



Parks



# HART ISLAND CONCEPT PLAN

Hart Island located  
in the Borough of the Bronx

Starr Whitehouse Landscape Architects and Planners



# CONCEPT PLAN

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GLOSSARY

**Active burials**

The island continues to serve as New York City's public cemetery. The plot that is currently being used for burials is referred to as "active burial area" in the plan.

**Disinterment**

Loved ones of those buried on Hart Island can request to have their loved one exhumed and reburied or cremated off the island.

**Stormwater detention / bioswale**

Natural or designed vegetated channels that concentrate and convey stormwater runoff. Bioswales also reduce flooding, Combined Sewer Overflows (CSOs), and pollutants in waterways. A dry swale is designed to prevent standing water, with or without an underdrain, while a wet swale, commonly referred to as a rain garden, is designed to hold water.

**Escarpment**

A steep slope along the edge of the island that is prone to erosion.

**Resilience**

In the context of climate adaptation planning, the ability to prepare for, recover from, and adapt to impacts of climate-related events such as flooding, storms, and extreme heat.

**Revetment**

Shoreline structures typically made of stone rubble or concrete blocks placed on a sloped surface to protect the underlying soil from erosion and reduce the forces of wave action.

ACRONYMS + ABBREVIATIONS

**ADA**

Americans with Disabilities Act

**BFE**

Base Flood Elevation

**DFE**

Design Flood Elevation

**NYC HRA**

New York City Human Resources Administration

**M + O Area**

Maintenance and Operations area

**NAVD88**

North American Vertical Datum of 1988

**NYC DOT**

New York City Department of Transportation

**NYS DEC**

New York State Department of Environmental Conservation

**NYC Parks**

New York City Department of Parks & Recreation

**NYC DDC**

New York City Department of Design & Construction

**PEP**

Parks Enforcement Patrol

**UPR**

Urban Park Rangers



### As New York City's public cemetery, Hart Island provides the essential service of burials for those most in need.

Members of the public can visit the burial sites of family members and loved ones, engage with New York City's history, and admire the natural beauty of the island. This concept plan seeks to preserve and enhance Hart Island as the contemplative, quiet, and spiritual place that the public discovers when they visit the island.

The Hart Island Concept Plan presents a 20+ year vision for physical improvements to New York City's public cemetery. The plan was created in response to a package of 2019 Local Laws which mandated the transfer of the property to the jurisdiction of NYC Parks. The goal was to improve conditions on the island, while making it easier for the public to visit the island and pay their respects to those buried here.

Since the island was transferred to NYC Parks in 2021, improvements to the gravesite visitation process and the introduction of free Urban Park Ranger interpretive tours for the public has led to an increase in visitors to Hart Island.

This concept plan outlines a vision and framework of capital projects in response to operational needs and public input while taking into consideration the ongoing necessity of burial

operations. While the island will not be used for any traditional recreational purposes, NYC Parks recognizes the need to provide visitors with basic amenities such as restrooms, seating, and shelter from heat and rain.

Further, the operational facilities used by NYC Parks and NYC Human Resources Administration (HRA) to maintain and care for the island have not been upgraded in decades. Enhancements are also needed to ensure the island's ecological communities and shorelines are resilient to erosion from coastal storms due to sea level rise and global warming. This concept plan will help the City make strategic investments and seek outside funding to improve the island.

This plan focuses on capital projects that are within the purview of NYC Parks to develop and implement. Highlights include: a modest Welcome Center building; a concept for the adaptive reuse of the island's historic chapel as a sacred space for remembrance; site-wide circulation enhancements to make the island accessible; restoration and stabilization approaches for natural areas and historic resources, and an upgraded maintenance and operations compound. The plan also includes

landscape management recommendations that would create new gravesite areas and extend the burial capacity of the island.

NYC Parks received input on the concept plan from community members through two virtual forums and a digital survey in 2024. Over 200 people attended the forums and 100 people responded to the survey.

Participants expressed a desire for NYC Parks to prioritize the experience of family members and others visiting loved ones buried on the island, including the provision of amenities such as restrooms, shade, and seating. In addition, NYC Parks heard a clear preference to preserve the passive and contemplative character of the island.

During the public input meetings for this study, participants also voiced interest in additional changes to visitation policies and burial procedures. While those are outside the scope of this plan, we reference them here to acknowledge the concerns that were shared. These discussions will require the involvement of other City agencies and City Council as well as changes to policy, local law, and an understanding between government leaders and the general public about public burials.



# CONCEPT PLAN

## FOREWORD

NYC Parks will share the concept plan and this vision for the island with elected officials and community members and will advance projects as funding becomes available. New York City agencies, Mayor's Office, and City Council must begin to thoughtfully plan for how the City of New York will continue to provide public burial services for those in need. NYC Parks will prompt these discussions on the critical next step of long-term planning for Hart Island with our fellow City agencies and partners in city and state government.

Hart Island holds a significant place in the city's history and has tremendous meaning for countless people in New York City, across the country, and around the world. This concept plan seeks to improve the physical conditions and critical infrastructure on Hart Island to better serve those who visit and those who manage its daily operations. Moreover, this concept plan seeks to honor the history and people who are laid to rest or lived, worked, or were incarcerated on this beautiful, peaceful island in Long Island Sound.



View of proposed "Remembrance Walk" and Visitor Center.





# EXECUTIVE SUMMARY



# CONCEPT PLAN

## EXECUTIVE SUMMARY

### INTRODUCTION

The Hart Island Concept Plan presents a 20+ year vision for physical improvements to New York City's public cemetery. The Plan was created in response to a package of 2019 Local Laws which mandated the transfer of the property to the jurisdiction of NYC Parks. The goal was to improve conditions on the island, while making it easier for the public to visit the island and pay their respects to those buried here.

This concept plan outlines a vision and framework of capital projects in response to operational needs and public input while taking into consideration the ongoing necessity of burial operations. While the island will not be used for any traditional recreational purposes, NYC Parks recognizes the need to provide visitors with basic amenities such as restrooms, seating, and shelter from heat and rain.

The Design Team worked closely with NYC Parks to analyze the feasibility of desired land uses informed by two public engagement events and site investigations covering topics such as Hart Island's history, existing burial operations, public access and opportunities for future amenities, historic features preservation,



Hart Island is a 120-acre island located in Long Island Sound. It is part of the borough of the Bronx and is accessed via a ferry from City Island.

and changing ecological landscapes due to sea level rise. A Study Advisory Group consisting of representatives from NYC Parks, NYC Human Resources Administration, NYC Department of

Transportation, and community advocates, guided the initial goals of the Hart Island Concept Plan.





# CONCEPT PLAN

## EXECUTIVE SUMMARY

### CONCEPT PLAN VISION STATEMENT

The public expressed the importance of the island as a respectful burial place. Overall, there is a shared desire to balance increased public access to Hart Island while honoring its emotional significance for families of those interred there. The following vision statement for Hart Island was formed in response to these priorities:

*A contemplative, quiet, and spiritual place. Visitors come to be close to family members and loved ones, to engage with New York City's history, and to admire the natural beauty of the island. As New York City's public cemetery, Hart Island provides the essential service of burials for those most in need.*



View of proposed enhancements to Civil War historic feature.

### CONCEPT PLAN GOALS

- Create a dignified, safe, and accessible experience for island visitors.
- Maximize the life cycle of Hart Island as New York City's public cemetery.
- Enhance island ecological systems and adapt for climate change.

### PLANNING ASSUMPTIONS

- Operations plan aims to maximize life cycle of public cemetery use.
- Visitor numbers will not exceed 100 people maximum at one time, based on ferry access constraints that will not change in the near-term.
- Proposed visitor amenities consider that visitors are typically only on the island for 2-3 hours.
- In the long-term, adaptation to sea level rise will be needed.



# CONCEPT PLAN

## EXECUTIVE SUMMARY

### CONCEPT PLAN FRAMEWORK | FOUR GUIDING PILLARS

**Visitor experience:** The plan aims to improve infrastructure and amenities for visitors, ensuring a welcoming experience. Universal accessibility is a priority to ensure all visitors can fully experience the island.

**Resilience:** The plan includes adaptive landscapes for sea level rise, flood resilient facilities, and features to increase thermal comfort for visitors and staff.

**Ecology:** To preserve the natural landscape of the island, the plan includes habitat restoration and management strategies and shoreline stabilization recommendations.

**Operations:** The plan focuses on optimizing burial capacity while effectively coordinating visitor and burial operations.



VISITOR EXPERIENCE



RESILIENCE



ECOLOGY



OPERATIONS





## RECOMMENDATIONS | SITE-WIDE ENHANCEMENTS + LONG-TERM ADAPTATION STRATEGIES



### Remembrance Walk

The Remembrance Walk creates a compact area for visitor amenities near the ferry dock. A walking path connects newly landscaped lawns and gardens, shaded seating areas, and a Welcome Center building with restrooms and indoor waiting space. An adaptive reuse of the chapel structure creates a new sanctuary for reflection and commemoration on Hart Island.



### Welcome Center

The Welcome Center provides a universally accessible gathering space on the island for visitors during grave site visits and tours. This modest-sized (approximately 1,300 SF) building is envisioned to have public bathrooms, a meeting room, and a first aid station. The design and materials of the building are intended to reflect the masonry and stone used on Hart Island throughout its history.

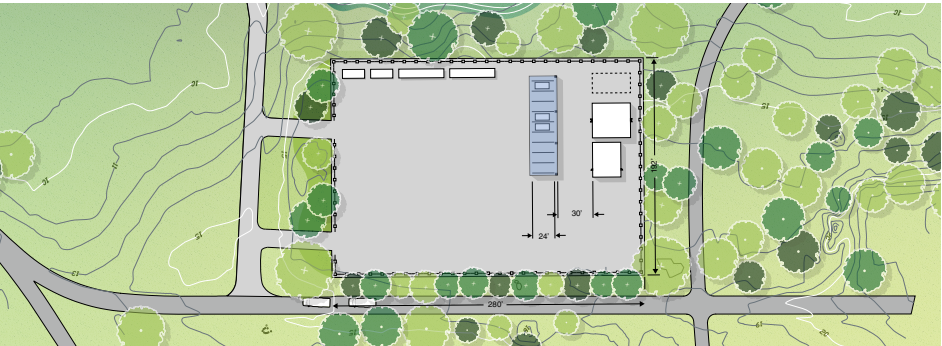


### Historic Features

The plan includes enhancements of the landscapes around historic features still present on the island, as well as recommendations for their stabilization or restoration. Seating, interpretive signage, native plantings, and new paths make these historic features more accessible and connect visitors with the island’s history.



## RECOMMENDATIONS | SITE-WIDE ENHANCEMENTS + LONG-TERM ADAPTATION STRATEGIES



### Maintenance + Operations

A 30,000 SF paved Maintenance and Operations area is proposed with an office building with bathrooms and lockers for City staff as well as a storage building. The utility micro-grid for the island, which includes a free-standing PV array, battery, and back-up generator, is also proposed for the Maintenance and Operations area.



### Site Circulation + Landscape

The plan recommends repaving paths to establish safe shared-use routes, enhancing accessibility for all visitors. The landscape management plan includes active habitat restoration and management; pruning and maintaining existing rows of mature trees; screening sensitive areas and escarpments; and native meadow plantings on select path edges.



### Shoreline Stabilization + Sea Level Rise Adaptation


A variety of stabilization interventions are proposed to repair shorelines and address impacts of chronic tidal flooding resulting from gradual sea level rise and current erosion. A two-phase, long-term strategy is proposed to adapt the central field area for sea level rise and create land suitable for additional burials. The strategy also proposes creating tidal wetland area on the island's west side and removing historical fill to create historical intertidal zones.





# CONCEPT PLAN


## EXECUTIVE SUMMARY

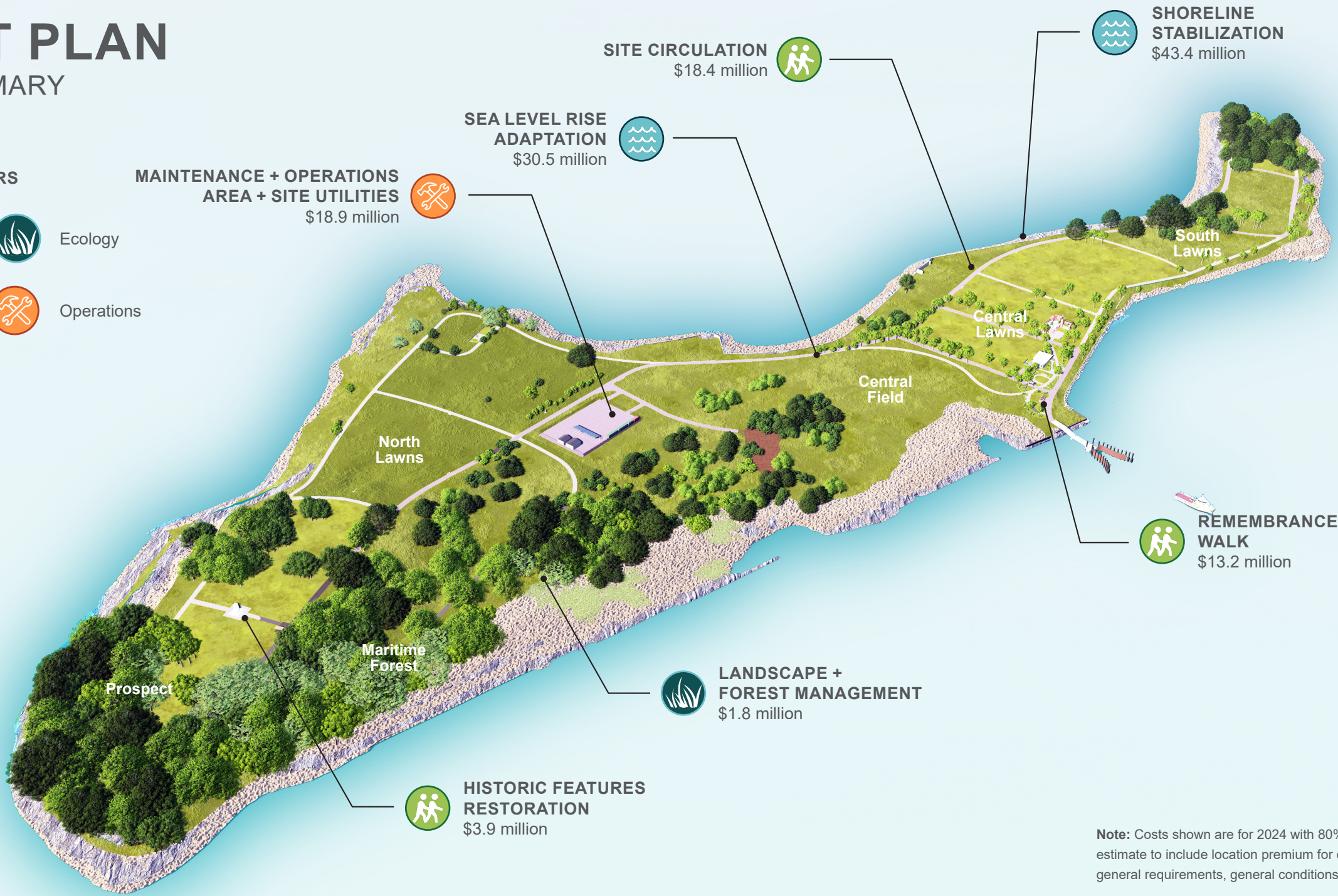
**VISION PILLARS**

Visitor Experience

Ecology

Resilience

Operations



## COST ESTIMATES | PROPOSED CAPITAL PROJECTS

Costs shown are for 2024 with 80% contingencies over base estimate to include location premium for construction on the island, general requirements, general conditions, and design contingency.

Project	Cost
Remembrance Walk Phase 1 (Welcome Center, Lawns, + Chapel Sanctuary)	\$8.6 M
Remembrance Walk Phase 2 (Shade Structure + Lawn)	\$4.6 M
Site Circulation (Site-wide Paths + Seating)	\$18.4 M
Landscape Enhancements	\$1.8 M
Maintenance + Operations Area (Operations Yard, Utilities, + Circulation)	\$18.9 M
Historic Features	\$3.9 M
Shoreline Stabilization	\$43.4 M
Sea Level Rise Adaptation (Elevate Road + Tidal Wetlands Construction)	\$12.8 M
Sea Level Rise Adaptation (Berm Construction + Infill in Central Field)	\$17.7 M





# SITE OVERVIEW



# CONCEPT PLAN

## EXISTING CONDITIONS

Hart Island is 120 acres with 15,138 linear feet of shoreline. At the shortest width the island is 2,186 feet wide, and at the longest it is 5,598 feet. The island is low-lying with a high point at the north end of the island which forms a "prospect" or overlook with views of the island and the Long Island Sound at elevation +41 feet NAVD88. The shoreline elevation ranges between +0.0 feet to +36.7 feet elevation at the northeast escarpment, while Mean High High Water (MHHW) is at +3.69 feet NAVD88.

The majority of the current landscape is open lawn filled with burial plots, with mature trees in informal groups. There is a small concentration of mature trees lining select roads and a large forested area on the northwest side of the island. The shoreline contains areas of sandy beach and saltmarsh, as well as seawalls and bulkheads. Existing structures include civic monuments, remnants of institutional structures, the Maintenance and Operations area, and the frame and foundation of a former chapel.

The island serves as New York City's public cemetery with burial operations generally occurring Tuesday through Friday each week. HRA manages all burial operations and island maintenance. The public can visit the island on Urban Park Rangers tours which occur every other Tuesday and are booked via a lottery system. NYC Parks also offers gravesite visits for the loved ones of those buried on the island twice a month on Saturdays and Sundays.



Existing conditions photos from across the island.

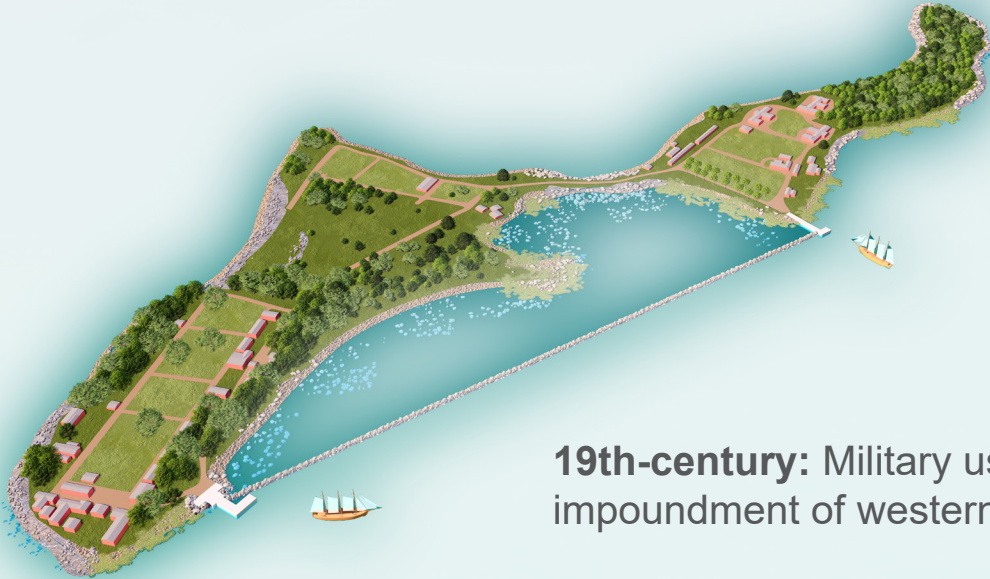


# CONCEPT PLAN

## ISLAND HISTORY



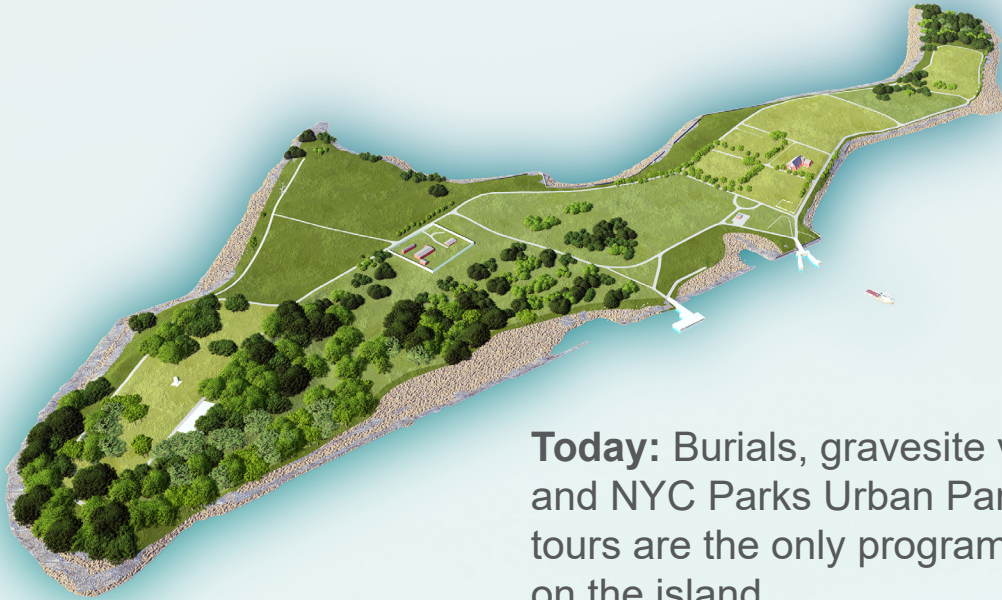
**Pre-settlement:** Land bridge ("tombolo") connected two islands.



