

North Water Street Beach Shoreline Resiliency Project

Stakeholder Meeting #2

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WAREHAM
Massachusetts



Agenda – Stakeholder Meeting #2

- 1) Introductions
- 2) Project Status Update
- 3) Feedback From Stakeholder Meeting #1
- 4) Review Conceptual Alternatives
- 5) Solicit Feedback
- 6) Adjourn

Meeting Goals: *Review the Wareham Land Trust CZM Resiliency Grant Project conceptual alternatives for North Water Street shoreline. Solicit feedback on proposed features from members of the community.*



Photos 1, 2 – Deterioration of seawall and low-lying nature of adjacent municipal assets.



*Funding provided by Massachusetts Office of Coastal Zone Management with in-kind match funding provided by Wareham Land Trust & town of Wareham

Project Status

- Task 1 – Document Existing Conditions - [Complete](#)
- Task 2 – Vulnerability Assessment - [Complete](#)
- Task 3 – Alternatives Analysis & Reporting – [Pending](#)
- Tasks 4, 5 – Public Education & Meetings - [Pending](#)

Acknowledging diversity of interests and priorities:

- Wareham Land Trust (owner)
- Town of Wareham (roadway ROW)
- Neighbors and abutters
- Visitors

Collaborative thinking regarding:

- Current Use, Condition, Concerns
- Future Site Use, Vision



Figure 1. Locus map of North Water Street Beach, Wareham, MA project site.

Stakeholder Meeting #1 – Reviewing Feedback

- *Site is a popular gathering spots*
- *Appreciation for the scenic vista*
- *Great access point for swimming, paddleboarding, kayaking, shell fishing*
- *Maintaining an interesting beach area is desirable*
- *Stairs are in disrepair and a safety concern*
- *Waste management a concern*
- *Preference for a balanced approach to site restoration and revegetation*



Alternatives Analysis – North Water Street Shoreline

- Alternative 1 – Repair Seawall
- Alternative 2 – Living Shoreline
- Alternative 3 – Replace Seawall
- Alternative 4 – Rock Revetment

Important to note!

- *No decisions have been made*
- *Alternatives are conceptual*
- *Pieces can be considered separately*



Examples and Inspiration



Headwall at Stormwater Outfall



Kayak Slide



Living Shoreline/Marsh Enhancement



Mobi Mat



Revetments, stepped seawalls, and “occupiable intertidal space”

