

# NATIONAL HISTORIC LIGHTHOUSE PRESERVATION ACT PROGRAM

MARCH 10th, 2026

APPLICATION FOR ACQUISITION OF THE SHEBOYGAN BREAKWATER LIGHTHOUSE



**APPLICANT:**  
City of Sheboygan  
828 Center Avenue  
Sheboygan, WI, 53081

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# 1. Title Page

**Name of applicant organization and representative:**

City of Sheboygan

Casey Bradley, City Administrator

**Physical and mailing address of applicant organization:**

828 Center Avenue  
Sheboygan, WI, 53081

**Daytime telephone number of applicant organization and/or representative:**

920-459-3287  
[casey.bradley@sheboyganwi.gov](mailto:casey.bradley@sheboyganwi.gov)

**Name of historic light station property and GSA Control #:**

Sheboygan Breakwater Lighthouse  
GSA Control # 1-U-WI-630

**Physical address of property:**

Lake Michigan @ Pennsylvania Avenue  
Latitude: 43°44'58.3"N  
Longitude: 87°41'33.8"W

## 2. NHLPA Covenant Agreement

The undersigned City of Sheboygan, hereinafter referred to as the Applicant or Grantee, acting by and through Mayor, City of Sheboygan hereby applies for the conveyance, without monetary consideration, for use for education, park, recreation, cultural or historic preservation purposes, from the United States of America pursuant to the National Historic Lighthouse Preservation Act of 2000 and in accordance with the rules and regulations of the General Services Administration, hereinafter referred to as GSA, the Sheboygan Breakwater Lighthouse.

This property is more fully described in the Application attached hereto and made a part hereof.

Enclosed is a resolution or certification as to the authority of the undersigned to execute this application and to do all other acts necessary to consummate the transaction.

The undersigned agrees that this application is made subject to the following terms and conditions:

The Applicant(s) understand(s) and agree(s) that the Application is made, and the conveyance of the property shall be accomplished by an instrument, or instruments, in a form satisfactory to the Administrator of the GSA without warranty, express or implied, and shall contain substantially, but may not be limited to, the following reservations, restrictions, and conditions, which may be enforced through a reversionary right in the property reserved to the United States of America. In accordance with 16 U.S.C. § 470w-7 (b)(3)(A), the Administrator will be issuing the quitclaim deed on behalf of the United States.

### I. HISTORIC PRESERVATION and OTHER USES.

- a. Compliance with this Application. This application and its acceptance by the Federal government shall constitute a binding agreement in its entirety between the grantee and the Federal government, which shall remain in effect unless written modifications are agreed upon by both parties.
- b. Limitations on Sale, Conveyance, etc. The grantee shall not sell, convey, assign, exchange, or encumber the historic light station, any part thereof or any associated historic artifact conveyed to the eligible entity in conjunction with the historic light station conveyance, including but not limited to any lens or lanterns, **unless** such sale, conveyance, assignment, exchange or encumbrance is approved by the National Park Service prior to its execution.
- c. Commercial Activities. The grantee may conduct any commercial activities at the historic light station, any part thereof, or in connection with any associated historic artifact conveyed to the eligible entity in conjunction with the historic light station conveyance, in any manner, provided that such commercial activities are approved by the National Park Service.
- d. Reversionary Interest of the United States. The conveyance of a historic light station shall include a condition that the historic light station, or any associated historic artifact conveyed to the grantee in conjunction with the historic light station conveyance, including but not limited to any lens or lanterns, shall at the option of the GSA Administrator, revert to the United States and be placed under the administrative control of the Administrator, if:

1. the historic light station, any part thereof, or any associated historic artifact ceases to be available for education, park, recreation, cultural, or historic preservation purposes for the general public at reasonable times and under reasonable conditions which shall be set forth in the application;
2. the historic light station or any part thereof ceases to be maintained in a manner that ensures its present or future use as a site for a Federal aid to navigation;
3. the historic light station, any part thereof, or any associated historic artifact ceases to be maintained in compliance with the NHLPA, the Secretary of the Interior's "Standards for the Treatment of Historic Properties," 36 CFR part 68, and other applicable laws;
4. the grantee sells, conveys, assigns, exchanges, or encumbers the historic light station, any part thereof, or any associated historic artifact, without approval of the National Park Service;
5. the grantee conducts any commercial activities at the historic light station, any part thereof, or in conjunction with any associated historic artifact, without approval of the National Park Service;
6. or at least 30 days before the reversion, the Administrator of GSA provides written notice to the owner that the historic light station or any part thereof is needed for national security purposes.

