



MORGAN SHOAL OPEN HOUSE

**Morgan Shoal
Revetment Reconstruction
45th Street To 51st Street**

Published 2024

The Purpose of this Document

The purpose of the Open House is to learn about the Project, share your feedback, and engage with our team. We invite your continued engagement with this project to protect the lakefront and public park.

Agency Stakeholders



Public Building Commission of Chicago



Chicago Park District



US Army Corps
of Engineers

US Army Corps of Engineers



Chicago Department of Transportation



4th Ward



5th Ward





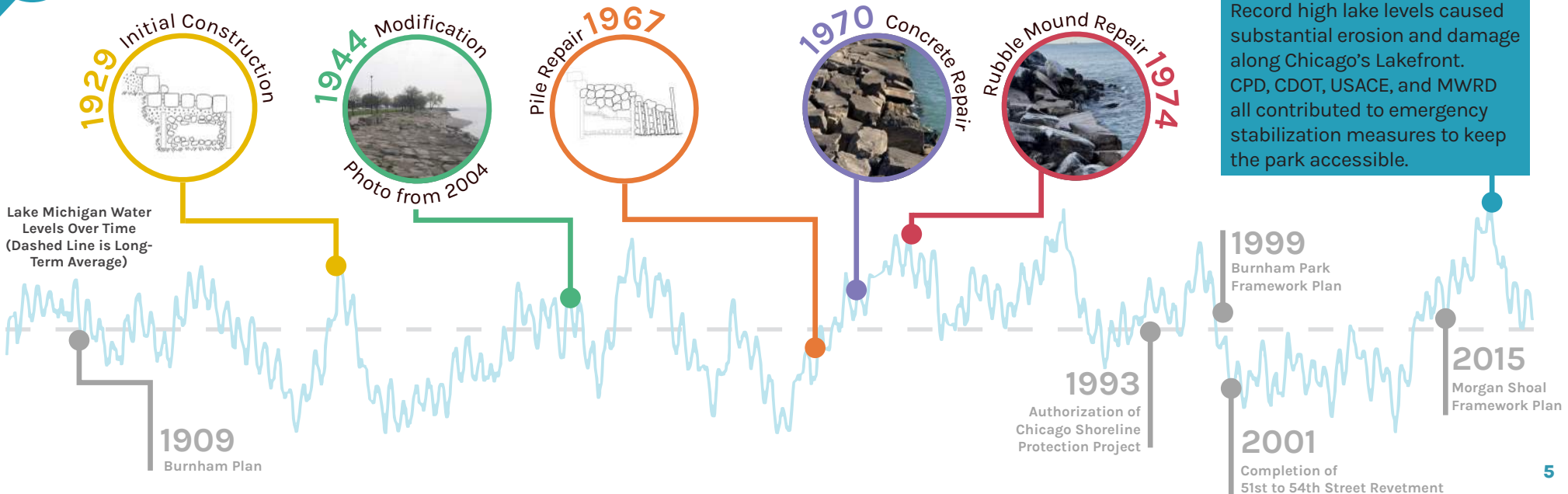
What is Morgan Shoal?

A shoal { SHŌI } is a raised area of exposed bedrock under the surface of the water. At Morgan Shoal, bedrock comes within a few feet of the water's surface. This project, named after the shoal located close to this lakefront segment, has the primary objective of protecting the Chicago shoreline for all users from flooding and erosion.



More info at Board 1

Morgan Shoal Shoreline History



Know Your Shore Protection Systems

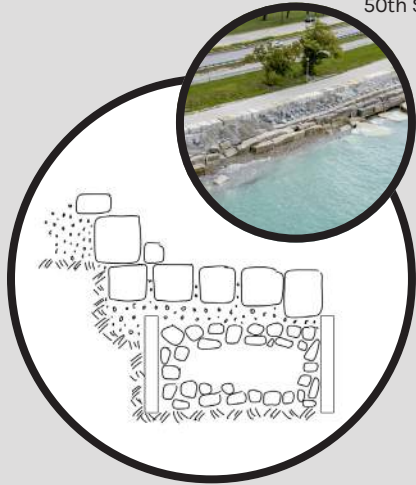
Sketches are modified from Chicago Park District archive engineering drawings.

Original Construction

50th Street

Timber Crib and Stepped Stone

- Used for construction of most of Chicago's revetments pre-1940s
- Limestone is a durable material
- Promenade level typically about 12-15 ft wide
- Timber piling is subject to rot and deterioration, especially when lake levels drop
- Surface is walkable unless foundation is undermined, and/or stones are displaced
- Used for 45th Street to 51st Street area repaired, augmented, and rehabilitated several times.

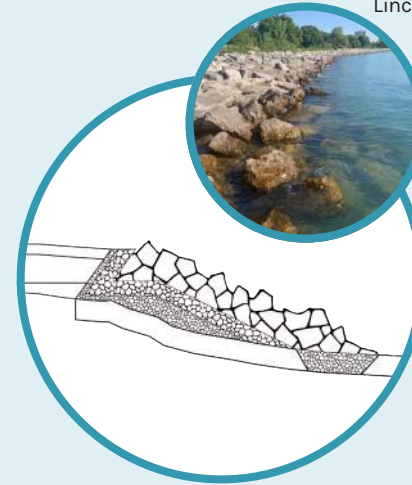


Proposed Construction

Lincoln Park (Irving Park Road - Montrose Avenue)

Armor Stone

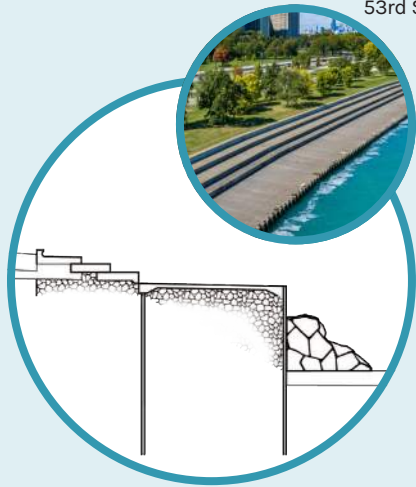
- Not commonly used along Chicago lakefront.
- Armor stone size depends on wave exposure.
- Structure width depends on lake bed depth.
- Surface is not walkable.
- Upper levels away from breaking waves can incorporate salvaged stone.
- Feasible regardless of bedrock conditions.



