



Public Open House Meeting



NPS – Restore North and South Seawalls at Perry's Victory

July 29, 2020



Restore North and South Seawalls at Perry's Victory & International Peace Memorial

National Park Service
U.S. Department of the Interior
Perry's Victory and International Peace Memorial
Put-In-Bay, Ohio

Welcome

The purpose of the open house is to provide you with the opportunity to comment on the proposal to restore the north and south seawalls, limit wave over-topping, and manage stormwater to protect the cultural resource, help ensure the health and safety of the public, and enhance the visitor experience while preserving the setting of Perry's Victory & International Peace Memorial.

We invite you to:

- View the slideshow.
- Talk to us about the project.
- Increase your understanding of the project.

Thank you for joining us!





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Background

- The Park sits at the site of Perry's Victory on a low-lying isthmus connecting the east and west sides of South Bass Island. Historically, Put-in-Bay was two separate islands with marsh in between. Without the seawalls the site would return to marsh habitat.
- The seawalls protecting the site were originally constructed in 1936 to protect the site from Lake Erie and prevent shoreline erosion.
- The seawalls have been raised and expanded, most recently in 1976, to better maintain and protect the nationally significant site.
- Lake levels fluctuate over time. Currently the Great Lakes are at the peak of a cyclical trend.



Historic image of the site



Historic image of the site



High lake levels are causing erosion issues throughout the Great Lakes region



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Purpose of Action

The National Park Service (NPS) proposes to restore the existing seawalls to prevent further deterioration and undermining. This project would ensure the integrity of the historic Perry's Victory International Peace Memorial monument and ensure safe and appropriate visitor opportunities within the historic landscape of the Park.

The following were considered during the project:

- Consistency with the project's purpose and need.
- Choosing a design and construction methods that are feasible to build and permit.
- Ensuring the design would be successful and typical of the setting.
- Replacing the existing seawall while avoiding impacts to the greatest extent possible.
- Incorporating resiliency in design to prevent over-topping during future stormwater events.



View of the monument and north seawall



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Need for Action

- The current condition of the seawalls is poor, and would continue to deteriorate. Significant undermining would continue to occur along the seawalls (USACE, 1995; WJE, 2017).
- If the seawalls are not restored, the nationally significant memorial would not be adequately protected.
- The stormwater drainage system is not adequately sized to manage large rainfall events. Access to the east side of the island has been impacted by flooding at the site. Significant flooding throughout the site would continue to occur.



Deterioration at the south seawall



Wave over-topping at the north seawall



Flooding throughout the Park following a storm event



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Proposed Project

- Restore Seawall
- Improve Stormwater System
- Improve Visitor Experience



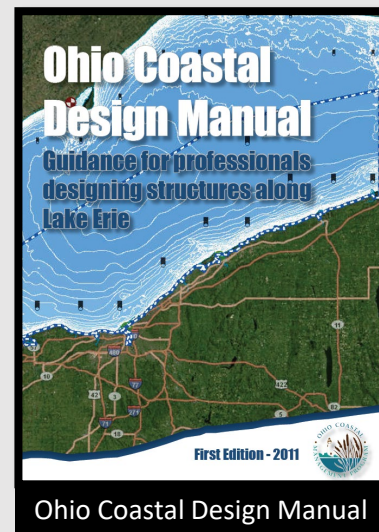
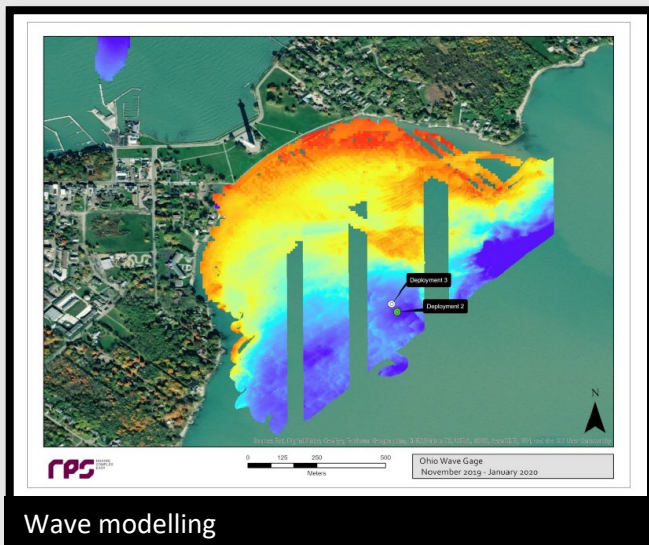
Elements of the NPS proposal



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- This seawall design follows guidance from the Ohio Coastal Design Manual
- The project team used data from the National Oceanic and Atmospheric Administration (NOAA) Marblehead Station and others to understand the environmental conditions in this area
- For additional accuracy, NPS deployed Acoustic Doppler Current Profiler (ADCP) to calibrate the wave modelling to this site
- The team worked with the park to establish acceptable risk for the project and define the design storm conditions





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Proposed Project - Seawalls

- 3,340 linear feet of seawalls would be restored to address deterioration and raised to a new elevation ranging 12-24" above existing.
- North Seawall-Center which was built in 1936 would be entirely demolished and replaced.
- The remaining North Seawall would be partially demolished and repaired.
- The South Seawall would be partially demolished and repaired.
- An 80-foot extension would be added to the South seawall.