0 15 30 60 120 ft

East River

Broad
Cove

ONSET AVE

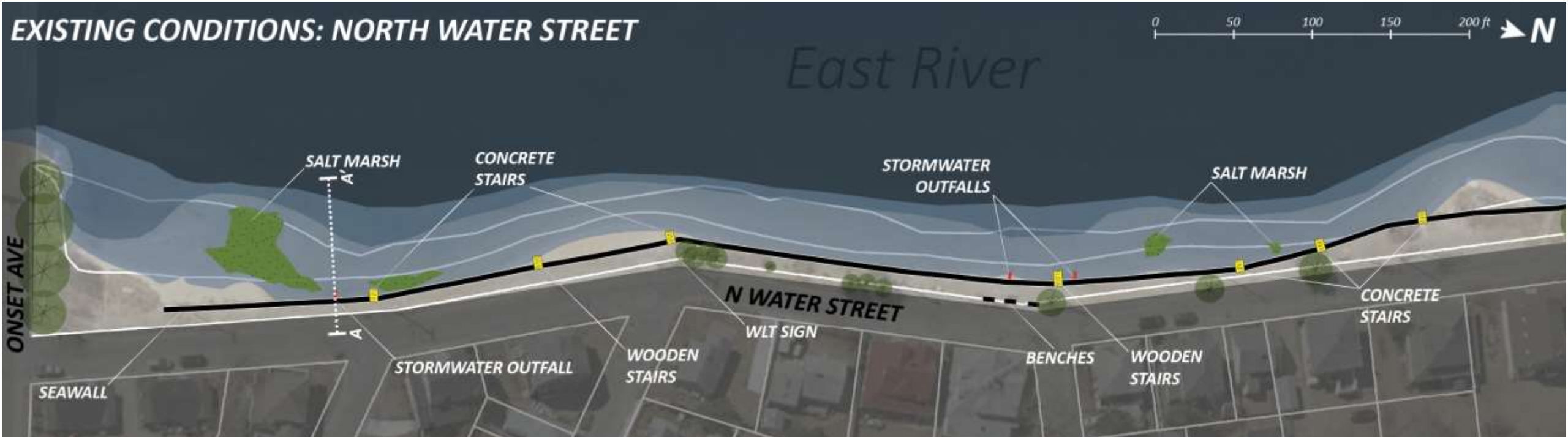
N WATER STREET

COVE STREET

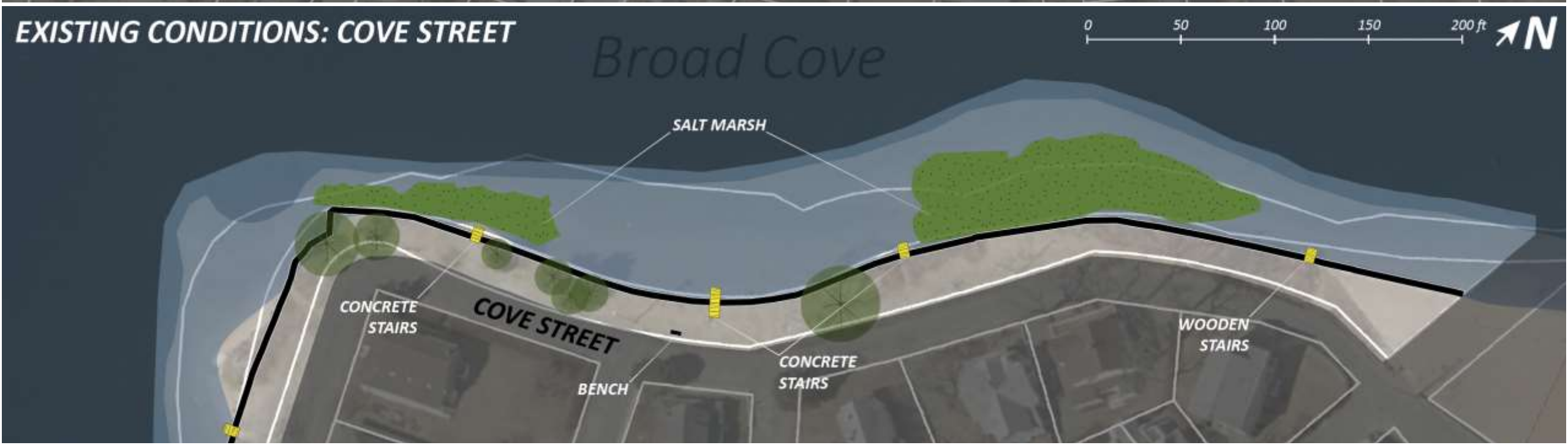
EXISTING CONDITIONS

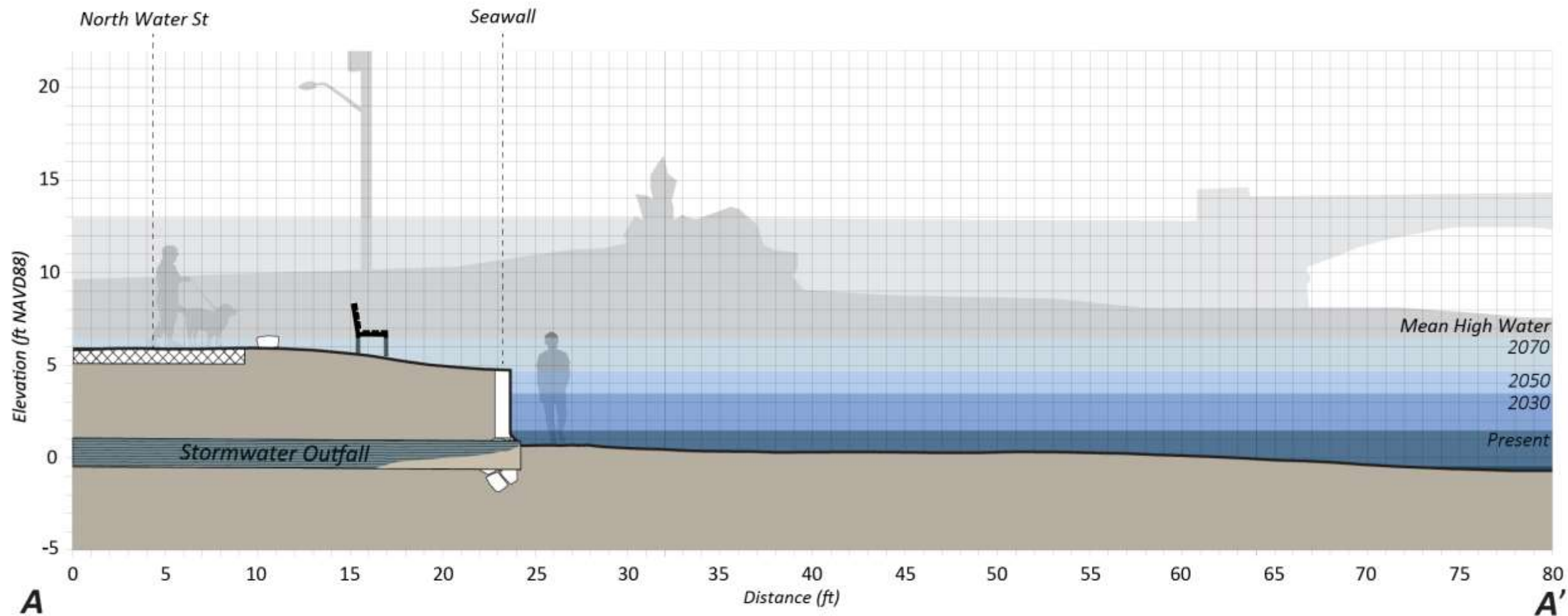


EXISTING CONDITIONS: NORTH WATER STREET



EXISTING CONDITIONS: COVE STREET





NO ACTION
North Water Street, Wareham

Alternative #1 – Repair Seawall & Resource Area Enhancement



Key Features

- Repair existing seawall.
- Stabilize eroding bank at corner of N Water St. and Cove St.
- Remove invasive plants & install clustered restoration plantings.
- Repair 3 sets of stairs on N Water St. and 2 sets on Cove St.
- Install natural surface path at the corner of N Water St. and Onset Ave.
- Establish 3 resident parking spaces near the corner of Onset Ave.

Pros/Cons

- + Likely least expensive
- + Repaired stairs are safer
- + Some habitat improvements
- Not a long-term measure
- No increase in public space

