

**CENTENNIAL**  
BEACH & BLUFF IMPROVEMENTS



# **CENTENNIAL BEACH & BLUFF IMPROVEMENTS**

Village of Winnetka Zoning Board Presentation



# AGENDA

**HISTORY OF THE MASTER PLAN**

**LAKEFRONT PARKS IMPLEMENTATION PLAN**

**CENTENNIAL BACKGROUND**

**VALUE OF REGULATORY REVIEW**

**WHY WE ARE HERE**

**PROPOSED DESIGN**



# History of the Master Plan



## Background Info


### What drove the need for Master Plan study?

- Effects of fluctuating Lake Michigan water levels and damage from extreme lake events
- New policy at a regional level provided clear, holistic, actionable approach and grant opportunities for lakefront communities
- IDNR Coastal Management Program as funded by NOAA

### Master Planning Efforts

- Lakefront 2030 Master Plan (WPD, 2016)
- Bluff Restoration Plan (WPD, 2019)
- Strategic Comprehensive Plan (VOW, 2023)

*Winnetka Park District and the Village of Winnetka have an aligned mission to improve resident access to open spaces and natural areas including the lakefront beaches.*



***“Our mission is to provide a balance of quality recreation and leisure opportunities while protecting assets, natural resources, and open space to benefit present and future generations.”***



# History of the Master Plan

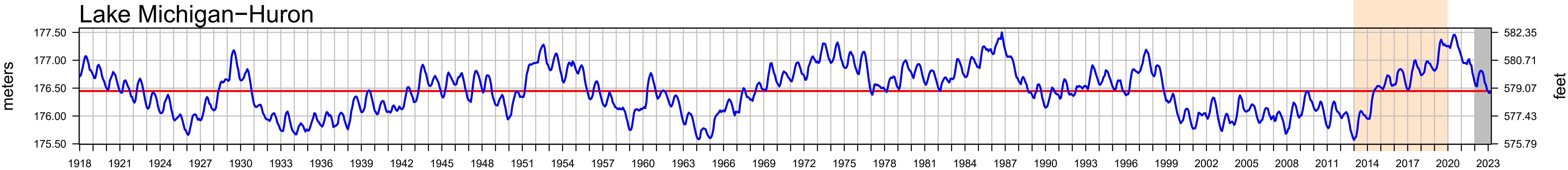


## Lake Michigan Conditions



Great Lakes Water Levels (1918–2023)

Monthly Mean Level      Long Term Average Annual



SEE THE IMPACT AT THE  
BEACHES BELOW

CENTENNIAL BEACH, HIGH WATER 2020



LLOYD BEACH, WINTER 2013



LLOYD BEACH, 2020



In January **2013**, Lake Michigan water dropped to its **lowest level** in more than 100 years, declining to **576.02** (IGLD 1985)

Subsequent years were marked by rapidly rising lake levels.

By **2020**, the Lake Michigan water level rebounded and neared the **100-year record high water** levels from January through August, reaching a peak of **582.22** in July of 2020.

The increase in water level of more than **6 feet** in just **seven years** was unprecedented.

**Winnetka Park District determined that the future of the bluffs and beaches is not secure and sought to plan for the future.**

**Further planning studies revealed erosion control measures and beach improvements need to be designed to protect against erosion and afford usable public access at varying lake levels.**



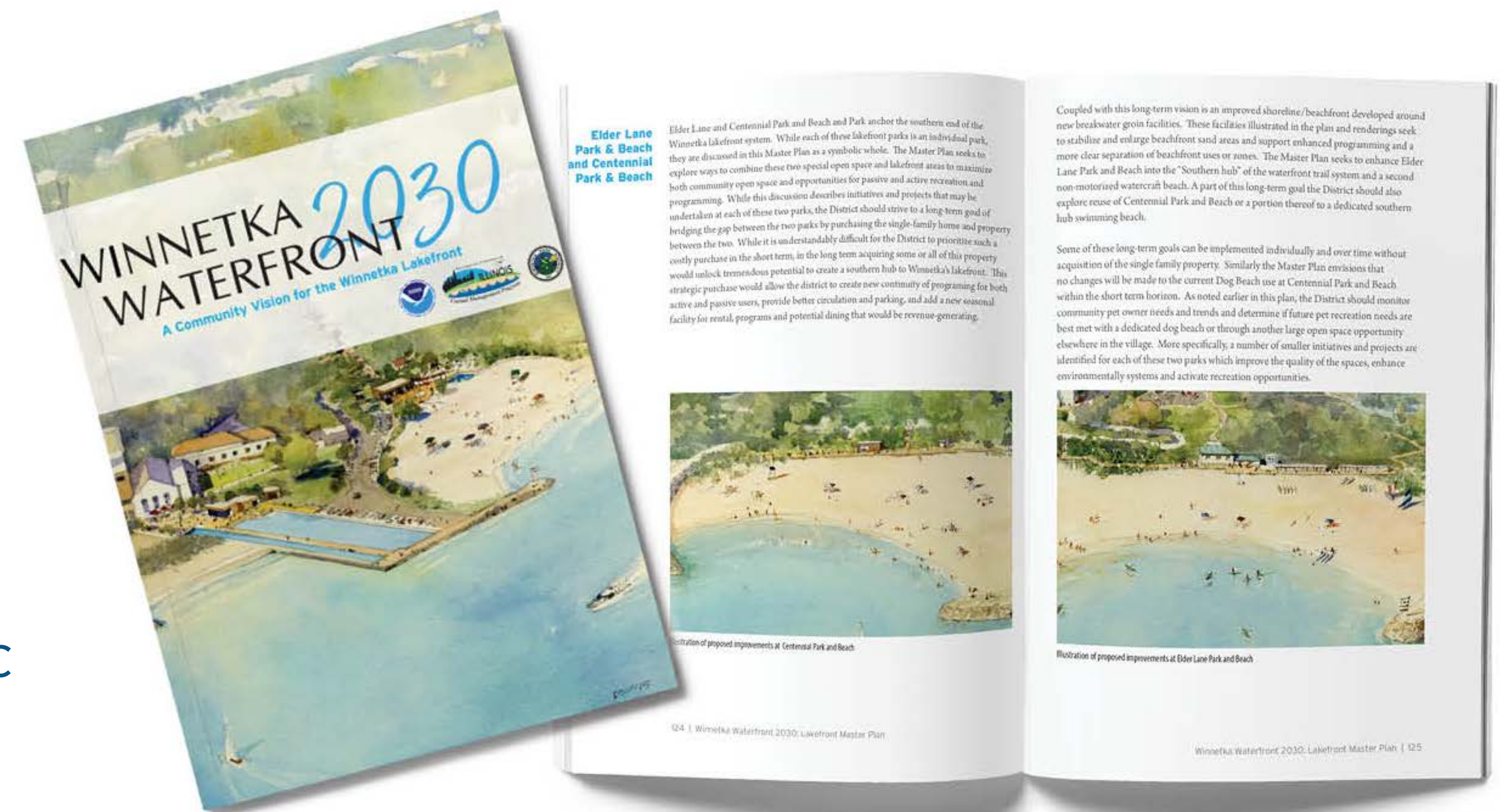
# History of the Master Plan

## Lakefront 2030 Master Plan

### PURPOSE AND MISSION

As the stewards of the Winnetka natural areas, resources, and open space recreation areas, the Park District initiated a comprehensive waterfront plan in 2014, to:

- Assess the recreational beach system
  - Address the continuing beach erosion
  - Expand recreational uses
  - Enhance ADA accessibility
- The purpose of the plan was "to create a strategic and unified community vision for the future of Winnetka's shoreline."
  - The Plan's Mission Statement was to "provide a long-term, sustainable strategy for the preservation, protection, restoration, and enhancement of Winnetka's lakefront for both Winnetka residents and a broad range of Lake Michigan user groups."





# History of the Master Plan

## Lakefront 2030 Master Plan



## PROJECT GUIDING PILLARS

To support the mission, the planning team established **seven plan goals**:

1. Enhance recreation and open space facilities and programming for Winnetka residents.
2. Develop facilities with intergenerational appeal.
3. Facilitate safe and convenient access.
4. Support and enhance Lake Michigan ecosystems.
5. Adopt a sustainable operations model.
6. Expose and inform Winnetka residents to the value of the public lakefront.
7. Encourage and seek partnerships (public and private).

### LAKEFRONT MASTER PLAN PROJECT TEAM

**THE  
LAKOTA  
GROUP.**

**GHA** GEWALT HAMILTON  
ASSOCIATES, INC.  
CONSULTING ENGINEERS

**OKW**  
Architects

**Baird.**  
Innovation Engineered.

 Shabica & Associates, Inc.