*See 16 U.S.C. § 470w-7(c)(3).*

## **II. COMPLIANCE**

- a. The Government and any representative it may so delegate, shall have the right of entry upon the premises at any time to conduct periodic inspection to ensure compliance with the terms and conditions of the conveyance. The failure of any agency of the United States to exercise any right, term, covenant, condition or remedy granted under either this instrument or a deed of conveyance from the United States for a historic light station shall not be deemed to be a waiver of the same or any other term, covenant, condition, right or remedy. No term, covenant, condition, right or remedy shall be deemed to have been waived by the United States unless such waiver is in writing executed by a duly authorized representative of the United States.
- b. Beginning no later than two years from the date of conveyance, the Grantee shall prepare reports describing the preservation, management and use of the historic light station, and provide financial statements from its operation. The time frames and specific materials requested will be determined by the National Park Service region in which the light station is located working in conjunction with the State Historic Preservation Officer. The National Park Service will contact the Grantee no later than three months prior to any report being due with specific requirements.

## **III. FEDERAL AIDS TO NAVIGATION**

a. The United States will continue to own, operate and maintain, and have the right to install, remove, relocate, or replace, any “Federal aid to navigation,” upon any property conveyed under the NHLPA. A Federal aid to navigation is defined as any device, operated and maintained by the United States, external to a vessel or aircraft, intended to assist a navigator to determine position or safe course, or to warn of dangers or obstructions to navigation, and shall include, but not be limited to, a light, lens, lantern, antenna, sound signal, camera, sensor, electronic navigation equipment, power source, or other associated equipment.

b. The United States Coast Guard (USCG) is the Federal agency responsible for operating and maintaining any Federal aid to navigation located upon the property. The eligible entity to which the property is conveyed shall not interfere, or allow interference in any manner, with any Federal aid to navigation, nor hinder activities required for the operation and maintenance of any Federal aid to navigation without the express written permission of the USCG.

c. In those instances in which a Federal aid to navigation remains upon the property conveyed, the United States has the right to reserve:

1. Easements for the operation and maintenance of such aid to navigation, including but not limited to, an easement for the arc of visibility if a lighted aid to navigation or an easement to produce sound of a fog horn or other sound based aid to navigation;
2. Unrestricted easements for access upon, through, over, and across the property at any time, including but not limited to the right of ingress and egress in, to, and through the interior of the lighthouse structure; and
3. Easements for utility, power, and communication lines.

d. The United States shall have the right, at any time, to enter the historic light station conveyed under this section without notice, for purposes of operating, maintaining, and inspecting any aid to navigation and for the purpose of ensuring compliance with 16 U.S.C. § 470w-7(c) to the extent that it is not possible to provide advance notice.

e. The United States shall retain a reversionary interest (*i.e.*, title to the property conveyed would revert to the United States) and may exercise said interest in the event the property or any part thereof ceases to be maintained in a manner that ensures its present or future use as a site for a Federal aid to navigation.

#### **IV. GENERAL TERMS AND CONDITIONS**

a. This application and its acceptance shall constitute the entire agreement between the grantee and the United States of America, unless modified and approved in writing by both parties. This agreement becomes legally binding once the quitclaim deed or other instrument of conveyance for the property is executed or delivered by the United States.

b. The description of the property set forth herein is believed to be correct, but any error or omission shall not constitute ground or reason for nonperformance of the agreement resulting from the acceptance of this application.

c. If any portion of the property is situated on bottomlands, the United States will convey only an interest in the structure described in the published Notice of Availability. No submerged lands shall be conveyed by the transfer of ownership of the light pursuant to Section (d)(4) of the National Historic Lighthouse Preservation Act. Bottomlands are held by the state where the property is located. It is incumbent upon the selected recipient to secure the necessary rights to the bottomland from the state.

d. If an application for the conveyance of a historic light station is approved, then, the Property will be conveyed without consideration via a quitclaim deed "AS IS" and "WHERE IS" without representation, warranty, or guaranty as to quantity, quality, character, condition, size or kind, or that the property is in condition or fit to be used for the purpose intended. No claim for any adjustment upon such grounds will be considered after this application has been accepted.