Alternative #1 – Repair Seawall & Resource Area Enhancement

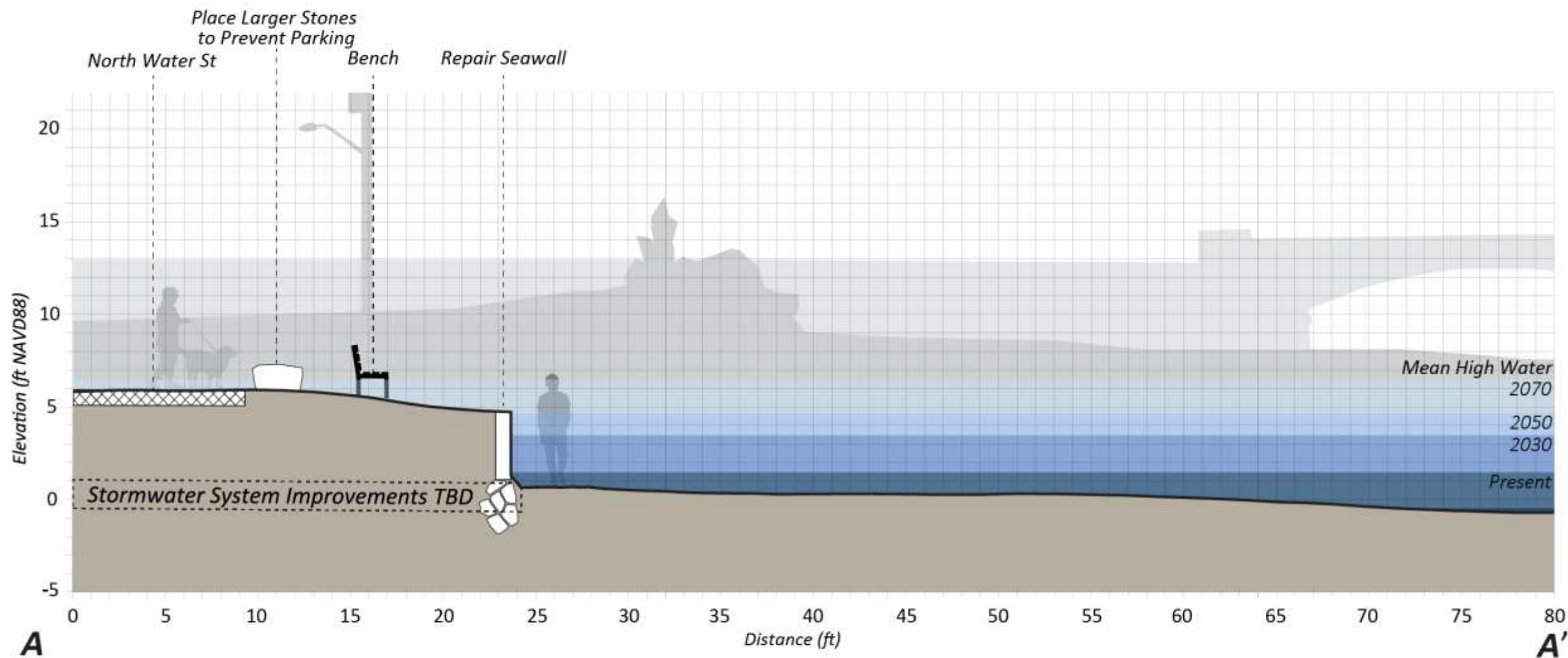


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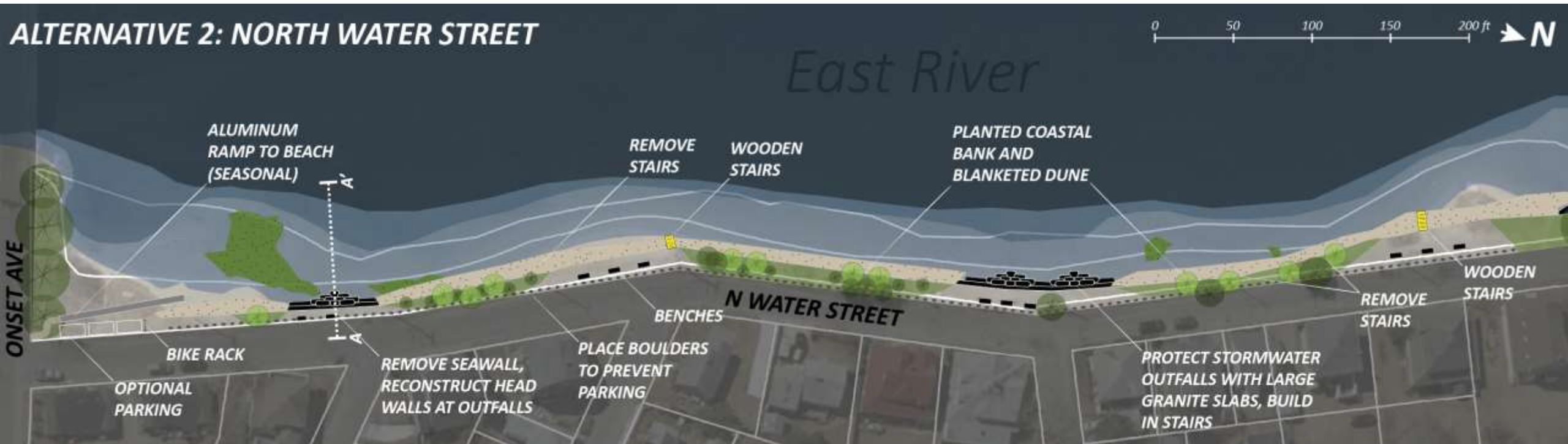
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ALTERNATIVE 1: REPAIR SEAWALL

North Water Street, Wareham

Alternative #2 – Living Shoreline & Resource Area Enhancement



Key Features

- Remove seawall and replace with living shoreline along N Water St.
- Reconstruct seawall at corner and along Cove St.
- Protect stormwater outfalls and install flood protection berm.
- Salt marsh enhancement along Cove Street.
- Remove invasive plants & install clustered restoration plantings.
- Repair 3 sets of stairs on N Water St. and 2 sets on Cove St.
- Establish 3 parking spaces near the corner of Onset Ave.

Pros/Cons

- + **Maximum habitat improvement**
- + **Public water access maintained**
- **Not effective for protecting infrastructure**
- **Higher cost**
- **Slight reduction in public space**