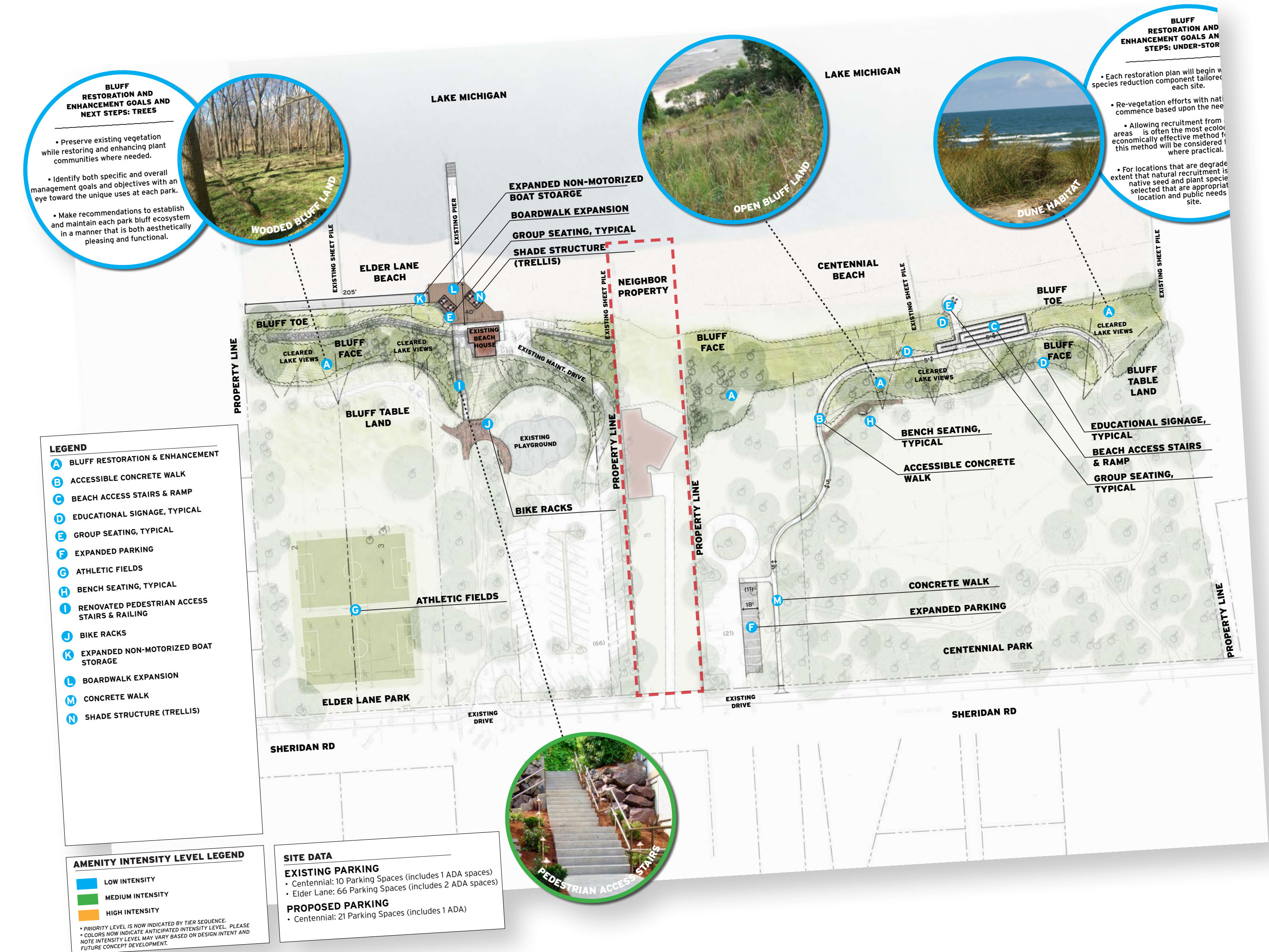
# History of the Master Plan

## Bluff Restoration Plans

### PURPOSE AND MISSION

In 2018, the Park District initiated a comprehensive study of bluff lands at all five lakefront parks to:

- Establish bluff vegetation and habitat creation goals
- Address slope instability and erosion
- Further define park recreational uses
- Improve views to the lake and provide bluff and beach access
- Establish phasing and timeline for implementation



- The purpose of the plan was to "clearly articulate the desired character and goals for each park and establish the right balance of natural habitat, open space, viewshed opportunities, and active and passive recreational pursuits."
- The Plans were shared with the community through public meetings and virtual surveys with feedback from over 160 participants

### FAVORITE AMENITIES FROM THE ELDER & CENTENNIAL PARK MASTER PLAN

Indicated below..





# History of the Master Plan

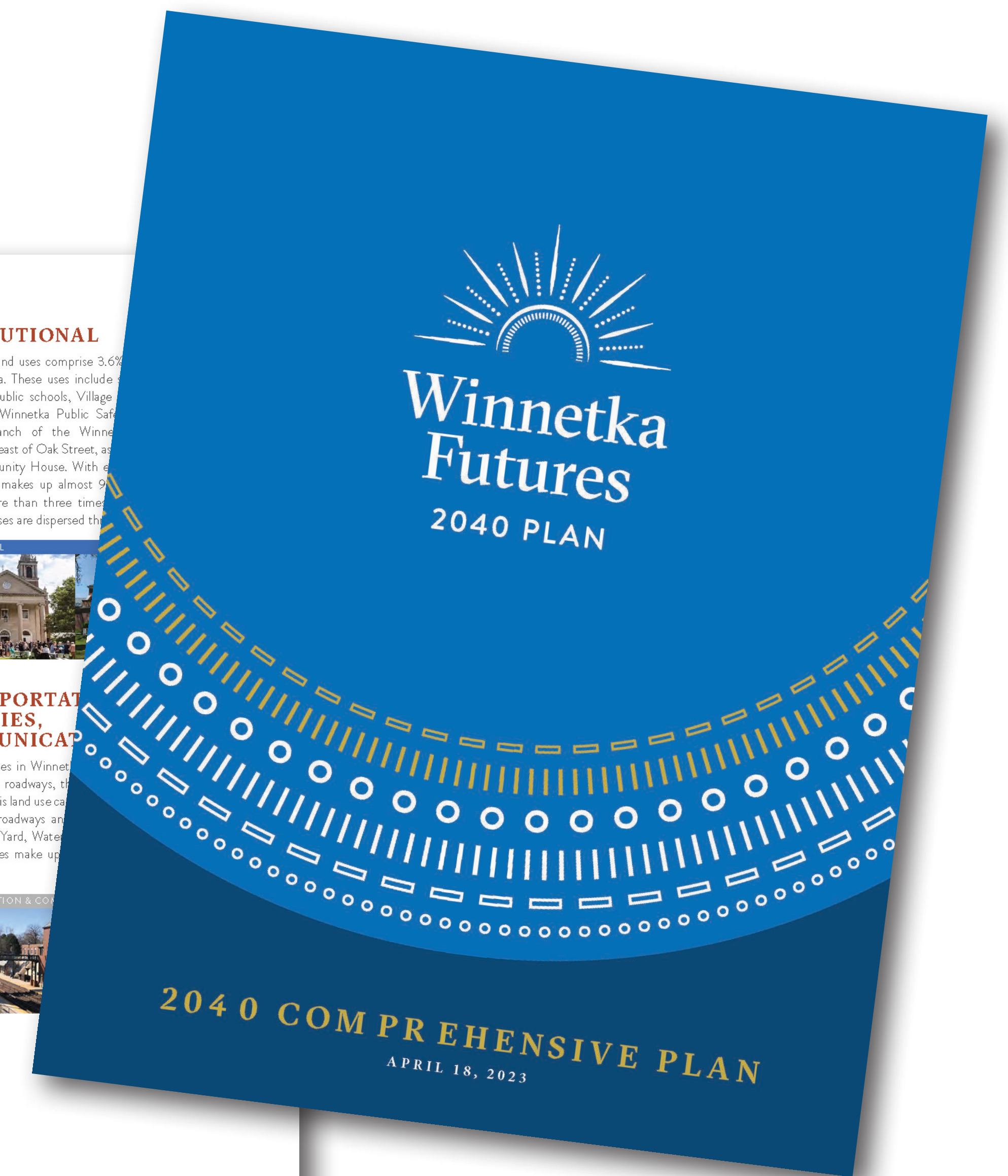
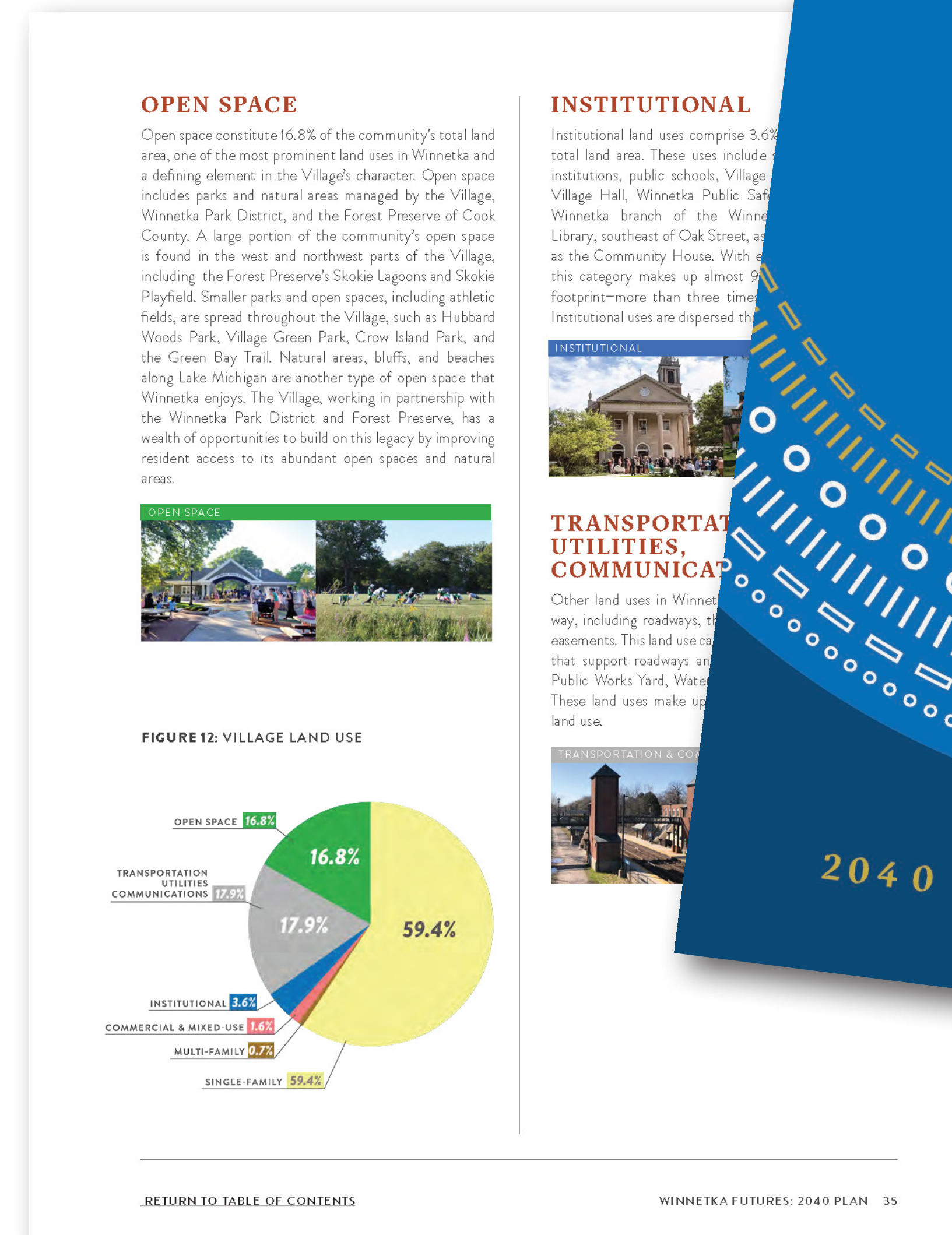