53rd Street

Sheet Pile and Stepped Concrete

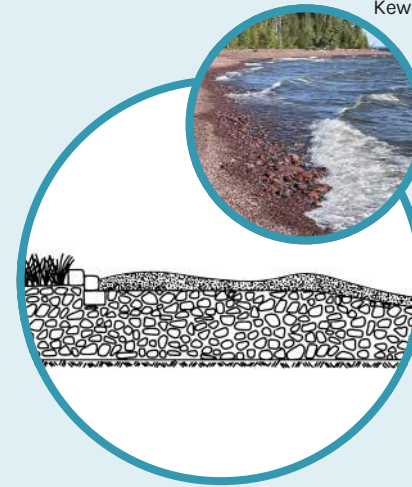
- Used for more recent construction in 1950s and 1960s, as well as for most of the recent lakefront rehabilitation.
- Concrete and steel are durable materials.
- Promenade level typically about 25 ft wide.
- Surface is walkable and ADA-compliant.
- Not technically feasible where bedrock is close to the surface.



Keweenaw Peninsula, Lake Superior

Dynamic Revetment

- Not a static structure - will be reshaped by waves and currents.
- Much flatter and wider than typical armor stone revetment.
- Surface is uneven, but walkable.
- Feasible only in sheltered and relatively shallow locations.



2024 Recent Engagement

February 22, 2024
Project team presented the in-progress design status of coastal engineering, public restroom, and landscape architecture. The public submitted comment cards with questions and shared fond memories of the area.



March 21, 2024
Project team presented the comments received from the first meeting and identified areas of opportunity to incorporate feedback. Neighbors shared areas of concern and new questions.



April 25, 2024
Design team engineers presented the science behind the coastal protection. New attendees and previous attendees requested additional engagement opportunities.



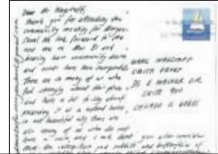
City officials and local advocates met to walk the lake.



June 20, 2024
Open house conclusion to this series of engagement. The project team will take all of the comments received from February to date to make recommendations for next phase of engagement.



Design team and City officials received postcards from community throughout engagement series



Design Changes Inspired by Public Comment

2015 Framework Plan w/ Community Engagement

Identified goals of protecting the shoreline, installing various natural areas, and expanding access to the water.

Initial 2024 Plan

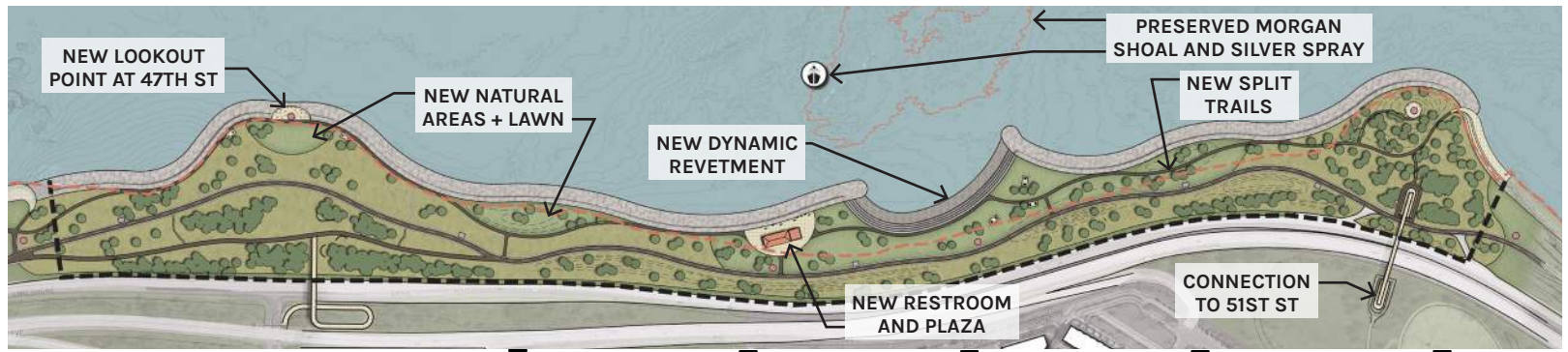
PBC selected a design team to advance the Framework Plan with more detailed analysis and engineering.