Alternative #2 – Living Shoreline & Resource Area Enhancement

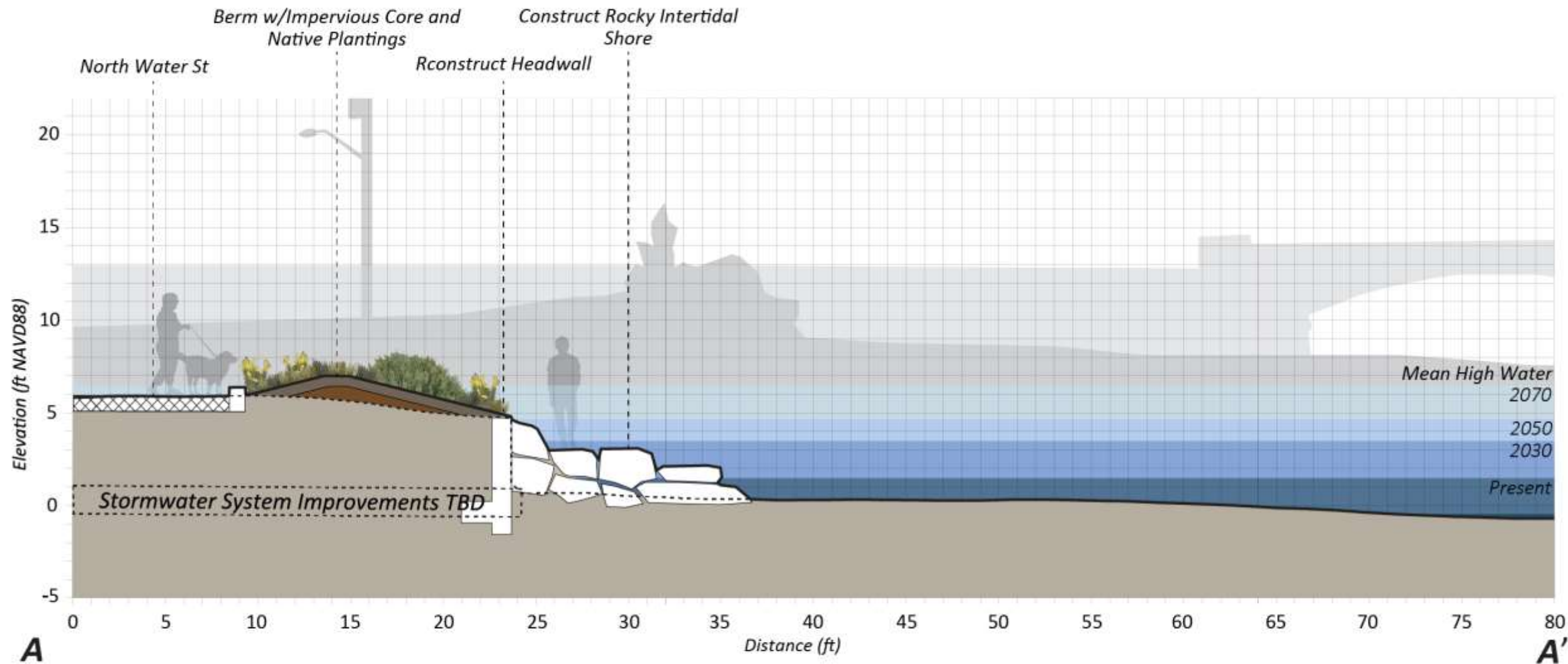


Key Features

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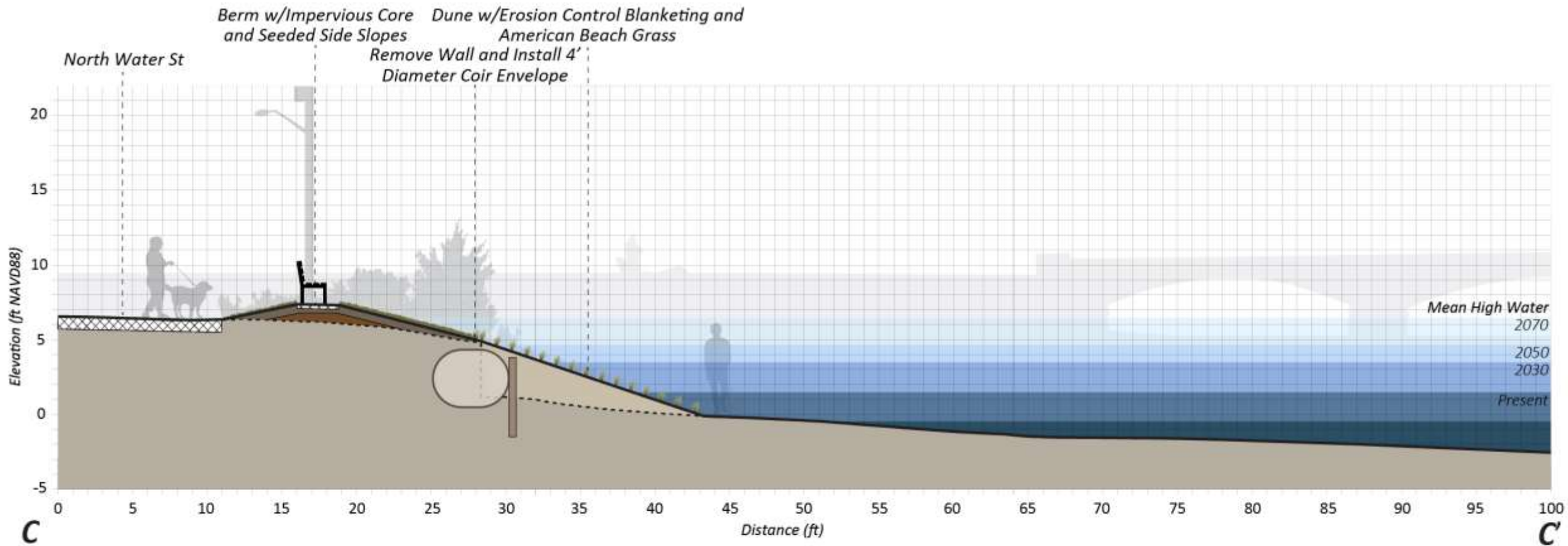
Pros/Cons