## Village of Winnetka 2040 Comprehensive Plan

### OVERVIEW AND IMPORTANCE OF PARTNERSHIPS BETWEEN INTERGOVERNMENTAL AGENCIES

- On April 18, 2023 the Village of Winnetka adopted the **Winnetka Futures 2040 Plan** (Comprehensive Plan for the Village of Winnetka).
- The Village Comprehensive Plan recognized the **important role that the Park District plays** in creating a sense of place that is different from surrounding communities.
- The Village acknowledged the "**wealth of opportunities it has working in partnership with the Park District to improve resident access to its abundant open spaces and natural areas.**"

*see page 35 of the Comprehensive Plan*





# History of the Master Plan



## Village of Winnetka 2040 Comprehensive Plan

### SHARED PURPOSE AND MISSION

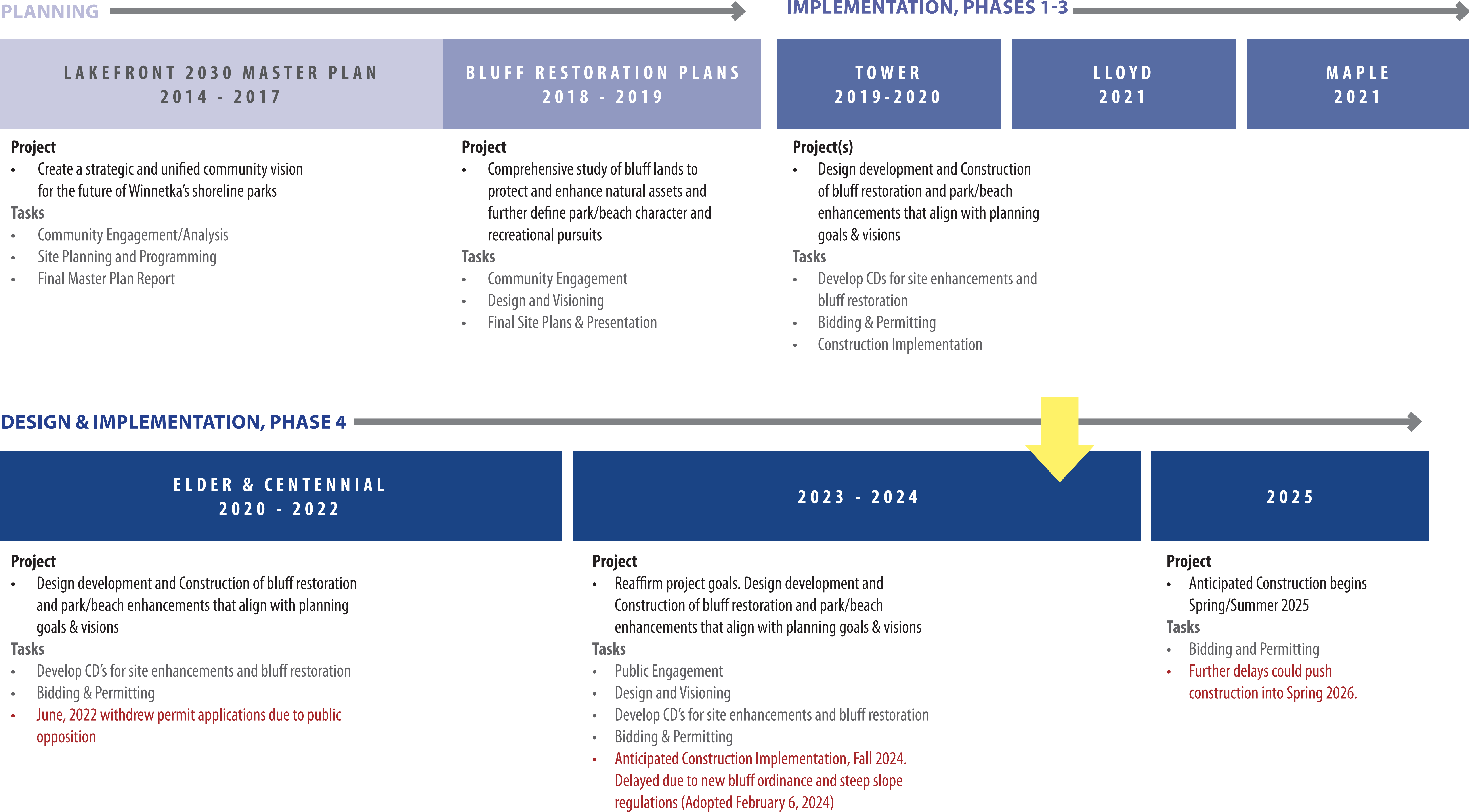
- The Village Comprehensive Plan supports the Lakefront Master Plan's shoreline and bluff stabilization goals and visions  
*see page 157 of the Comprehensive Plan*
- Acknowledges that shorelines along Lake Michigan are experiencing erosion and significant destruction and that Winnetka's lakefront, both publicly and privately owned, has been negatively impacted by shoreline erosion  
*see page 157 of the Comprehensive Plan*
- Acknowledges the Park District's recent efforts to monitor and restore its parkland  
*see page 158 of the Comprehensive Plan*

**“Our mission is to provide a balance of quality recreation and leisure opportunities while protecting assets, natural resources, and open space to benefit present and future generations.”**





# Lakefront Parks Implementation Plan





# Lakefront Parks Implementation Plan

**CENTENNIAL**  
BEACH & BLUFF IMPROVEMENTS



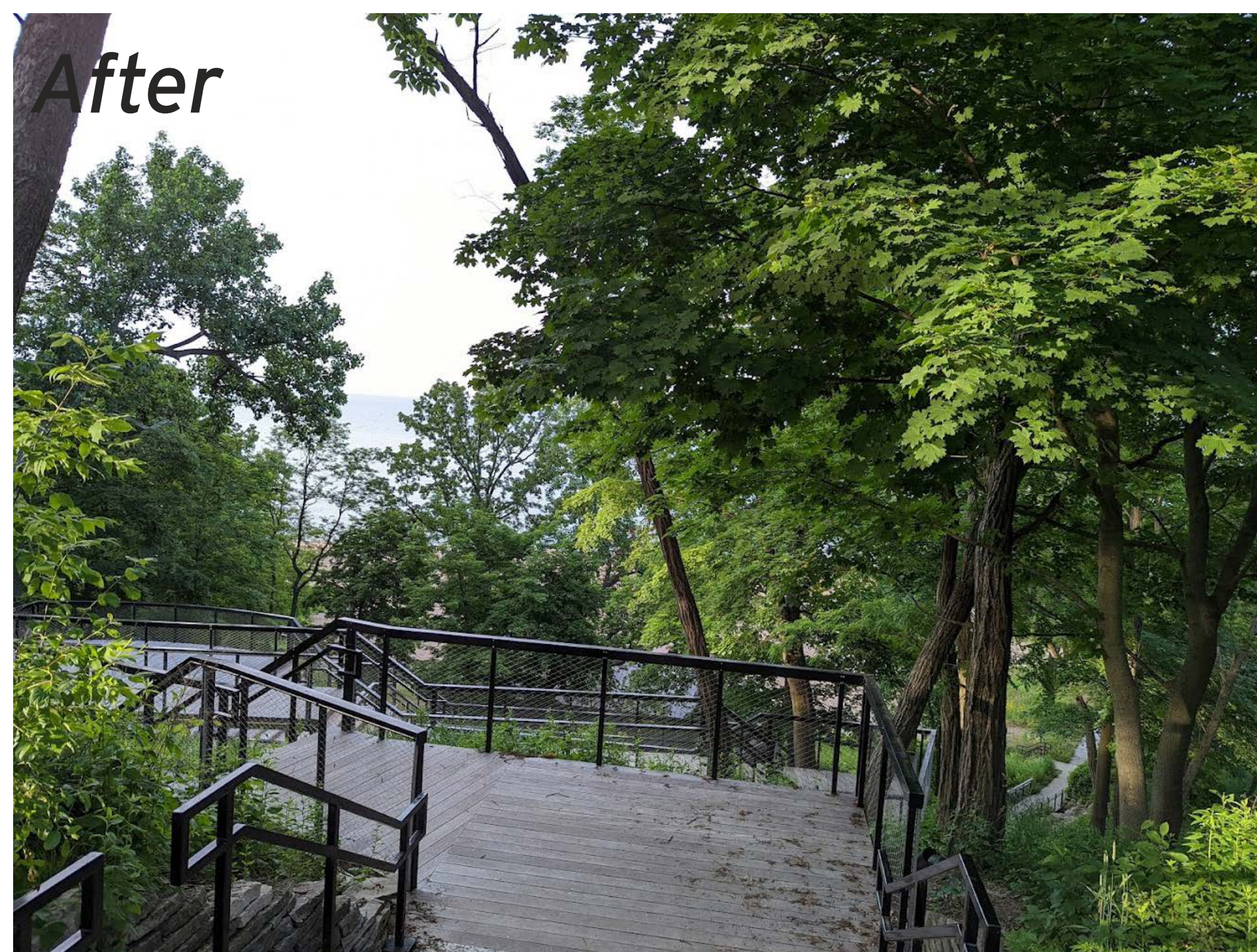
## Project completion and ongoing progress

Tower Bluff, 2019 - 2020



### Tower

- New staircase from parkland to beach
- New ADA lookout at top of bluff
- New overlook platform along staircase
- Bluff “restoration” & ongoing maintenance
- Parking lot entry plaza and sidewalk renovations



Lloyd Bluff & Beach, 2021



### Lloyd

- Shoreline protection and beach creation
- Retaining wall for bluff erosion protection
- Pedestrian access ramp
- Bluff “restoration” & ongoing maintenance
- Hardwood boardwalk





# Lakefront Parks Implementation Plan



## Project completion and ongoing progress

Maple Bluff & Beach, 2021



### Maple

- New boardwalk
- Bluff “restoration” & ongoing maintenance
- Repair gabion retaining wall for bluff erosion protection

Centennial Bluff & Beach, 2020 - Now



### Centennial

- Shoreline protection and beach creation
- Dog vs. swimming beach delineation
- Breakwater and pier structure
- Pedestrian ADA access ramp / staircases
- Bluff “restoration” & ongoing maintenance
- Hardwood boardwalk

...Elder To Come



# Centennial Background



## Our Current Focus

1. Long-term reinvestment in public open space
2. Increased stewardship and natural resource management
3. Improve operational efficiencies
4. Responding to public input
  - Preserve views to Lake Michigan
  - Maintain existing Dog Beach use
  - Caucus survey and four public open house meetings indicated strong community desire for reinvestment in Elder & Centennial Beaches.





