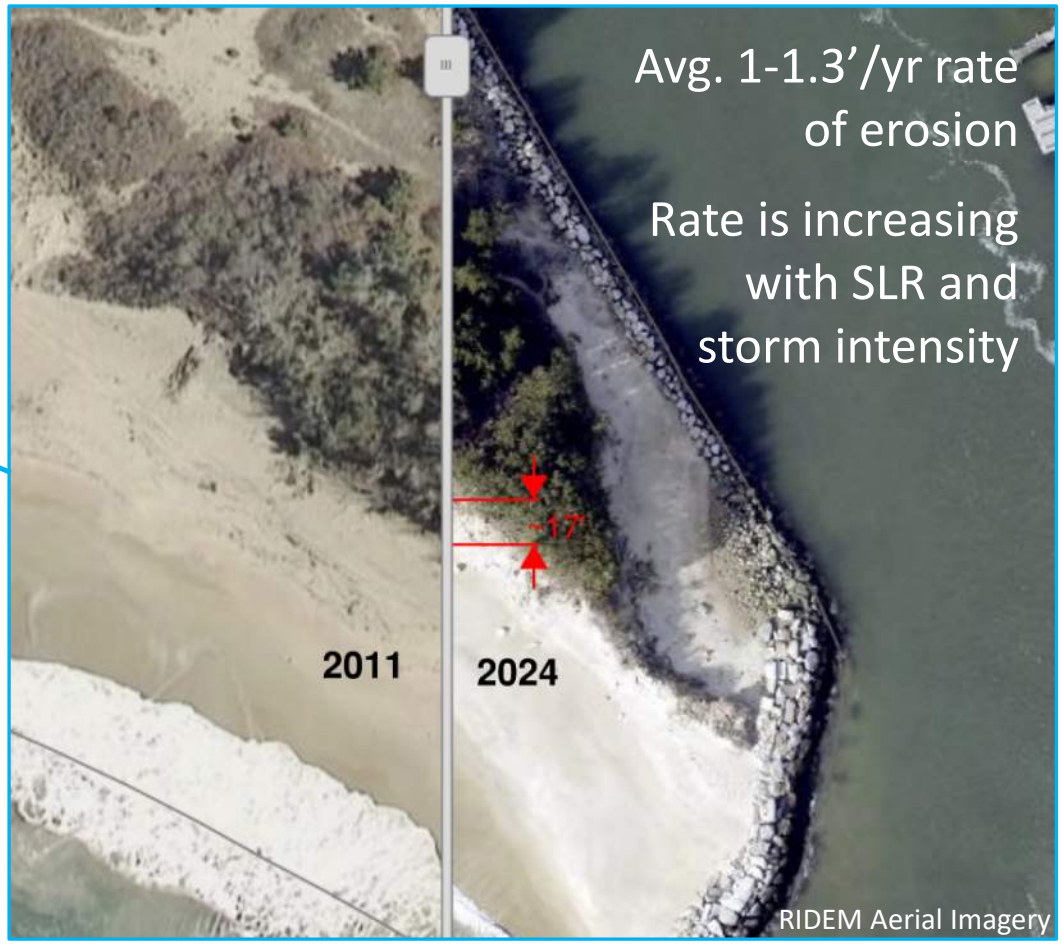
Dune Nourishment / Shoreline Protection



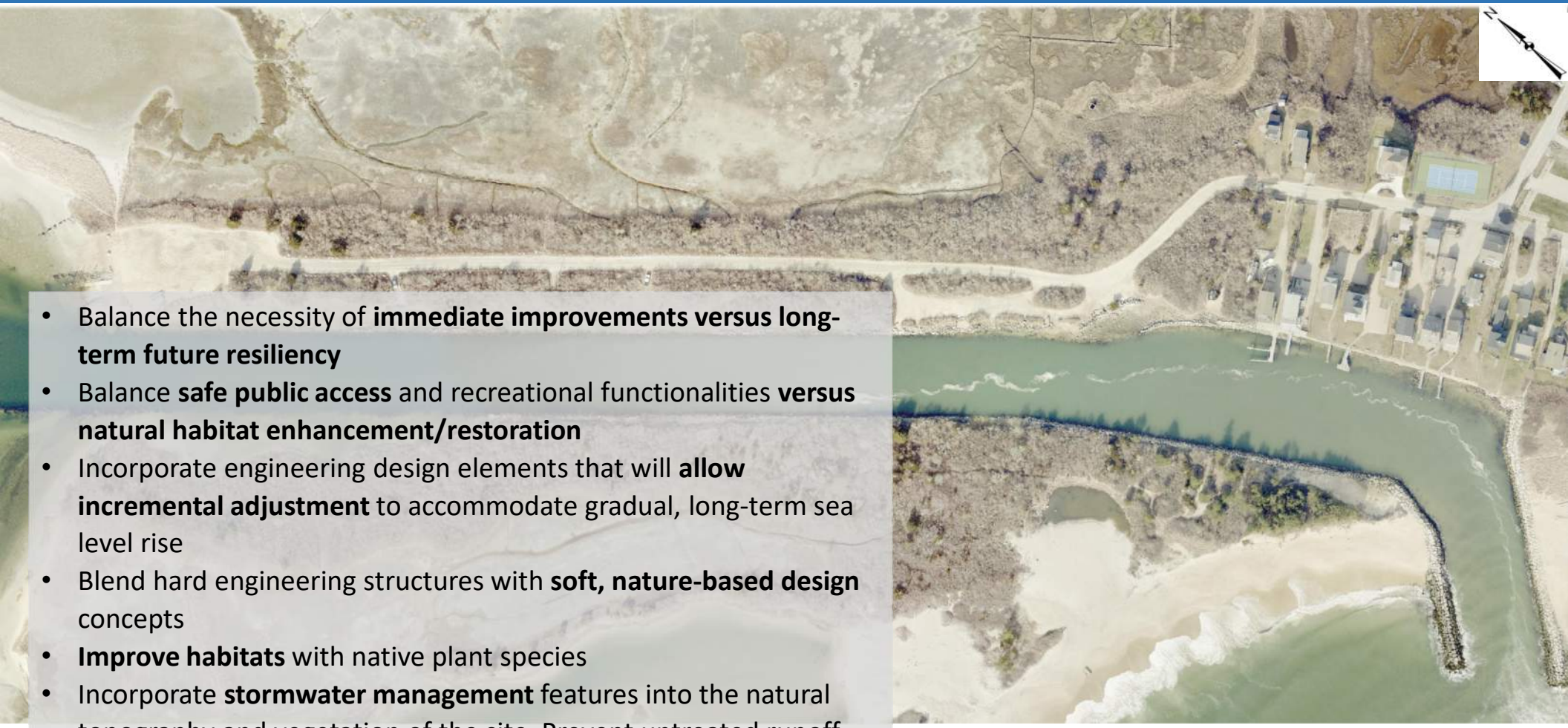


Dune Nourishment / Shoreline Protection



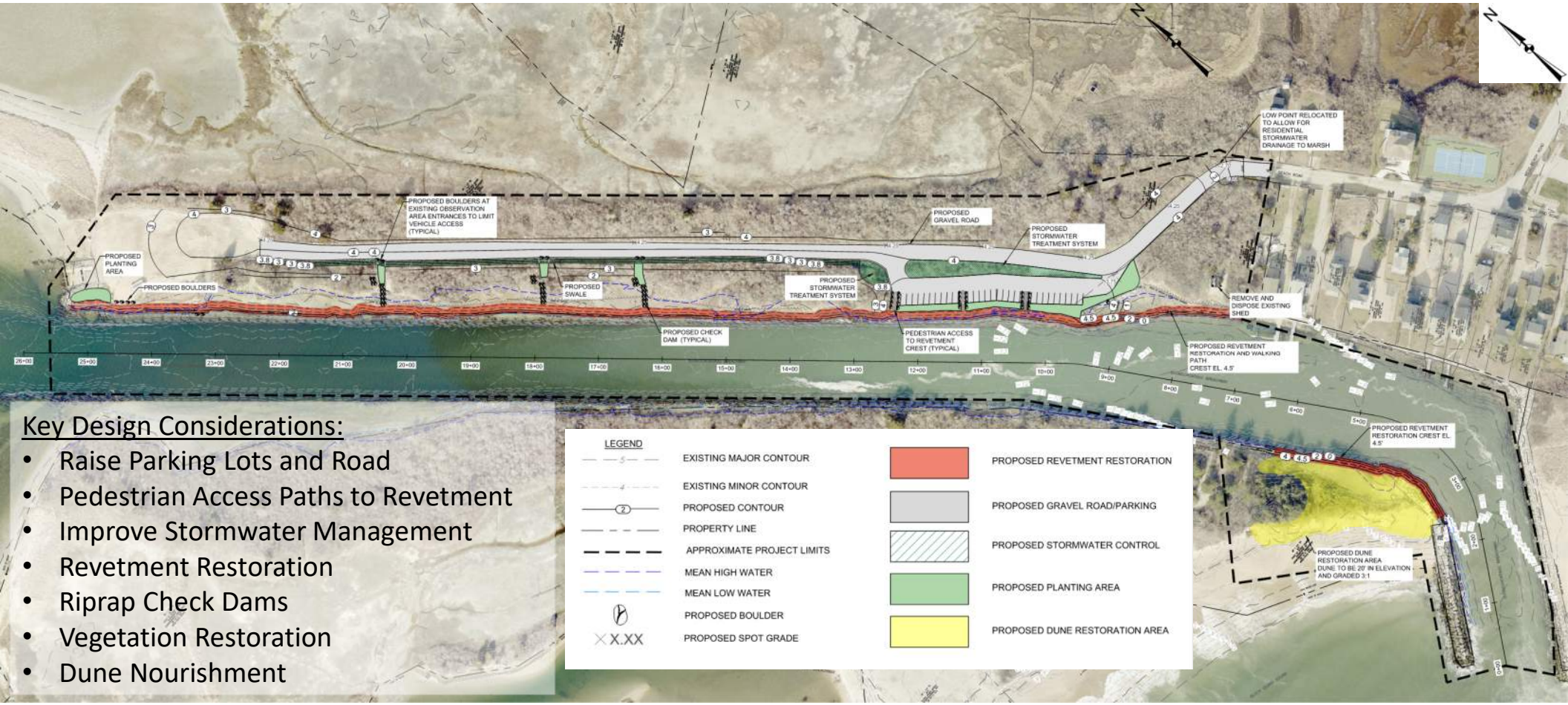


Project Objectives



- Balance the necessity of **immediate improvements versus long-term future resiliency**
- Balance **safe public access** and recreational functionalities **versus natural habitat enhancement/restoration**
- Incorporate engineering design elements that will **allow incremental adjustment** to accommodate gradual, long-term sea level rise
- Blend hard engineering structures with **soft, nature-based design** concepts
- **Improve habitats** with native plant species
- Incorporate **stormwater management** features into the natural topography and vegetation of the site. Prevent untreated runoff from entering water ways.