- + **Maximum habitat improvement**
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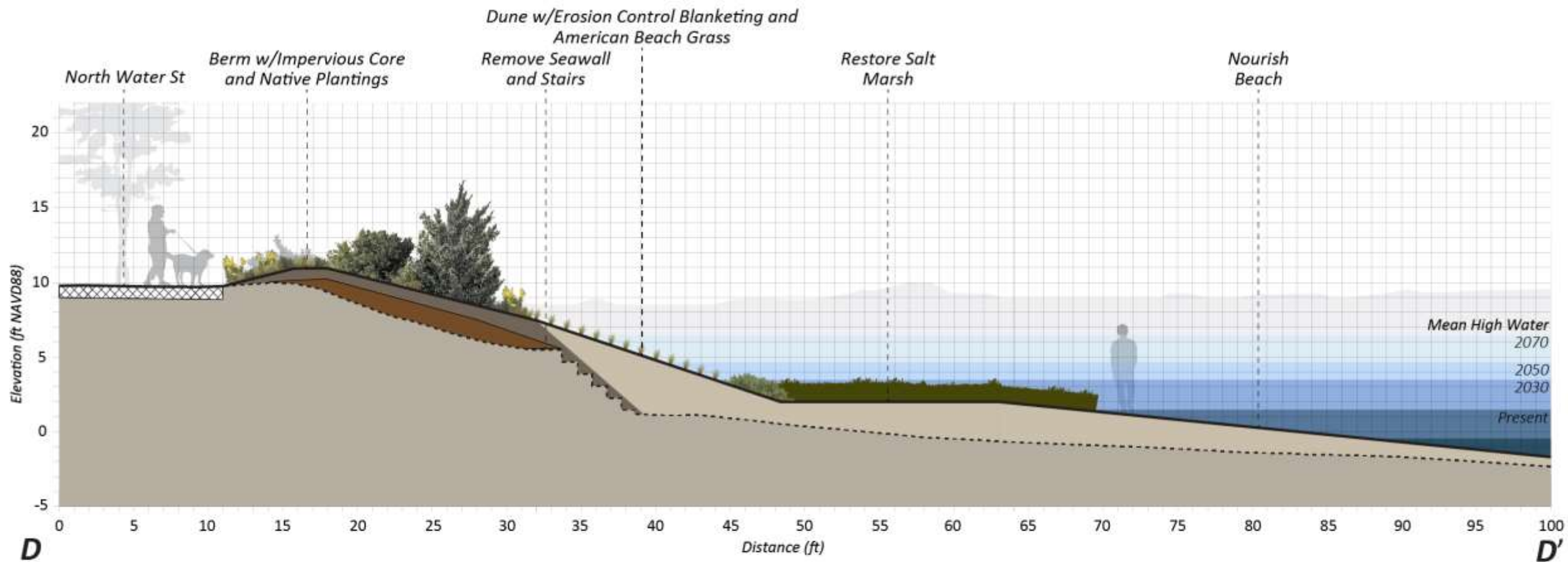
ALTERNATIVE 2: LIVING SHORELINE

North Water Street, Wareham



REMOVE WALL AND INSTALL SOFT EROSION CONTROL

North Water Street, Wareham



REMOVE WALL AND INSTALL SOFT EROSION CONTROL

North Water Street, Wareham

Alternative #3 – Replace Seawall & Resource Area Enhancement



Key Features

- Reconstruct seawall and outfalls along N Water St. and Cove St.
- Nourishment and plantings extend over seawall in places.
- Salt marsh enhancement along Cove St.
- Remove invasive species and install clustered restoration plantings.
- Rock revetment to stabilize coastal bank at corner.
- Repair 3 sets of stairs on N Water St. and 2 sets on Cove St.
- Establish 3 parking spaces near the corner of Onset Ave.

Pros/Cons

- + **Maximum habitat improvement**
- + **Public water access maintained and beach space increased**
- **Highest cost**
- **Slight reduction in occupiable public space**