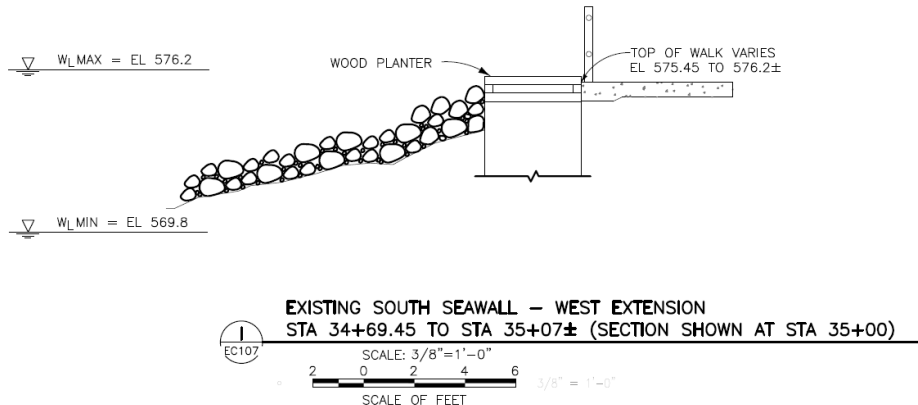
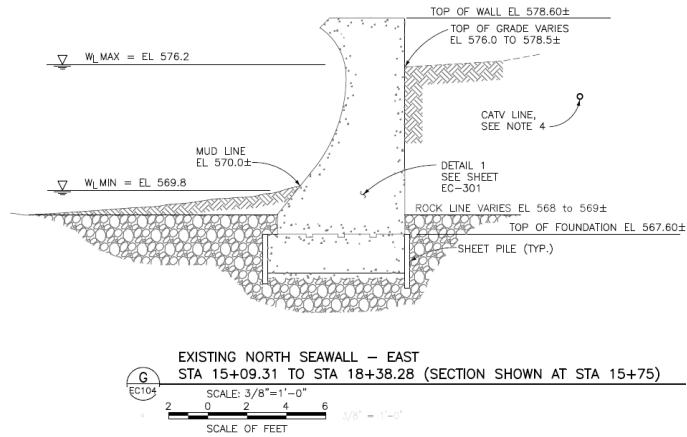
Elements of the NPS proposal



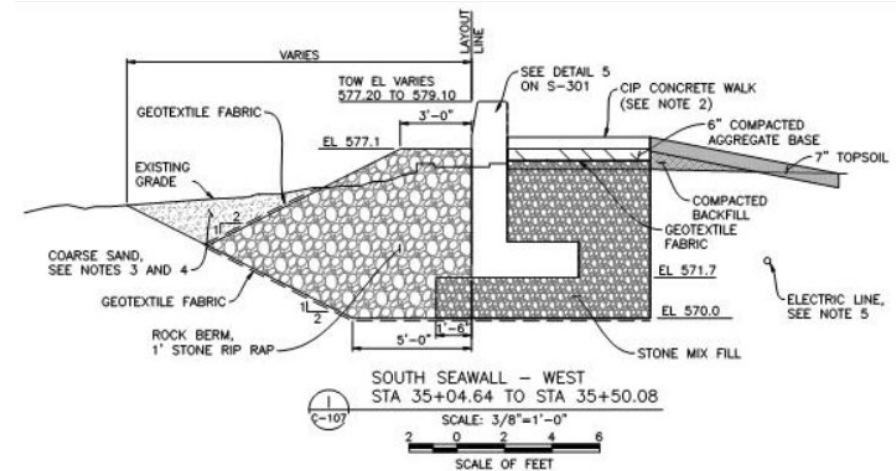
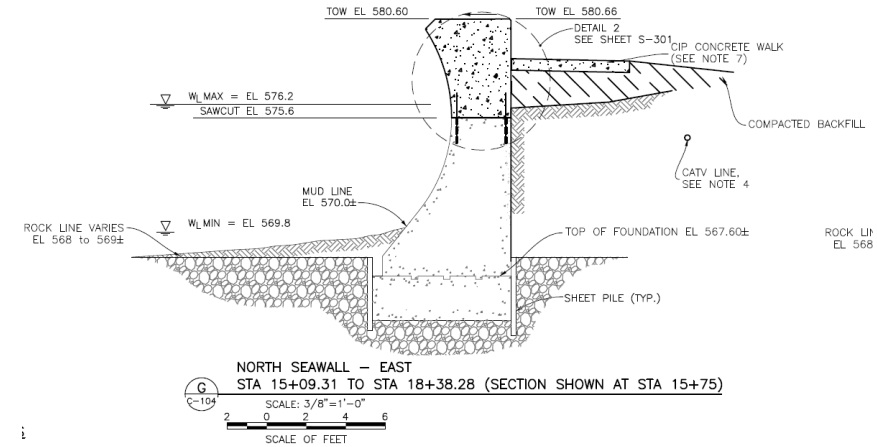
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Existing