# Centennial Background



## Lake Michigan Conditions



- More recent high-water conditions **have impacted lakefront infrastructure** including:
  - Dog beach fence damage
  - Primary shore protection repairs
  - Fluctuating beach sand levels (causing erosion)



# Centennial Background

## Centennial Beach Conditions

- The existing steel groins installed **circa August 1953** to arrest littoral drift and sustain the beaches are **damaged**
- Centennial Beach includes **remnants of wooden piles** at or below the surface
- Attempts at installing a **chain link fence** at Centennial Beach to establish the off-leash dog beach were **destroyed by waves**





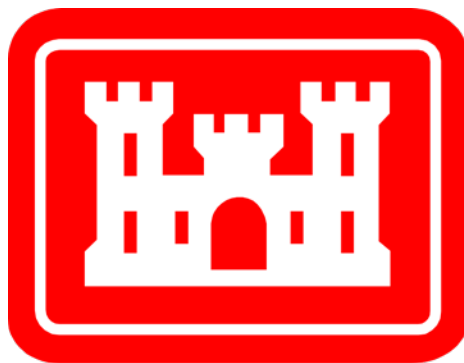
# Value of Regulatory Review & Control



## VILLAGE OF WINNETKA

Our plan is seeking special use exceptions and variance approval for Zoning and Steep Slope regulations.

- Plan Commission
- Zoning Board of Appeals
- Design Review Board
- Village Council



## US Army Corps of Engineers®

### US ARMY CORPS OF ENGINEERS

Our plan will obtain required permits from the USACE for shoreline improvements.



## IDNR

Our plan adheres to core tenets of the Coastal Management Program:

1. Public access & recreation
2. Headland beach systems
3. Preserve, protect, restore, and enhance coastal resources for this and succeeding generations



## VILLAGE OF WINNETKA

- Lakefront Construction Permits
- Building Permits



# Why We Are Here



Winnetka Park District is Seeking **ZONING** approval for:

1. A special use permit to allow construction of proposed improvements to new and existing uses as outlined in plans | *per Zoning Ordinance*  
*See chart of Proposed Project Elements.*
2. A variance to permit development in the Front Yard Setback | *per Section 17.30.050 subsection*  
*See chart of Proposed Project Elements.*
3. An exception to permit Development in the Steep Slope Zone | *Section 17.82.040*  
*See chart of Proposed Project Elements.*



# Why We Are Here



## Special Uses (Chapter 17.56)

### **SPECIAL USE PERMIT STANDARDS**

*Park District requests that it's proposed findings of fact be admitted as evidence in support of this application.*

1. That the establishment, maintenance, and operation of the special use will not be detrimental to or endanger the public health, safety, comfort, morals, or general welfare;
2. That the special use will not be substantially injurious to the use and enjoyment of other property in the immediate vicinity which are permitted by right in the district or districts of concern, nor substantially diminish or impair property values in the immediate vicinity;
3. That the establishment of the special use will not impede the normal and orderly development or improvement of other property in the immediate vicinity for uses permitted by right in the district or districts of concern;
4. That adequate measures have been or will be taken to provide ingress and egress in a manner which minimize pedestrian and vehicular traffic congestion in the public ways;
5. That adequate parking, utilities, access roads, drainage, and other facilities necessary to the operation of the special use exists or are to be provided; and
6. That the special use in all other respects conforms to the applicable regulations of this and other village ordinances and codes.



# Proposed Design

## Site Program and Mission Alignment

### SHARED PURPOSE AND MISSION

- The core functions and active & passive site uses align with Winnetka Park District Lakefront Master Plan Mission & Village of Winnetka Comprehensive Plan Pillars:

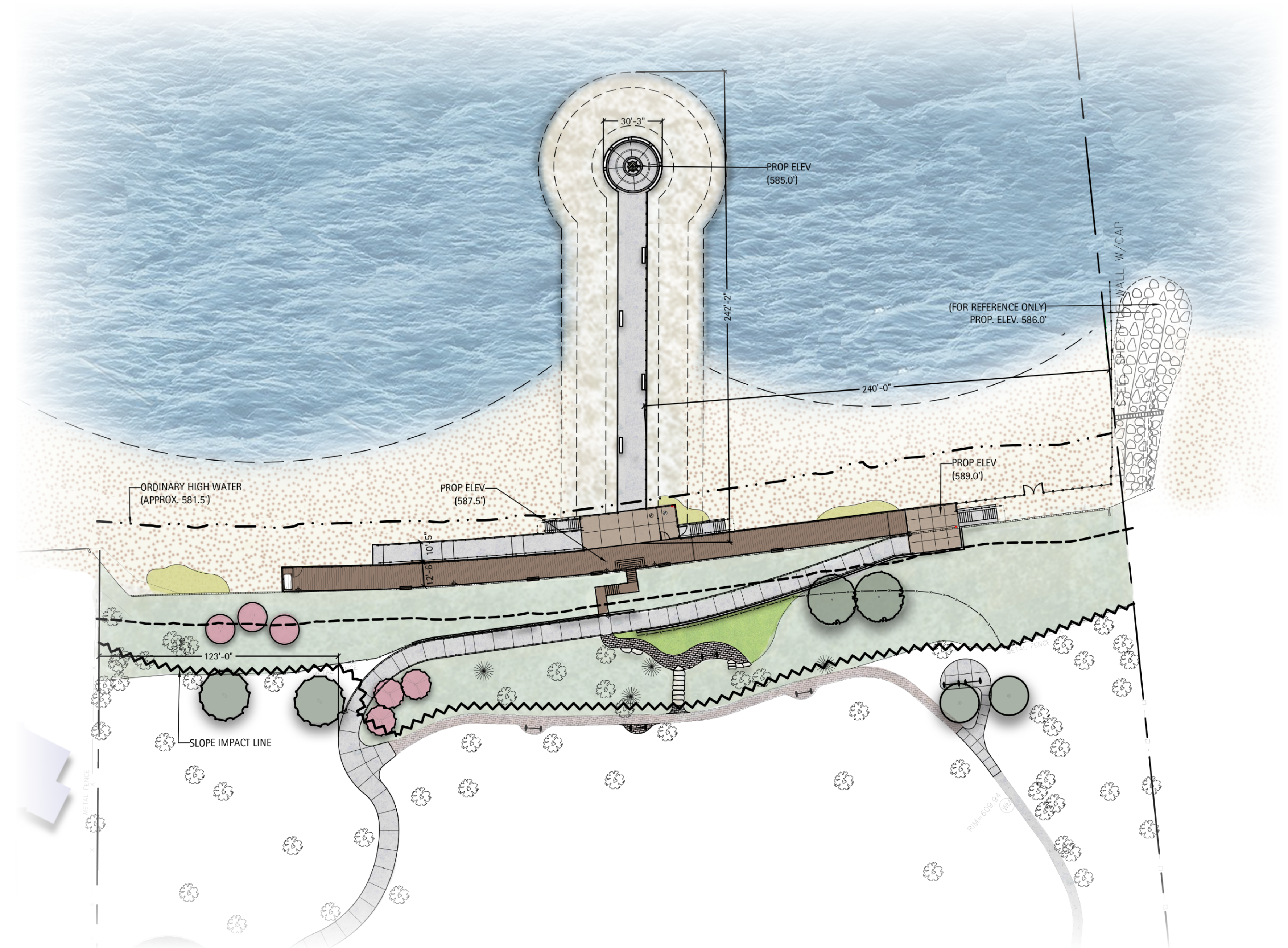
#### Active (Centennial):

- all access swimming beach
- off-leash dog beach
- ADA park and beach access
- all access viewing pier

#### Passive (Centennial):

- sand beach
- boardwalk and seating
- views to Lake Michigan
- bluff & beach vegetative habitat creation

- Changing demographics demonstrate a community that values open space, health, and happiness.