Alternative #3 – Replace Seawall & Resource Area Enhancement

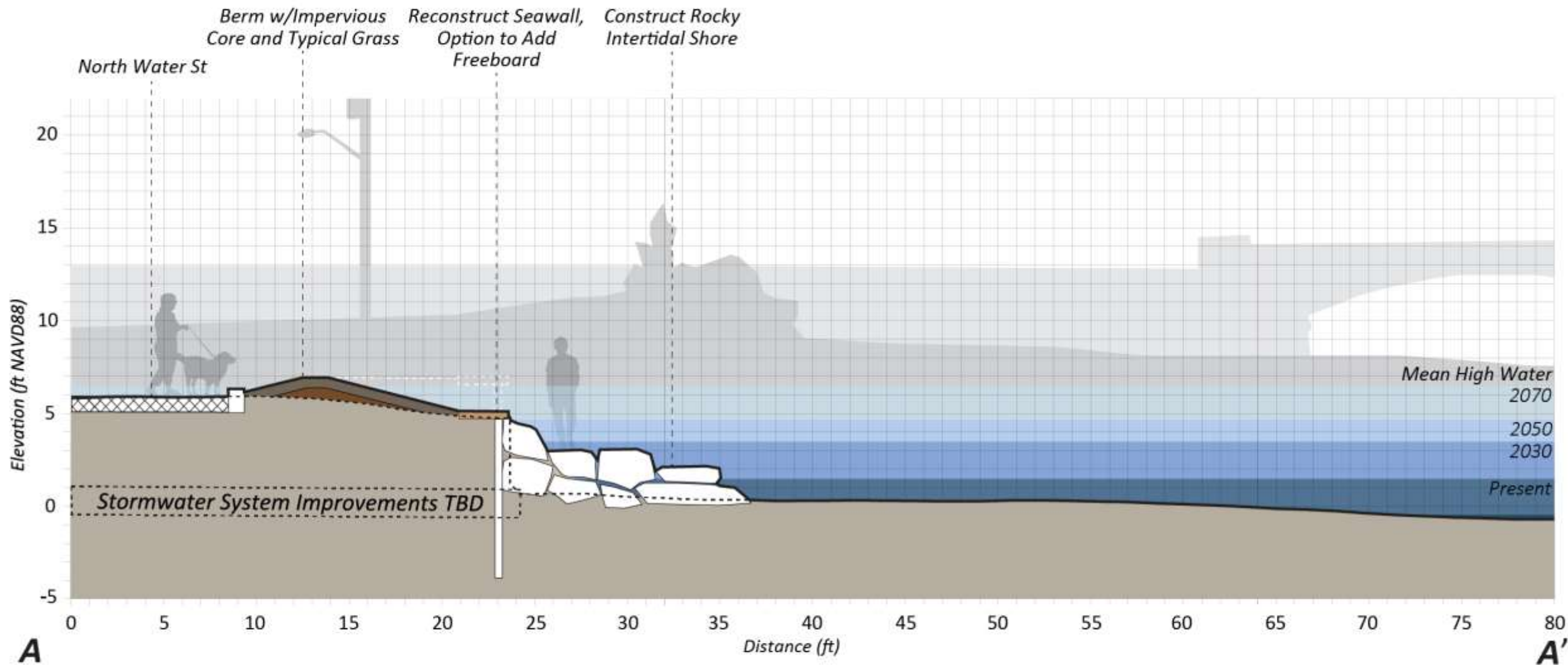


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Pros/Cons

- + **Maximum habitat improvement**
- + **Public water access maintained and beach space increased**
- **Highest cost**
- **Slight reduction in occupiable public space**



ALTERNATIVE 3: REPLACE SEAWALL

North Water Street, Wareham

Alternative #4 – Rock Revetment & Resource Area Enhancement



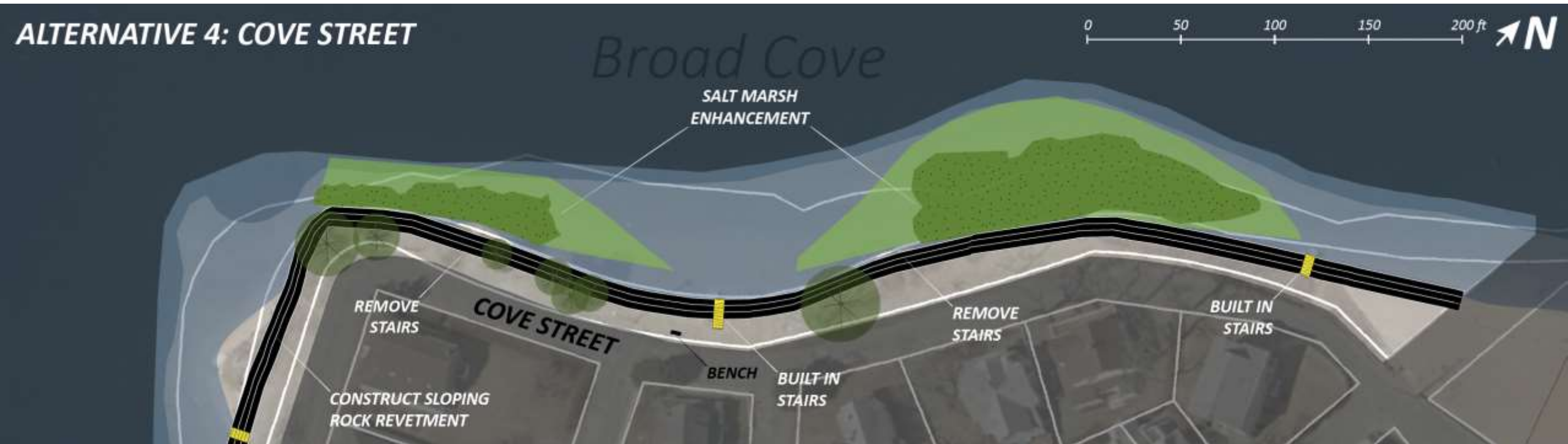
Key Features

- Replace seawall with rock revetment along N Water St. and Cove St.
- Reconstruct stormwater outfalls.
- Targeted beach nourishment.
- Enhance existing salt marsh along Cove St.
- Remove invasive species and install clustered restoration plantings.
- Repair 3 sets of stairs on N Water St. and 2 sets on Cove St.
- Establish 3 parking spaces near the corner of Onset Ave.