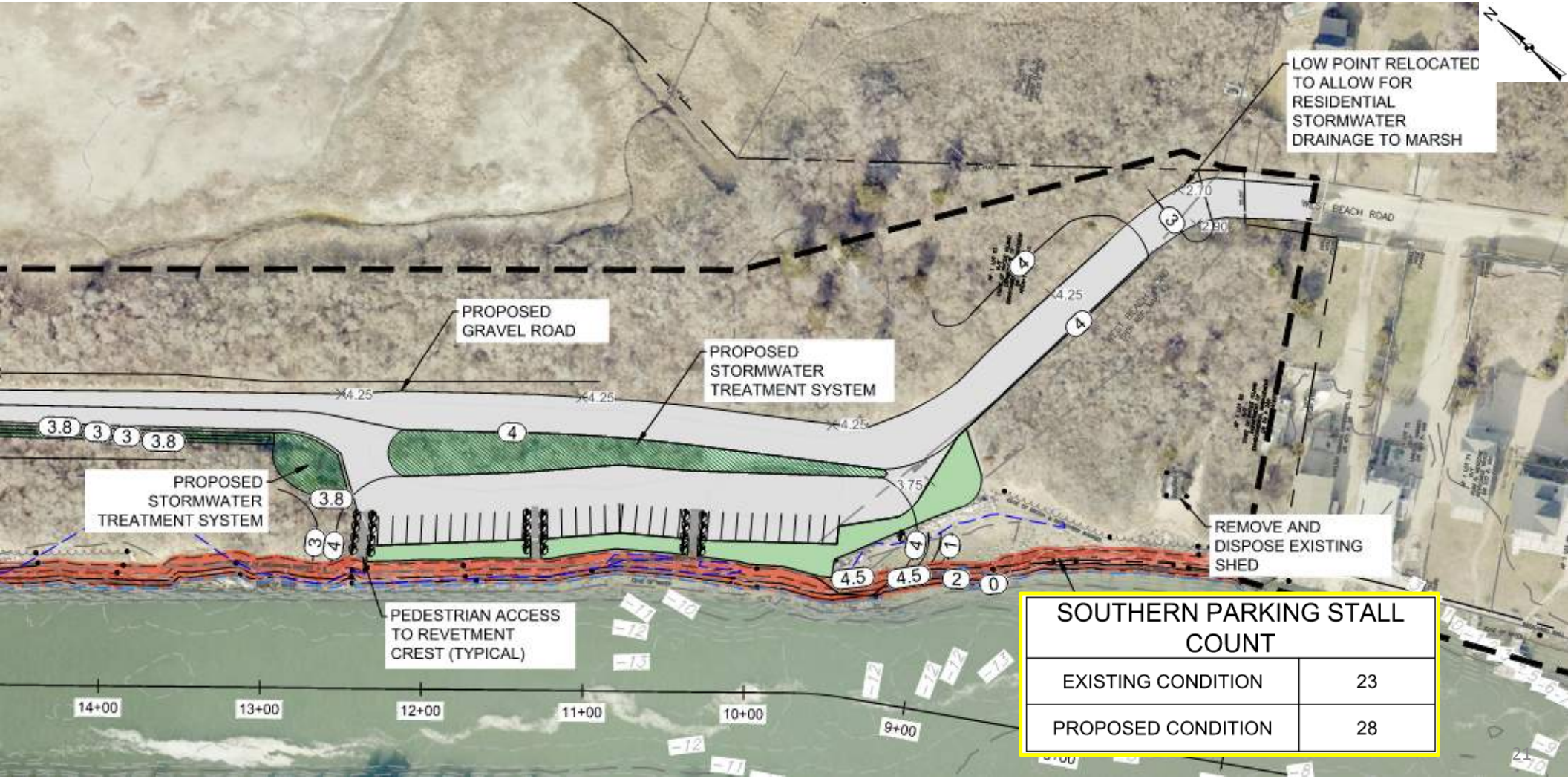
Proposed Concept Design



Key Design Considerations:

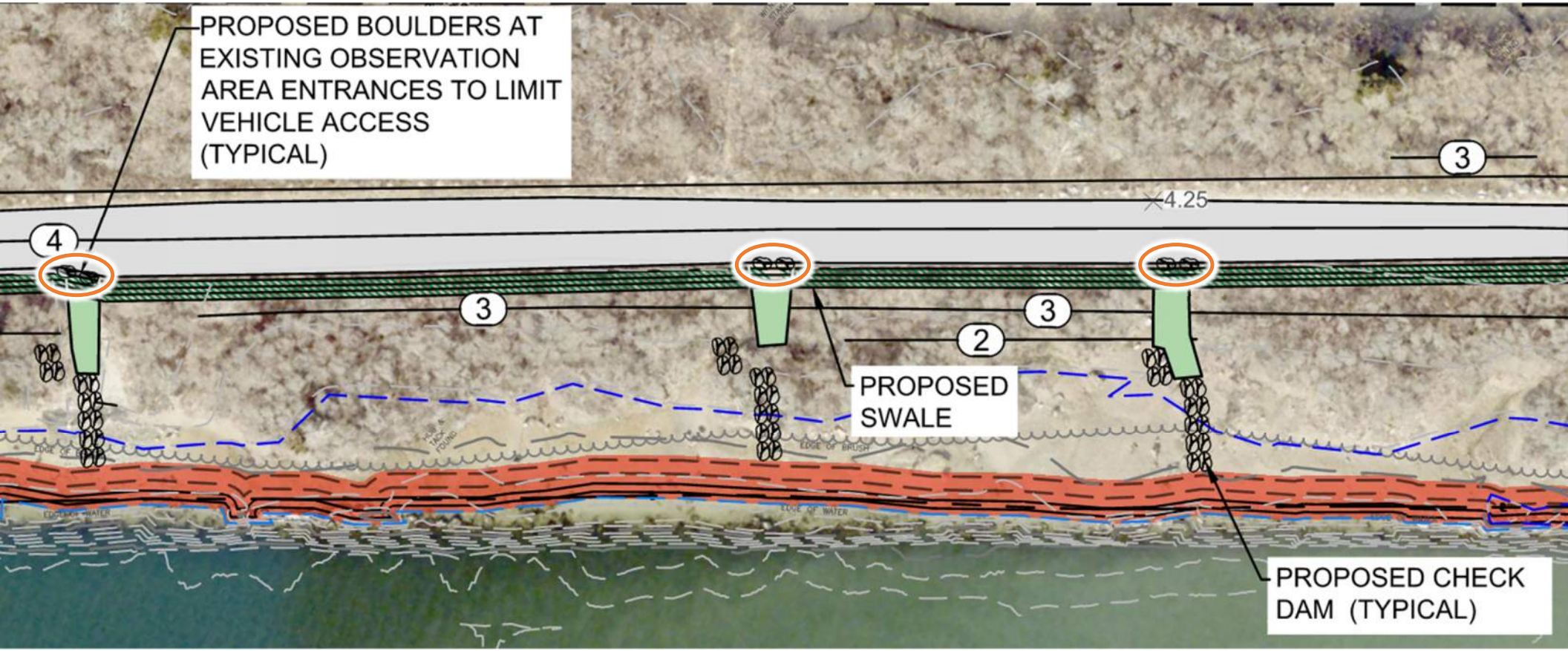
- Raise Parking Lots and Road
- Pedestrian Access Paths to Revetment
- Improve Stormwater Management
- Revetment Restoration
- Riprap Check Dams
- Vegetation Restoration
- Dune Nourishment