Future Design Changes Per 2024 Community Input Project

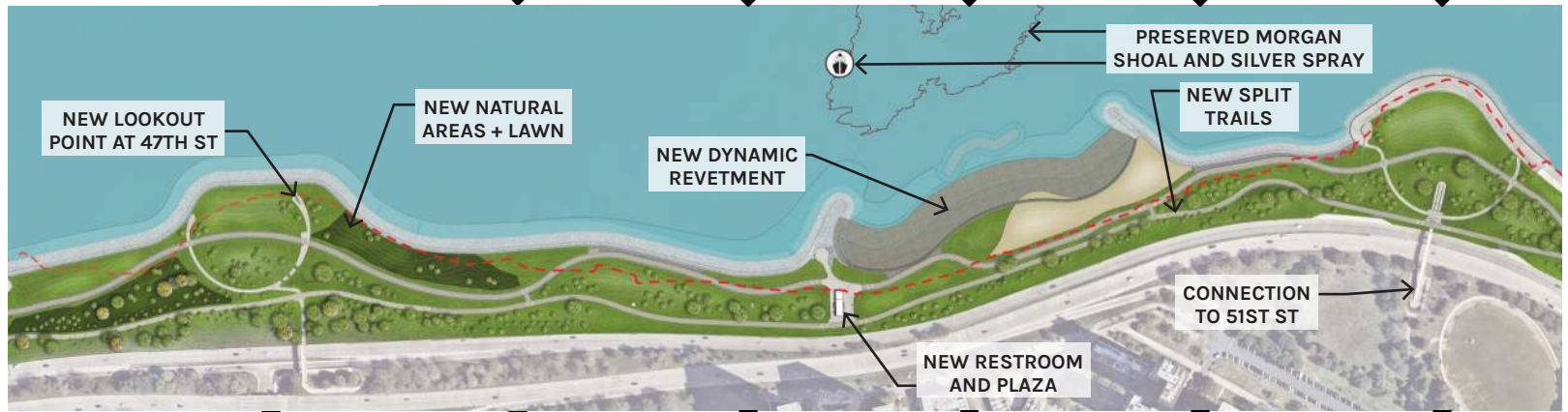
is continuing to evolve based on feedback received during this initial series of engagement, as well as permitting agency comments.

More info at Board 4

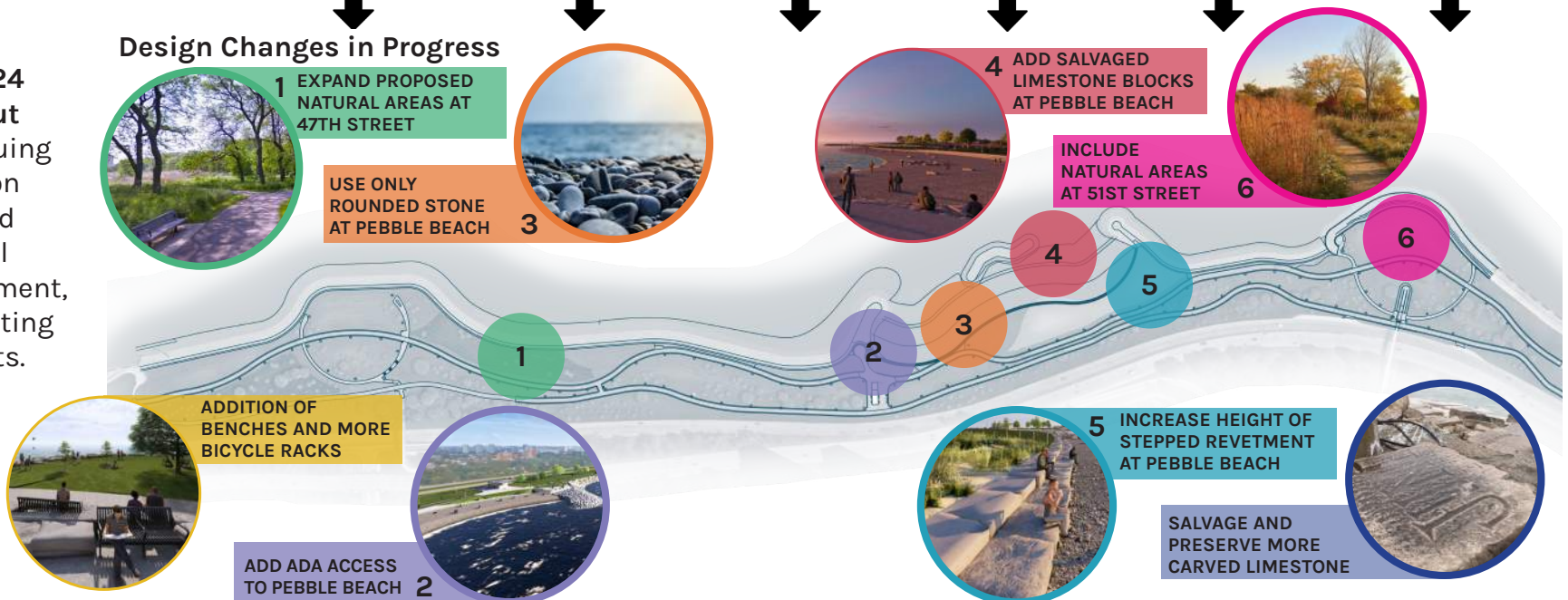
Framework Plan 2015



Initial 2024 Plan



Design Changes in Progress



Material Reuse

North End Limestone Blocks



Existing: Very large (10 tons) quarried limestone blocks placed as temporary protection during earlier 43rd to 45th Street Project (2012).

Proposed: Limestone blocks will be salvaged and used to create uniform edge condition along new armor stone revetment adjacent to restored park.

Broken Concrete / Rubble



Existing: Varied sizes and material types, including stone, concrete, and other construction materials.

Proposed: Solid fragments can be used as fill under the proposed new permanent structures to reduce the need for importing new material.

Sand from TrapBags



Existing: Temporary "TrapBags" placed in 2020 to protect parkland from erosion are filled with "bird's eye" sand.