**19th-century:** Military uses and impoundment of western shoreline.



**1940s-1990s:** Institutional uses and infill of central lawn.



**Today:** Burials, gravesite visits, and NYC Parks Urban Park Ranger tours are the only programming on the island.



The island has hosted a range of military, reform, and institutional uses during the 19th and 20th centuries and has been significantly physically altered. For viewing purposes, the perspective view is rotated so that the ferry landing and proposed Welcome Center are in the foreground.



# SITE OVERVIEW

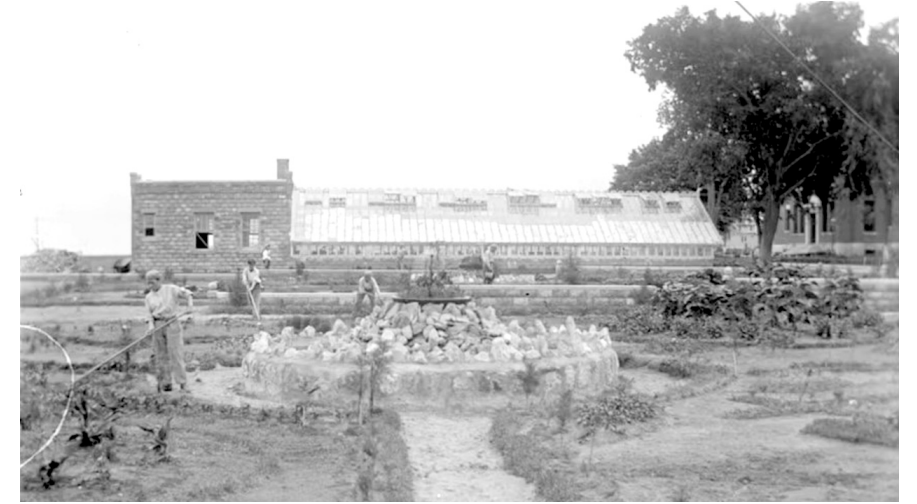
## ISLAND HISTORY



**1860s:** Union Soldiers train on the island for the Civil War.  
*Source: Kenneth Spencer Research Library*



**1890s:** The island in the early years of burial operations.  
*Source: Jacob Riis, Museum of the City of New York*



**1910s:** The island is home to a boys reformatory.  
*Source: Shelby White & Leon Levy Digital Library*



**1970:** Phoenix House, a rehabilitation center, hosts its annual summer happenings fundraiser on the island.  
*Source: Yukihsa Isobe Works*



**Early-1980s:** Due to the stigma around AIDS at this time, some New Yorkers who died of AIDS related illness are buried on the south end of the island in individual graves.



**2021:** Jurisdiction of the island transferred to NYC Parks; Urban Park Rangers offer regular tours of island highlighting Hart Island history.











# SITE OVERVIEW

## ISLAND ACCESS

### Getting to Hart Island

- Hart Island is accessible via a ferry from City Island, operated by NYC Department of Transportation.
- The ferry is accessible by public transit via the 6 train and connecting to the BX29 bus.

#### LEGEND

-  NYC Parks Open Space
-  Subway
-  Subway
-  Bus Route
-  Walking Route (5 - 10 minutes)
-  Ferry Route



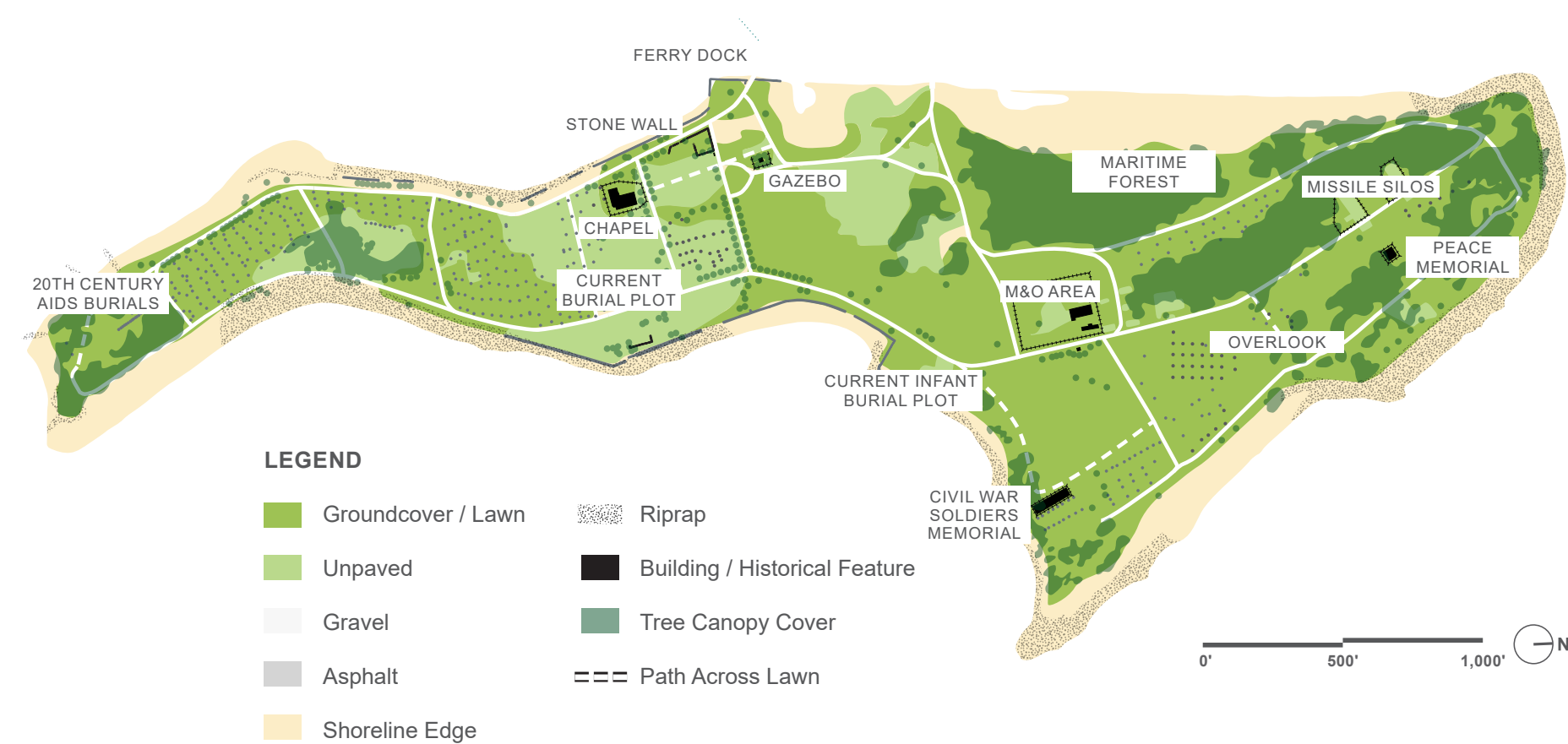
# CONCEPT PLAN

## EXISTING CONDITIONS

### Island Features + Accessibility

- Most of the island today consists of mowed lawn burial areas with pockets of existing forest.
- The ferry dock is not currently ADA accessible and pathways in varying conditions pose issues for access across the island.
- Seating and shelter on the island are limited.
- There are few existing structures on the island which include the chapel, the Maintenance and Operations area, and several historic features in varying conditions.

### EXISTING CONDITIONS





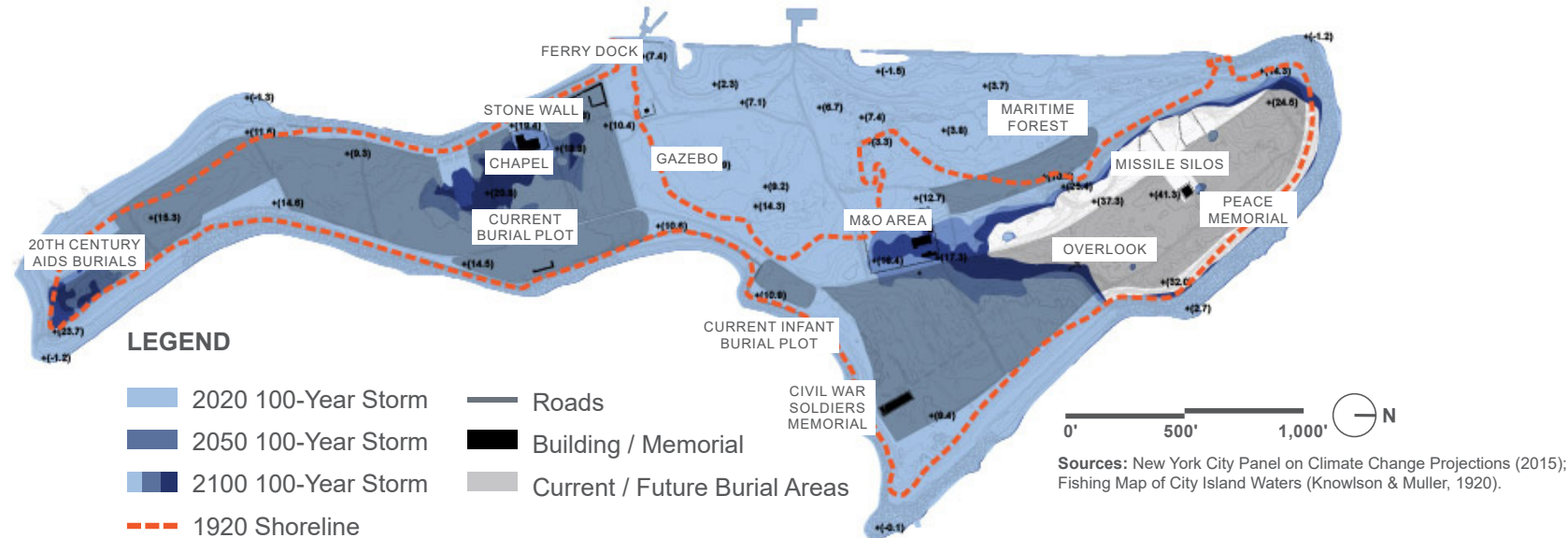
# CONCEPT PLAN

## EXISTING CONDITIONS | CLIMATE

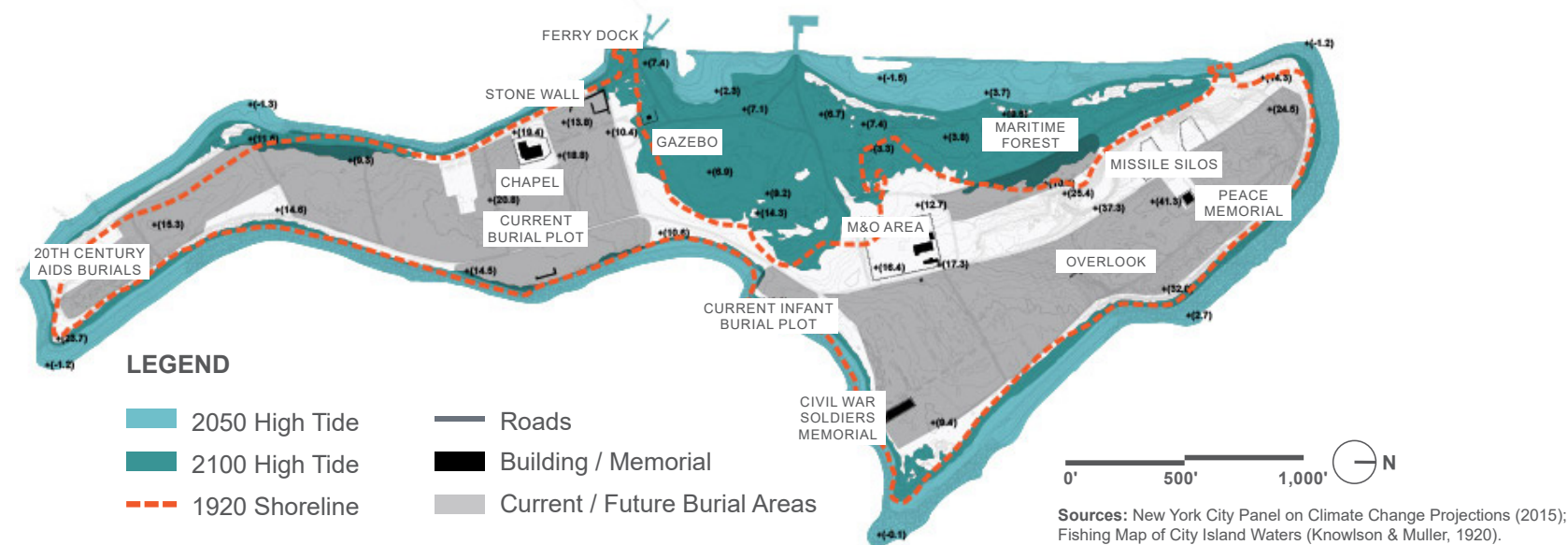
Chronic tidal flooding, coastal surge flooding, extreme rainfall, and extreme heat will all have significant and continued impacts on the island. The island is at risk of chronic tidal flooding due to sea level rise and coastal storm surges.

Flooding generally does not pose significant risk to burial areas in the center of the island, however burials located close to the shorelines could be at risk of erosion and exposure.

### HISTORIC SHORELINE AND COASTAL STORMS



### HISTORIC SHORELINE AND FUTURE HIGH TIDE





# CONCEPT PLAN

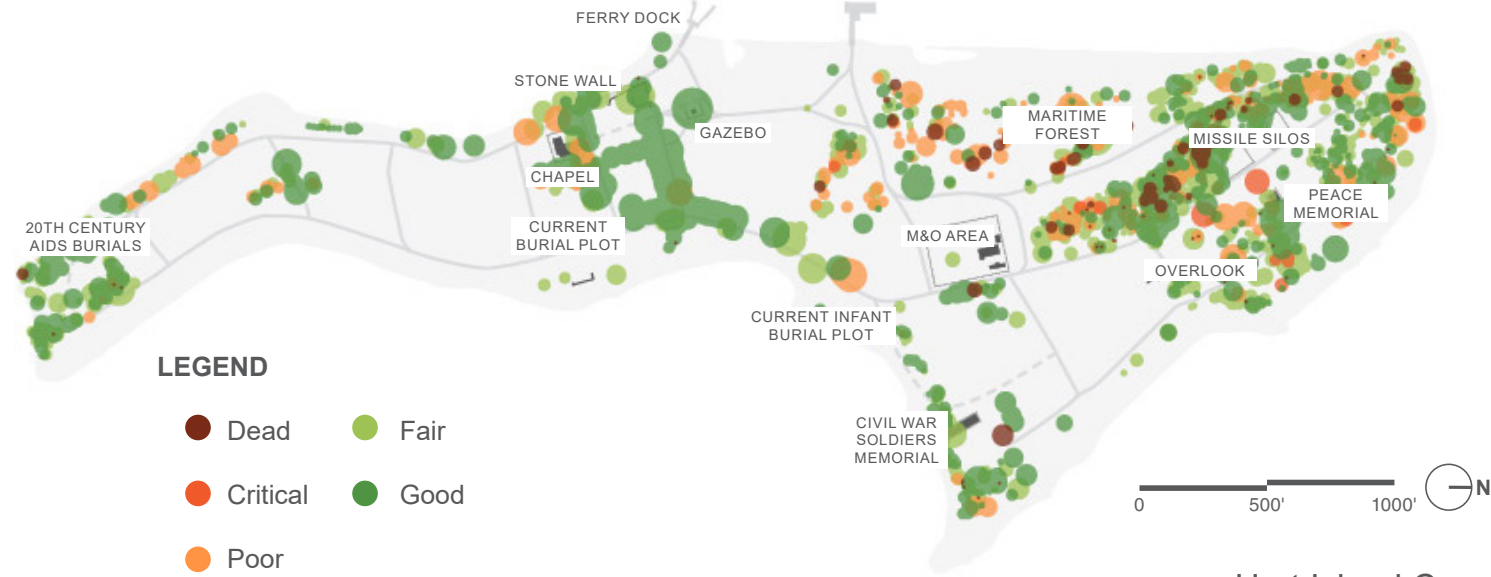
## EXISTING CONDITIONS | ECOLOGY

An important part of the island to many visitors is the beauty of the natural landscape. There are a number of different ecological communities and tree species on the island. There are no rare communities and no rare plants due to the high level of human influence on the island’s landscape. The island, however, still acts as an important ecological feature of the Sound and is a habitat for many animals and plant species.

### ECOLOGICAL COMMUNITIES



### TREE LOCATION & HEALTH





# EXISTING CONDITIONS

## CHAPEL + FERRY AREA



- 1. The current arrival area has minimal seating and shaded areas for visitors as they depart the ferry. Note: As of March 2025, the chapel roof has been removed during the chapel stabilization project.
- 2. The gazebo in the field near the ferry dock area is the only shade structure on the island.
- 3. The only publicly accessible bathrooms located on the island are ADA accessible porta-johns.





# EXISTING CONDITIONS

## SOUTH LAWN



- 1. The 20th Century AIDS burial area is included on all Urban Park Ranger tours of the south island.
- 2. The shoreline condition on much of the southwest portion of the island is a beach condition.
- 3. A vault is used to store disinterred decedents prior to their transport off the island.





# EXISTING CONDITIONS

## CENTRAL LAWN



- 1. The central lawn was infilled throughout the 20th Century with ash and other waste materials. Due to its low elevation it is not currently suitable for burials.
- 2. The fill pile used for burial operations is located in the north portion of the central lawn.
- 3. The path connecting the north and south sides of the island is aligned with the historic tombolo; a tombolo is another word for isthmus which is a narrow bridge of sand and rock connecting two islands; in the long term, it will be exposed to sea level rise.





# EXISTING CONDITIONS

## NORTH LAWN



- 1. The north lawn contains burials dating up to the late 1970s and 1980s and has reached capacity for additional burials.
- 2. The Civil War Soldiers Memorial is located in the southeast portion of the lawn, containing an obelisk surrounded by a cobblestone wall and metal fence.
- 3. The lawn to the east of the Maintenance and Operations area is the original 45 acre cemetery on Hart Island, dating back to 1869.





# EXISTING CONDITIONS

## PROSPECT



- 1. The prospect largely consists of lawns and stands of trees with burials from the mid- and late- 20th Century. The prospect contains an overlook with a large hillside cross made of placed stones. Gravesite visitors whose loved one's exact location cannot be identified from the City's records are brought to the overlook in place of a specific grave.
- 2. The Peace Memorial sits in the middle of the prospect and is currently surrounded by a chain link fence due to deterioration of the structure.
- 3. The Nike Missile Silos are enclosed by a chain link fence and are located directly west of the Peace Memorial.





# EXISTING CONDITIONS

## WETLAND AREA + WOODS



1. The northernmost shoreline is largely a wetland and meadow condition. There are invasive species including *Phragmites australis*.
2. Urban Park Ranger tours lead visitors along a dirt path through the woods located at the foot of a steep slope.
3. Much of the shoreline to the south of the woods is a wetland condition. There are swaths of existing salt marsh grasses in the tidal wetland.





# COMMUNITY ENGAGEMENT

## PUBLIC INPUT MEETING 1 SUMMARY

### Summer 2024 Engagement

- NYC Parks hosted a virtual public meeting on June 18, 2024, which was attended by 107 people. An online survey accessible from May 28, 2024 to July 2, 2024 received 116 responses.

Themes from workshop discussion and survey included:

### Island Access

- Attendees suggested there be more opportunities to visit on tours and gravesite visits.

### Visitor Experience

- Island visitors expressed that they were positively surprised by the beauty of the island.
- Attendees expressed a desire for restrooms, shelters, benches, and shaded areas across the island.