e. The grantee shall save, hold harmless, defend, and indemnify the United States, its employees, agents, and representatives from any suit, claim, demand or action, liability, judgment, cost or other fee arising out of any claim for personal injury or property damage (including death, illness, or loss of or damage to property or economic loss) that arises from the grantee's or the grantee's employee's, agent's, or representative's use or occupancy of the property and/or the grantee's failure to comply with the terms and conditions of the conveyance.

f. The grantee shall obtain the required authorization from the U.S. Army Corps of Engineers District office having the jurisdictional responsibility for access and utilization of lighthouse structures located on U.S. Army Corps of Engineers navigation structures (i.e. breakwalls, jetties, piers, etc).

g. The grantee shall pay all taxes imposed on this transaction and shall obtain at its own expense and affix to all instruments of conveyance and security documents such revenue and documentary stamps as may be required by Federal and local law. All instruments of conveyance and security documents shall be recorded at the grantee's expense within 30 days of their receipt in the manner prescribed by local recording statutes.

h. The grantee shall provide the General Services Administration with a certified copy of the instrument of conveyance within 30 days of the date of recordation which indicates the date, location, and book and page number of its recording.

i. The grantee further covenants and agrees for itself, its successors, and assigns, to comply with the provisions of the Federal Disaster Protection Act of 1973 (87 Stat. 975); Executive Order 11988, relating to the evaluation of flood hazards; Executive Order 11288, relating to the prevention, control, and abatement of water pollution; and Executive Order 11990, relating to the protection of wetlands, where and to the extent said Act and Orders are applicable to the property herein conveyed, and the approved Applicant shall be subject to any use restrictions issued under said Act and Orders.

j. In support of eligibility to acquire the property under NHLPA, grantee submits the "Master Plan" for the historic light station as part of the application attached hereto. The "Master Plan" may be amended from time to time at the request of either the grantee or the Federal government, with the written concurrence of the other party. Such amendments will be added to, and become a part of, the original "Master Plan." As part of the review of any amendments, the Federal government is required to comply with Section 106 of the National Historic Preservation Act, as amended, and the National Environmental Policy Act, as amended. The Applicant further agrees

that it will furnish such data, maps, reports, and information as may be requested by the Federal government to comply with these, and any other, laws as required.

k. The grantee further covenants and agrees for itself, its successors and assigns, to comply with all Federal laws relating to nondiscrimination in connection with any use, operation, program, or activity on or related to the property requested in this application, including, but not limited to:

1. All requirements imposed by or pursuant to the regulations of the U.S. Department of the Interior (43 C.F.R. Part 17);
2. Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d-1), which prohibits discrimination on the basis of race, color, or national origin;
3. The Age Discrimination Act of 1975, as amended (42 U.S.C. § 6101 et seq.), which prohibits discrimination on the basis of age;
4. Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. § 794), which prohibits discrimination on the basis of handicap;
5. The Architectural Barriers Act of 1968, as amended (42 U.S.C. § 4151), which requires facilities located on the property to be accessible to the physically handicapped; and
6. The Americans with Disabilities Act of 1990 (42 U.S.C. § 12101 et seq.), which requires that no otherwise qualified handicapped individual shall, solely by reason of his or her handicap, be excluded from the participation in, be denied benefits of, or be subject to discrimination under any program or activity receiving Federal financial assistance.

l. The grantee shall, within three months of the date of the recording of the instrument of conveyance, erect and forever maintain a conspicuous sign or signs near the principal point or points of access to the property that states: “The United States of America donated this property to the *name of grantee* for preservation and public use through the National Historic Lighthouse Preservation Act. This program is administered by the National Park Service.”

m. The grantee agrees that all income from the property shall be used for preservation and maintenance of the property according to the grantee’s Master Plan. While a reasonable amount of excess income may be carried forward from year to year to meet preservation and maintenance costs, all other excess income must be used for historic preservation, educational, or recreational purposes enunciated in the transfer agreement.