Proposed: Clean sand from the TrapBags can be salvaged and used as fill for the dynamic revetment to reduce the need for importing new material.

Carved Limestone



Existing: Limestone blocks from the original 1920s/30s construction or later additions (e.g. 1940s "Paved Beach") are decorated with carvings and inscriptions from prior lakefront users.

Proposed: Blocks with culturally significant carvings will be repurposed as seating, and also spread through the park.

Pebbles



Existing: Wave-rounded stone and concrete remnants from deteriorated revetments and other eroded parkland.

Proposed: Pebbles will be salvaged and reused within the upper layer of the new dynamic revetment.

Small / Irregular Limestone Pieces



Existing: Remnants of previous revetment structure that have either broken up and/or been dislodged and shaped by the waves.

Proposed: Not suitable to reuse in the stepped revetment at the back of the dynamic revetment, but can be placed on the new, expanded pebble beach as seating.

Large Concrete Blocks



Existing: Temporary concrete blocks, mostly placed in 2020 to provide emergency flood protection so lakefront trail and other amenities could remain open.

Proposed: Preferred usage is buried as a foundation for the salvaged limestone stepped revetment.

Large Limestone Blocks



Existing: Intact limestone blocks from the original 1920s/30s construction.

Proposed: Salvage intact and use to create stepped revetment at back of expanded pebble beach, and along the parkside of the concrete ADA transition structure.

Park Landscaping Materials



North of 47th Street Aerial



Proposed Savanna

- Preserve and augment existing trees with additional native trees such as Bur Oak, and Chinkapin Oak.
- Add understory layer of shrubs such as Chokeberry, Witch Hazel, Sumac and Arrowwood.
- Wide range of perennials and grasses at ground plane. Layered vegetation is a particularly beneficial habitat for migratory birds.

Proposed Prairie



- Area is currently heavily eroded and covered in rubble and concrete debris.
- Predominant plantings will be perennials and grasses such as Milkweed, Wild Indigo, Sunflower, Horse Mint, Compass Plant, Aster, Prairie Dropseed, and Little Bluestem.
- Occasional shrubs and trees such as Dogwood and Bur Oak.



South of 47th Street Aerial



48th Street Aerial



Proposed Arboretum

- Preserve mature trees, augment with new shade trees, and restore parkland with turf grass.
- Use salt-tolerant varieties adjacent to DuSable Lake Shore Drive.



49th Street Aerial



Proposed Dune

- Almost zero existing vegetation at this location.
- Create new dune habitat to replicate original Chicago lakefront ecosystem with predominantly perennials and grasses such as Prairie Onion, Beach Grass, Canada Wild Rye, Porcupine Grass, Wild Strawberry, Blazing Star, June Grass, and Indian Grass.

- Due to narrow land posing planting challenges, preservation of existing mature trees that are currently between bike and pedestrian path will occur.
- Augment this area with new shade trees.
- Use salt-tolerant varieties adjacent to DuSable Lake Shore Drive.

Protected Trees



50th Street Aerial



51st Street Aerial



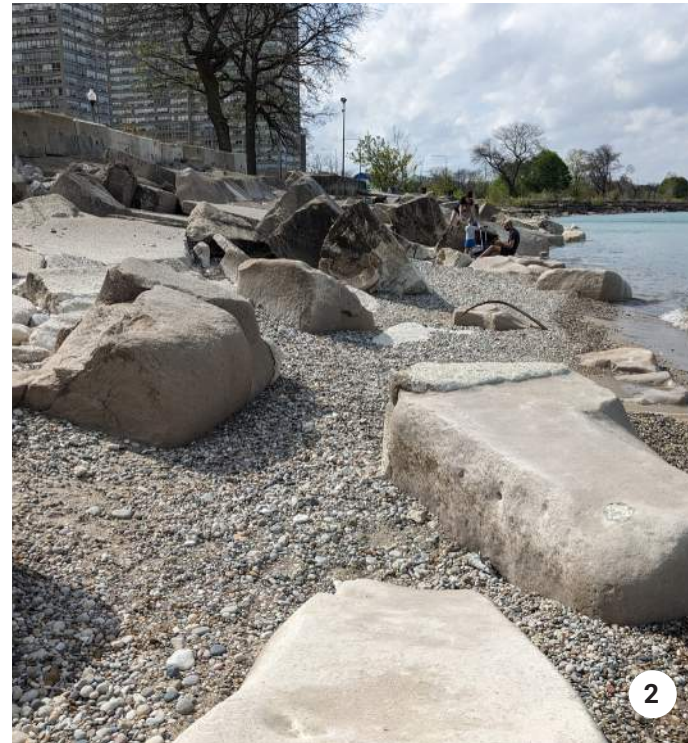
Restoration

- Preserve existing mature trees in the vicinity of the 51st Street Bridge landing.
- Restore the disturbed area with a mix of lawn, trees and native plantings.
- Native oaks planted in this area will support over 534 different species of native butterflies and pollinators.
- Blend with adjacent area to the south to remain.
- Plant low areas with wet-tolerant species.
- Turf lawn will allow for different forms of recreation by the water.