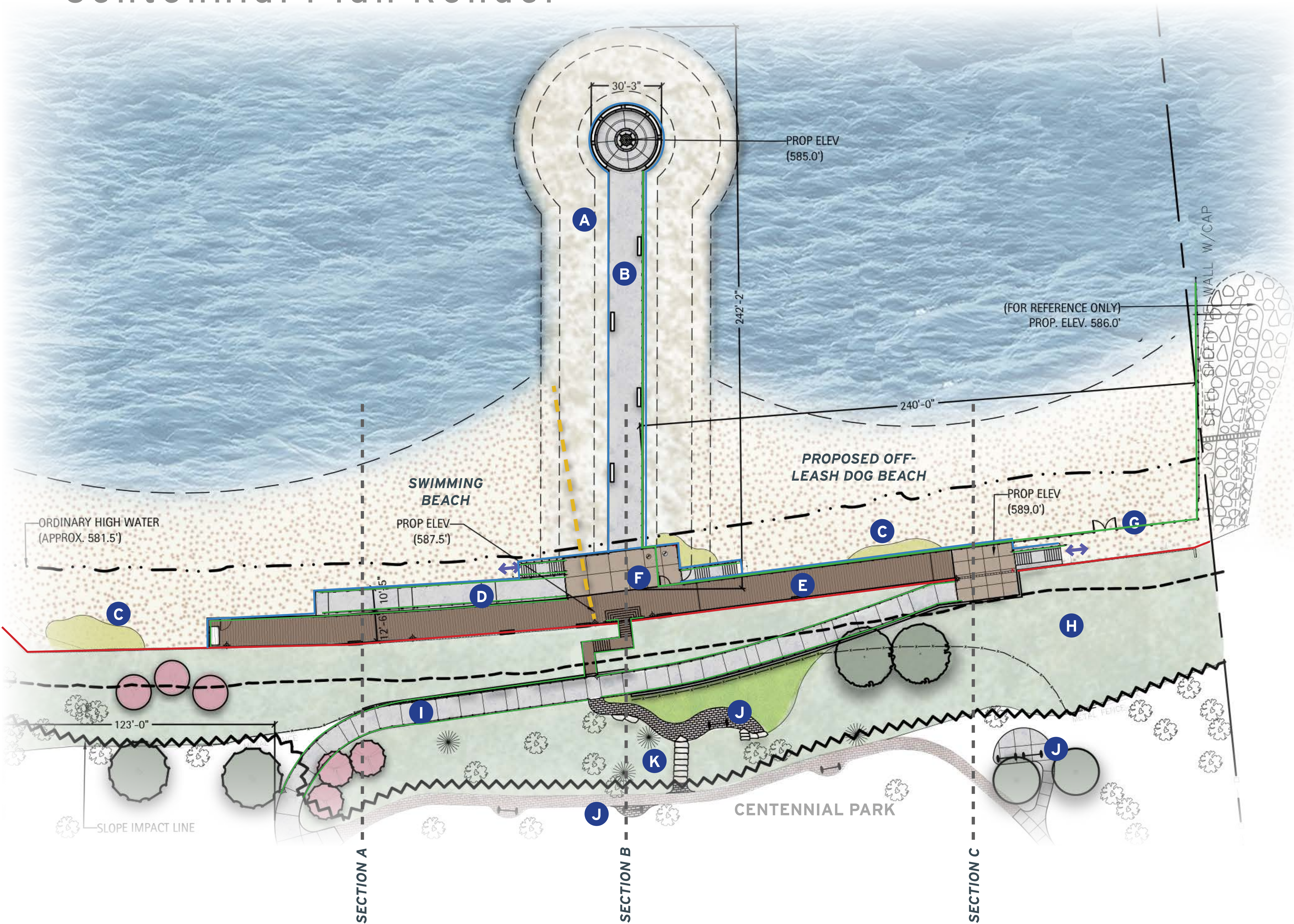


***“Our mission is to provide a balance of quality recreation and leisure opportunities while protecting assets, natural resources, and open space to benefit present and future generations.”***



# Proposed Design

## Centennial Plan Render



- LEGEND
- TURF RESTORATION
  - DUNE GRASSES
  - BLUFF RESTORATION
  - ACCESS TO BEACH
  - SHEET PILE (PROPOSED)
  - SHEET PILE (EXISTING)
  - ELEMENT TO BE REMOVED
  - ORNAMENTAL FENCE/HANDRAIL
- A RUBBLE MOUND BREAKWATER SHORELINE PROTECTION
- B ACCESSIBLE VIEWING PIER WITH BENCH SEATING
- C NATIVE BEACH DUNE PLANTING
- D ADA ACCESSIBLE BEACH ACCESS RAMP
- E ADA ACCESSIBLE BOARDWALK
- F SECURE DOG BEACH ACCESS
- G DOG BEACH FENCING
- H BLUFF RESTORATION
- I ACCESSIBLE PEDESTRIAN PATH & RAMP TO BEACH
- J RECONFIGURED SEATING AREAS (MAINTAIN PASSIVE USES & VIEWS TO LAKE)
- K OUTCROPPING STONE

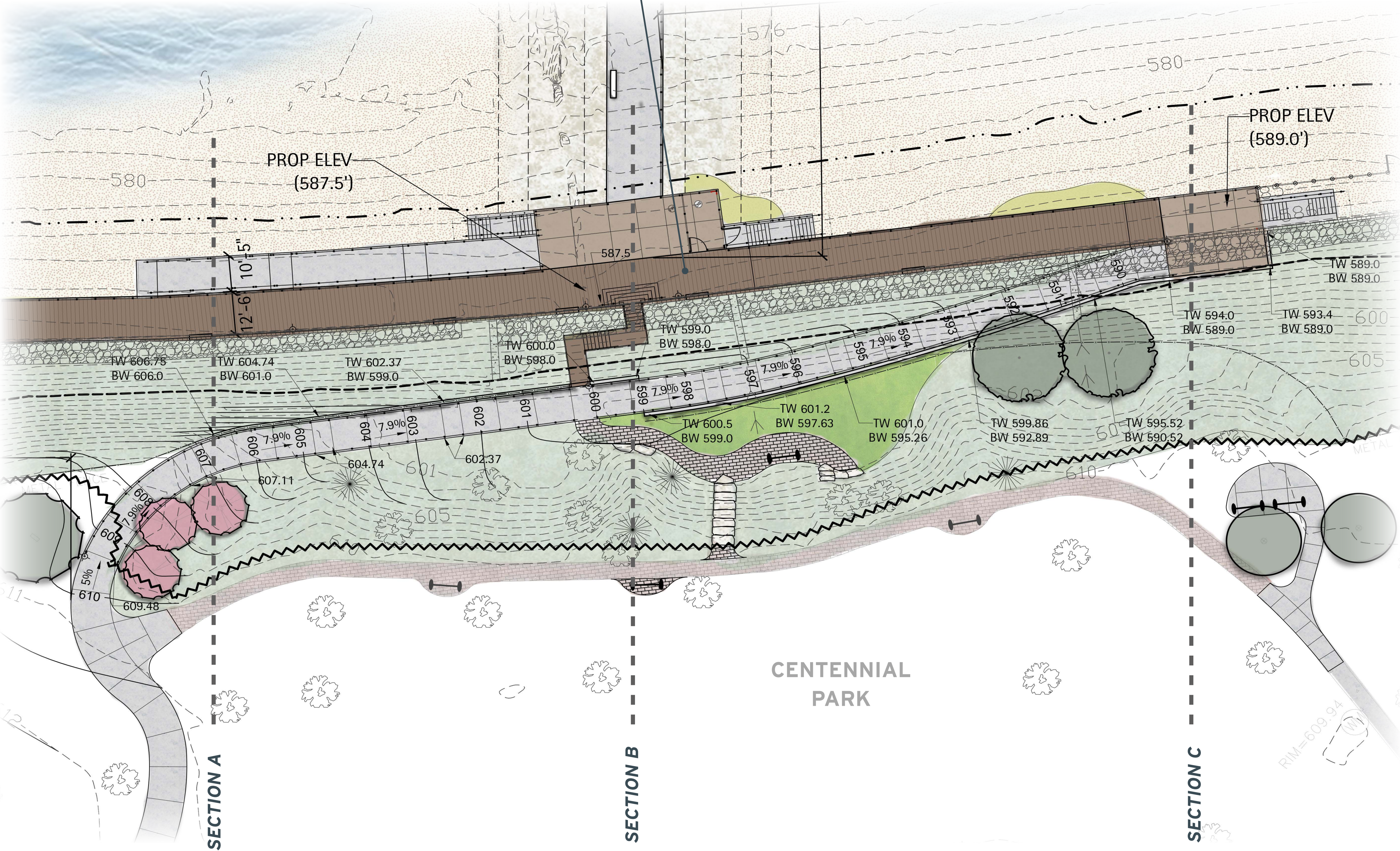


# Proposed Design

## Centennial Park Pedestrian Access

**PARK PEDESTRIAN ADA ACCESS WALK**

- ADA ACCESSIBLE
- TIE INTO EXISTING PEDESTRIAN WALKS
- MAINTAIN EXISTING MID-BLUFF STAIRCASE
- CONNECTS PARK (TABLE LAND) TO THE TOE OF THE BLUFF (CENTENNIAL BEACH) WHILE PRESERVING BREATHTAKING VIEWS TO LAKE MICHIGAN.
- MAINTENANCE ACCESS