## **V. REVERSION**

a. Title to the property transferred shall revert to the United States of America at its option for non-compliance with any of the terms and conditions of the conveyance. In the event that there is a breach of any of the conditions and covenants herein contained by the grantee, its successors and assigns, whether caused by legal or other inability of the grantee, its successors and assigns, to perform said conditions and covenants, or otherwise, all right, title, and interest in and to the said premises shall revert to and become the property of the United States at its option. The United States, in addition to all other remedies for such breach, shall have the right of entry upon

said premises, and the approved Applicant, its successor and assigns, shall forfeit all right, title, and interest in said premises and in any and all of the tenements, hereditaments, and appurtenances thereunto belonging.

b. The grantee, by its acceptance of the deed, covenants and agrees for itself, and its successors and assigns, that in the event the United States exercises its power to terminate the grantee's estate in the property then the approved Applicant shall provide protection to and maintenance of said property at all times until such time as the title is actually reverted, including the period of any notice of intent to revert. Such protection and maintenance shall, at a minimum, conform to the standards prescribed by the GSA in its Federal Property Management Regulations in effect at the time of the reversion. Prior to any such reversion, the grantee further agrees to complete and submit to the United States an environmental assessment of the property that sufficiently documents and evaluates its condition in regard to the release of hazardous substances as defined under the Comprehensive Environmental Response, compensation, and Liability Act of 1980, as amended [42 U.S.C. § 9601(14)].

March 10, 2026 \_\_\_\_\_ Date

Signature

\_\_\_\_\_

Ryan Sorenson \_\_\_\_\_ Name - Printed

\_\_\_\_\_ Mayor, City of Sheboygan

City of Sheboygan

828 Center Avenue

Sheboygan, WI, 53081 \_\_\_\_\_ Address of Applicant

**ACCEPTANCE BY THE GOVERNMENT**

Accepted by and on behalf of the United States of America this \_\_\_\_\_ day of  
\_\_\_\_\_, 20\_\_.

GENERAL SERVICES ADMINISTRATION

By: \_\_\_\_\_ Signature

\_\_\_\_\_  
Name - printed

\_\_\_\_\_  
Title

### **3. Executive Summary**

The City of Sheboygan seeks to preserve and steward the Sheboygan Breakwater Lighthouse as a protected historic resource while ensuring its long-term structural stability, public benefit, and continued contribution to the cultural and maritime heritage of the Lake Michigan region. The City of Sheboygan seeks ownership under the National Historic Lighthouse Preservation Act to provide responsible, preservation-focused management that safeguards the lighthouse for future generations.

The intended use of the Sheboygan Breakwater Lighthouse will remain consistent with its historic function and character. The structure will be preserved as a historic aid to navigation and an iconic landmark. The City of Sheboygan intends to maintain the lighthouse in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Properties, ensuring that all preservation, stabilization, and rehabilitation efforts prioritize historical integrity, durability in a harsh marine environment, and public safety. Any future improvements will be carefully planned to address deferred maintenance, structural needs, and life-safety considerations without compromising historic character. The future use of the Sheboygan Breakwater Lighthouse will focus on long-term preservation and public benefits without interior public visitation.