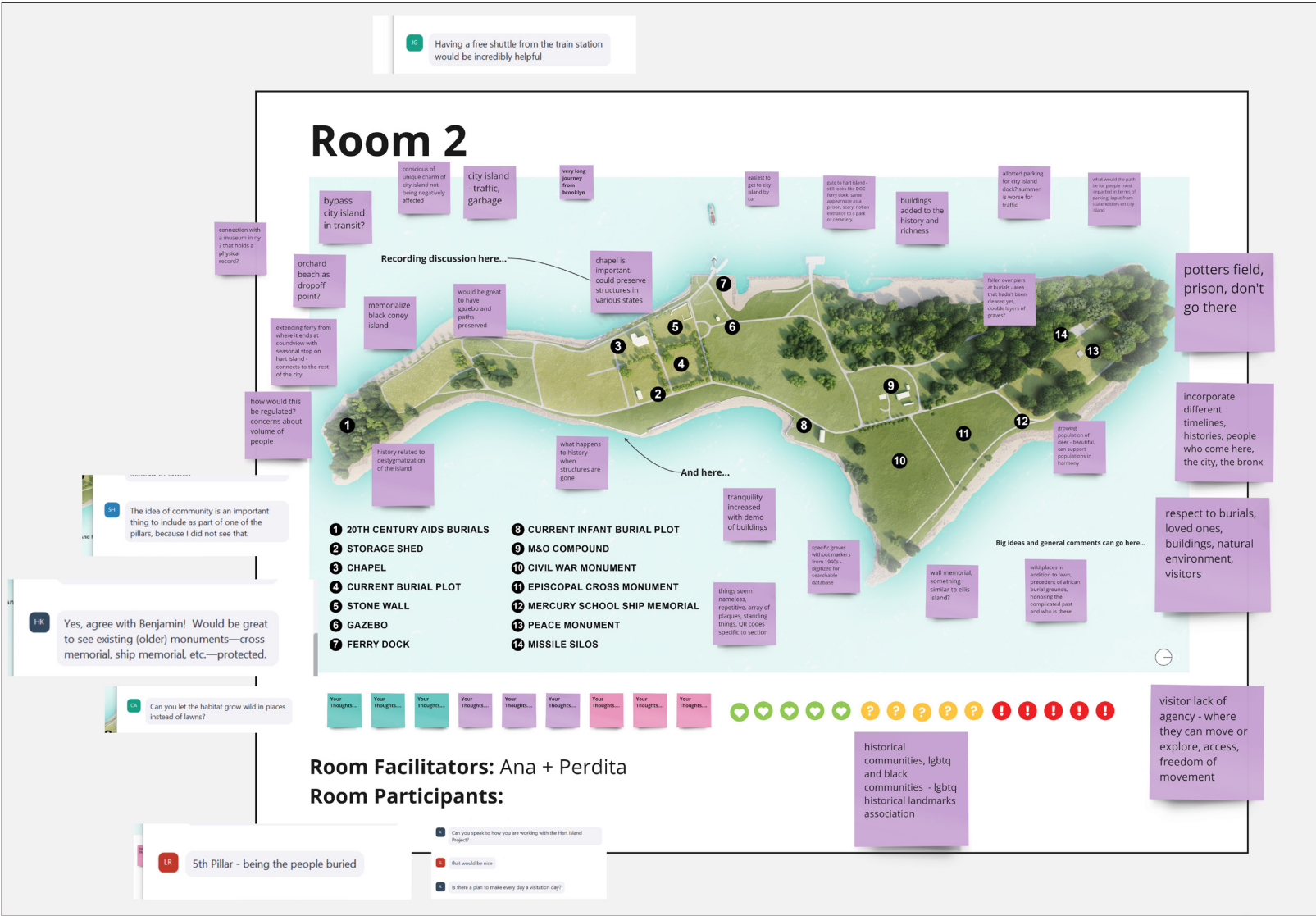
### Commemoration

- Attendees noted the significance of remembering and respecting the people buried at Hart Island and the island’s history.

### Dignity and Respect

- Attendees expressed the importance of the island as a respectful burial place that should cater to gravesite visitors.

Additional details and examples from the community engagement sessions are available in Appendix 3 – Community Engagement.



Sample Miro board from virtual public workshop.



# COMMUNITY ENGAGEMENT

## PUBLIC INPUT MEETING 2 SUMMARY

### Fall 2024 Engagement

- NYC Parks hosted a second public meeting on November 7, 2024, which was attended by 140 people. The concept plan team shared a presentation including project context, existing conditions, summary of public feedback from the first public meeting, and proposed concept plan projects.
- Many attendees emphasized the need to balance increased access while maintaining the island as a burial site, and highlighting the emotional significance of Hart Island to families of those interred there.

Themes from workshop discussion and survey included:

### Island Access + Visitor Experience

- Inquiries about expanding ferry access, increased and expanded visitation opportunities, and additional educational programming.

### Burial Operations

- Concerns regarding burial practices and future burial strategies.

### Commemoration

- Requests for additional opportunities for memorialization of individuals buried on the island.

### Funding and Implementation

- Questions about project funding, timelines, and community involvement opportunities.

Additional details and examples from the community engagement sessions are available in Appendix 3 – Community Engagement.



Sample Miro board from virtual public workshop.





# VISION + CONCEPT PLAN FRAMEWORK



# CONCEPT PLAN

## VISION STATEMENT + GOALS

### Concept Plan Vision

Hart Island is a contemplative, quiet, and spiritual place. Visitors come to be close to family members and loved ones, to engage with New York City's history, and to admire the natural beauty of the island. As New York City's public cemetery, Hart Island provides the essential service of burials for those most in need.

### Concept Plan Goals

- Create a dignified, safe, and accessible experience for island visitors.
- Maximize the life cycle of Hart Island as New York City's public cemetery.
- Enhance island ecological systems and adapt for climate change.



NYC Parks

VISION



# CONCEPT PLAN

VISION PILLARS



## VISITOR EXPERIENCE

- Improve infrastructure and amenities for visitors.
- Legible and welcoming site narrative.
- Universal accessibility.



## RESILIENCE

- Adaptive landscapes for sea level rise.
- Flood resilient facilities.
- Thermal comfort.



## ECOLOGY

- Habitat restoration and management.
- Stabilized shorelines.



## OPERATIONS

- Coordinated visitor and burial operations.
- Maximize capacity of cemetery.







# CONCEPT PLAN

## CAPITAL PROJECT FRAMEWORK

### Planning Assumptions

- 1. Operations plan aims to maximize life cycle of public cemetery use.
- 2. Visitor numbers will not exceed 100 people maximum at one time, based on ferry access constraints that will not change in the near-term.
- 3. Proposed visitor amenities consider that visitors are typically only on the island for 2-3 hours.
- 4. In the long-term, adaptation to sea level rise will be needed.

#### VISION PILLARS

-  Visitor Experience
-  Resilience
-  Ecology
-  Operations





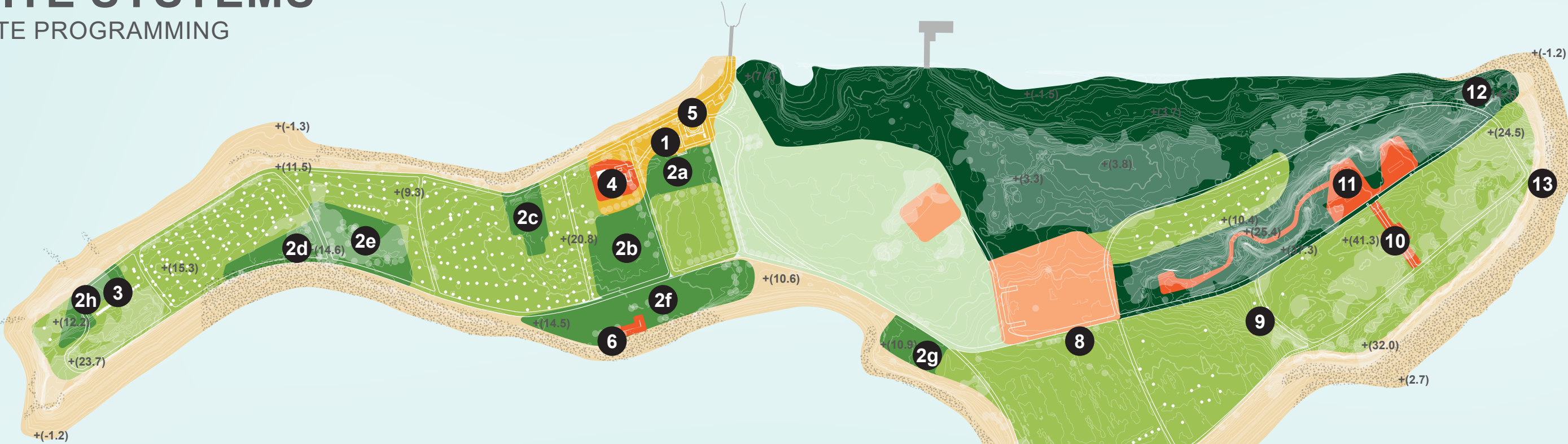


# SITE SYSTEMS PLAN



# SITE SYSTEMS

## SITE PROGRAMMING



### PROGRAM AREAS + FEATURES

- Remembrance Walk

1. Welcome Center + Landscape
- Future Burial Areas

2. Areas 2A - 2H
- Existing Burial Areas
- Historic Features

3. 20th Century AIDS Burials

4. Chapel

5. Cobblestone Wall

6. Dynamo House Wall

7. Civil War Soldiers Memorial

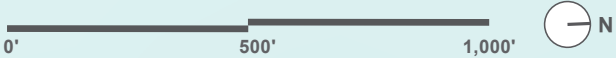
8. Episcopal Cross

9. White Cross

10. Peace Memorial
- Maritime Forest
- Maintenance + Operations Area
- Shoreline
- Central Field
11. Nike Missile Silos

12. Remnant Building

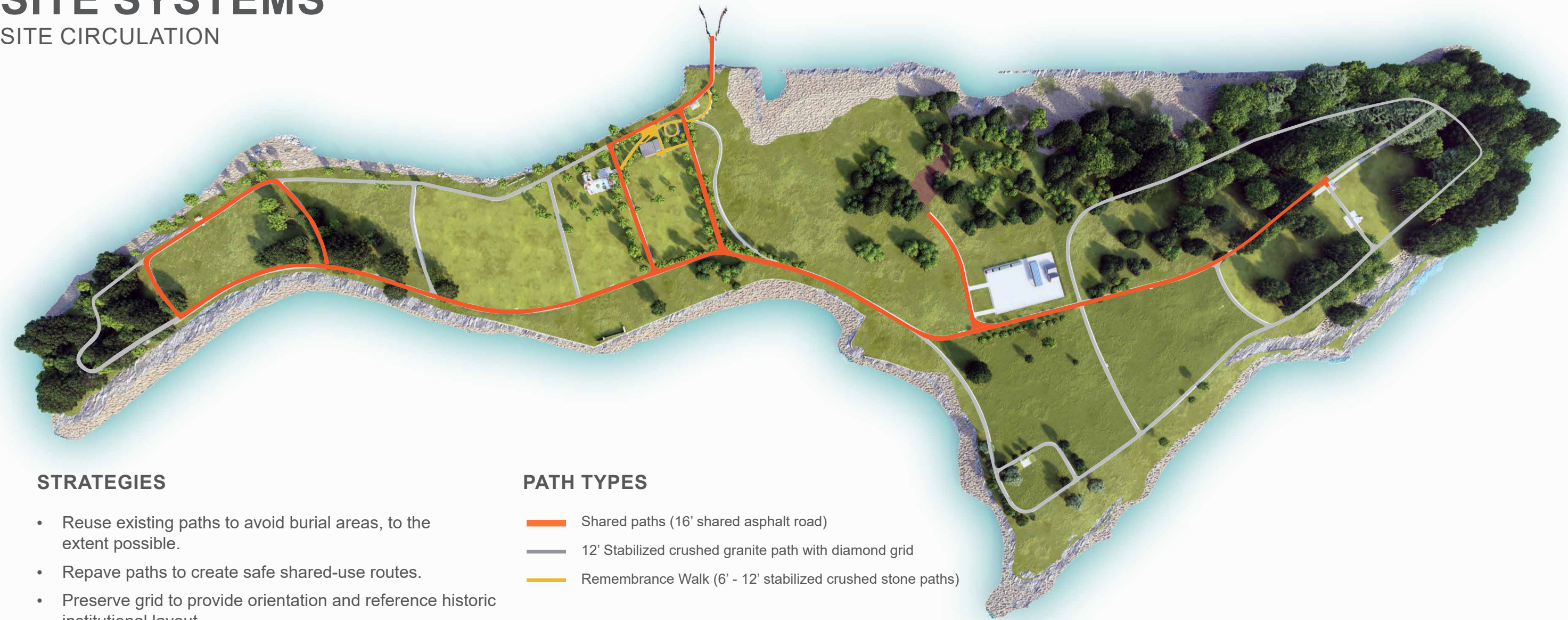
13. Fire Pump Cistern





# SITE SYSTEMS

## SITE CIRCULATION



### STRATEGIES

- Reuse existing paths to avoid burial areas, to the extent possible.
- Repave paths to create safe shared-use routes.
- Preserve grid to provide orientation and reference historic institutional layout.
- Introduce pastoral elements such as shaded seating areas with accompanying plantings for reflection and comfort.

### PATH TYPES

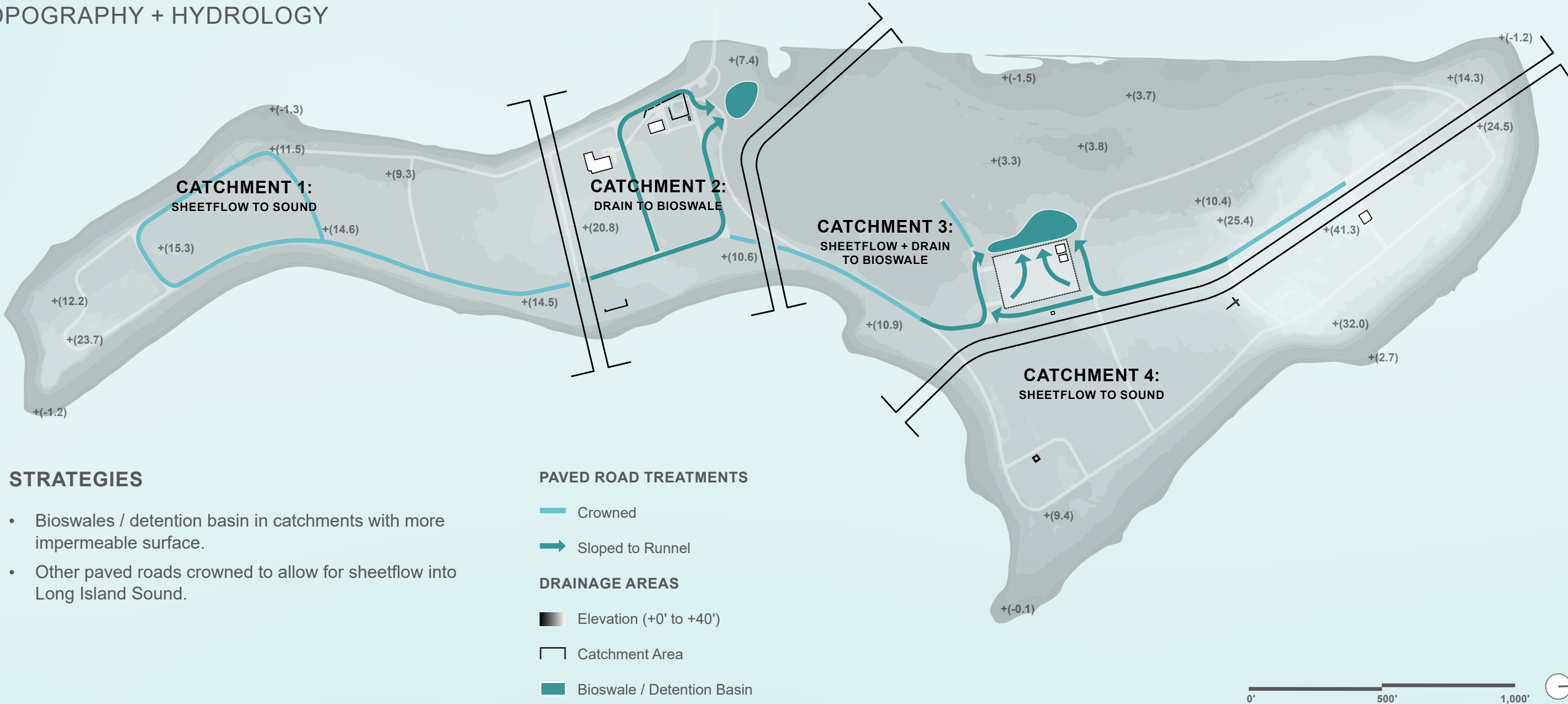
- Shared paths (16' shared asphalt road)
- 12' Stabilized crushed granite path with diamond grid
- Remembrance Walk (6' - 12' stabilized crushed stone paths)





# SITE SYSTEMS

TOPOGRAPHY + HYDROLOGY



## STRATEGIES

- Bioswales / detention basin in catchments with more impermeable surface.
- Other paved roads crowned to allow for sheetflow into Long Island Sound.





# SITE UTILITIES

## ELECTRICITY



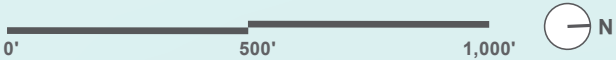
### STRATEGIES

- **Approach 1:** Standalone installations at each building (Generator + PV + battery energy storage system).
- **Approach 2:** Centralized installation as roofmounted PV system on Maintenance and Operations buildings and battery energy storage system (BESS).
- **Approach 3:** Install a free standing PV array in paved Maintenance and Operations area that serves as a canopy to shade vehicular parking areas, 2,000 SF combined area for all panels.
- **Optional redundancy:** Wind turbine could provide additional 5kW and require 100 SF per turbine.
- Subsurface conduit is resilient to flooding and aesthetically preferred to surface conduit; can be constructed concurrently with circulation network to minimize construction costs.

**LEGEND**

Utility Location Sites

Conduit





# SITE UTILITIES

## ELECTRICITY + WATER

### WATER

#### Welcome Center Requirements

- Toilet rooms sanitary drainage will be connected to an external composting system, waste from hand sinks and drinking fountains will be filtered and used as gray water for cleaning and irrigation.
- Non-potable water will be used at flushing fixtures.
- Non-potable water will be treated and filtered to safe conditions and used at hand sinks and drinking fountains.
- Electric point of use water heaters to be provided at hand sinks.

#### Maintenance and Operations Requirements

- Toilet rooms sanitary drainage will be connected to an external composting system, waste from showers, hand sinks, and drinking fountains will be filtered and used as gray water for cleaning and irrigation.
- Non-potable water will be used at flushing fixtures.
- Non-potable water will be treated and filtered to safe conditions and used at showers, hand sinks and drinking fountains.
- An electric water heater with a storage tank will supply showers and hand sinks (combined area of Maintenance and Operations buildings is 1,800 SF).

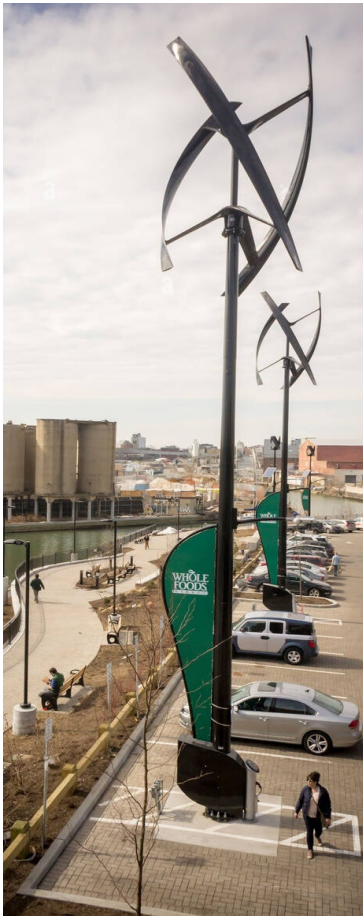
### ELECTRICITY

#### Welcome Center Requirements

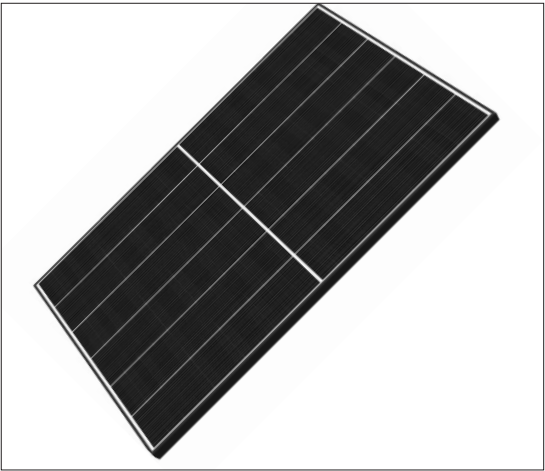
- **Loads:** Lighting, convenience receptacles, communications, heating / cooling.
- **Proposed total loading:** ~5kW maximum load, ~3kW average anticipated load.
- **# of panels:** 400W solar panels for total of 5kW (12 panels total).
- **Area of panels:** 240 SF, each panel requires 20 SF (roof area of Visitor Center is 1,000 SF).

#### Maintenance and Operations Requirements

- **Loads:** Lighting, convenience receptacles, communications, air conditioning (mess hall), EV charger.
- **Proposed total loading:** ~30kW maximum load, ~15kW average anticipated load.
- **# of panels:** 400W solar panels for total of 20kW (50 panels total).
- **Area of panels:** 1,000 SF, each panel requires 20 SF (combined area of M+O buildings is 1,800 SF).
- **Generator:** 50 SF covering 35-80kW.
- **Fuel Storage:** Two 1,000 gallon diesel fuel tanks.
- **Storage and back-up sources:** Battery storage system located in Maintenance and Operations area; wind turbine optional to provide back-up generation.