**10/27/22 WPD BOARD MOTION**

- MOTION #5 INCORPORATE PEDESTRIAN ACCESS DOWN TO CENTENNIAL BEACH





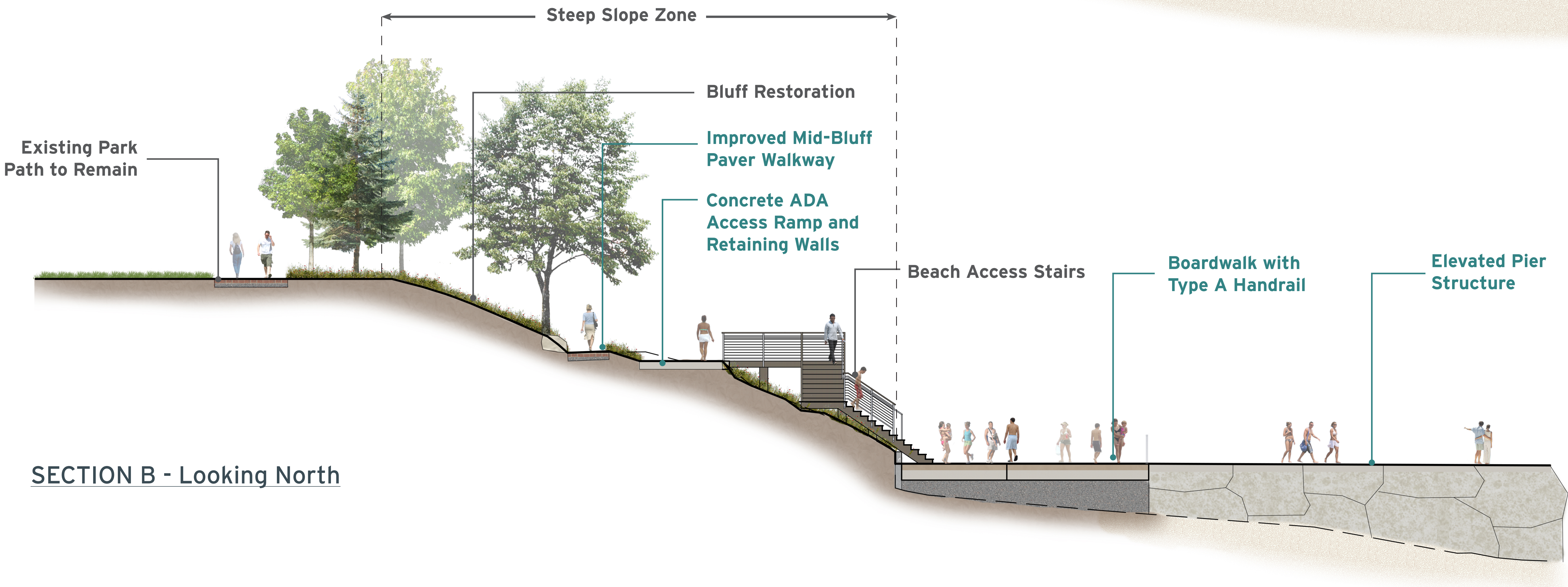
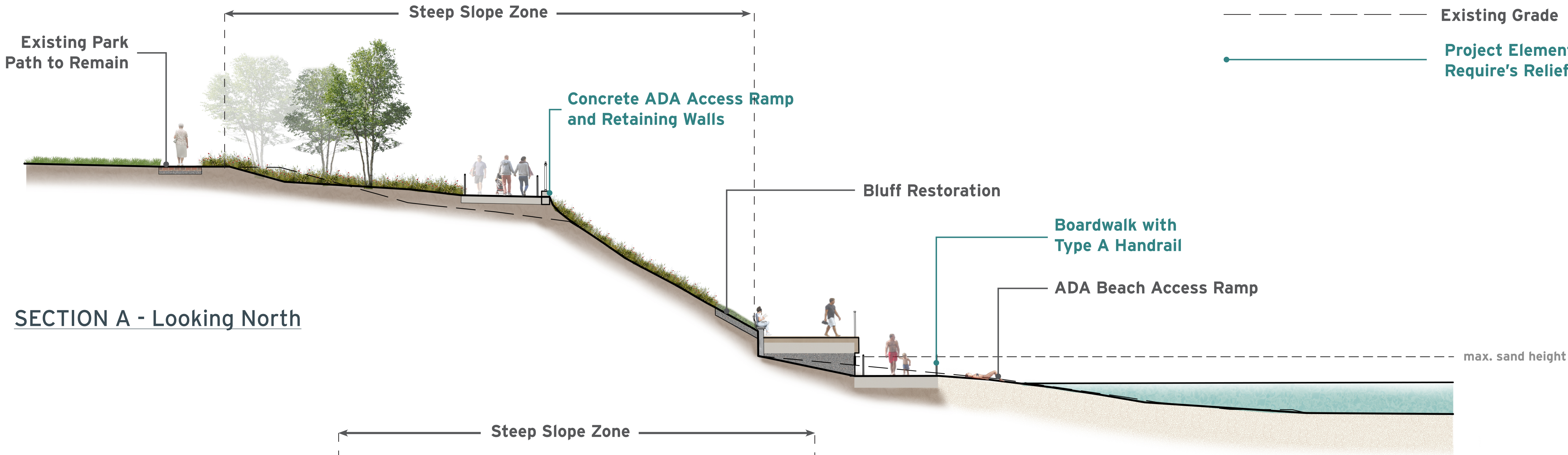
# Proposed Design



## Centennial Section Cuts

LEGEND

- Existing Grade
- Project Element  
Require's Relief





# Proposed Design

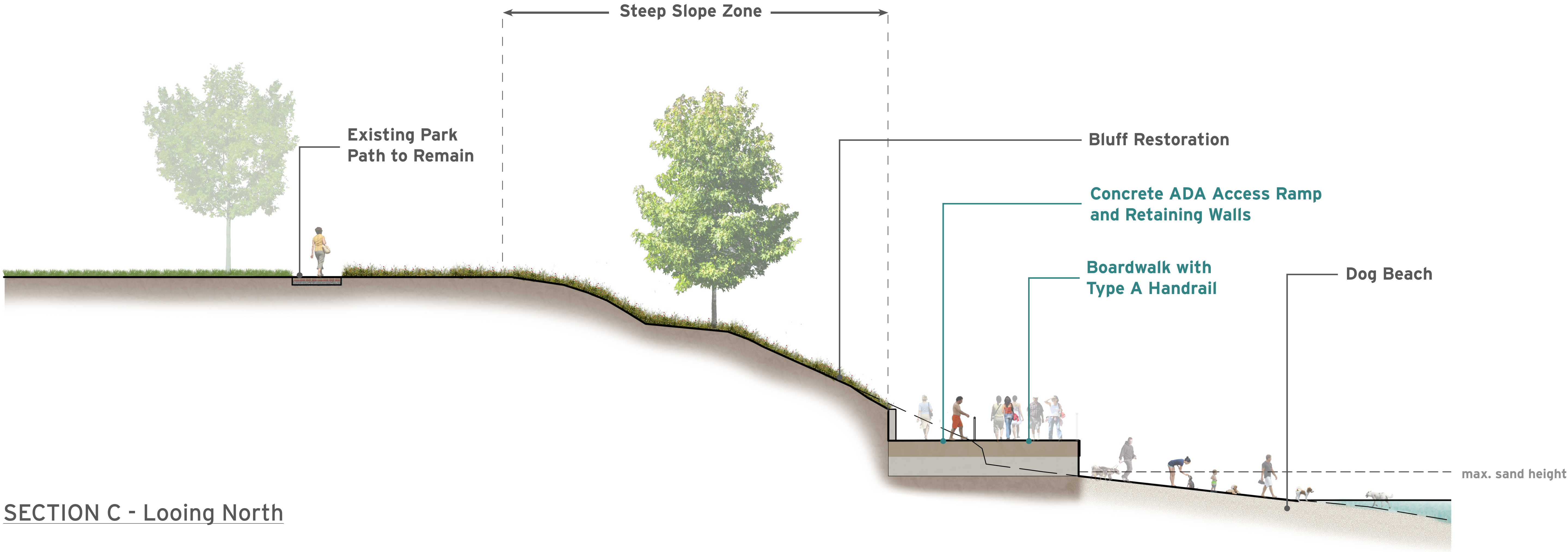


## Centennial Section Cuts

LEGEND

Existing Grade

Project Element  
Require's Relief



SECTION C - Looing North



# Proposed Design



## Centennial Beach & Park - Proposed Project Elements

### CODE SECTION: Front Yard Setback Section 17.30.050 subsection

Development on lots abutting Lake Michigan between the ordinary high water mark of lake Michigan (581.5') and the table land as defined by section 17.82.020 will also comply with Chapter 17.82, Steep Slope Regulations and Chapter 15.78 Lakefront Construction. For lots abutting lake Michigan, the required front yard setback is the toe of the bluff or 50 feet from the ordinary high water mark, whichever results in the line farthest from the ordinary high water mark. And Section 17.30.130 Obstructions in Required Yards or Court (10).

Project Element	Variance Required	Rationale
Steel Sheet Pile Replacement (Failing Wall)	<b>Yes, we are requesting a maximum variance of 1.5'</b> for this primary shore protection	Primary shore protection, structural replacement to the existing sheeting and allow for proper backfilling and planting of the bluff slope.
Boardwalk with Type A Handrail (Fencing) (elev. 587.5' - 589.0')	<b>Yes, we are requesting a maximum variance of 2'</b> for this section of the boardwalk.	Supplemental Shore Protection and structural support for the beach boardwalk, Type A handrails, accessible beach route and support access for life safety and maintenance equipment for the beach.
Boardwalk with Type A Handrail (Fencing) (elev. 587.5' - 589.0')	<b>Yes, we are requesting a maximum variance of 4'</b> for this section of the boardwalk.	Supplemental Shore Protection and structural support for the beach boardwalk, Type A handrails, accessible beach route and support access for life safety and maintenance equipment for the beach.
Boardwalk with Type A Handrail (Fencing) (elev. 587.5' - 589.0')	<b>Yes, we are requesting a maximum variance of 1.5'</b> in the section of the boardwalk.	Supplemental Shore Protection and structural support for the beach boardwalk, Type A handrails, accessible beach route and support access for life safety and maintenance equipment for the beach.
Elevated Pier Structure	<b>Yes, we are requesting a maximum variance of 3'</b> in this six foot area of the pier.	Beach stabilization, structural support for the pier, type A handrails, accessible beach route and support access for life safety.





## Centennial Beach & Park - Proposed Project Elements

### CODE SECTION: Development in Steep Slope Zone Section 17.82.040

Proposed improvements must meet the requirements for Ordinance No. MC-01-2024, Steep Slope Area Along Lake Michigan and required Zoning Requirements as noted in Section 17.82.040.