Pros/Cons

- + Resilient to waves and currents
- + Public water access maintained and beach space increased
- High cost
- Loss of coastal bank
- Loss of open space

Alternative #4 – Rock Revetment & Resource Area Enhancement

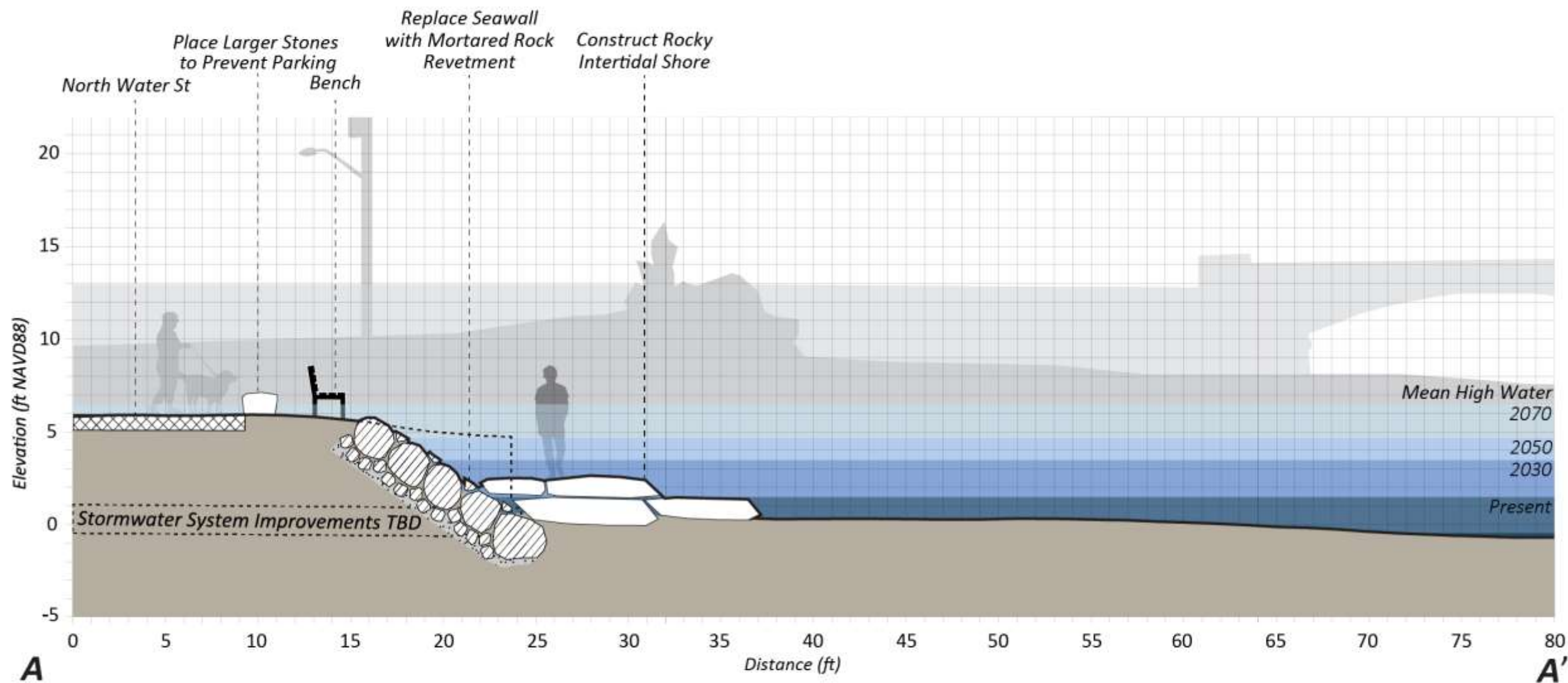


Key Features

- Replace seawall with rock revetment along N Water St. and Cove St.
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Pros/Cons

- + Resilient to waves and currents
- + Public water access maintained and beach space increased
- High cost
- Loss of coastal bank
- Loss of open space



ALTERNATIVE 4: ROCK REVETMENT

North Water Street, Wareham

Public Feedback & Next Steps

Considerations for Project Team:

- Most important features to you?
- Activities/uses you'd like to continue?
- Features to scale back?

Next Steps

- Incorporate feedback
- Work with Town, WLT to revise alternatives
- Summarize options in a report
 - Focus on figures & graphics to tell the story



Questions?

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