5kW wind turbine



400W solar panel



Battery energy storage system







# CAPITAL PROJECTS



# REMEMBRANCE WALK

## WELCOME CENTER





# REMEMBRANCE WALK

The Remembrance Walk provides a contemplative experience for visitors that can be explored before and after tours and gravesite visits. The proposed siting of these facilities places new buildings in a central location to the ferry dock and chapel, and outside of the 100 year coastal flood elevation, however this location will reduce burial capacity by approximately eight months at current burial rates.

## Lawns

- Contemplative spaces.
- Seating areas.

## Walks + Seating Areas

- Benches along the circulation path and in reflective spaces with views of Long Island Sound.
- Movable seating and tables in plaza next to the chapel and the interior of the chapel.

## Welcome Center

- Historically contextual.
- ADA accessible.
- Flood resilient.
- Public restrooms, meeting room, First Aid station.

## Sanctuary

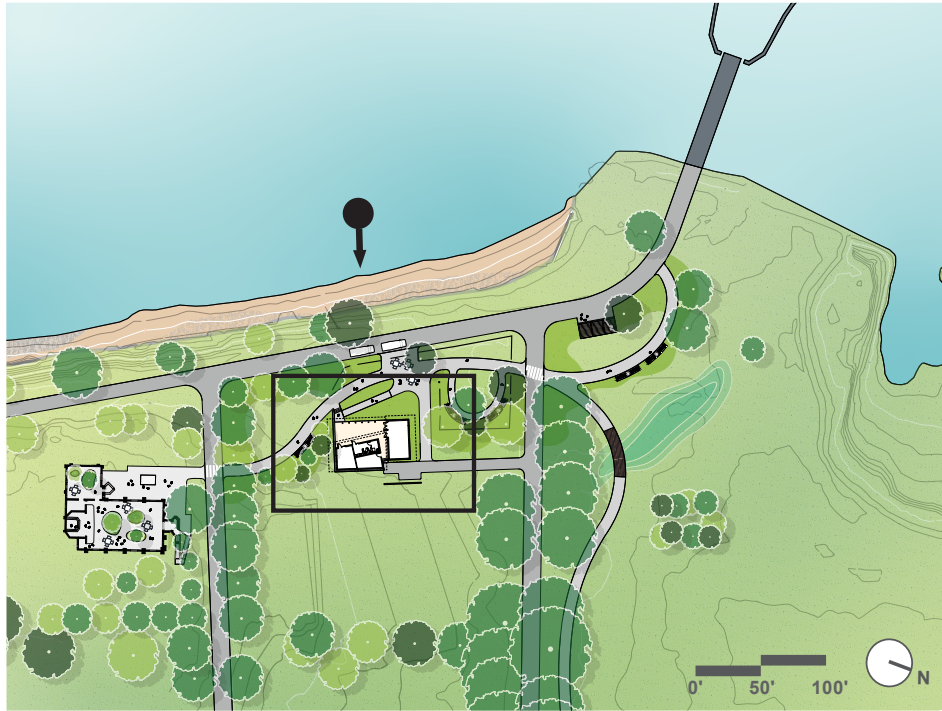
- Adaptive reuse of chapel.
- Permanent placement of Pandemic Touchstone.
- Reinterpretation of salvaged architectural items.





# REMEMBRANCE WALK

WELCOME CENTER | ARCHITECTURE



## Program

- 600 SF indoor waiting area.
- 235 SF bathrooms.
- 255 SF utility space / storage.
- 300 SF office / first aid area.
- Total size including circulation / walls: 1,650 SF.
- ADA accessible.



**CAPITAL PROJECTS**



# REMEMBRANCE WALK

## WELCOME CENTER | ARCHITECTURAL INSPIRATION

### Considerations

- The DFE is +15' NAVDD and is accessed by an ADA-accessible ramp. The building is sited along a proposed pedestrian path between the ferry dock and the chapel.
- The design incorporates stone and brick masonry, referencing the material and geometry of the chapel and cobblestone walls.
- The office is located on the south side of the building to take advantage of daylight and passive heating.
- The waiting area has large windows facing the water and the ferry dock. The waiting area contains wall space for Hart Island interpretive signage and exhibits.
- The architectural precedent below illustrates several design features proposed for the Welcome Center including solar panels, overhanging roof, and breezeway.





# REMEMBRANCE WALK

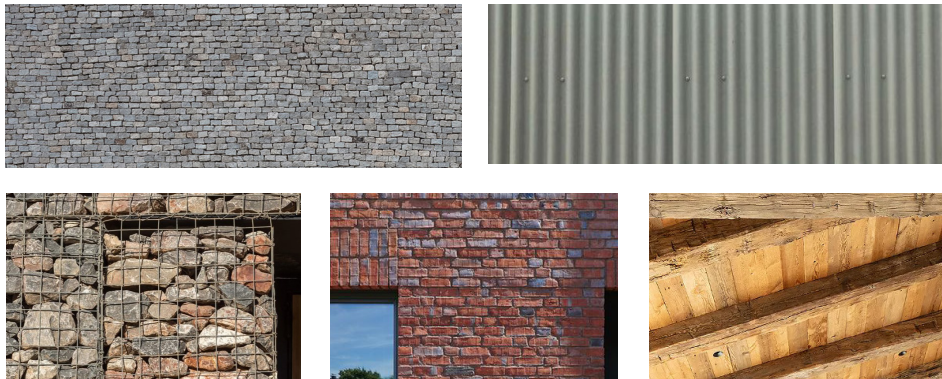
WELCOME CENTER | ARCHITECTURE

## Sustainable Design Goals

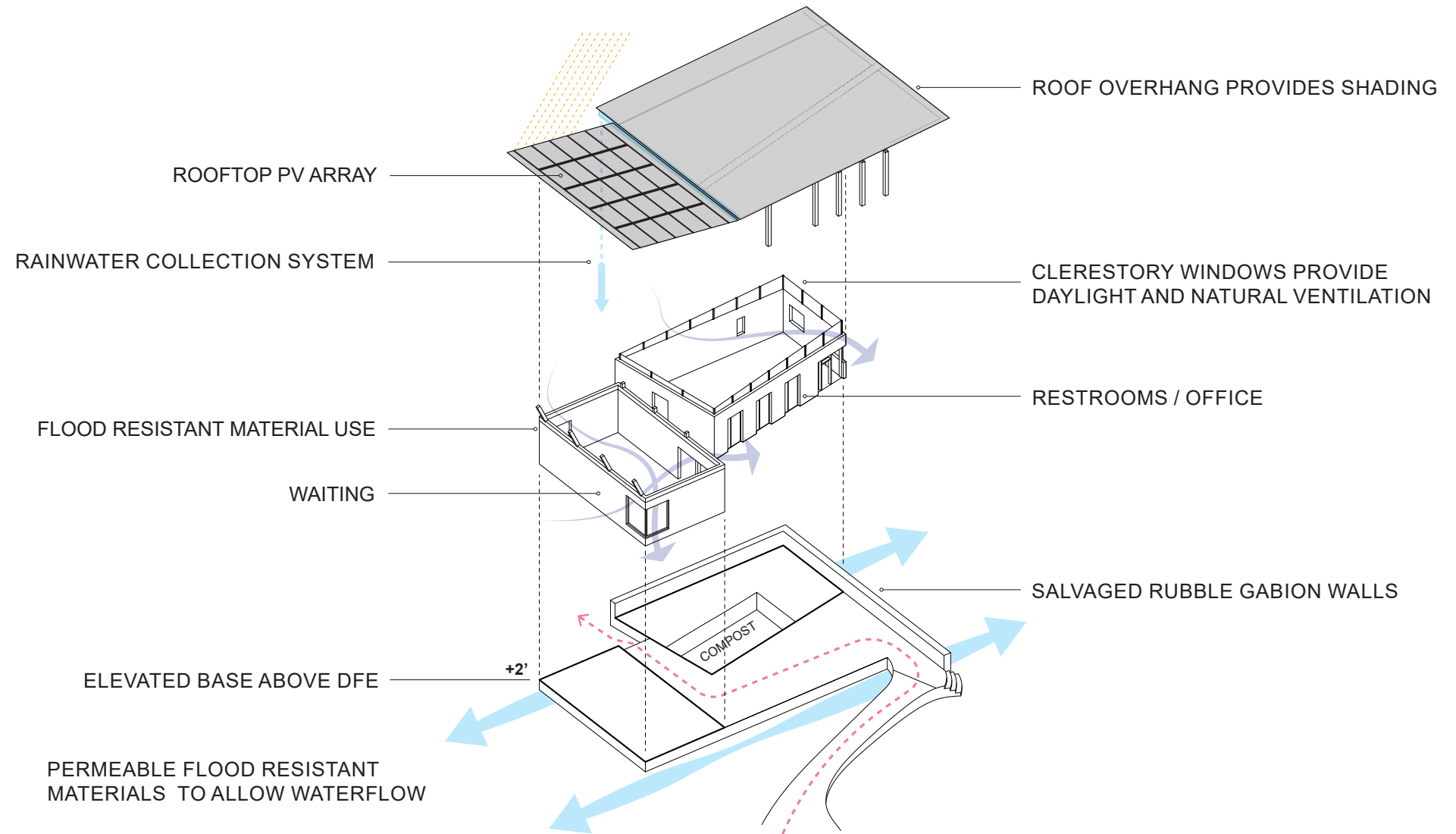
- Design to NYC Building Codes; elevate to +15' DFE.
- Use flood-resistant materials.
- Elevate utilities; allow flood water to flow below building.
- Multi-functional roof: shade, rainwater collection, solar panels.
- Clerestory windows for ventilation and daylight.
- Repurpose on-site materials.
- Two-volume design for flexible operation.
- Composting toilets.
- Additional information available in Appendix 2 – Architecture.

## Building Materials

- Materials palette, as shown below: stone masonry, corrugated roof panel, gabion wall, clinker brick, reclaimed wood.



## RESILIENT DESIGN FEATURES



CAPITAL PROJECTS



# REMEMBRANCE WALK

CHAPEL REUSE AS SANCTUARY





# REMEMBRANCE WALK

## SANCTUARY CONCEPT DESIGN

### Considerations

- Chapel is being stabilized with an open roof structure under current NYC DDC project.
- Plan proposes an adaptive reuse concept for public access to an interior contemplative garden and sanctuary.
- High level concept - further study needed to determine feasibility of planters within the chapel in coordination with DDC.
- Current DDC stabilization project will not allow for public access or ADA-compliance; the concept design includes a new ADA ramp at the front entrance to the chapel. Further design coordination is needed with DDC.
- Chapel may serve as space for visitors to leave flowers and other tributes; other commemorative opportunities include tree and bench dedications across the island; commemorative approaches to be further refined as Concept Plan projects are implemented.



Existing condition of chapel interior and exterior (left above and below); precedent, Granby Winter Garden, Liverpool, UK (center above); Saint Ann's Warehouse, Brooklyn, NY (right above and below).



NYC Parks

CAPITAL PROJECTS

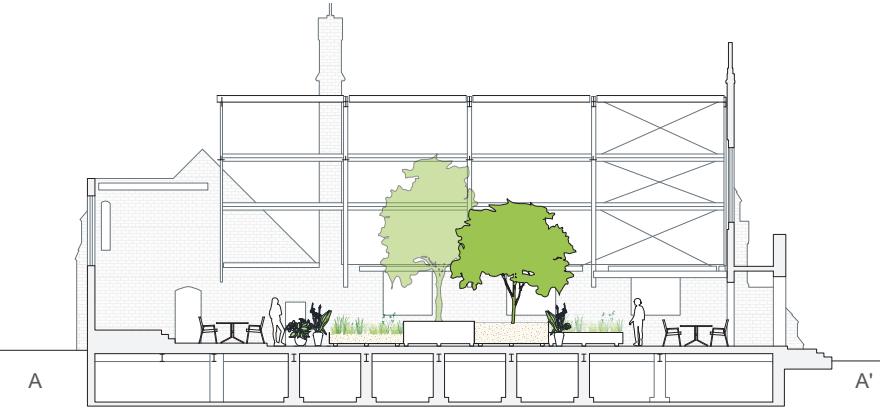


# REMEMBRANCE WALK

## SANCTUARY CONCEPT DESIGN

### Design Considerations

- Site work outside of building; interior enhancements consist of furnishings.
- ADA access provided through front entrance; further study needed to determine modifications required for stairs and grading.
- Interior and exterior public spaces provide location for visitors to leave commemorative objects and to display salvaged architectural items from former buildings on the island, as well as new monuments and memorials.
- Planters sheetflow into floor drains.
- Further investigation needed to determine if hydrant outside chapel can be made operational for watering plants.





# CITY ISLAND ARRIVALS

## CITY ISLAND DOCK

### Fordham Street Existing Conditions

- There are no benches or shaded areas for visitors to use while waiting on City Island for the ferry to Hart Island.
- The street end along Fordham Street could be re-imaged as a more welcoming arrival area with the addition of shaded seating, trees and plantings, and a wider sidewalk for pedestrian safety.





# CITY ISLAND ARRIVALS

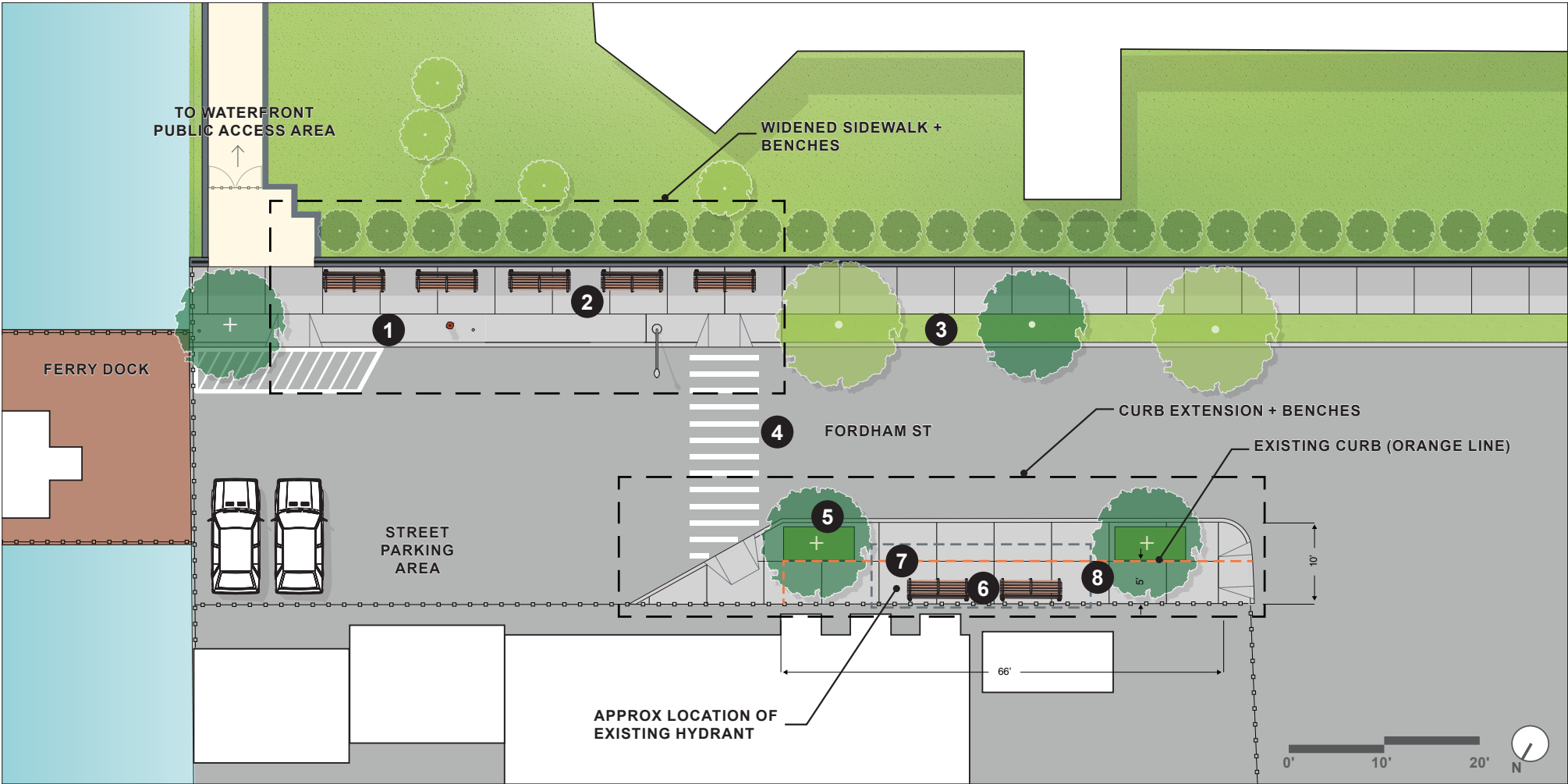
## CITY ISLAND DOCK

### Fordham Street Considerations

- Benches could be installed on the sidewalk leading to the ferry dock.
- A shade structure with seating could be installed on the existing overgrown curb.

### Conceptual Features

1. Pedestrian ramp + protected striped area.
2. Sidewalk "widened" by paving grass "furnishing zone"; Benches with companion seating.
3. Maintain existing trees.
4. Pedestrian ramps + crosswalk.
5. Potential new trees (coordination with subsurface utilities needed).
6. Benches with companion seating.
7. Potential for shade structure (coordination needed).
8. Existing footprint of planting area.



*Note: Site not surveyed; location + condition of utilities + hydrants not known; further study needed to determine required offsets for existing utilities.*

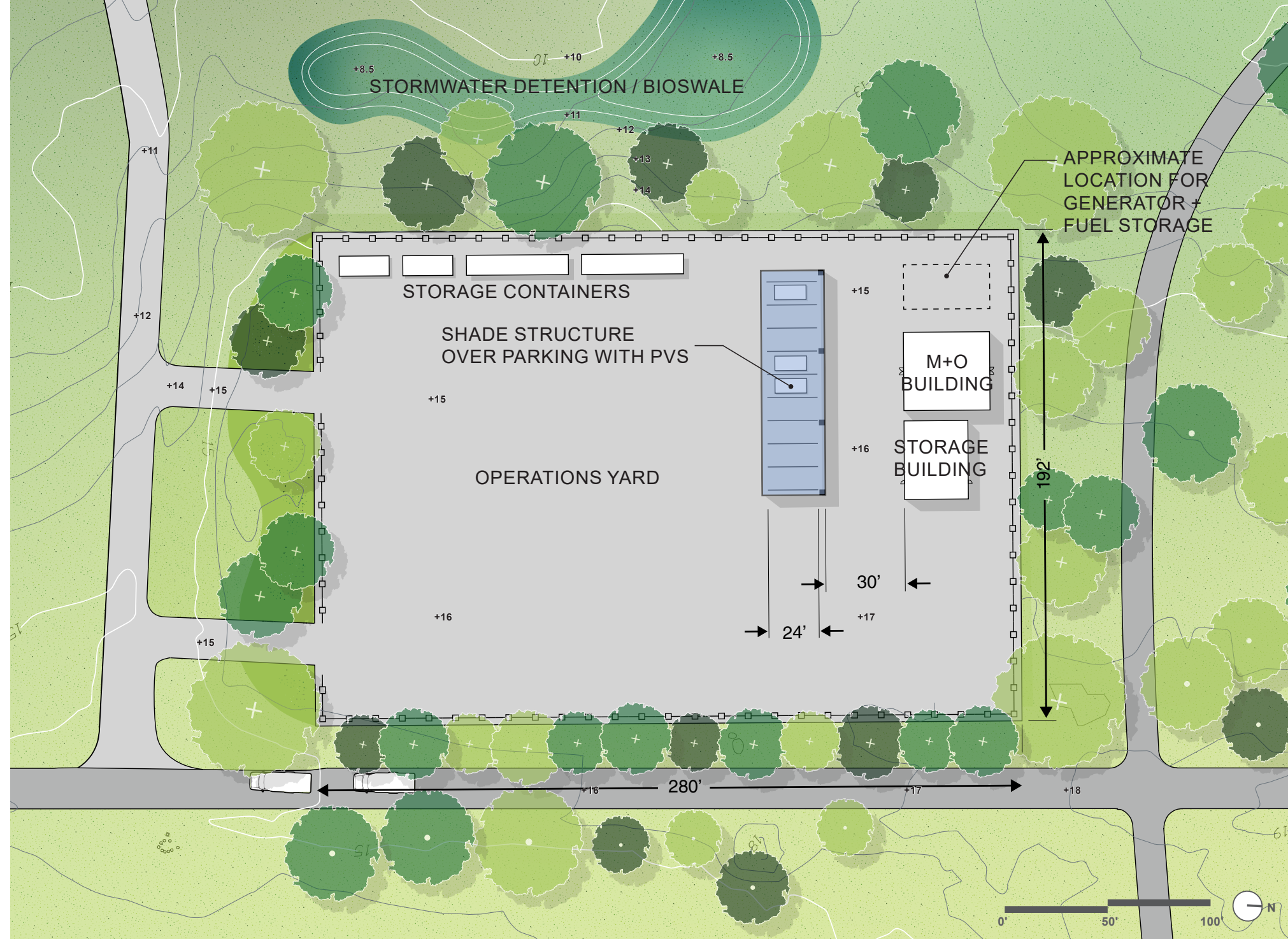


# MAINTENANCE + OPERATIONS AREA

## SITE PLAN

### Considerations

- Additional tree planting around the compound will provide screening.
- West of the Maintenance and Operations area, stormwater detention will prevent paved area from flooding during rain events.
- South facing windows will provide light to the Maintenance and Operations area and storage building.
- Additional study needed to determine extent of historic sanitary waste leaching field from original US Military compound.