PEBBLE BEACH (DYNAMIC REVTMENT)

DESIGN EVOLUTION

- All existing pebbles will be salvaged and re-used in the new, expanded pebble beach
- Existing limestone blocks will be added to the new pebble beach to create seating areas
- Construction of dynamic revetment will use smooth, rounded pebbles
- History: Natural replenishment over lifetime of ecosystem



1: Conceptual site plan. Offshore breakwater and headlands will stabilize the beach during storms

2: Existing pebble beach ephemerally expands with low waters and recedes during storms

3: Conceptual rendering. No part of the new pebble beach will be paved (except to provide ADA access)

DRAFT CONCEPTUAL RENDERING



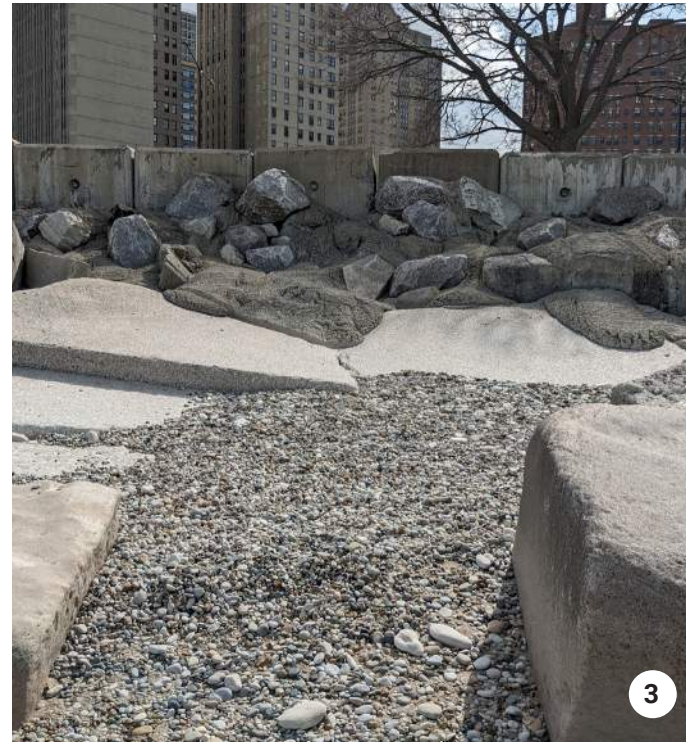
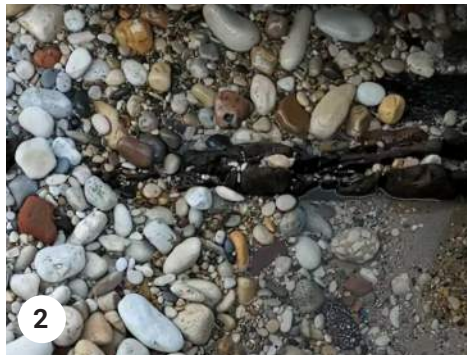
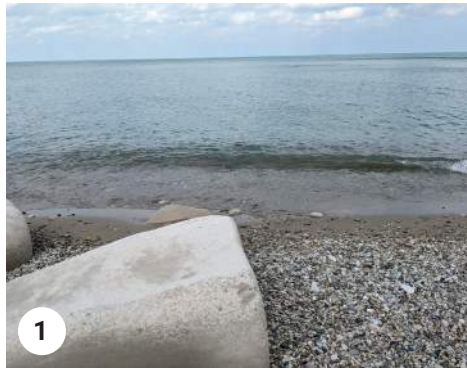
2024 COMMUNITY INPUT

- Save and reuse the existing pebbles
- Places to sit, lay on rocks, touch the water
- A place to be away from the city
- “Not so engineered” natural feel to the new pebble beach

QUIET + SECLUSION AT PEBBLE BEACH

DESIGN EVOLUTION

- Increased highest point to 4 ft before sloping back to water
- Height of salvaged limestone block steps at the back of the pebble beach can be increased to provide additional traffic noise mitigation
- Provide additional physical, visual buffer from DuSable Lake Shore Drive



1: Waves washing up to the pebbles on pebble beach

2: Existing pebbles to be salvaged and reused

3: Pebble beach visually and audibly separated from DLSD. 3 ft elevation difference created from water to sidewalk at pebble beach from temporary repairs

4: Conceptual rendering of arranged relocated limestone blocks

DRAFT CONCEPTUAL RENDERING



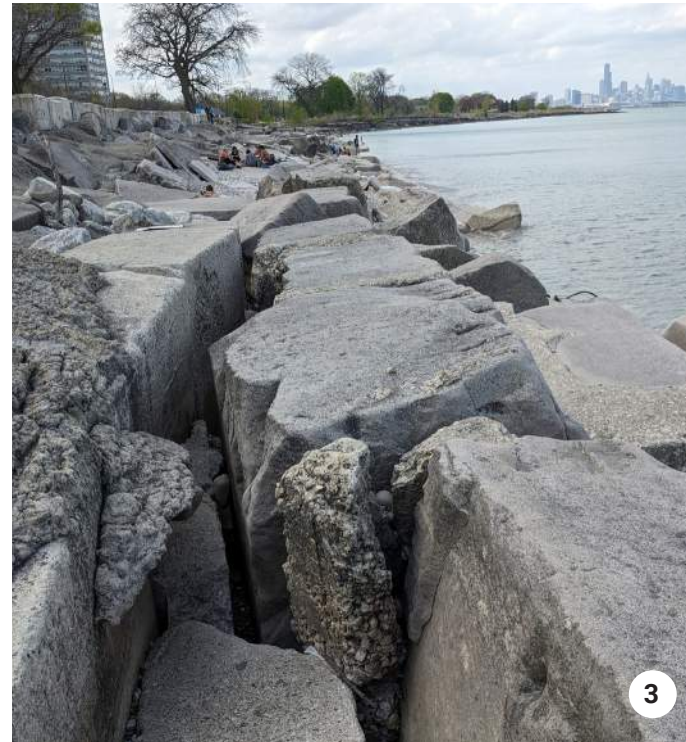
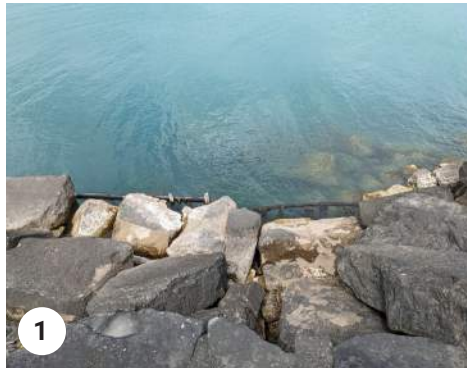
2024 COMMUNITY INPUT