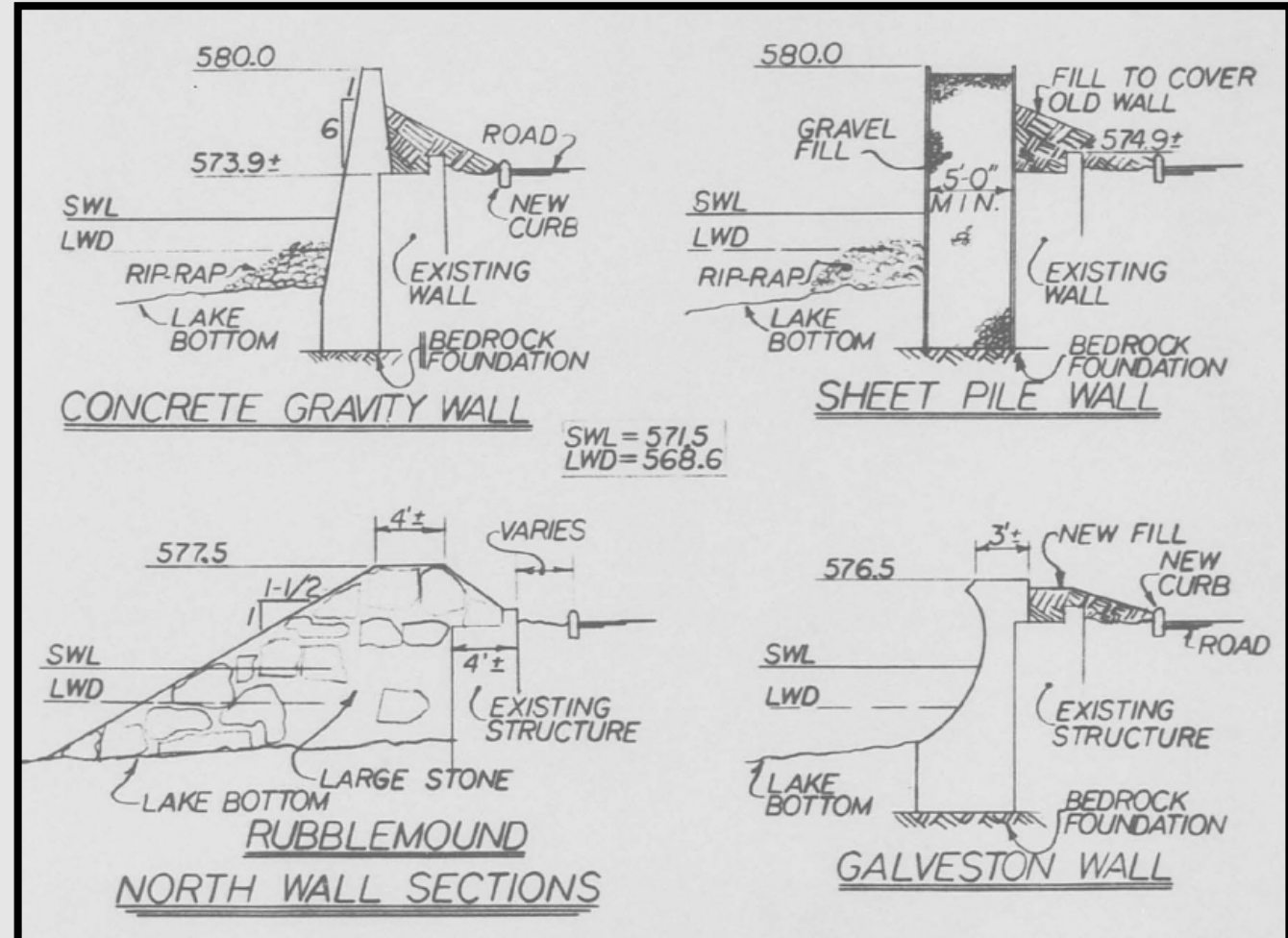
Proposed





Proposed Project - Seawalls

- For the North Center Seawall the team evaluated various options for shoreline protection
- A Galveston Type Seawall Profile affords the lowest elevation wall when comparing different alternatives