# MAINTENANCE AND OPERATIONS AREA

## LAYOUT

### Office / Locker Room

- Building for 8-10 staffers.
- 400 SF lunch room.
- 200 SF of bathroom.
- 400 SF of locker room / shower.
- 300 SF of office for 2-4 people.
- 200 SF of utility.
- Total size including circulation / walls: 2,250 SF.

### Vehicle Parking

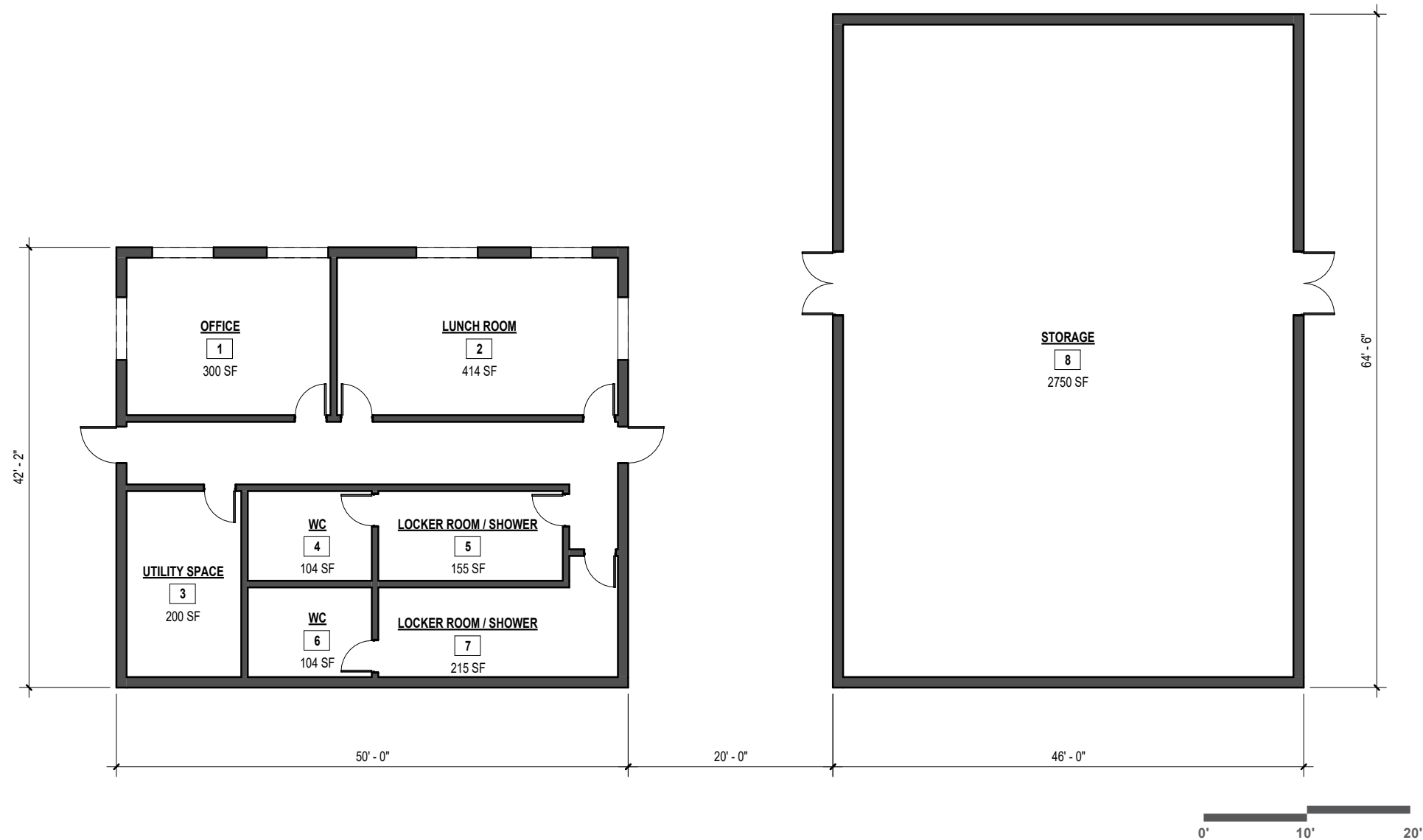
- 30,000 SF paved area for City vehicles parking.
- PV cover in paved area to supply island utilities.

### Storage Building

- 2,750 SF.
- Housing supplies, tools, and equipment.
- Unconditioned.
- Replacing current storage in masonry building and storage containers.

Additional information available in Appendix 2 – Architecture.

### OFFICE + STORAGE BUILDING CONCEPTUAL LAYOUT





# LANDSCAPE MANAGEMENT

## SITE IMPROVEMENTS

### 1. Forest Management

- Invasive plant removals and underbrush clearing to reestablish natural succession.
- Understory establishment.



### 2. Allée Pruning + Planting

- Address health of trees in allée.
- Preserve existing trees in allée.
- Selective tree additions to infill allée.



### 3. Screening

- Thicket planting to screen burial and Maintenance and Operations areas.
- On northeast area of island, screening to discourage walking close to steep embankment.



### 4. Meadow Edge Treatments

- Selectively located meadow drifts to define path edges.



### PRINCIPLES

- Landscape should emphasize use as a historic cemetery.
- Adaptation to sea level rise.
- Active habitat restoration and management (meadow, forest, wetland establishment).

### LEGEND

- Selective meadow edging along paths
- Allée enhancements
- Screening

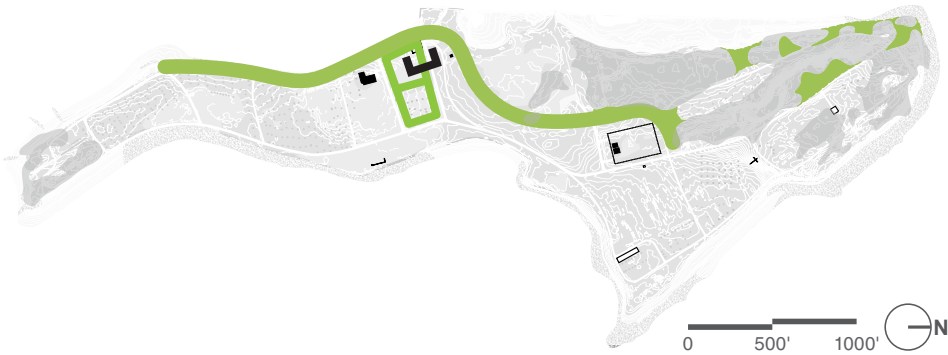




# LANDSCAPE RESTORATION

PRECEDENTS | ALLÉE + FOREST MANAGEMENT

## RECOMMENDED AREAS FOR ALLÉE INFILL AND FOREST MANAGEMENT



- Limb up trees that interfere with views.
- Replace trees in poor health.



*Pinus rigida*, Pitch Pine



*Crataegus crus-galli*, Hawthorn



*Quercus virginiana*, Live Oak



*Quercus bicolor*, Swamp White Oak



*Celtis occidentalis*, Hackberry



*Juniperus virginiana*, Eastern Red Cedar

\* All trees are on the NYC Parks Tree Planting Coastal Species List.



# LANDSCAPE RESTORATION

PRECEDENTS | SCREENING

## RECOMMENDED SCREENING LOCATIONS



- Thicket planting prevents access to steep slopes and provides a visible barrier to the Maintenance and Operations Areas and active burial areas.



*Rhus aromatica*, Fragrant Sumac



*Cornus sericea*, Redosier Dogwood



*Hamelis virginiana*, Common Witch Hazel



*Ilex glabra*, Inkberry



*Morella pennsylvanica*, Northern Bayberry



*Sambucus canadensis*, Elderberry

\* All plants are on the NYC Parks Salt Tolerant Species List.



# LANDSCAPE RESTORATION

PRECEDENTS | MEADOW EDGE PLANTING

## RECOMMENDED MEADOW PLANTING



- Meadow plantings alongside path edges create a more formal border between paths and burial lawns.
- Discourages visitors from walking over existing graves.



Landscape precedent, Shelter Island



Landscape precedent, Block Island



Landscape precedent, Block Island



*Solidago sempervirens*, Golden Rod



*Asclepias syriaca*, Common Milkweed



*Symphyotrichum novae-angliae*, New England Aster

\* All plants are on the NYC Parks Coastal Maritime Species List.



# HISTORIC FEATURES RESTORATION

## APPROACH

### Ruins Treatments

- Stabilize and remove fencing.
- Complement with rustic plantings; create semi-wild / overgrown setting while keeping structure legible.
- Seating.

### Civic Features Treatments

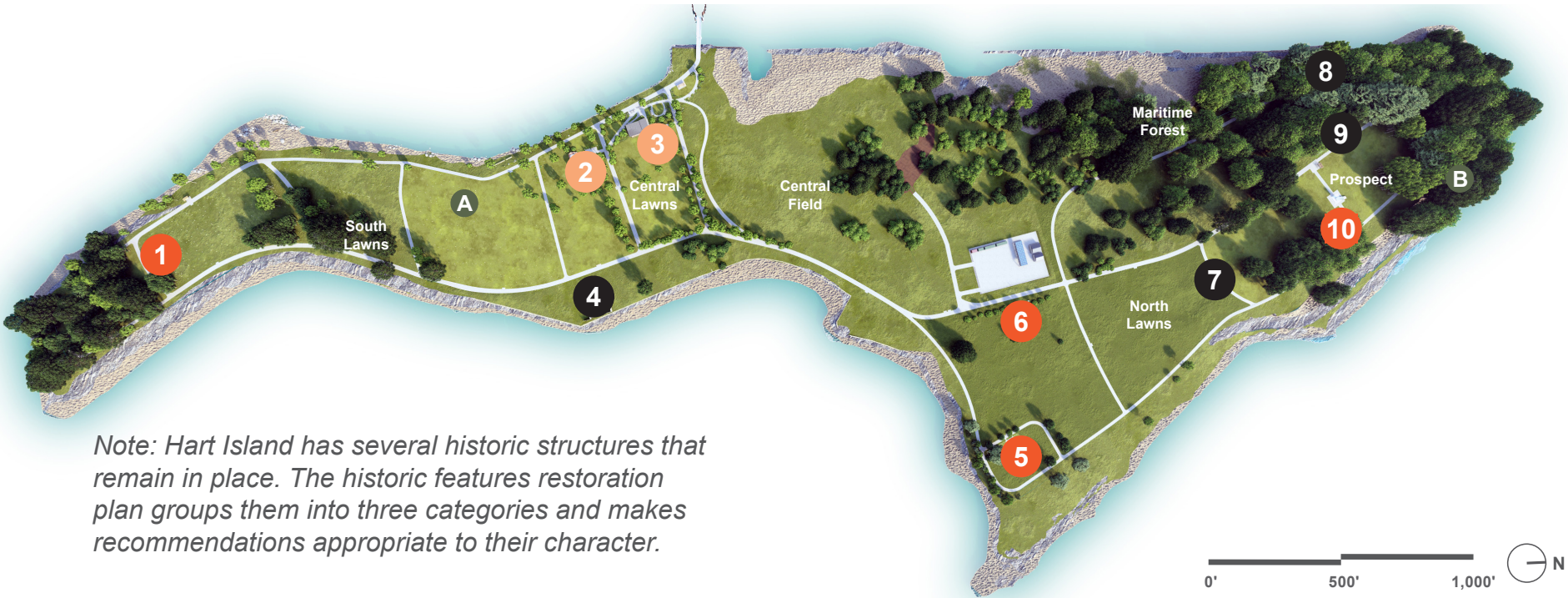
- Stabilize and / or preserve in distressed condition or restore.
- Incorporate into site circulation; create semi-formal setting with stabilized crushed stone and seating.

### Visitor Area Treatments

- Stabilize and remove fencing.
- Create landscaped areas in and around stabilized structures.
- Consider landscape as commemorative / participatory features (i.e. flower nursery).

### Interpretive Signage

- Provide interpretive materials (i.e. maps for Urban Park Rangers) or signage / marker.



*Note: Hart Island has several historic structures that remain in place. The historic features restoration plan groups them into three categories and makes recommendations appropriate to their character.*

### HISTORIC FEATURES

- |                                |                             |
|--------------------------------|-----------------------------|
| 1. 20th Century AIDS burials   | 7. White Cross              |
| 2. Catholic Chapel             | 8. Remnant Wall             |
| 3. Cobblestone Wall            | 9. Nike Missile Launch Area |
| 4. Prison “Keep Off” Wall      | 10. Peace Memorial          |
| 5. Civil War Soldiers Memorial | A. Phoenix House            |
| 6. Episcopal Cross             | B. Fire Pump Cistern        |

### LEGEND

- Ruin / remnant
- Ruin in arrival area
- Civic
- Inaccessible / invisible features

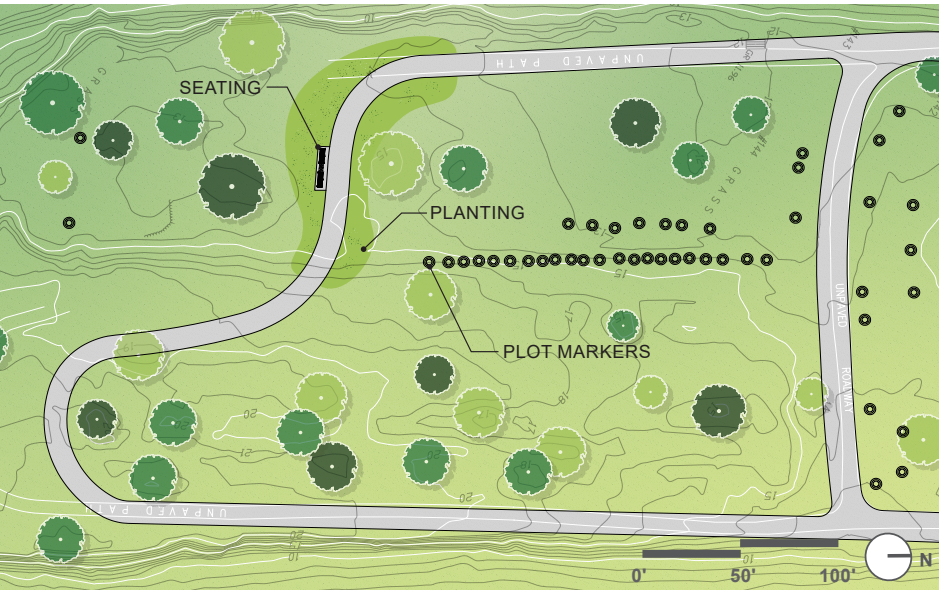




# HISTORIC FEATURES RESTORATION

## LANDSCAPE ENHANCEMENTS

### AIDS MEMORIAL AREA



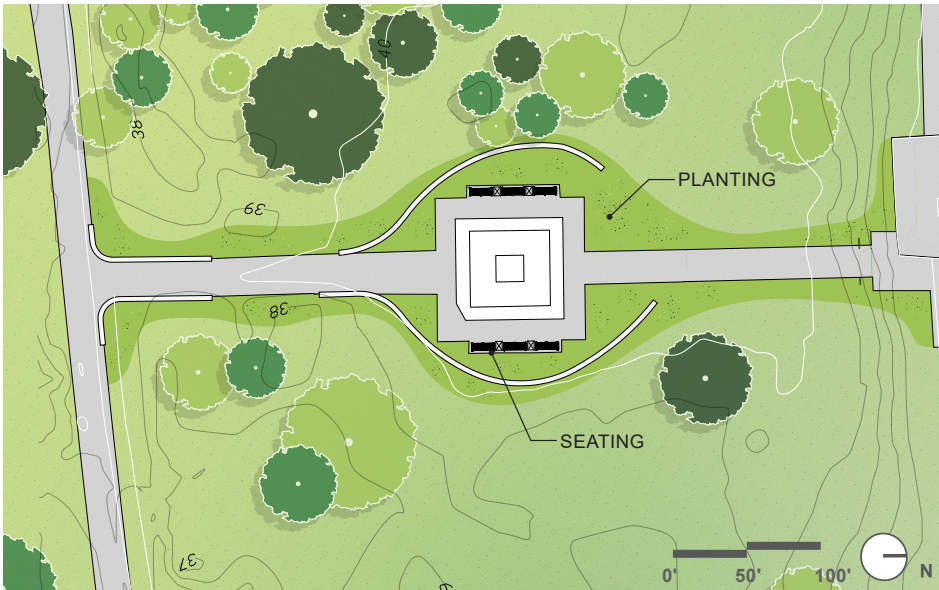
Existing condition (above); enhanced paths, seating, and meadow landscape around historic AIDS burial (below).

### CIVIL WAR SOLDIERS MEMORIAL



Condition in 1924 (above); paths, seating, and landscape recalling historic circulation around the Civil War Soldiers Memorial (below).

### PEACE MEMORIAL



Condition in 1966 with knee wall defining circulation and approach to the feature (above); path and seating to frame the Peace Memorial (below).



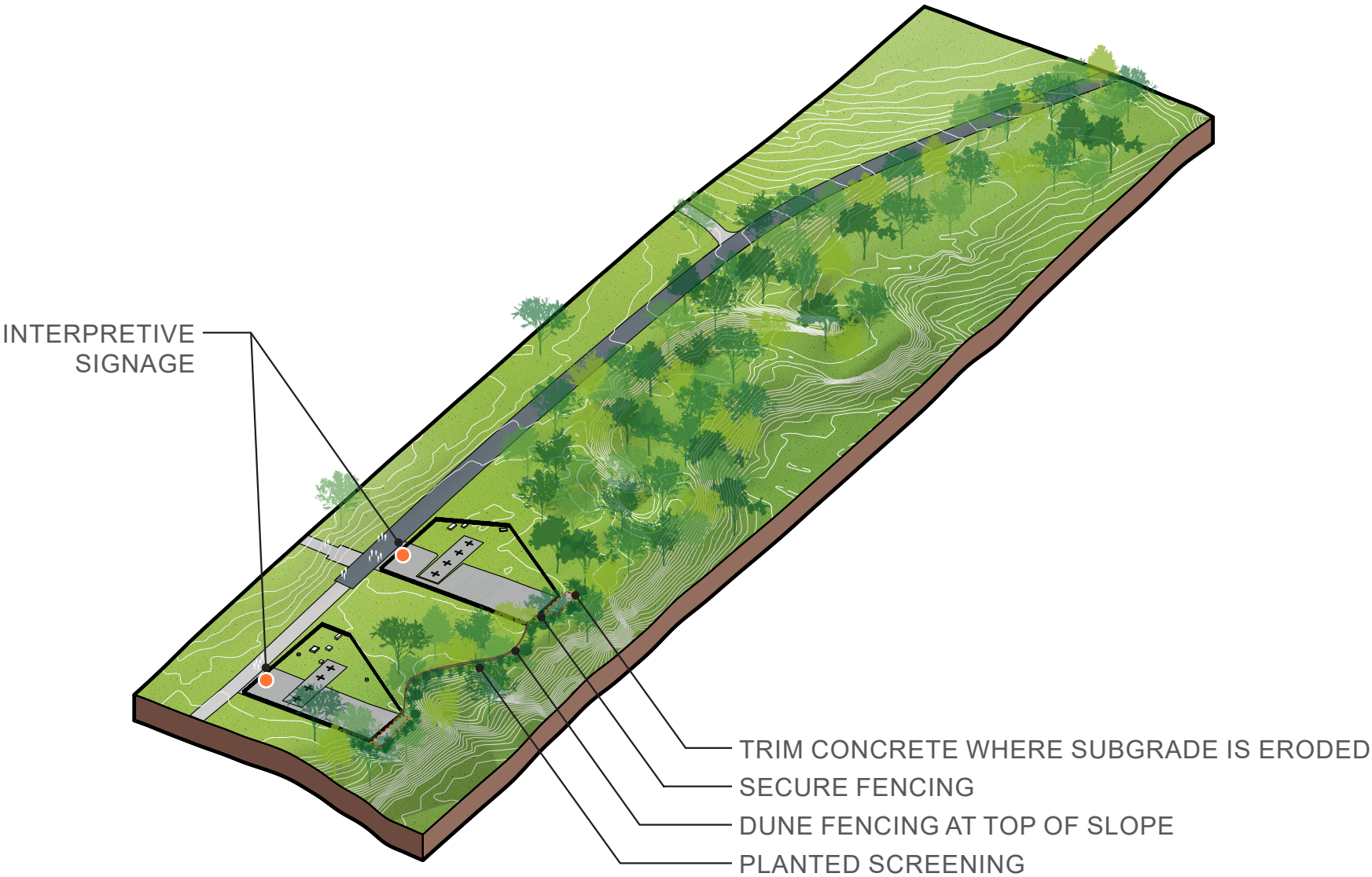
# HISTORIC FEATURES RESTORATION

## NIKE MISSILE SILOS



### Approach 1

- 42" picket fencing around entire area to enhance aesthetics of site.
- Dune fencing, signage, and landscape screening to prevent visitor access to escarpment.
- Interpretive signage.
- Cut back concrete slab where overhanging escarpment.