Project Element	Exception Required	Rationale
Concrete ADA Access Ramp and required retaining walls to support the ramp	The Park District is looking for <b>exception of this improvement</b> from the Slope Impact Area, <b>to allow for the accessible connection</b> to the Centennial Beach Level amenities.	ADA Universal Design and site connectivity.
Outcropping Stone Steps	The proposed stair width is 1' greater than the allowable limit. We are requesting an <b>exception for this improvement</b> to accommodate the <b>additional 1 foot width</b> of the outcropping stone staircase.	Recreational Asset and Site Connectivity
Improved Mid-Bluff paver walkway and seating area	The proposed paver walkway is being reconfigured and not following the current footprint, which makes it a new improvement. Since the <b>new area is wider than 5'</b> we are requesting a <b>exception</b> .	Recreational Asset and Site Connectivity

*Please note that all of these elements serve two main purposes; **Maintain and Preserve the Bluff and Provide ADA Access from the Public ROW.***



# Proposed Design



## Perspective - Centennial Breakwater Looking West

EYE-LEVEL APPROX. 65.5" HT (ASSUMES APPROX. 5'-10" HT. INDIVIDUAL)





# Proposed Design

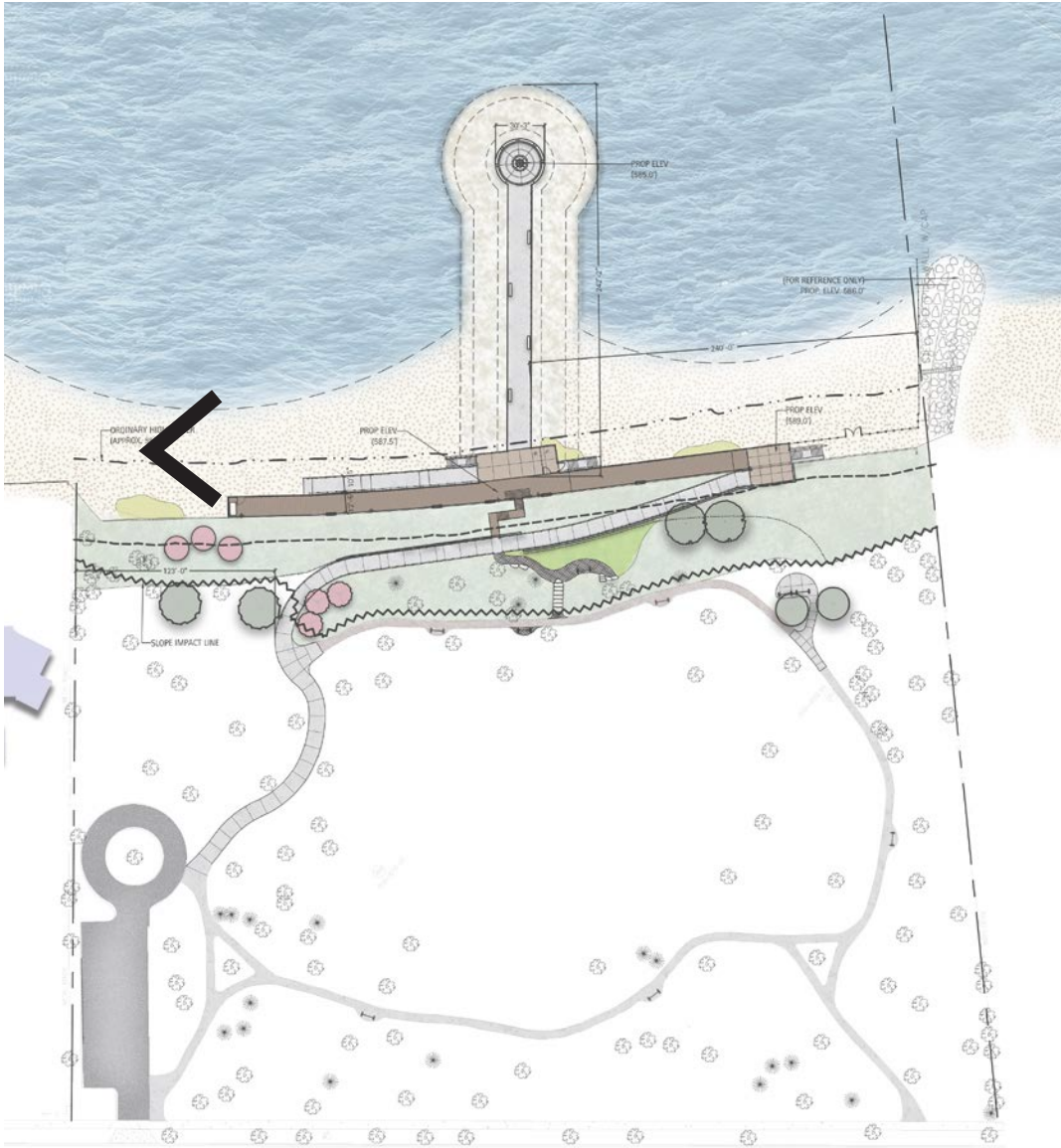


## Perspective - Centennial Swimming Beach Looking South

EYE-LEVEL APPROX. 65.5" HT (ASSUMES APPROX. 5'-10" HT. INDIVIDUAL)