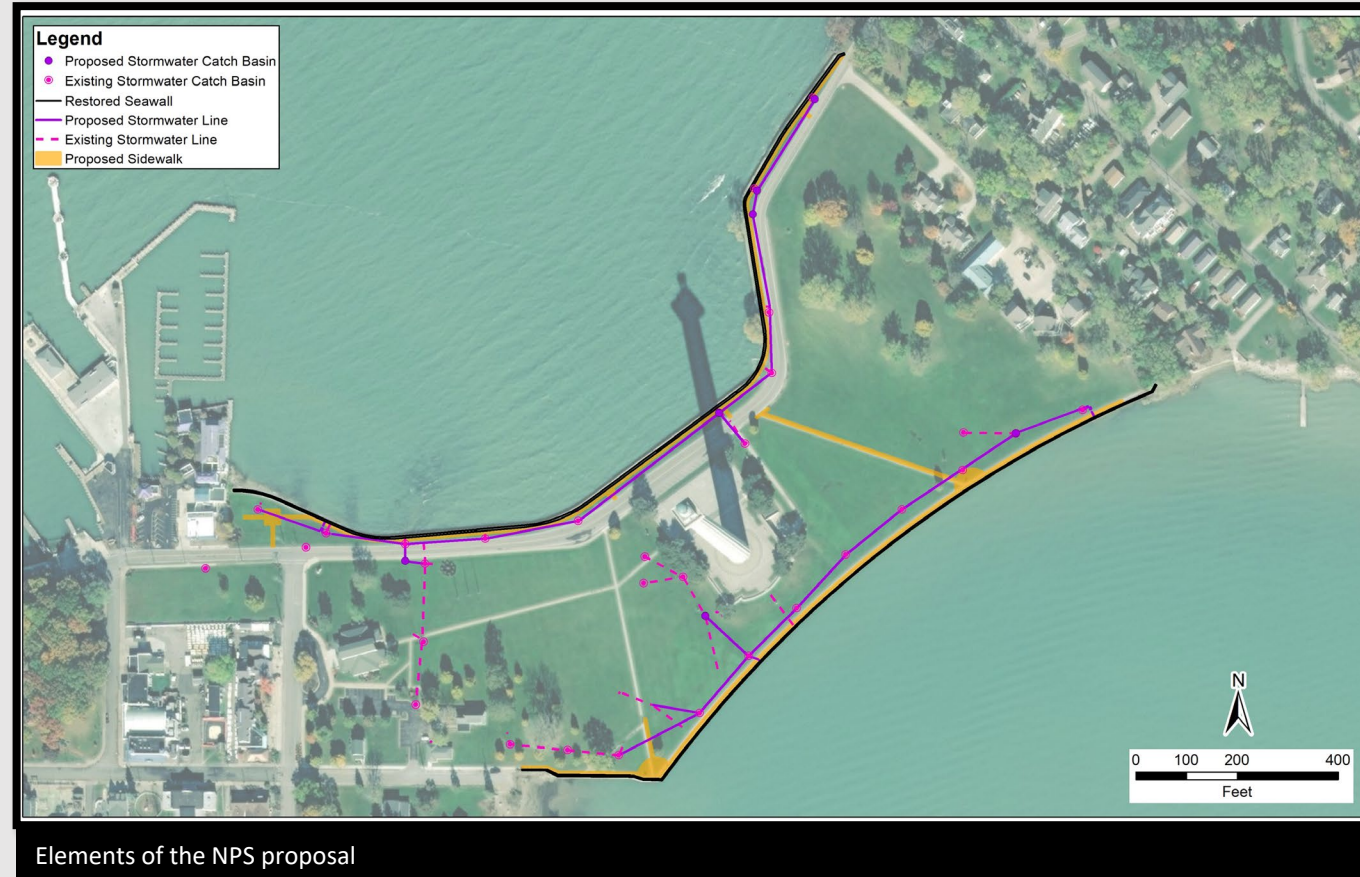


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Proposed Project - Stormwater

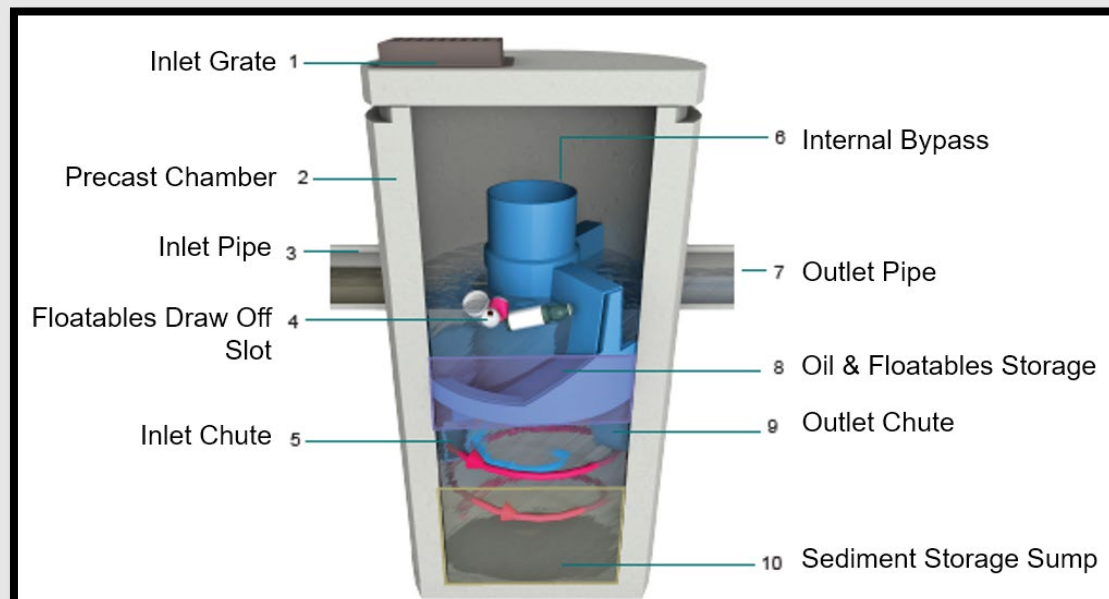
- The stormwater system would be upgraded to minimize flooding.
- Lake water that overtops the wall and stormwater that lands in the Park would be conveyed to the lake through a combination of gravity outlets and two pumping stations.





Proposed Project - Stormwater

- The North Stormwater Catchment Area contains runoff from SR 357 and new hardscape (sidewalk) along the North Seawall.
- A vortex separator would treat the North Pump Station water prior to discharge.



A vortex separator would provide pretreatment



The north catchment area would receive pretreatment prior to discharge



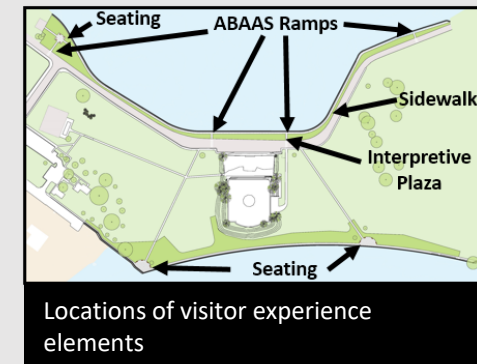
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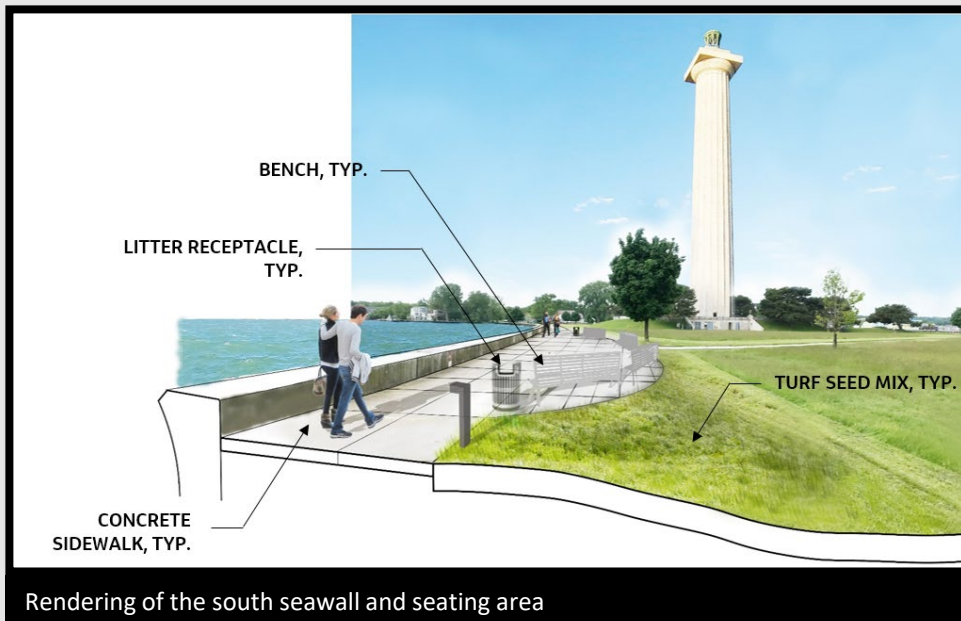
Proposed Project – Visitor Experience