# HISTORIC FEATURES RESTORATION

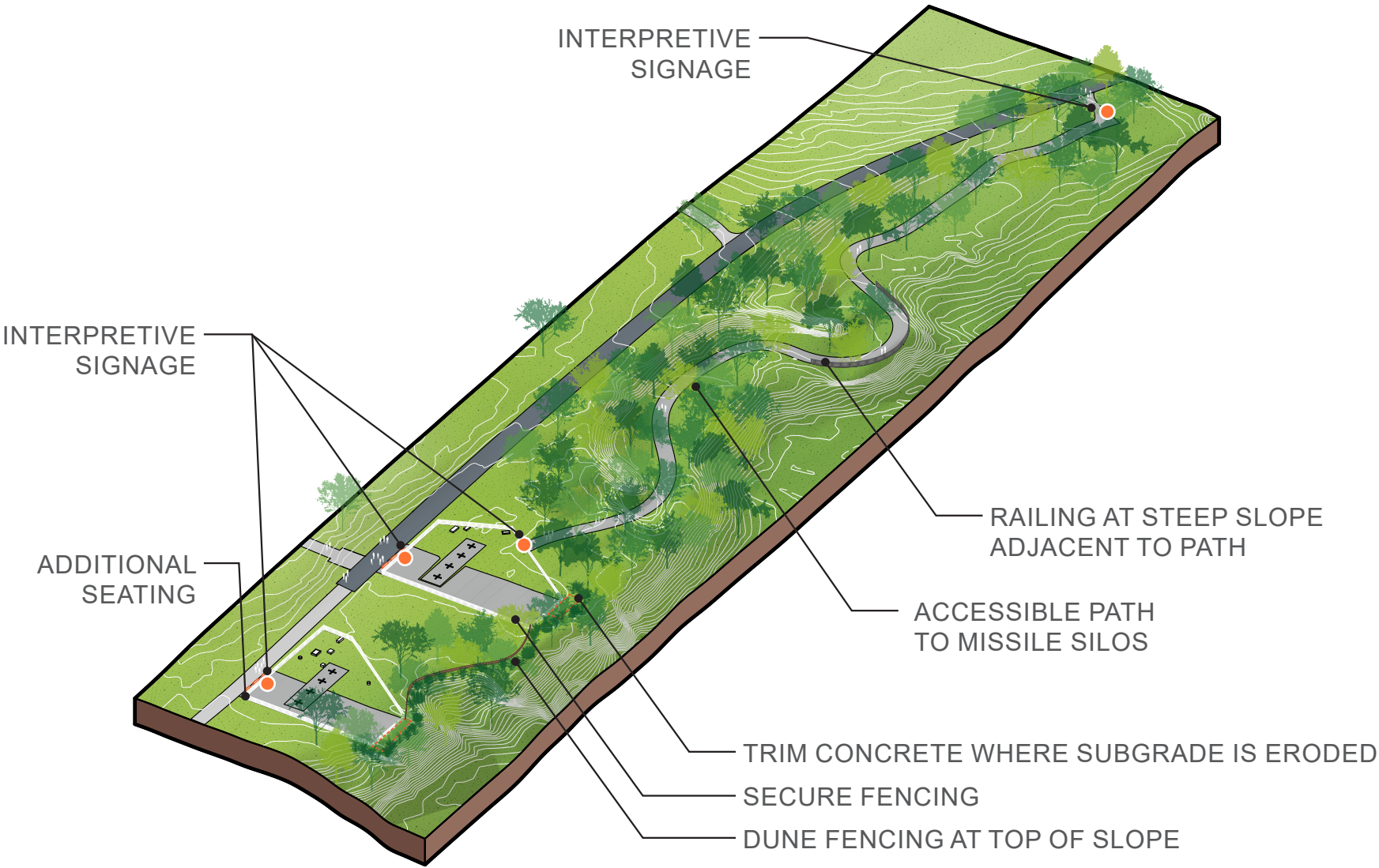
## NIKE MISSILE SILOS



### Approach 2

- Reconstruct historic missile access roadway as an interpretive path through the forest.
- Interpretive signage.
- Surface enhancements to silo pads to enhance safety and accessibility.
- Additional seating.

*\*Further study required for accessing missile silo interiors and developing recommendations for re-use or demolition.*





# SHORELINE STABILIZATION

## OVERALL APPROACH

### Shoreline Assessment + Recommendations Approach

- **Assessment:** Shoreline assessed at high level based on site observations; shoreline categorized into five general types; further assessment needed to determine condition of individual structures.
- **Recommendations approach:** Overall recommendation is to stabilize existing shorelines and structures.
- **Recommendations by shoreline type:** The following pages describe stabilization approaches for each type of shoreline with prototypical strategies.

### SHORELINE EXISTING CONDITIONS





# SHORELINE STABILIZATION STRUCTURES

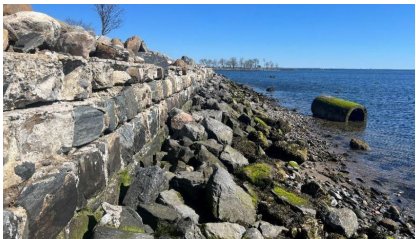
## Existing Sea Walls

- Repair as needed; seawalls overall in good to fair condition.
- If repaired, increasing the top of wall elevation may provide tidal flooding protection.



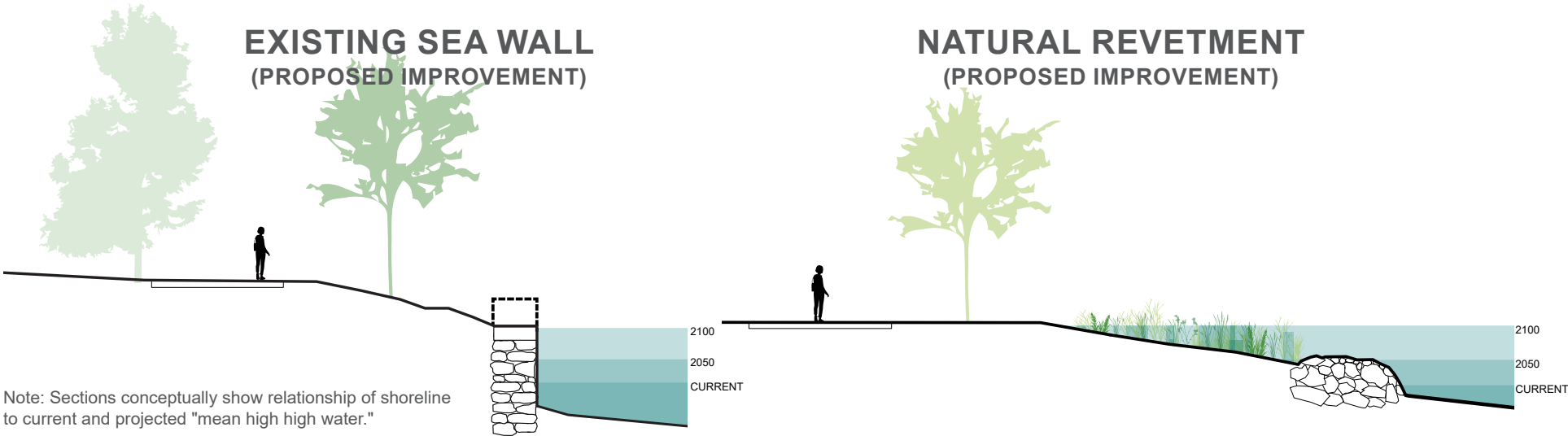
## Stone Wall / Natural Revetment

- Reconstruct with an engineered revetment slope to resist environmental loading from wind and waves.



## EXISTING SEA WALL (PROPOSED IMPROVEMENT)

## NATURAL REVETMENT (PROPOSED IMPROVEMENT)





# SHORELINE STABILIZATION

## NATURAL SHORELINE

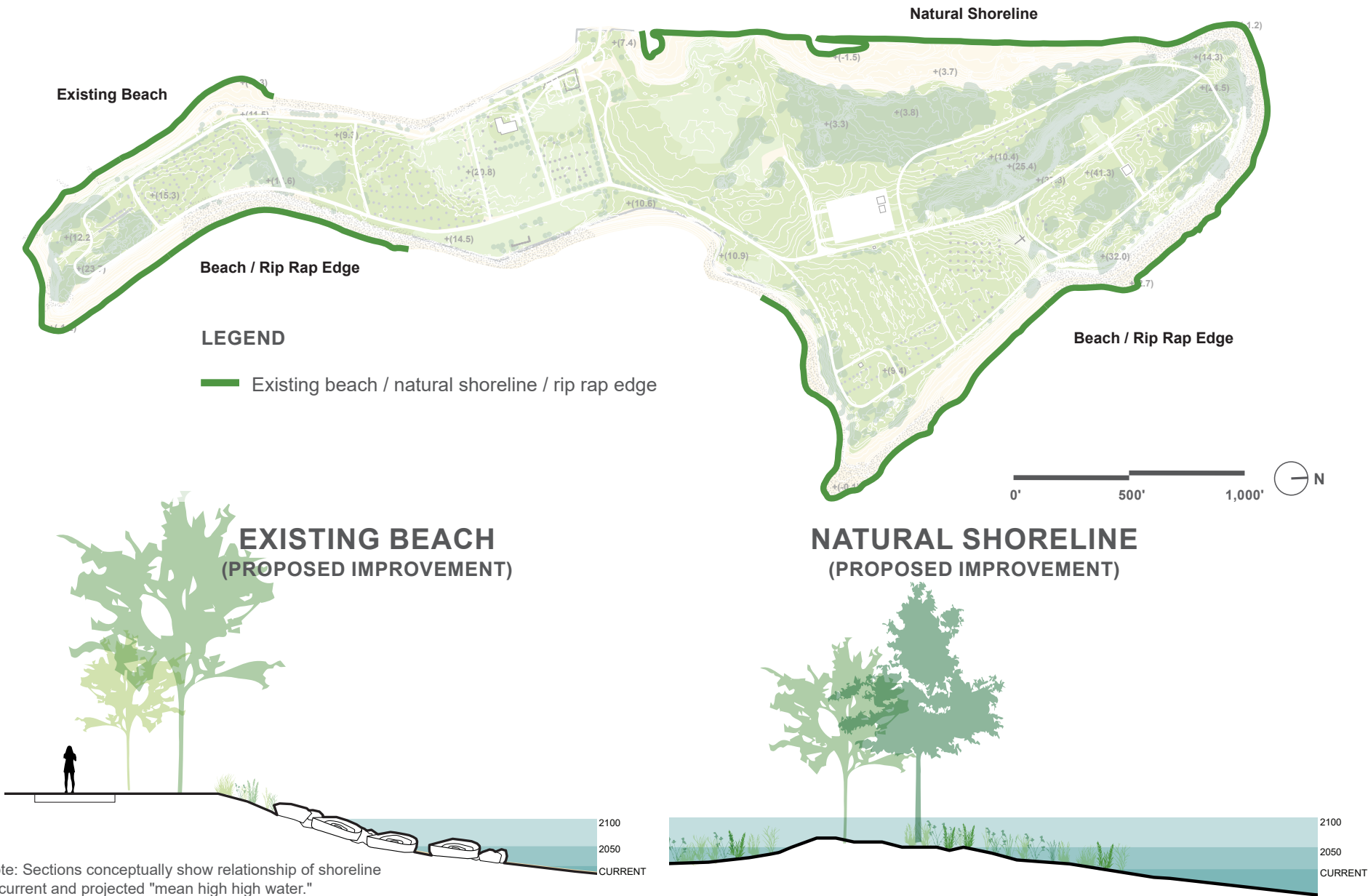
### Existing Beach

- Install tide pool modules to enhance tidal habitat.



### Natural Shoreline

- Aquatic plantings could be placed along the current intertidal zone to establish wetland.
- Natural salt tolerant vegetation could be established to allow for marsh migration or shoreline resiliency.



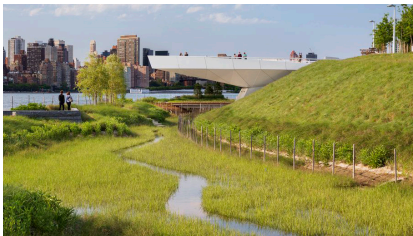


# SEA LEVEL RISE ADAPTATION

## SHORT-TERM

### Earthen Berm

- Berm at 10' elevation to protect woodland cemetery.
- Elevate ridge to protect shared use circulation.

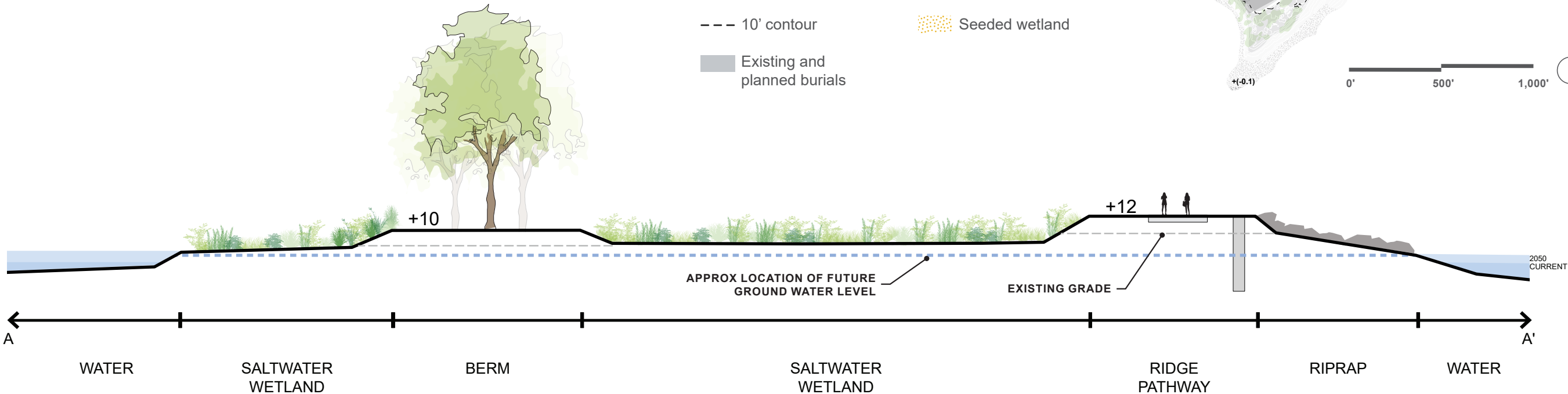


### Wetland Seeding

- Create wetland with stabilized shoreline along north western shore.



### BERM ALIGNMENT



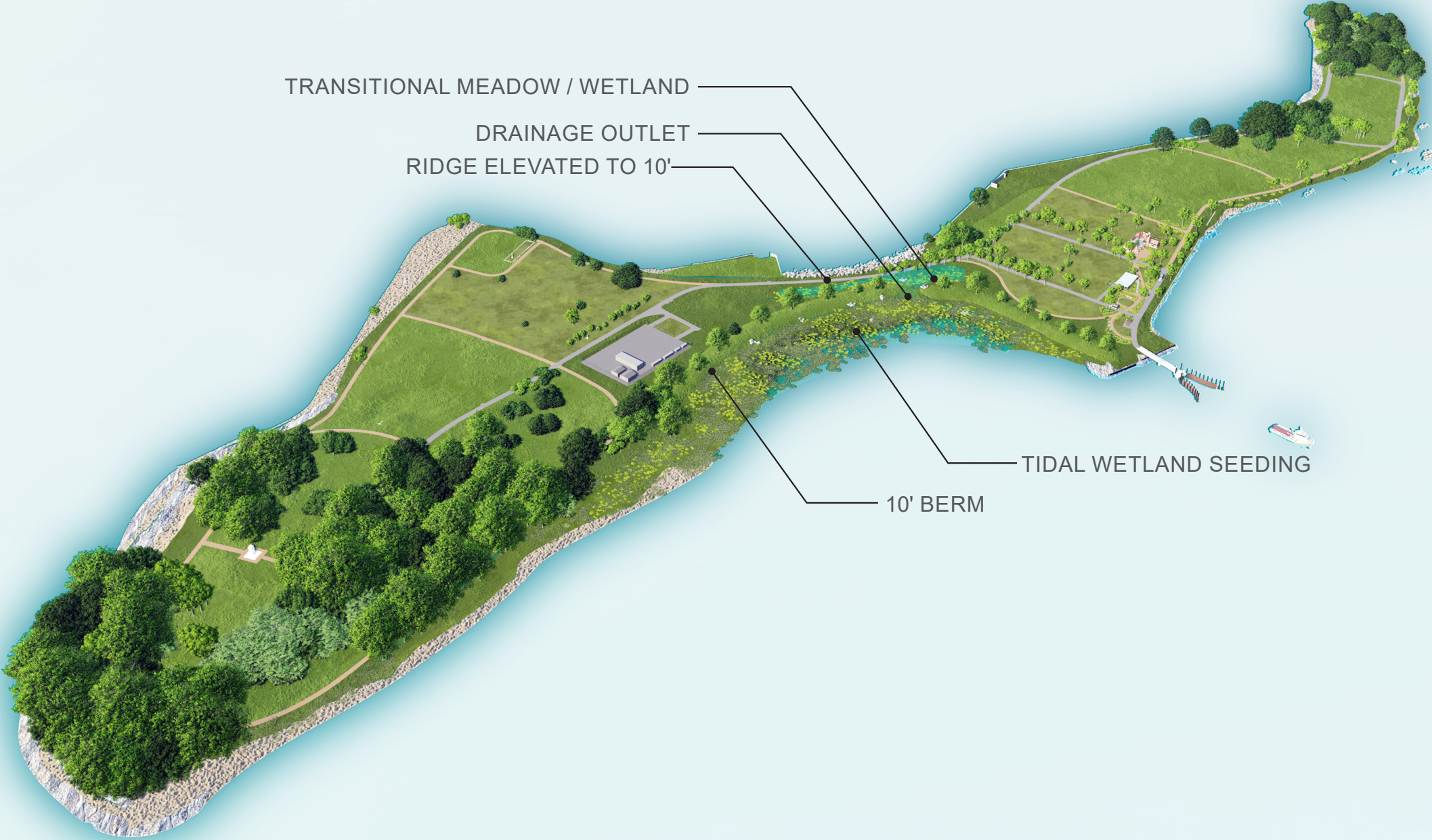
CAPITAL PROJECTS

Note: Sections conceptually show relationship of shoreline to current and projected "mean high high water."



# SEA LEVEL RISE ADAPTATION

SHORT-TERM





# SEA LEVEL RISE ADAPTATION

## LONG-TERM

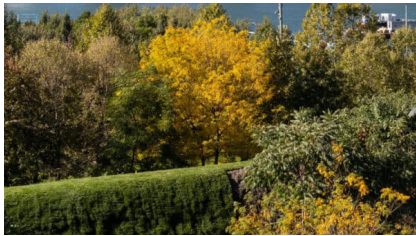
### Lawn & New Burial Plots

- New burial areas can be created on land between the two berms with additional fill.