Proposed Southern Parking Area Improvements

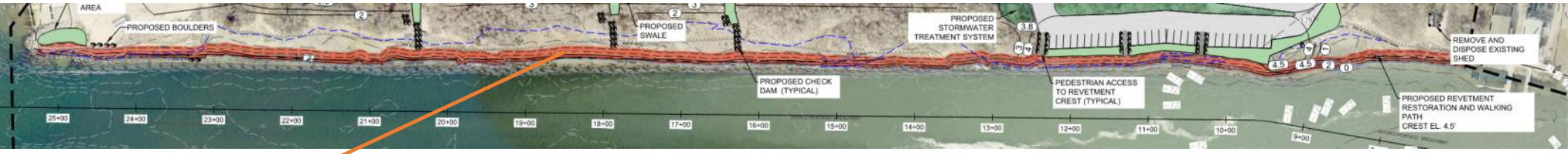


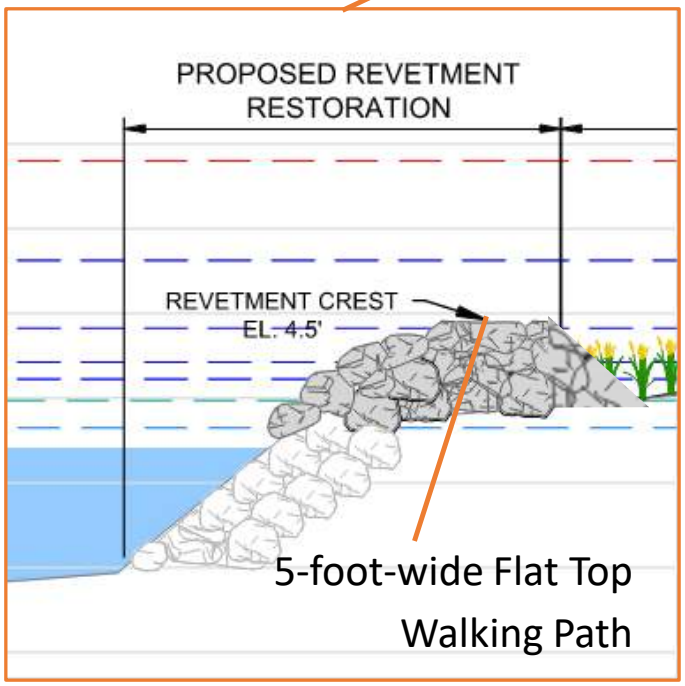
SOUTHERN PARKING STALL COUNT	
EXISTING CONDITION	23
PROPOSED CONDITION	28

Proposed Boulders, Vegetation Restoration, and Riprap Check Dams

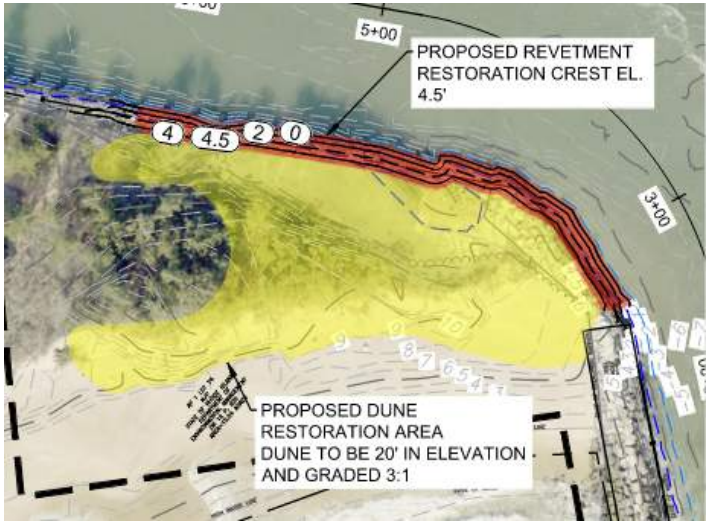


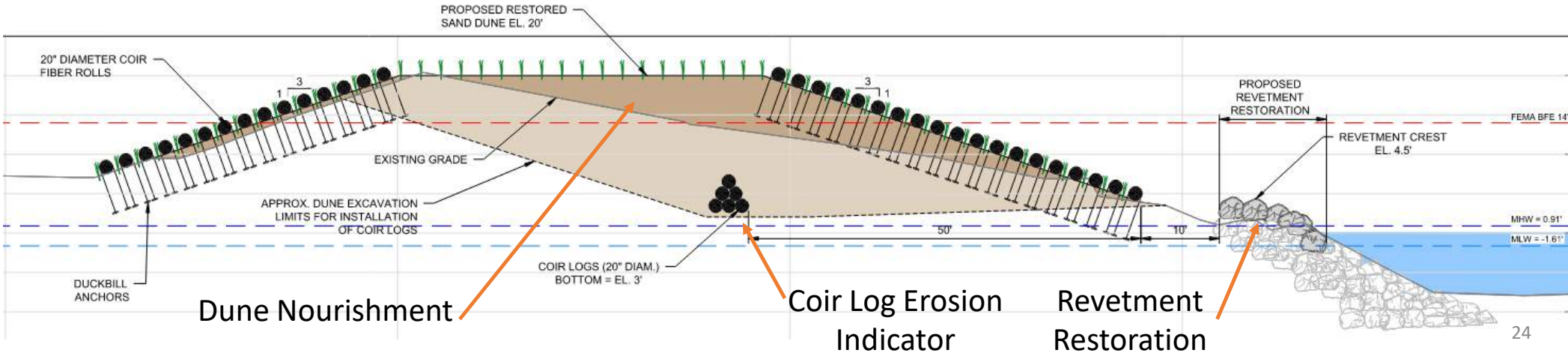
Revetment Restoration (East Side of Channel)