- Healing
- Protected
- Natural
- Cozy
- Quiet
- Salvage + creatively reuse as much found materials from pebble beach as possible, such as pebbles, etc.

POTENTIAL ADA ACCESSIBILITY AT PEBBLE BEACH

DESIGN EVOLUTION

- ADA accessibility is desired from 2024 community meetings
- Accessibility is being studied with Chicago Park District's Disability Office
- Larger size of dynamic revetment / pebble beach increased amount of shoreline and places to bring people to the water's edge



1: Lake Michigan edge at existing timber crib and stepped stone revetment

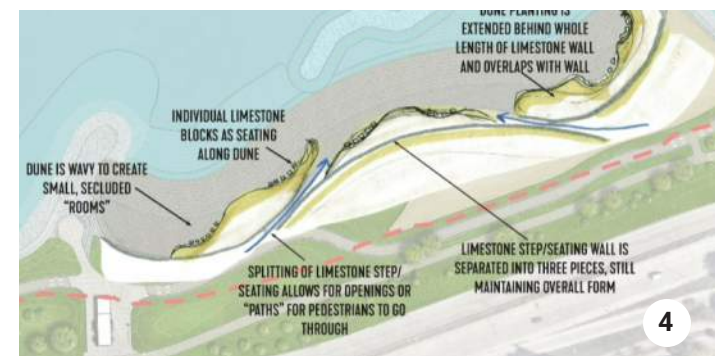
2: Temporary protection currently blocking people from the water's edge

3: Current pebble beach is not ADA accessible

4: Concept sketches exploring ADA accessibility points and more irregular forms in response to community input

2024 COMMUNITY INPUT

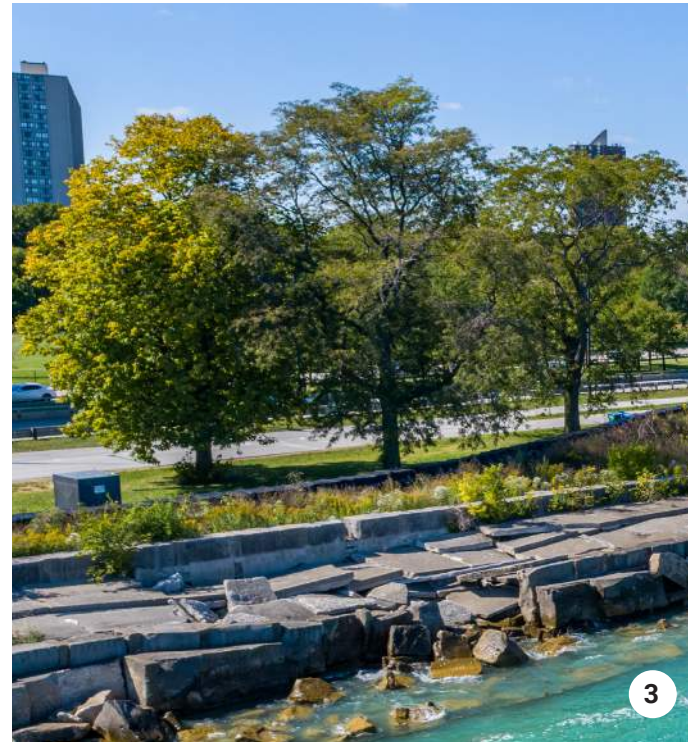
- More secluded places to be right by the water, for everyone



RATIO OF NATIVE PLANTING + LAWN AREAS

DESIGN EVOLUTION

- Three distinct native areas proposed: Dune, Savanna, and Prairie
- Footprint of natural areas will be expanded beyond the currently proposed
- Construction schedule aims to impact animal behaviors and habitats as minimally as possible per CPD and agency requirements
- Roughly +/- 2 acres is minimum for native planting areas, maintained by Chicago Park District



1: Wilmette Beach Dune natural area

2: Jackson Park Prairie natural area

3: Existing mature trees to remain and be protected during construction

4: Burnham Nature Sanctuary Savanna natural area



2024 COMMUNITY INPUT

- More natural areas
- Support natural habitats for pollinators, birds, bats, and other animals

LIMESTONE / ROCK CARVINGS

DESIGN EVOLUTION

- Existing limestone blocks with culturally significant carvings will be salvaged
- Re-use opportunities include as part of the stepped revetment, as seating, or distributed through the park



1



2



2

1: 48th Street existing stone revetment. In 2022, a survey was conducted to inventory carvings

2: Examples of carvings found on limestone blocks

3: Conceptual rendering of carved limestone blocks protected and put back as part of construction of the new pebble beach

DRAFT CONCEPTUAL RENDERING



3

2024 COMMUNITY INPUT

- Save, celebrate rock carvings as creative monuments to the community legacy left along the lake