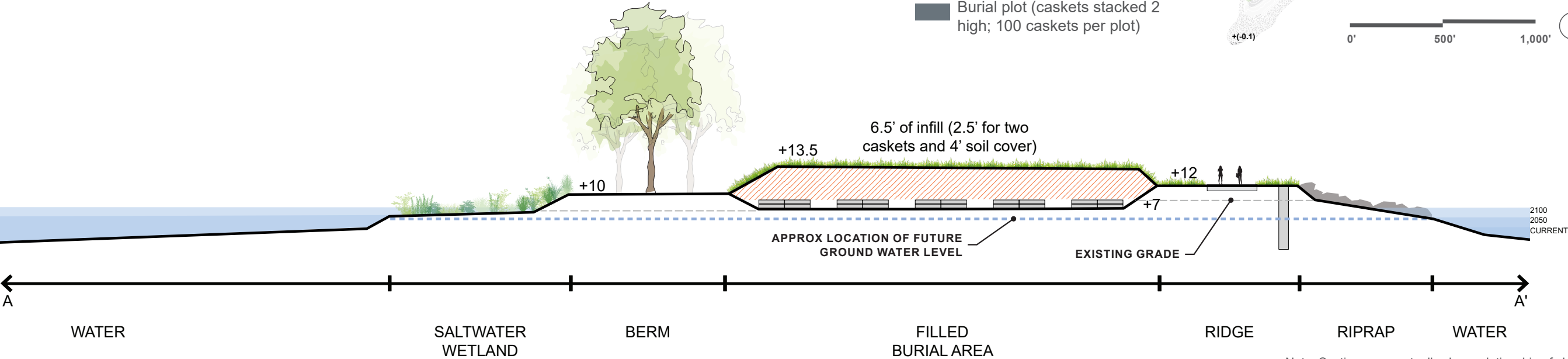
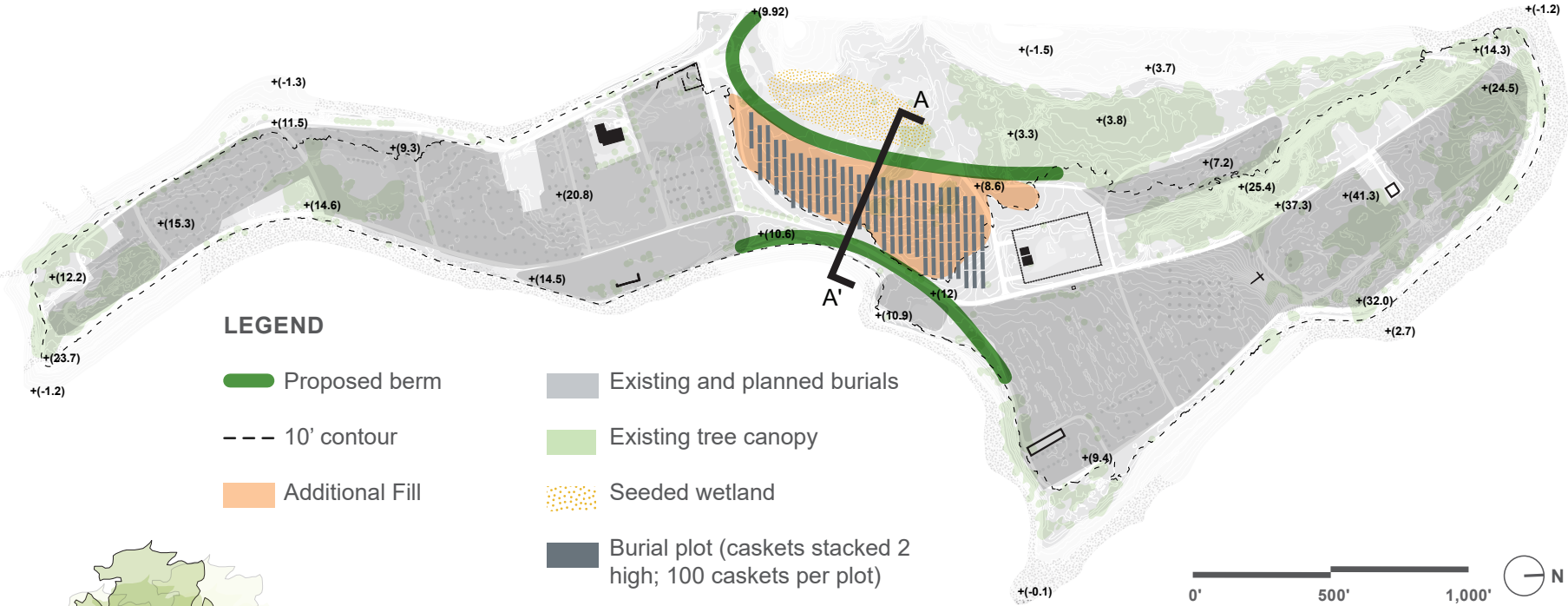


### Mature Tree Canopy

- As trees establish on the berm, the root systems and expansion of the forest stabilizes the berm.



### INFILL AREA





# SEA LEVEL RISE ADAPTATION

LONG-TERM







# MATERIALS + FURNISHINGS



# MATERIALS + FURNISHINGS

## SITE CIRCULATION



### LEGEND

- Shared paths (16' shared asphalt road)
- 12' Stabilized crushed granite path with diamond grid
- Remembrance Walk (6' - 12' stabilized crushed stone paths)



**Asphalt road:** Universally accessible surface material for paths shared with vehicles.



**Stabilized crushed granite path:** Universally accessible surface for secondary paths, permeable and keeping with historic island character.



**Runnel:** Drainage feature along shared use paths to manage stormwater and prevent pooling of water in pedestrian areas; see hydrology plan for proposed runnel locations.



**Temporary paths:** MobiMat provides universally accessible routes from roads and paths to grave sites; can also be used when ground is muddy.





# MATERIALS + FURNISHINGS

## SEATING STRATEGY

- Benches with companion seating provided approximately every 300' along primary pedestrian circulation. Seating is placed across the island to provide gravesite visitors with a place of rest close to their loved ones.
- Bench layout intended to emphasize views of the Long Island Sound and cityscape.



1964 World's Fair bench



Waterfront shade structure



Granite blocks

## SEATING LOCATIONS



### LEGEND

Seating Area





# MATERIALS + FURNISHINGS

## SIGNAGE

- Wayfinding signage provided along circulation paths on the island to help guide visitors.
- Interpretive signage located at historic features will provide context and history about the islands many uses.



NYC Parks contextual map



NYC Parks wayfinding sign



NYC Parks standard historical sign



- LEGEND
- Wayfinding signage
  - Historical signage
  - Contextual map









# COST ESTIMATES

## CAPITAL PROJECTS

### Assumptions + Contingencies

These estimates are conceptual in nature and should be verified with participating agencies before budget allocation.

The cost estimate includes the following assumptions:

- All base costs calculated for 2024 and should be escalated to construction year when funding is allocated.
- The following contingencies are applied:
  - Location premium for construction on island – 10%
  - General requirements – 10%
  - General conditions – 10%
  - Design contingency – 50%

Project	Cost
Remembrance Walk Phase 1 (Welcome Center, Lawns, + Chapel Sanctuary)	\$8.6 M
Remembrance Walk Phase 2 (Shade Structure + Lawn)	\$4.6 M
Site Circulation (Site-wide Paths + Seating)	\$18.4 M
Landscape Enhancements	\$1.8 M
Maintenance + Operations Area (Operations Yard, Utilities, + Circulation)	\$18.9 M
Historic Features	\$3.9 M
Shoreline Stabilization	\$43.4 M
Sea Level Rise Adaptation (Elevate Road + Tidal Wetlands Construction)	\$12.8 M
Sea Level Rise Adaptation (Berm Construction + Infill in Central Field)	\$17.7 M





# APPENDIX 1

Capital Project Cut Sheets



# REMEMBRANCE WALK + WELCOME CENTER

PROJECT CUT SHEET (PAGE 1 OF 4 – LANDSCAPE ENHANCEMENTS)



## Scope of Work

Remembrance Walk features a Welcome Center building, lawns, spaces for reflection, and shaded seating areas located near the ferry dock. These visitor facilities are sited on the west side of the island in order to integrate with the existing historic features and the ferry dock. The proposed location of the Remembrance Walk and Welcome Center above the 100-year coastal flood elevation will have a small impact on future burial capacity (approximately eight months at current burial rates).

## Base Cost + Contingencies

- Landscape Enhancements + Furnishings \$2.5 million
- Welcome Center \$4 million
- Chapel Sanctuary \$600,000

**Base Cost** \$7.1 million

**Total Project Cost Contingencies** \$13.2 million

*Note: All cost estimates are based on 2024 values.*

**Next Steps / Additional Studies:** Secure funding, begin design, soil investigations, coordinate with DDC chapel stabilization project.





# REMEMBRANCE WALK + WELCOME CENTER

PROJECT CUT SHEET (PAGE 2 OF 4 – LANDSCAPE ENHANCEMENTS)



## Project Description

The Remembrance Walk visitor area is proposed to have lawns with plantings to create private areas for reflection. A walking path takes visitors from the ferry dock, through the historic cobblestone wall, past new lawns with seating and views of the Long Island Sound towards the new Welcome Center and the historic chapel re-imagined as a commemorative sanctuary. These new spaces provide increased comfort for visitors to the island, basic amenities such as drinking fountains and restrooms, quiet spaces for reflection, and new formal spaces for potential art installations or memorials.





# REMEMBRANCE WALK + WELCOME CENTER

PROJECT CUT SHEET (PAGE 3 OF 4 – WELCOME CENTER)



## Project Description

The proposed Welcome Center will provide a universally accessible gathering space on the island for visitors during grave site visits and Urban Park Rangers tours.

The 1,300 SF building will have three bathrooms, a meeting room, an office for staff, and a first aid station. The meeting room will be both air conditioned and heated to provide shelter for visitors during hot days and in winter. The design and materials of the building are intended to complement the masonry and stone of existing historic features.

The building's design flood elevation (DFE) is +15' NAVD88. The building will be off-grid with compost toilets and power supplied by a renewable micro-grid located in the Maintenance and Operations area.





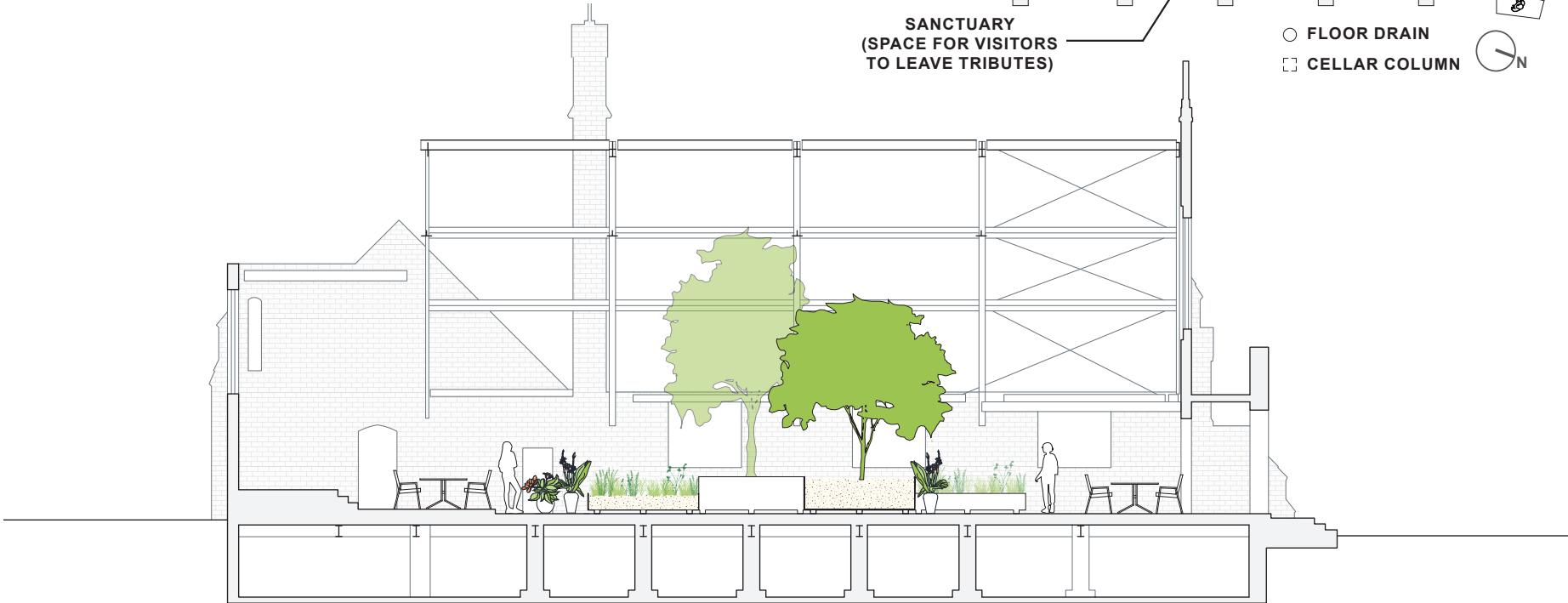
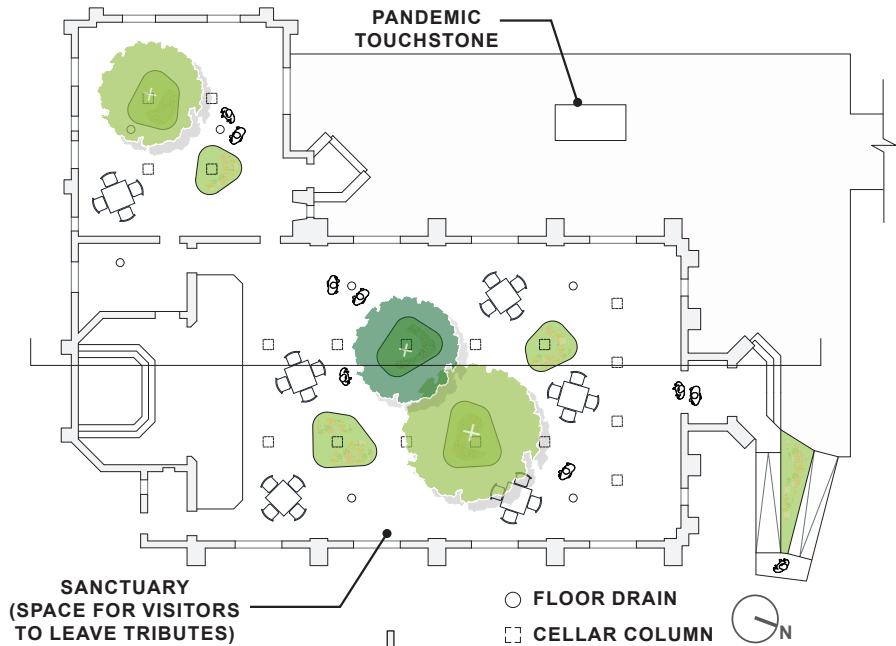
# REMEMBRANCE WALK + WELCOME CENTER

PROJECT CUT SHEET (PAGE 4 OF 4 – REUSE OF CHAPEL AS SANCTUARY)



## Project Description

DDC is currently working to stabilize the former chapel which will leave the structure in an open-air condition without a roof, but still not accessible for the public. The proposed adaptive reuse of the chapel as a sanctuary includes an interior garden with planters and seating areas for conversation and reflection. Interior and exterior public spaces are proposed to provide a location for visitors to leave commemorative objects and to display architectural remnants salvaged from the island.





# SITE CIRCULATION

## PROJECT CUT SHEET



### Scope of Work

To preserve historical context and space for burials, the plan recommends maintaining the existing grid layout of paths and roads. Pastoral features will be introduced along select paths and roads, including shaded seating areas and plantings to create spaces for reflection.

### Cost Estimate

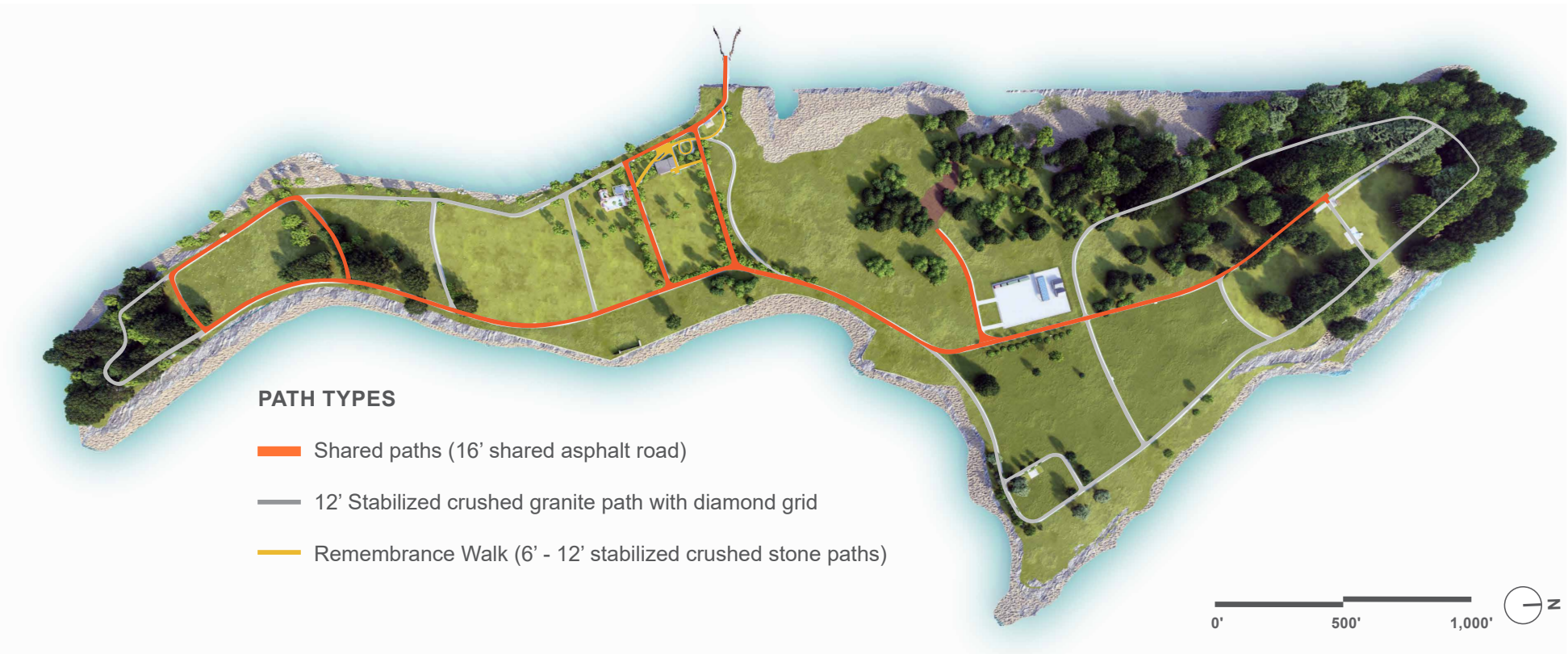
- Re-paving + Furnishings \$9.8 million

**Base Cost** \$9.8 million

**Total Project Cost Contingencies** \$18.4 million

*Note: All cost estimates are based on 2024 values.*

**Next Steps / Additional Studies:** Conceptual design.



Precedent: Asphalt road



Precedent: Crushed granite path



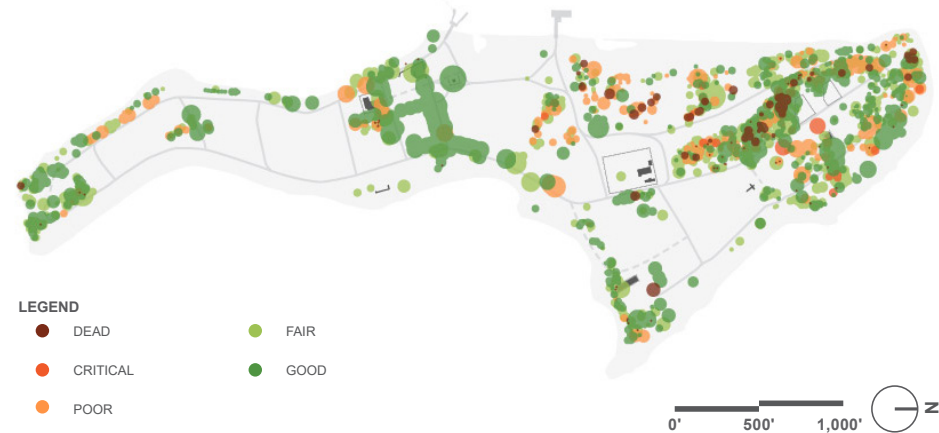
Precedent: Runnel





# LANDSCAPE MANAGEMENT

## PROJECT CUT SHEET



### Scope of Work

The proposed landscape management plan is intended to enhance and preserve the existing landscape through active habitat restoration and management, pruning and planting of the existing allées, screening around sensitive areas and escarpments, and meadow edge treatment along paths.