Visitor experience enhancements include:

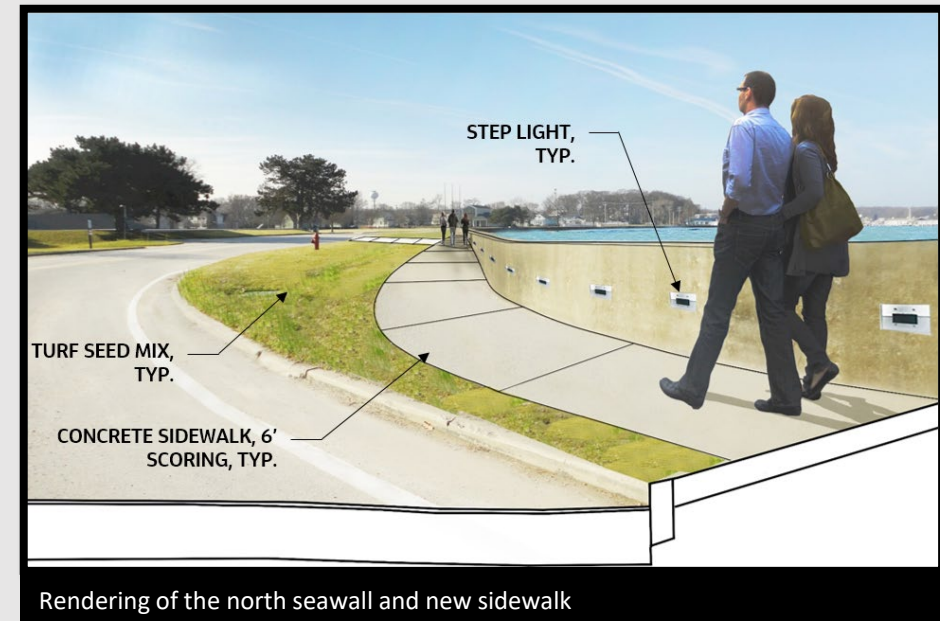
- Seating areas with benches
- Embedded Lighting (optional)
- North Seawall Sidewalk (optional)
- Interpretive Plaza (optional)



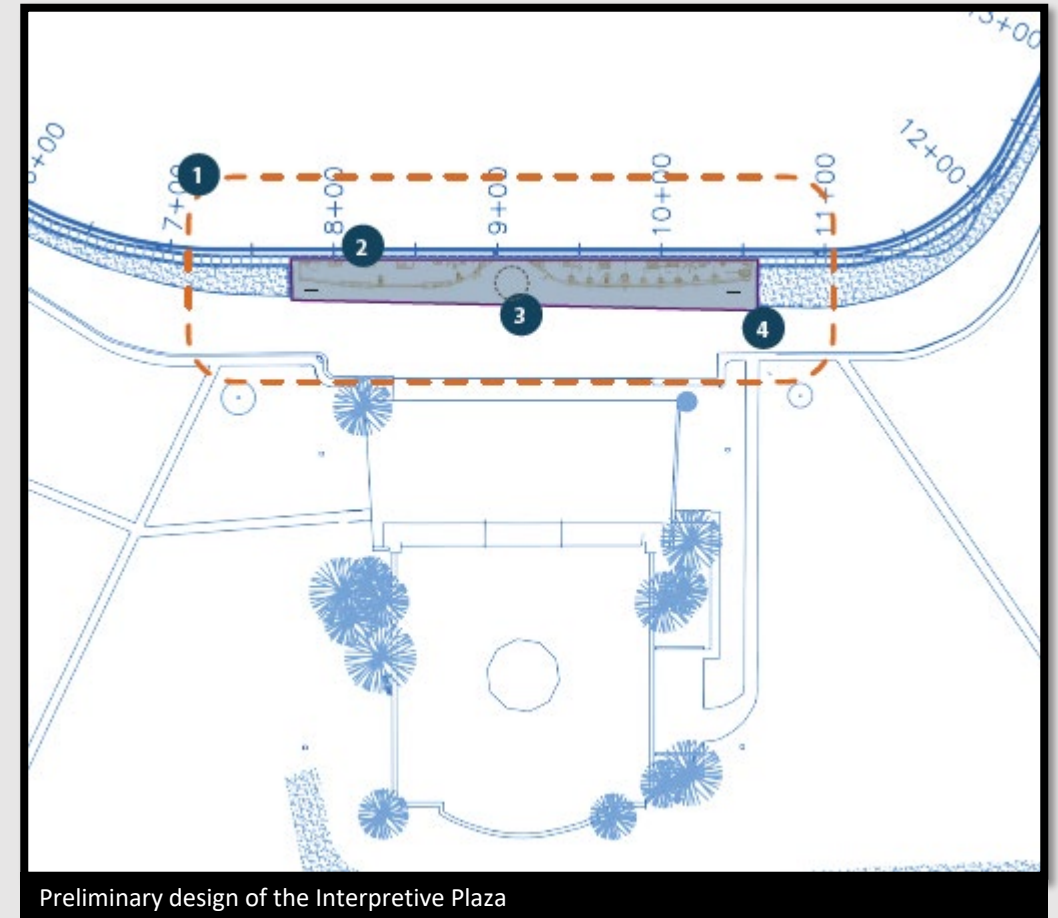
Locations of visitor experience elements