POWER OF THE LAKE (WAVE ACTION DAMAGE)

DESIGN EVOLUTION

- Proposed coastal structures consistent w/ 2015 Framework Plan
- The shoal, headlands, and offshore breakwater allow the proposed dynamic revetment / pebble beach to be twice as large as initially proposed in 2015
- Emergency repairs made with expediency for bulk and height and intended to be temporary



1: 2020 storm damage. All coastal protection structures designed to withstand extreme lake levels and very large storm events and to limit overtopping rates to safe levels

2024 COMMUNITY INPUT

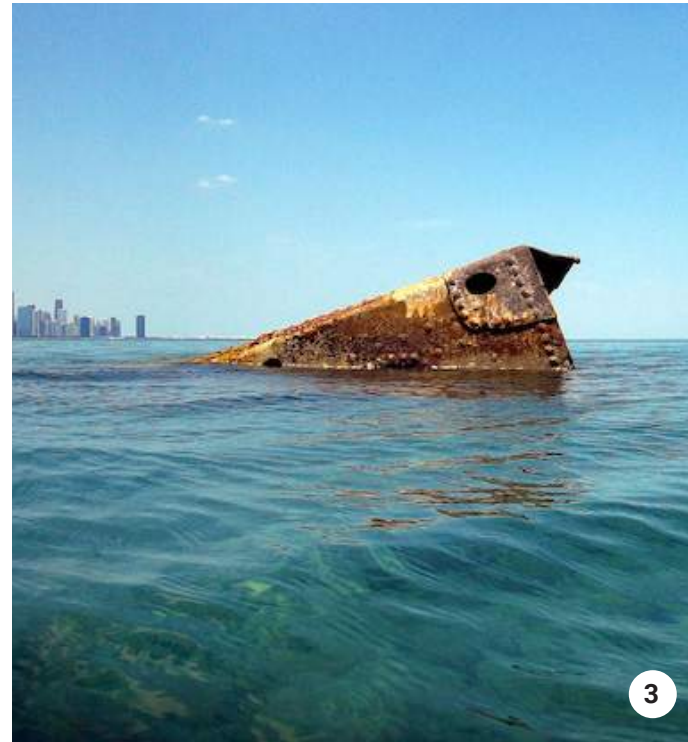
- Celebrate the lake and work with nature
- Repairs not aesthetically pleasing



PROTECTING THE SHOAL AND THE SILVER SPRAY

DESIGN EVOLUTION

- No part of Morgan Shoal or the Silver Spray will be impacted by the project
- No fill will be placed on the outcropping rock of Morgan Shoal
- Morgan Shoal and the wreck of the Silver Spray are off limits to the Contractor during construction to protect the natural and cultural resources



1: Construction schedules are limited to protect mudpuppies, a kind of freshwater salamanders living in this area