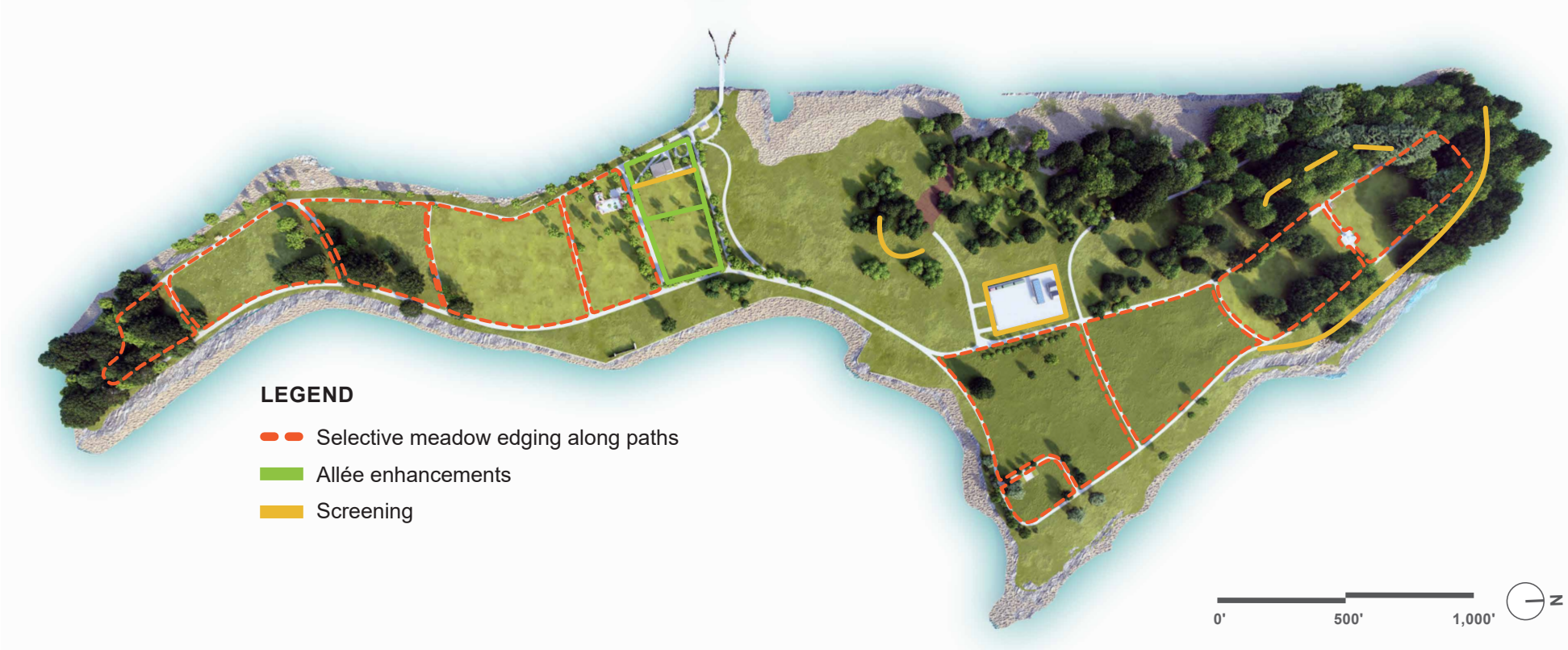
### Base Cost + Contingencies

• Meadow Edge Treatment	\$35,000
• Forest Management	\$400,000
• Alee Pruning + Planting	\$200,000
• Screening	\$340,000

<b>Base Cost</b>	<b>\$1 million</b>
<b>Total Project Cost Contingencies</b>	<b>\$1.8 million</b>

*Note: All cost estimates are based on 2024 values.*

**Next Steps / Additional Studies:** NYC Parks Natural Resources Group assessment; conceptual design.



Precedent: Allée pruning + planting



Precedent: Screening



Precedent: Meadow edge treatments





# MAINTENANCE + OPERATIONS AREA

## PROJECT CUT SHEET



### Scope of Work

A 30,000 SF paved Maintenance and Operations area is proposed with an office building with bathrooms and lockers for City staff as well as a storage building. The utility micro-grid for the island, which includes a free standing PV array, battery, and back-up generator, is also proposed for the Maintenance and Operations area.

### Base Cost + Contingencies

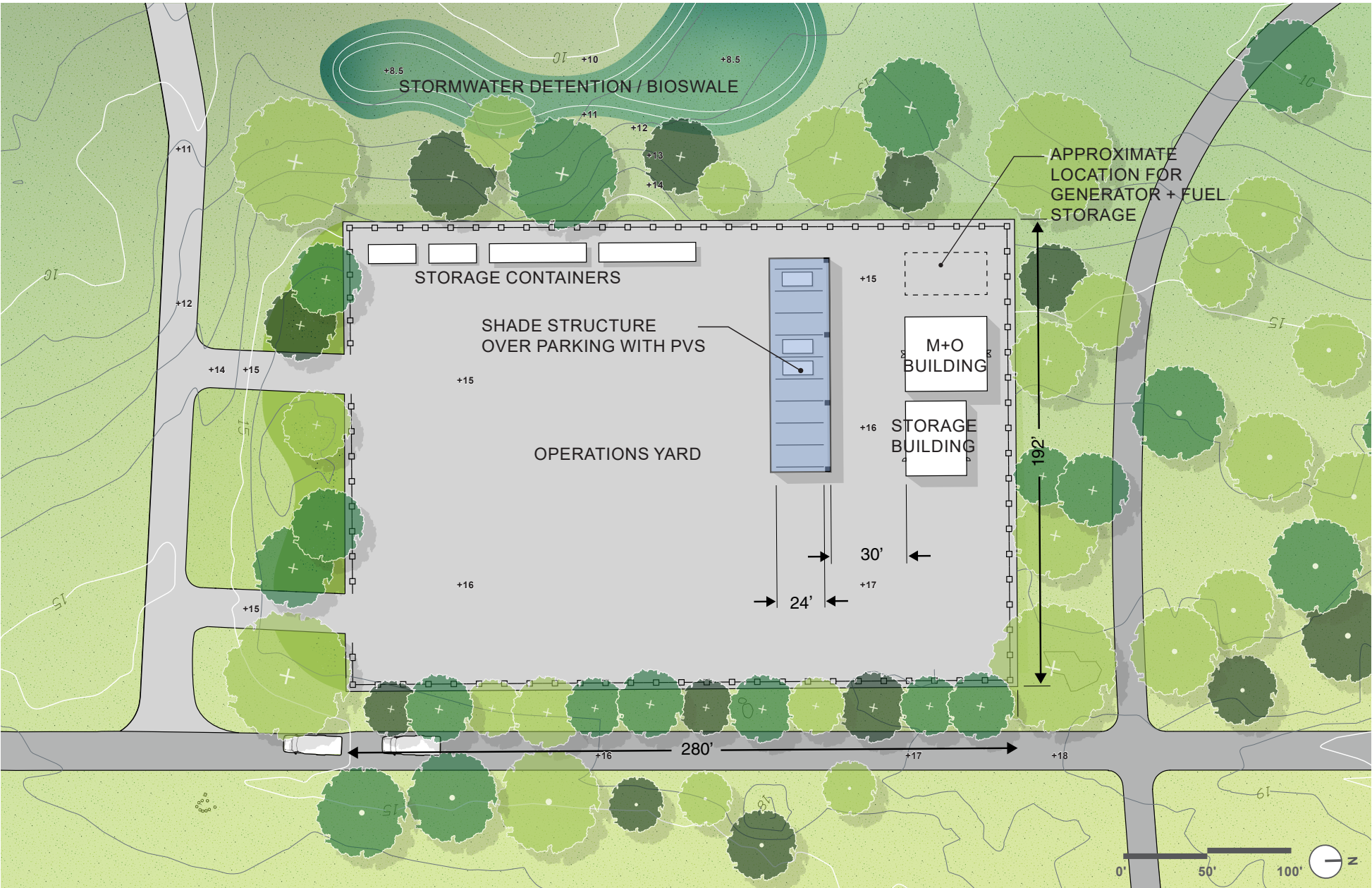
- Compound: \$1.8 million
- Office Building: \$3.2 million
- Storage Building + Utilities: \$5.2 million

**Base Cost** \$10.2 million

**Total Project Cost Contingencies** \$18.9 million

*Note: All cost estimates are based on 2024 values.*

**Next Steps / Additional Studies:** Soil investigations, conceptual design.





# HISTORIC FEATURES

## PROJECT CUT SHEET



### Scope of Work

The historic features restoration proposal categorizes the character of features on the island as "ruins" or "civic." Proposals for "ruins" include stabilization, fence removals, rustic plantings, and seating. Proposals for civic features include a semi-formal setting with stabilized crushed stone and seating. Interpretive signage and markers are proposed for all features.

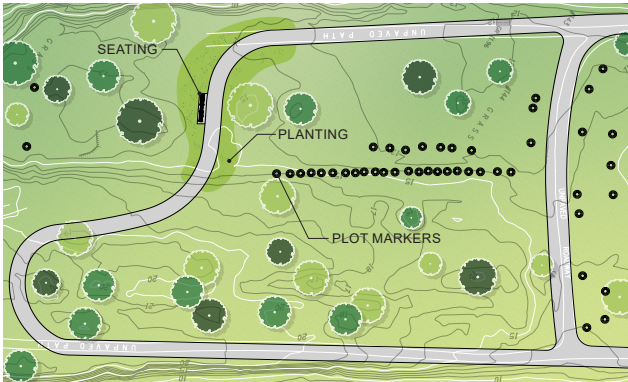
### Base Cost + Contingencies

- Ruin Features: \$400,000
- Civic Features: \$200,000
- Nike Missile Silos: \$1.4 million

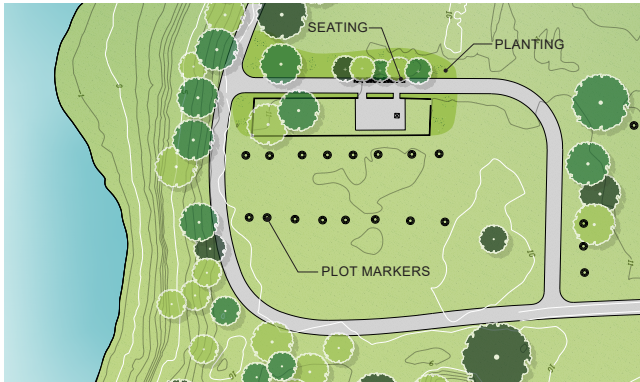
**Base Cost** \$2.1 million  
**Total Project Cost Contingencies** \$3.9 million

*Note: All cost estimates are based on 2024 values.*

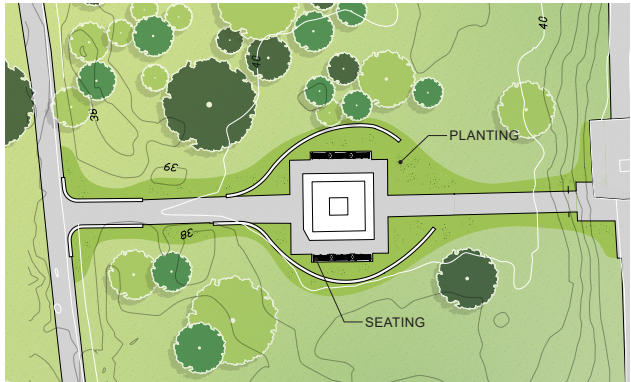
**Next Steps / Additional Studies:** Further assess each feature for stabilization needs; conceptual design.



Conceptual layout: 20th Century AIDS burials (1).



Conceptual layout: Civil War Soldiers Memorial (5).



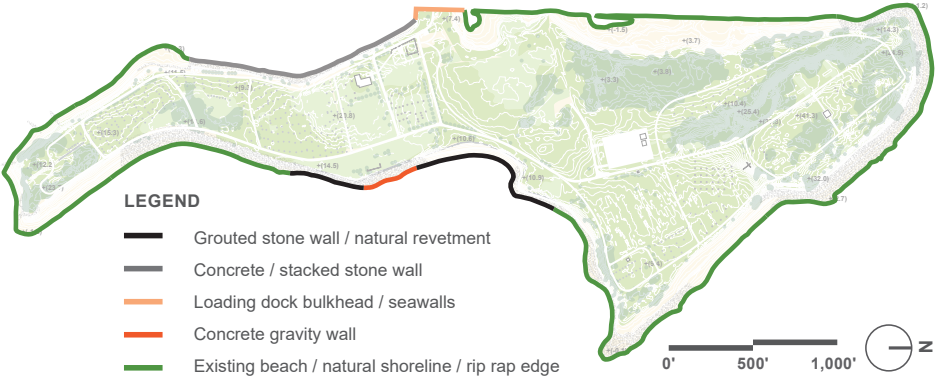
Conceptual layout: Peace Memorial (10).



# SHORELINE STABILIZATION

## PROJECT CUT SHEET

### EXISTING CONDITION



### Scope of Work

A variety of stabilization interventions are proposed to repair shorelines and address impacts of chronic tidal flooding resulting from gradual sea level rise and current erosion. Existing sea walls will be repaired as needed and increased in elevation. Natural revetment areas will be reconstructed with an engineered revetment slope. Existing beach will have tide pool modules installed to enhance tidal habitat. Natural shoreline will have aquatic plantings placed to establish wetland. Detailed study needed for localized enhancements.

### Base Cost + Contingencies

- Sea Wall: \$5.6 million
- Stone Revetment: \$1.9 million
- Existing Beach: \$15.8 million

**Base Cost** \$23.3 million

**Total Project Cost Contingencies** \$43.4 million

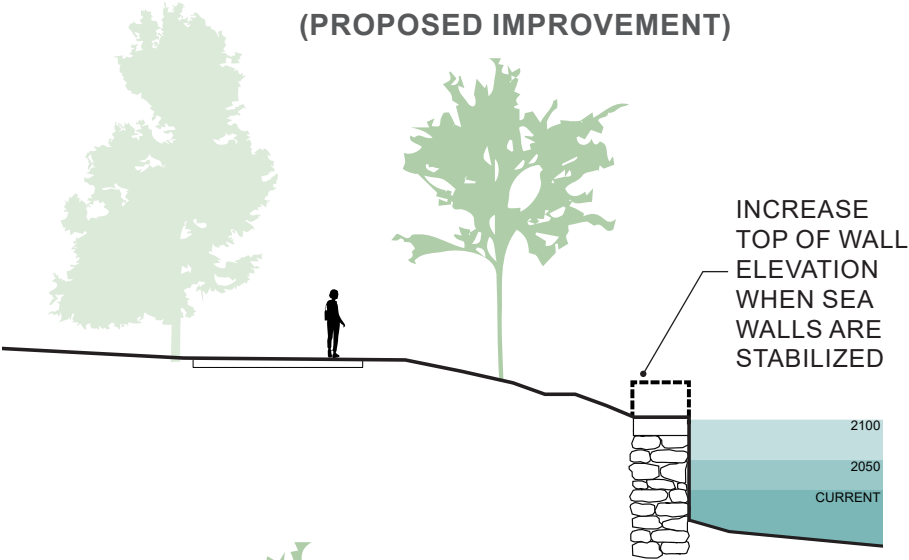
*Note: All cost estimates are based on 2024 values.*

**Next Steps / Additional Studies:** Conceptual design

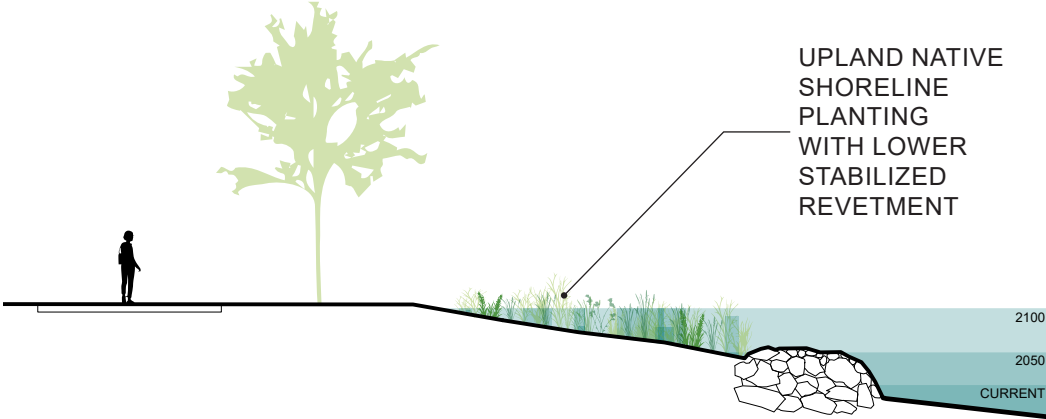


## APPENDIX 1: PROJECT CUT SHEETS

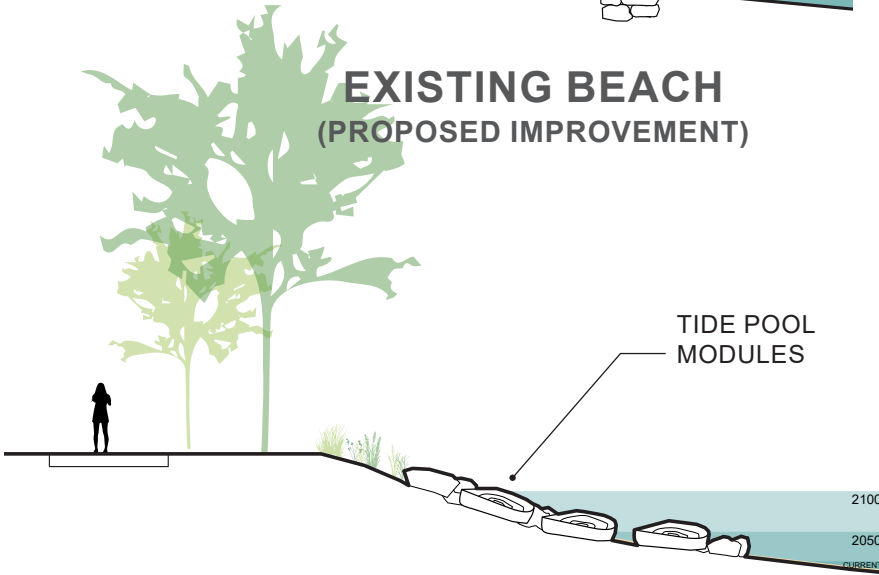
### EXISTING SEA WALL (PROPOSED IMPROVEMENT)



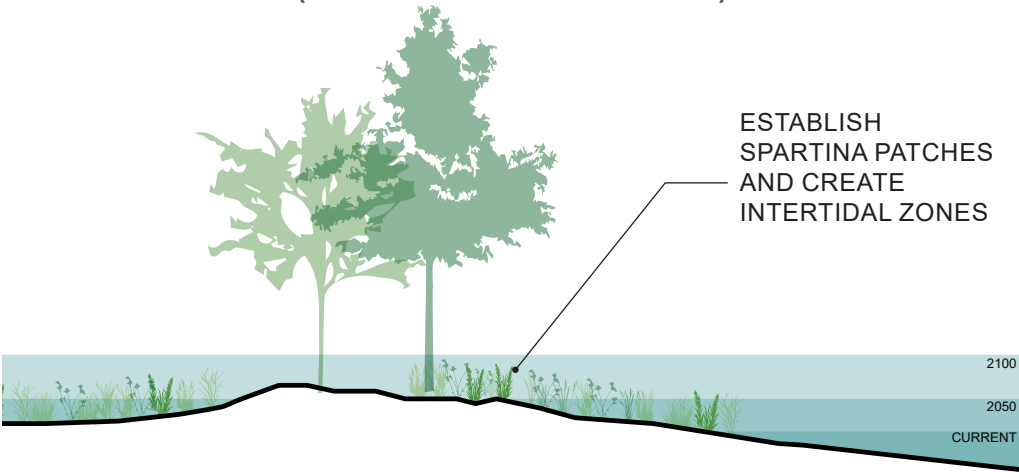
### NATURAL REVETMENT (PROPOSED IMPROVEMENT)



### EXISTING BEACH (PROPOSED IMPROVEMENT)



### NATURAL SHORELINE (PROPOSED IMPROVEMENT)



*Note: Sections conceptually show relationship of shoreline to current and projected "mean high high water."*



# SEA LEVEL RISE ADAPTATION

## PROJECT CUT SHEET (PAGE 1 OF 2 – SHORT TERM)



### Scope of Work

A two-phase, long-term strategy is proposed to adapt the central field area for sea level rise and create land suitable for additional burials. The road on the east of the island is proposed to be elevated to +12' NAVD88 with a sheet pile to prevent erosion. The strategy also proposes creating tidal wetland area on the island's west side and removing historical fill to create historical intertidal zones. The removed fill can be used to create a berm at elevation +10' NAVD88.

### Base Cost + Contingencies

- Ridge Elevation: \$6.9 million
- Tidal Wetlands + Berm: \$1.7 million

**Base Cost** \$8.6 million  
**Total Project Cost Contingencies** \$12.8 million

*Note: All cost estimates are based on 2024 values.*

**Next Steps / Additional Studies:** Soil investigations; conceptual design.



## APPENDIX 1: PROJECT CUT SHEETS





# SEA LEVEL RISE ADAPTATION

## PROJECT CUT SHEET (PAGE 2 OF 2 – LONG TERM)



### Scope of Work

The second phase of the sea level rise adaptation strategy proposes to close the +10' berm. The enclosed area between the +12' ridge road and the +10' berm is proposed to be used as a new burial area with imported fill used to create the required 4' cover over burial plots, creating approximately three years of additional burial capacity at current burial rates.

### Base Cost + Contingencies

• Berm + Fill	\$7.8 million
<b>Base Cost</b>	<b>\$7.8 million</b>
<b>Total Project Cost Contingencies</b>	<b>\$17.7 million</b>

*Note: All cost estimates are based on 2024 values.*

**Next Steps / Additional Studies:** Conceptual design







Parks



# HART ISLAND CONCEPT PLAN

Hart Island located  
in the Borough of the Bronx

Starr Whitehouse Landscape Architects and Planners