Rendering of the south seawall and seating area



Rendering of the north seawall and new sidewalk





Resources



The Lake Erie Water Snake inhabits the shoreline areas

Biological Resources

- The **Lake Erie Water Snake (*Nerodia sipedon insularum*)**, a state threatened species, inhabits Lake Erie and the shoreline areas adjacent to the seawalls.
- **Submerged aquatic vegetation** was identified in the project area, including American eelgrass (*Vallisneria americana*) and Richardson's pondweed (*Potamogeton richardsonii*).
- Dead and weathered **mussels** were identified in the project area, including Pink heelsplitter (*Potamilus alatus*) and Threeridge (*Amblema plicata*).
- Section 7 ESA consultation with U.S. Fish and Wildlife Service (USFWS) is ongoing.
- **Lake Erie** and one **palustrine emergent wetland** occur in the project area.

Cultural and Archaeological Resources

- The **Perry's Victory International Peace Memorial** monument is listed on the National Register of Historic Places.
- **Underwater and terrestrial archaeological** resources were identified in the project area. Resources are not anticipated to be eligible for NRHP listing.
- Consultation for compliance with Section 106 of the National Historic Preservation Act is ongoing.



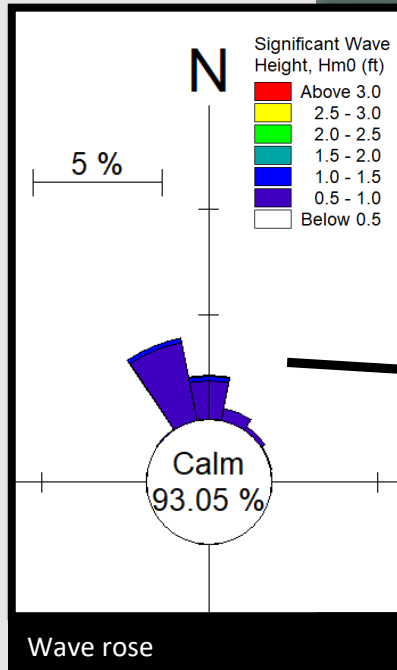
Submerged aquatic vegetation, mussel, and archaeological resource surveys were conducted



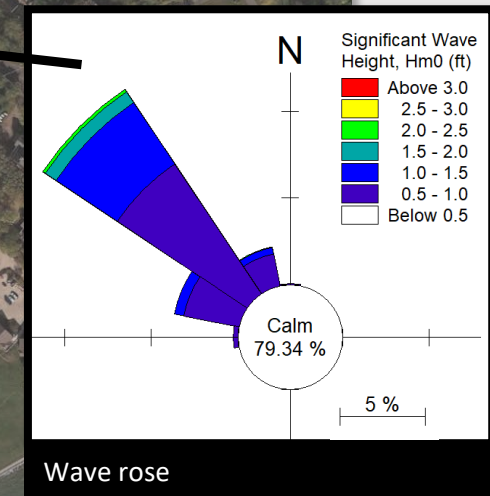
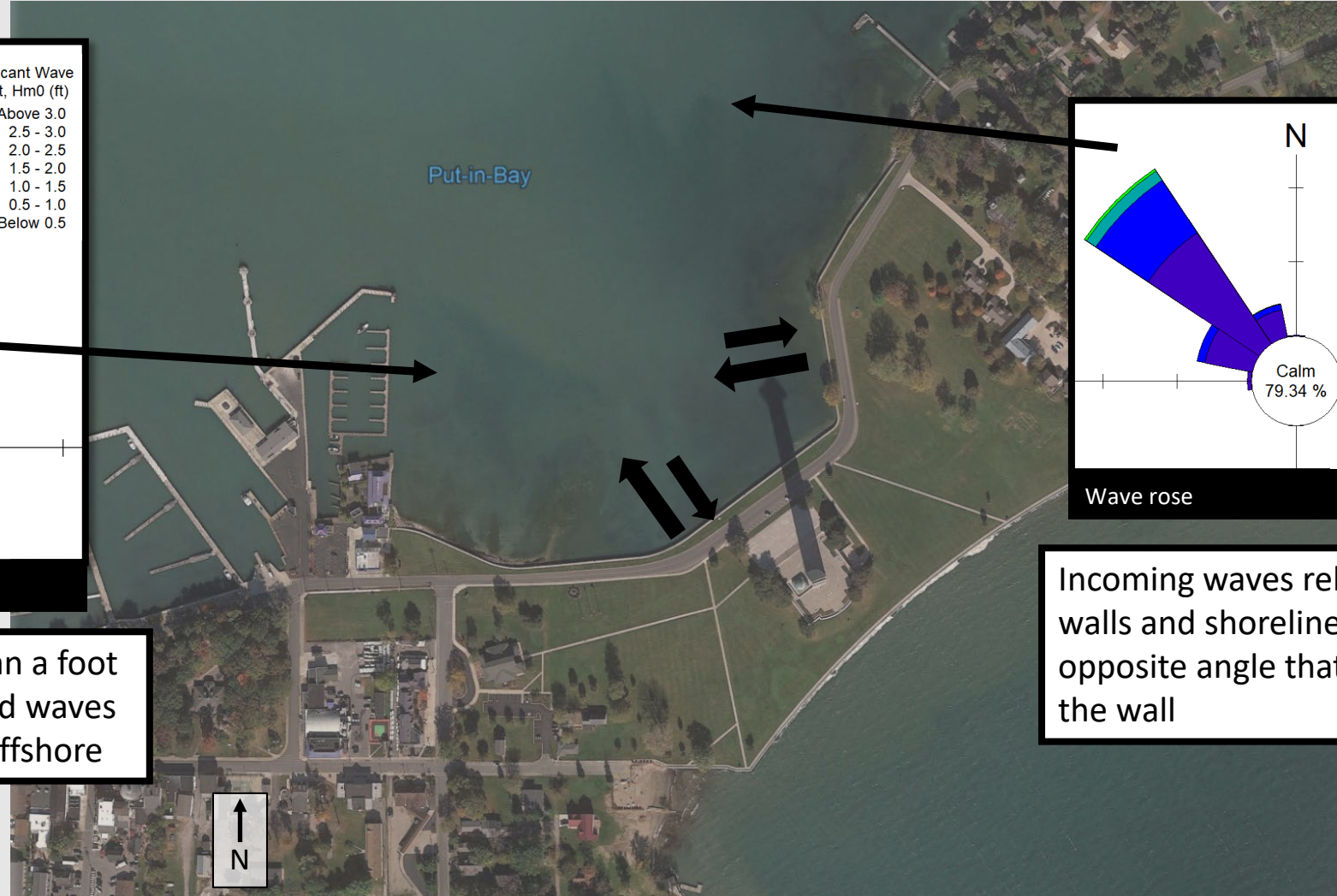
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North Seawall Wave Modelling