KEY MAP





# Proposed Design

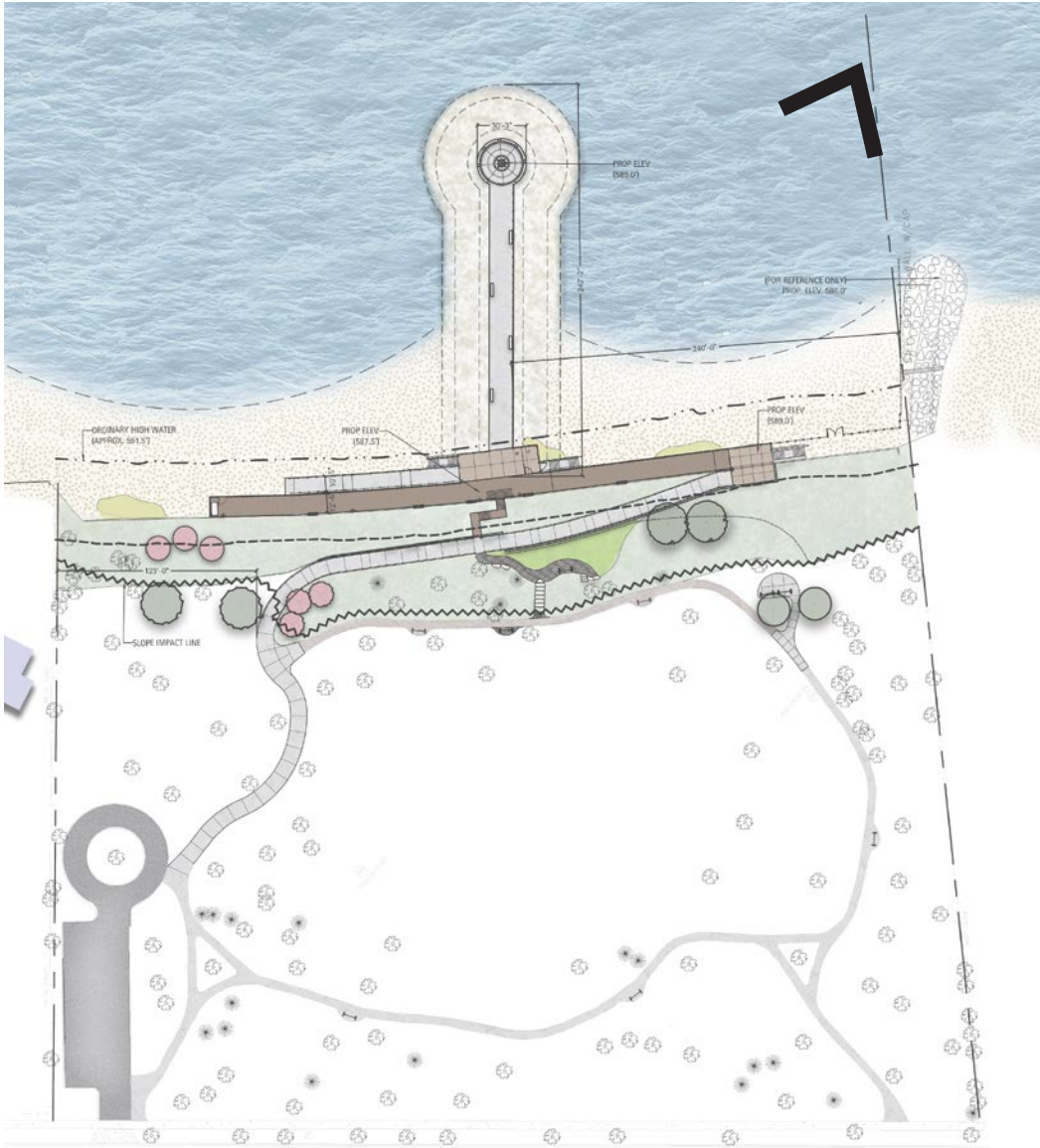


## Perspective - Bird's Eye View at South Centennial Looking W/NW

BIRDSEYE-LEVEL



KEY MAP





# Proposed Design

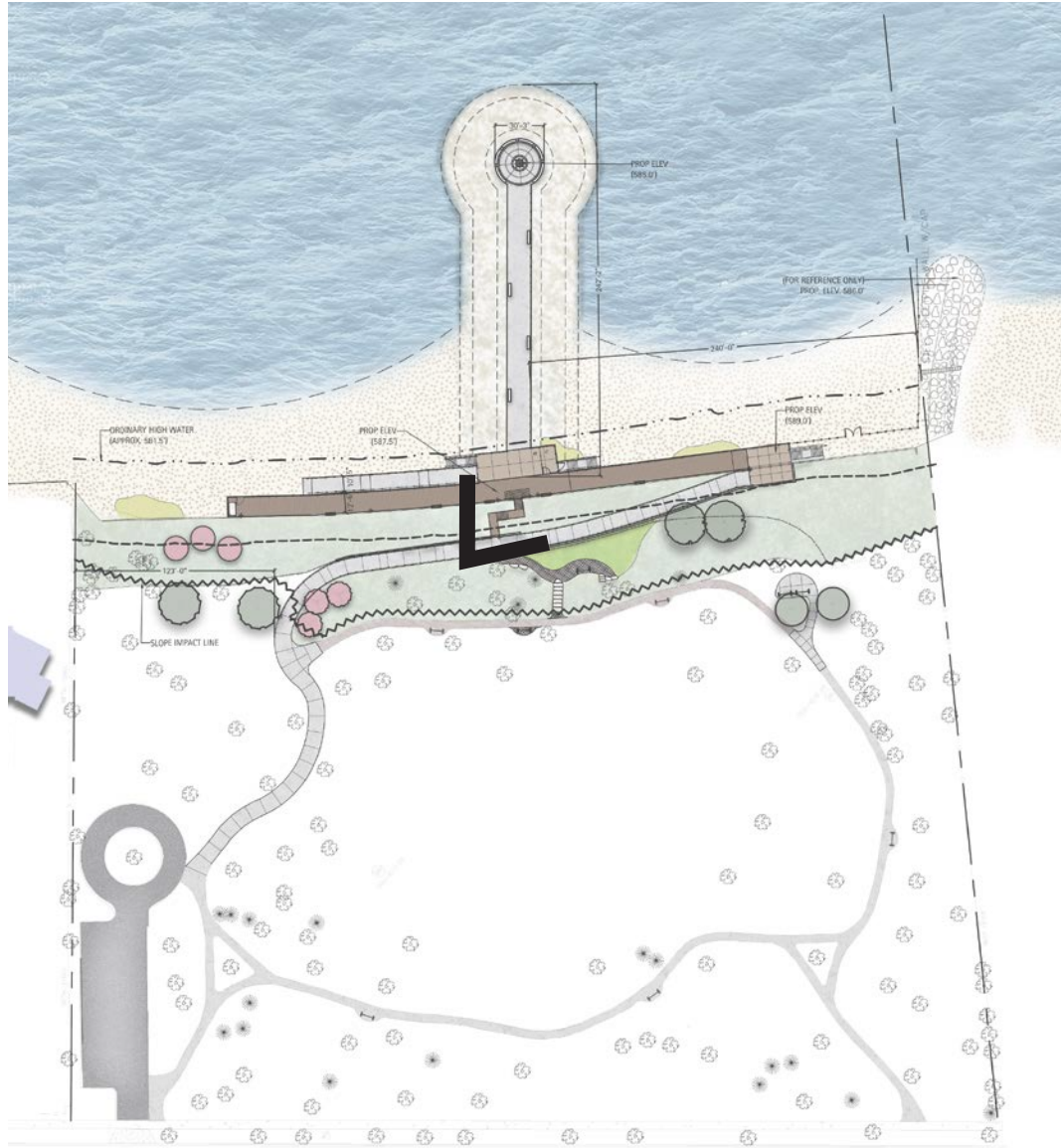


## Perspective - Centennial Access Path Looking E/SE

EYE-LEVEL APPROX. 65.5" HT (ASSUMES APPROX. 5'-10" HT. INDIVIDUAL)



KEY MAP





# Proposed Design

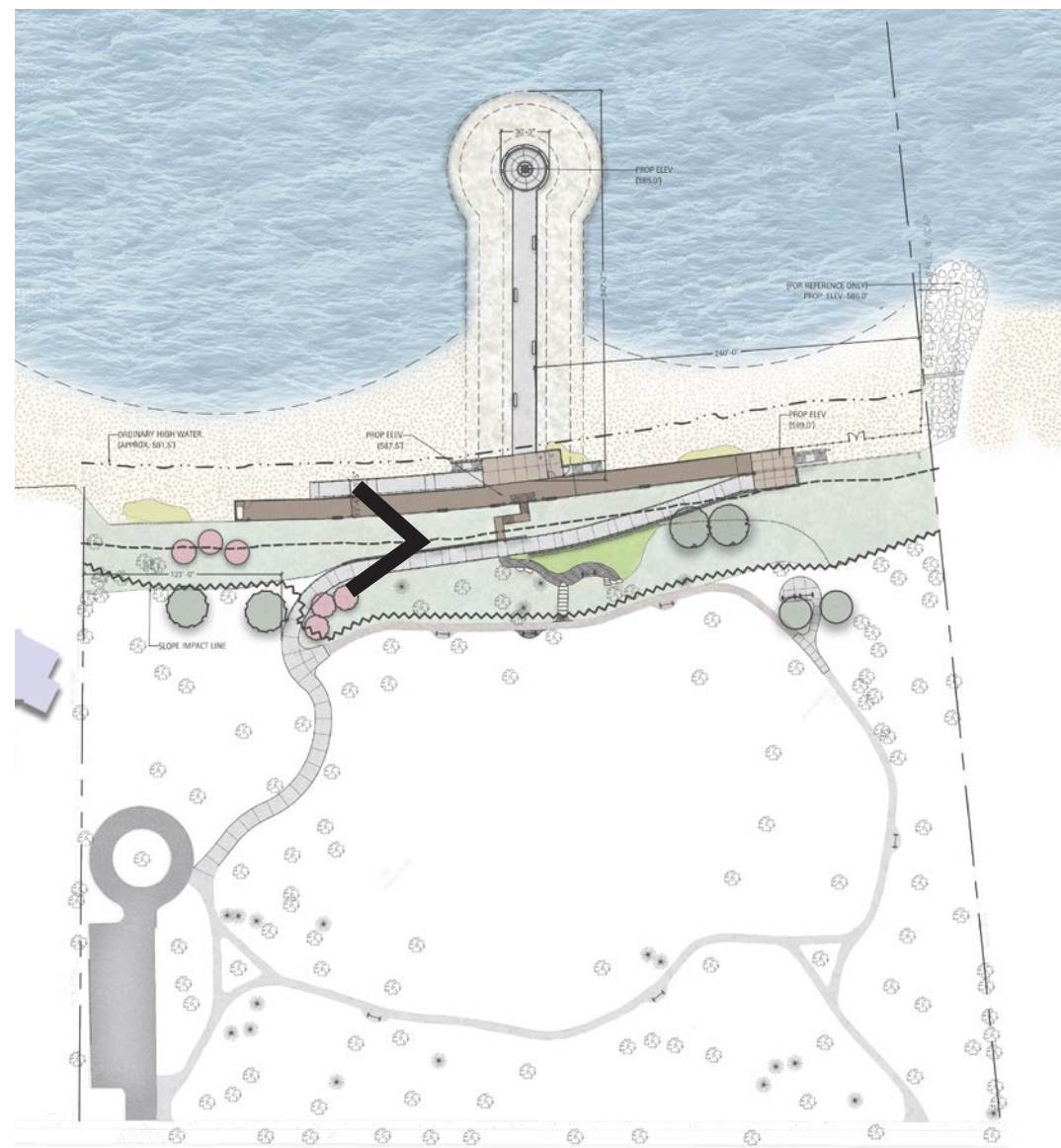


## Perspective - Centennial Access Path Looking N/NE

EYE-LEVEL APPROX. 65.5" HT (ASSUMES APPROX. 5'-10" HT. INDIVIDUAL)



KEY MAP



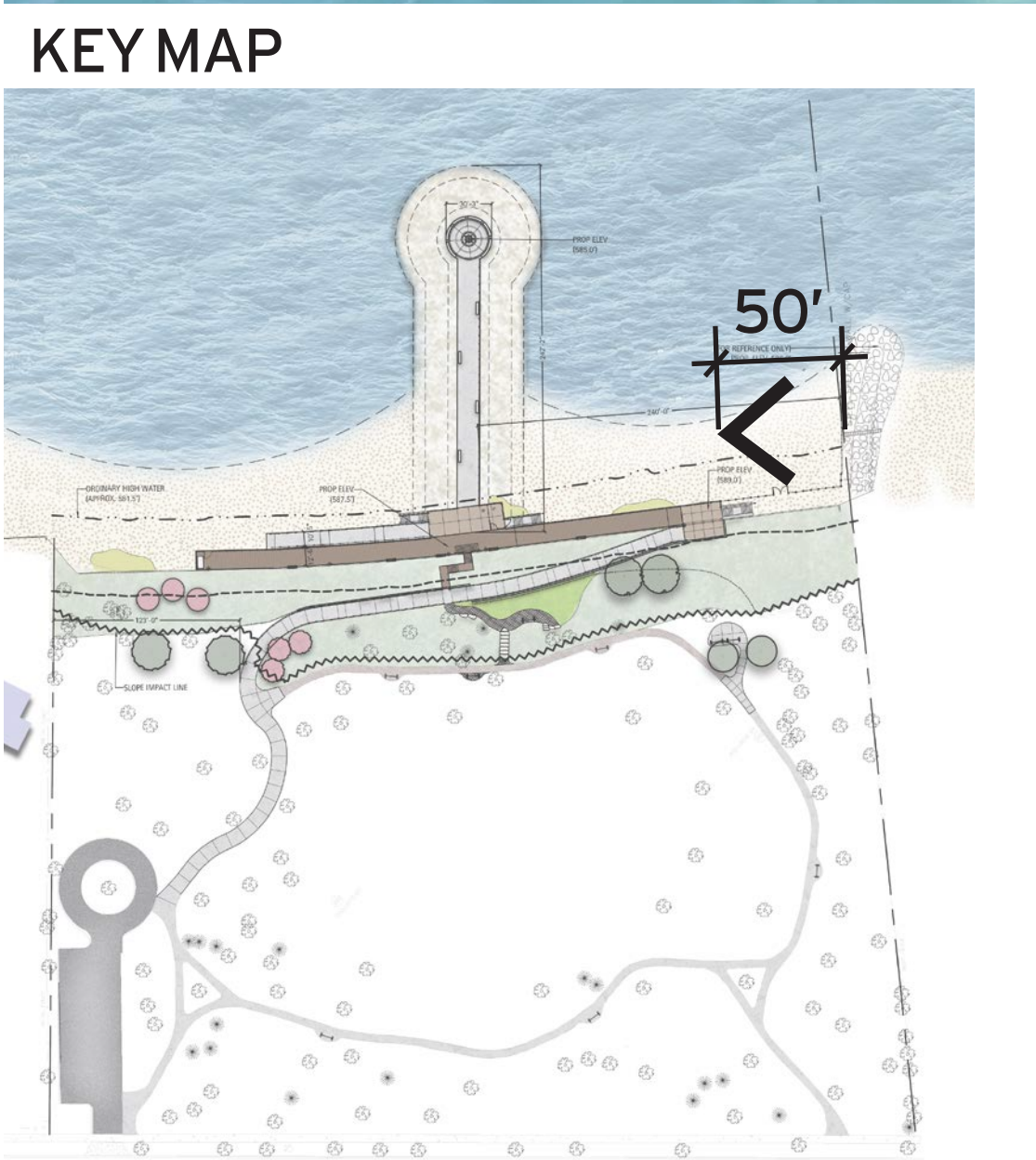


# Proposed Design



## Perspective - Centennial Dog Beach Looking South

EYE-LEVEL APPROX. 65.5" HT (ASSUMES APPROX. 5'-10" HT. INDIVIDUAL)





# Proposed Design

**CENTENNIAL**  
BEACH & BLUFF IMPROVEMENTS



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# THANK YOU

Questions?