Dune Nourishment





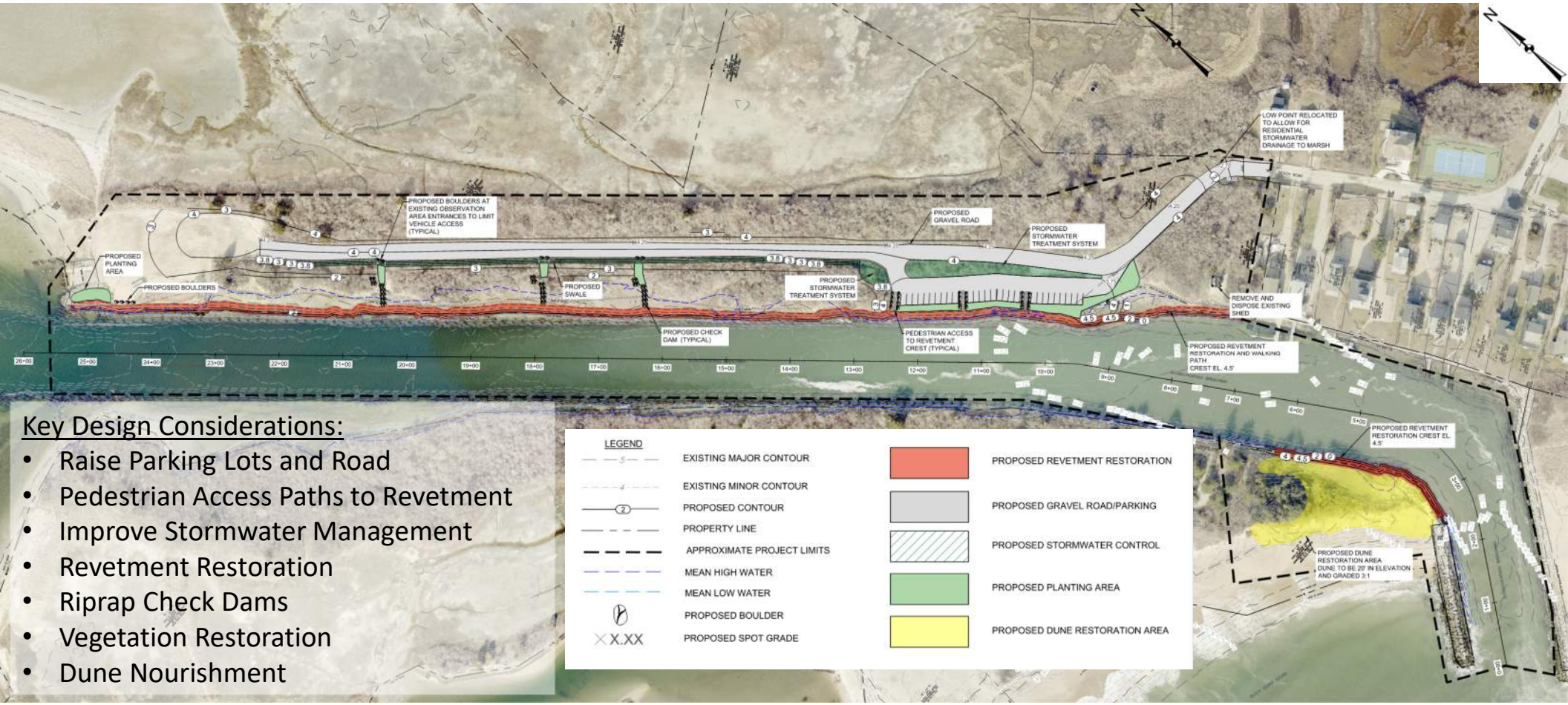
Dune Nourishment

Coir Log Erosion Indicator

Revetment Restoration


Questions &
Discussion

Proposed Concept Design



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