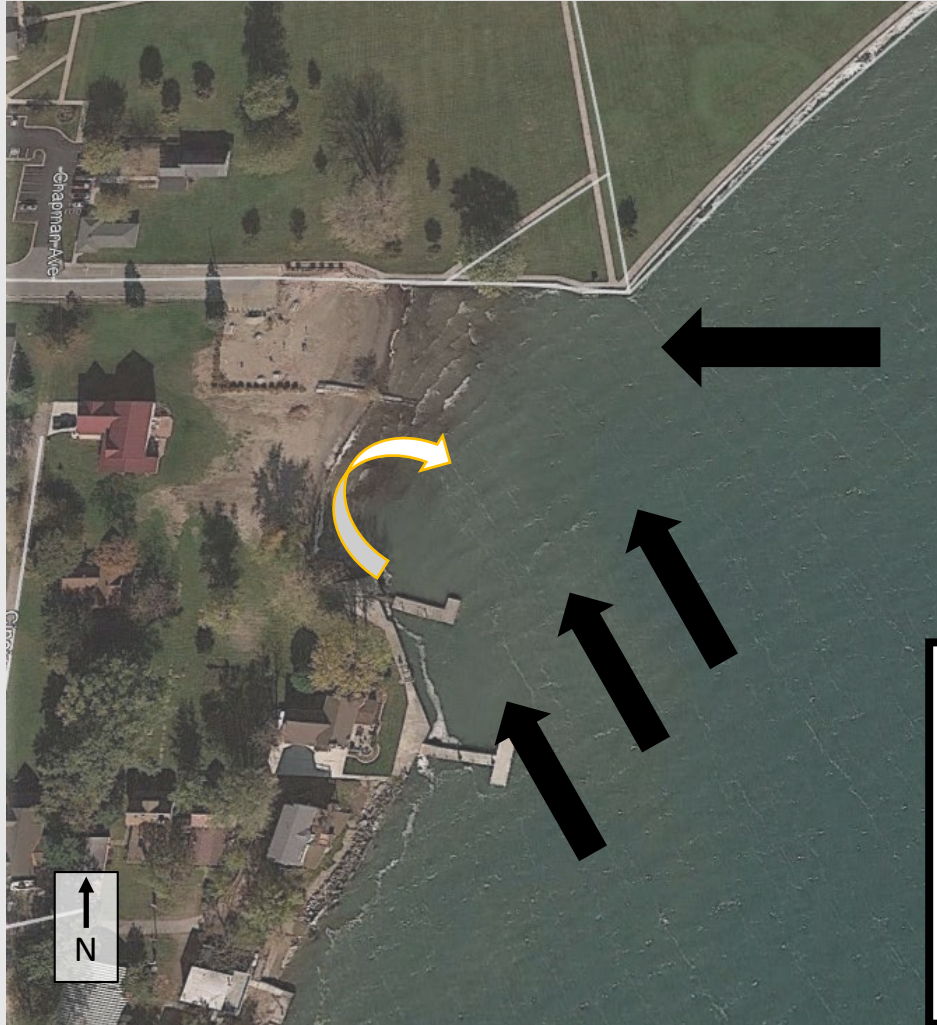
Waves are smaller than a foot most of time, reflected waves won't propagate far offshore



Incoming waves rebound from walls and shorelines at the opposite angle that they hit the wall

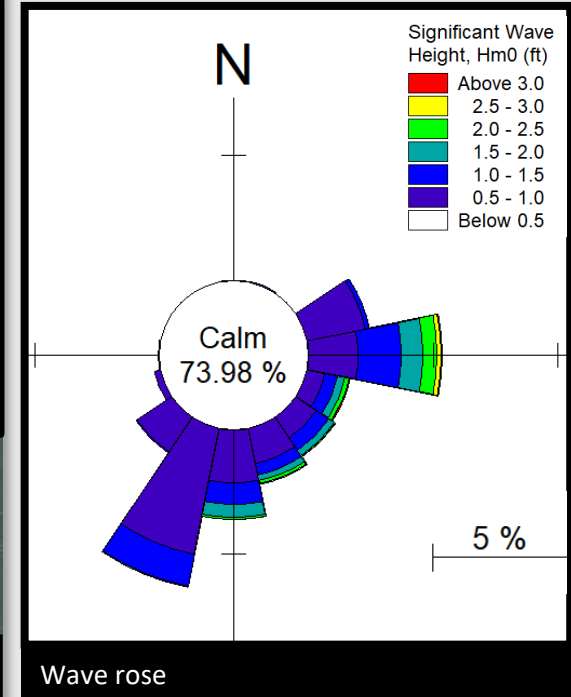


South Seawall Wave Modelling



When high intensity waves come from the east direction, they directly hit and overtop the beach, which causes debris to pile up on the site. As the adjacent properties are hard structures, there is no opportunity for the debris to escape the beach area.