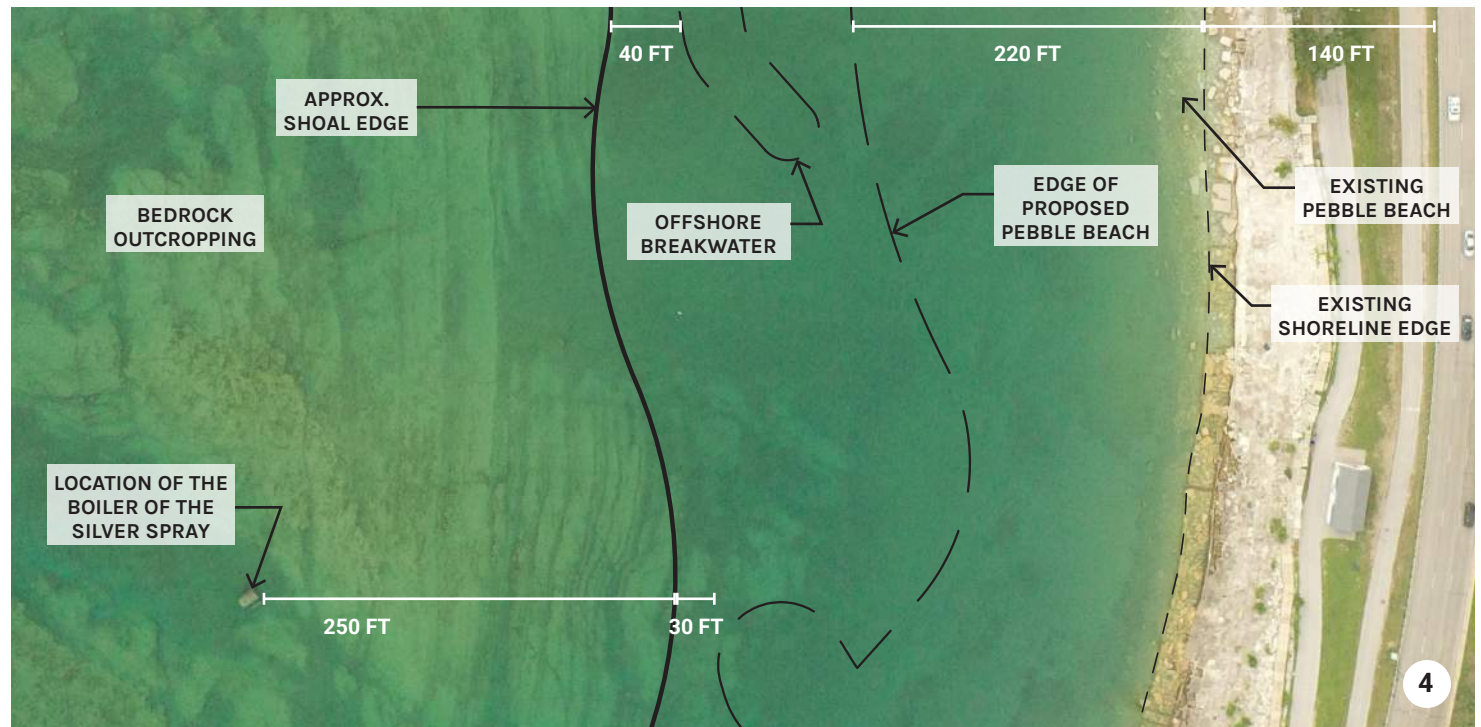
2: Existing 49th Street shoreline

3: When low water and weather conditions are right, the Silver Spray shipwreck is visible from land

4: Aerial of shoal and shipwreck off the existing coast

2024 COMMUNITY INPUT

- Protect Morgan Shoal and the Silver Spray
- Community has long history and old memories of the shoal and shipwreck



SITE FURNITURE (RECYCLING OPPORTUNITIES)

DESIGN EVOLUTION

- As well as recycled stone, standard benches with arm rests will also be provided
- New drinking fountains are included as part of the project
- Bike racks at multiple locations will be added to the park as part of the project



1



2



3

1: Outdated drinking fountain will be replaced with a new, accessible one

2: Conceptual rendering of carved rocks used as seating under the public restroom

3: Conceptual renderings of carved stone and limestone blocks repurposed into seating w/ standard benches

DRAFT CONCEPTUAL RENDERING @ LOOKOUT



3

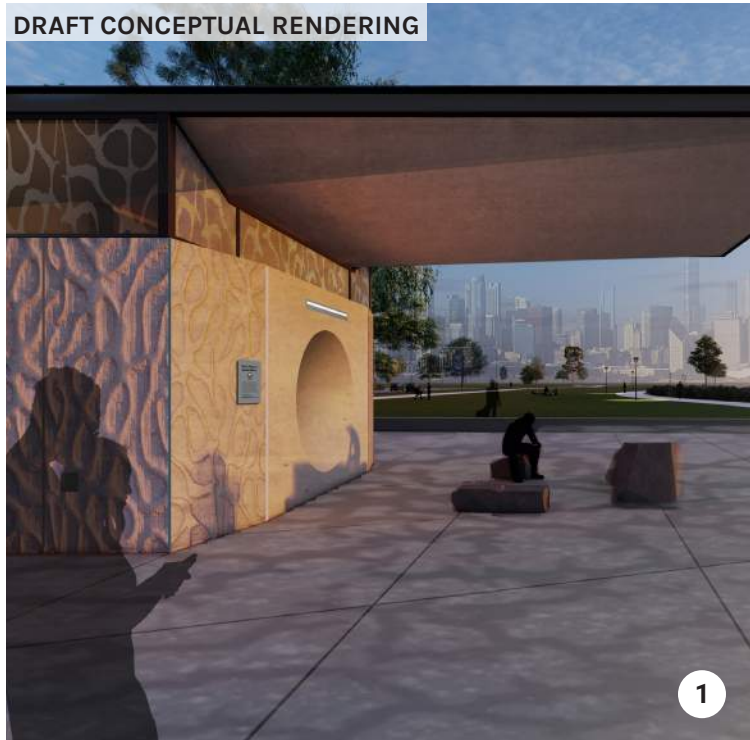
COMMUNITY INPUT

- Places to sit, lounge, lay, read, by the water, beneath trees, by natural areas
- Inclusion of traditional seating with arm rests
- More bike racks

PUBLIC RESTROOM

DESIGN EVOLUTION

- Proposed public restroom is smaller than proposed during the 2015 Framework Plan and is located further away from the lake edge
- The public restroom will be a seasonal, gender-neutral facility
- Artistic interventions integrated with public restroom building



1: Rendering of sound mirror. People standing in front of the sound mirror will be able to hear sounds of the water, wind, and birds from further away

2: Rendering of 800 SF building cast with pattern of lake sounds. Pattern extends into fritted windows for birds



3: Rendering of gender-neutral restroom w/ high privacy stalls



COMMUNITY INPUT

- Accessible restroom facilities
- Better maintenance and upkeep
- Clear sightlines
- Art component



Anticipated Construction Schedule

- Contractor Procurement: Q3 2025
- Construction Duration: Approximately 3 to 4 years

How to Follow Along for Project Updates

Public Building Commission (PBC)

As a public entity, all of PBC's procurement information and board meetings are available for public viewing.

- Follow their website for project updates: www.pbcchicago.com
- Subscribe to PBC alert
- Communications Director Bryant Payne may be reached via email at PBC@PBCChicago.com or PBC's general phone number 312-744-3090

U.S. Army Corps of Engineers (USACE)

There are multiple permit processes for a complicated coastal project like this. The National Environmental Policy Act (NEPA) permitting process requires the project be made available for public comment.

- Subscribe to USACE's newsletter for their announcement
- Follow their website to comment on the project

Chicago Park District (CPD)

The land this study pertains to is managed by CPD.

- Follow their website for project updates
- Submit comments on their website



Link to PBC Alerts

THANK YOU

We appreciate your active input and care
for Chicago's lakefront and parks.

For more information, please email
PBC@PBCChicago.com
or call (312) 744-3090



Link to PBC
Project Page



US Army Corps
of Engineers



LAMONT J. ROBINSON
4TH WARD ALDERMAN