When waves hit the beach from the southern direction, it forces the sand to migrate to face south. There is no sand source on updrift side to be transported by the waves, so they arrive uninterrupted and with no new sand to replenish the beach area





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- A coastal structure is needed at the public beach to protect from offshore waves
- Various options have been discussed including building revetments, breakwaters or transitioning the beach to a living shoreline
- These structures are not needed due to impacts from the seawalls, and therefore are not being pursued as a part of this project



Westhampton Beach, NY



Concordia Univ. Wisconsin

Examples of coastal structures



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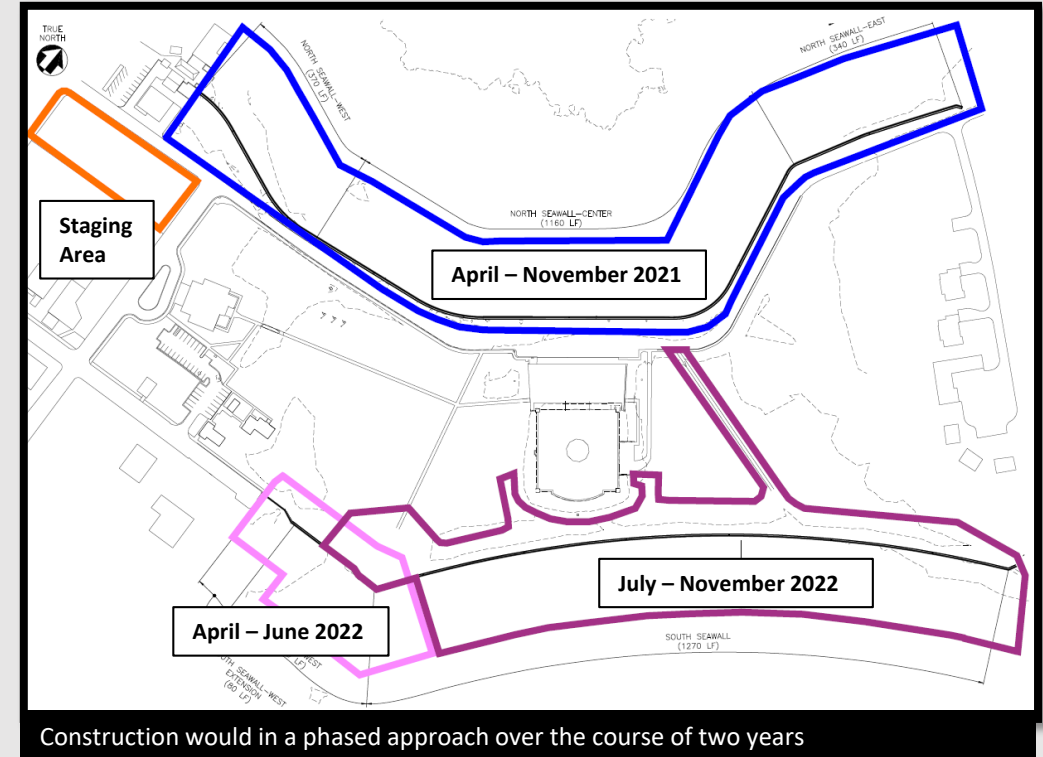
Visitors and Community

Construction Means and Methods

- A traffic control plan would be in place throughout construction.
- Construction would occur from the land and Lake Erie.
- Heavy equipment would be required, including **barges, cranes, concrete trucks, and wire saw cutters** throughout the duration of construction.
- Equipment, materials, and construction offices would be staged in the Peace Garden lawn.
- Frequent construction deliveries would occur.

Disruptions

- Access to the **memorial and visitor center would not be impacted by construction.**
- During construction, the work areas and staging area would be fenced off and closed to visitor access.
- Construction of the South Seawall - West is scheduled to be completed prior to July 1. Access to the public beach would be restricted during this phase of construction.
- **Temporary lane closures of State Highway 357** would be necessary to allow construction and ensure visitor safety. Single lane closures would be limited to 6 hours. Full road closures would be limited to 2 hours. Lane closures times and dates are being coordinated with the Village of Put-in-Bay.
- **Temporary utility shutdowns** would be necessary. Water shutdowns would be limited to 4 hours. Electric/phone/cable shutdowns would be limited to 2 hours.
- Construction noise would be limited by local ordinances.
- Construction would not occur on weekends or holidays.



Schedule

- April – September 2021 North Seawall
- April – June 2022 South Seawall - West
- June – September 2022 South Seawall



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Give Us Your Feedback!

The NPS invites you to share your comments on the proposal.

You can provide input in several ways:

- Submit written or verbal comments in the MS Teams meeting.
- Submit comments electronically on the NPS Planning, Environment, and Public Comment website at <http://parkplanning.nps.gov/pevi> or emailing PEVI_Superintendent@nps.gov.
- Submit written comments by mail or hand-deliver to:
Perry's Victory & International Peace Memorial
93 Delaware Avenue, P.O. Box 549
Put-In-Bay, Ohio 43456

Please submit your comments to restore the seawalls along the Perry's Victory & International Peace Memorial Site by August 21, 2020.

There will be another opportunity to comment when the Environmental Assessment is published.

We thank you for your participation in this process!