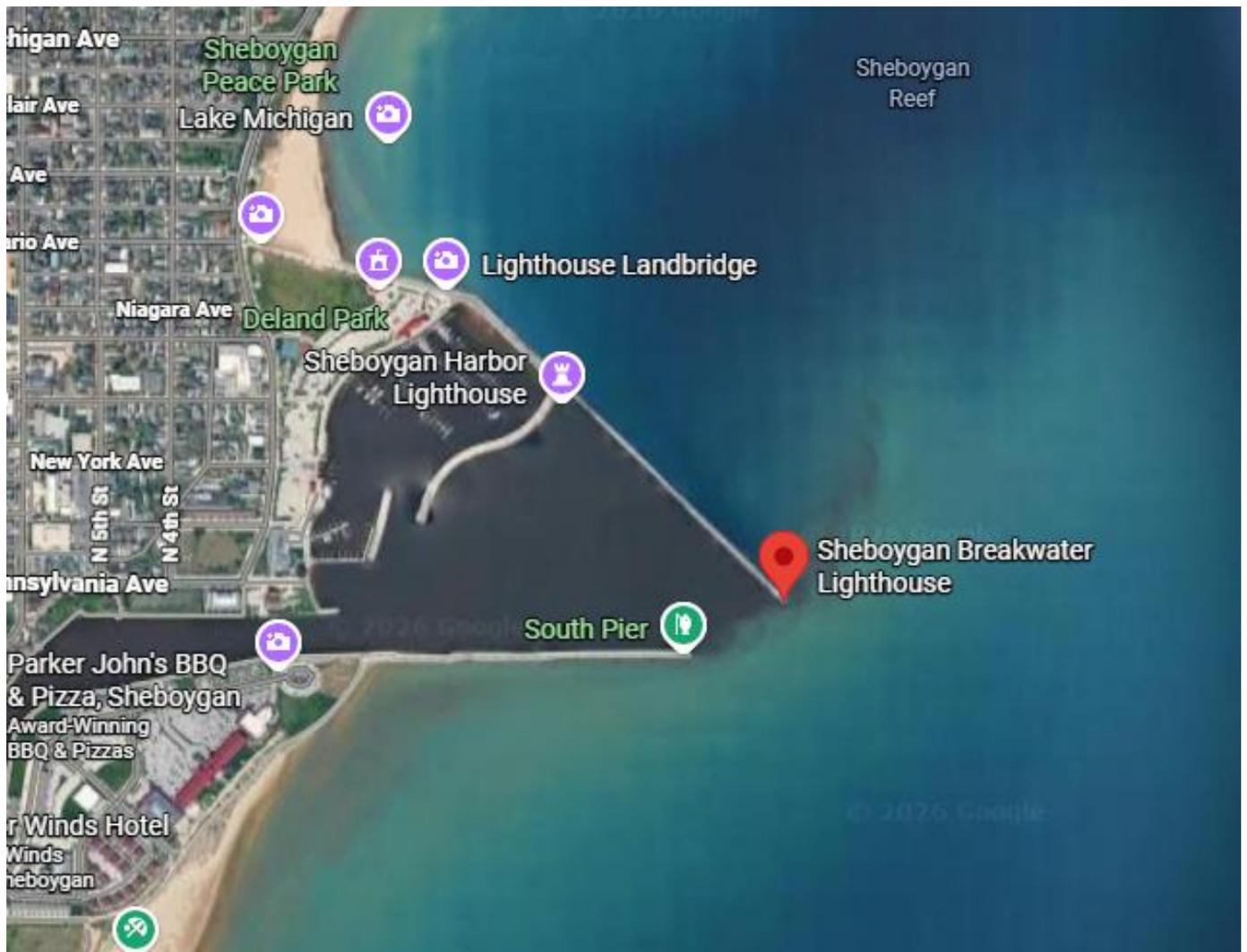
The City of Sheboygan is well-qualified to be the recipient of the Sheboygan Breakwater Lighthouse due to its demonstrated commitment to historic preservation, financial and organizational capacity, and alignment with the public-benefit intent of the NHLPA. The City brings experience in managing public assets, planning for long-term capital needs, and coordinating professional expertise necessary for the preservation of historic landmarks. Importantly, the City of Sheboygan is resolutely committed to retaining the lighthouse in public ownership, ensuring continued public benefit, and preventing neglect, inappropriate alteration, or privatization that would diminish the site's historic value.

By transferring ownership to the City of Sheboygan, the National Park Service can be confident that the Sheboygan Breakwater Lighthouse will be preserved and maintained by a municipal entity dedicated to its protection and public significance. This project directly advances the goals of the National Historic Lighthouse Preservation Act by ensuring the lighthouse's long-term preservation, continued contribution to maritime heritage, and availability as a cultural resource for the community, the region, and the nation.

## 4. Property Description

### Location and Setting

The Sheboygan Breakwater Lighthouse serves as a navigational aid for Sheboygan Harbor on Lake Michigan and the mouth of the Sheboygan River. The structure was relocated to its current position in 1915 following the extension of the north breakwater. The lighthouse consists of a steel tower mounted on a poured-in-place concrete breakwater. The original lightroom was removed in the mid-twentieth century. The structure currently supports a foghorn, a NOAA weather station, and a flashing white light marking the terminus of the breakwater.



*Satellite image of the Sheboygan Breakwater Light. Photo courtesy of Google Maps.*

## Historic Context

The Sheboygan Breakwater Lighthouse is an integral component of the maritime and industrial history of Sheboygan, Wisconsin, and the broader Great Lakes navigation system. Since the mid-nineteenth century, Sheboygan has functioned as a critical port on Lake Michigan, supporting commercial shipping, shipbuilding, fishing, and later, recreational boating. As harbor activity increased and vessel sizes grew, the need for reliable navigational aids became essential to ensure safe passage into the harbor and up the Sheboygan River. Federal investment in harbor infrastructure, including piers, breakwaters, and navigational lighting reflected the strategic importance of Sheboygan as a regional transportation and economic hub.



*Historic image of the Sheboygan Breakwater Light with lantern intact. Photo courtesy of the U.S. Coast Guard.*

The lighthouse was relocated to its current position in 1915, coinciding with the extension of the north breakwater, a period marked by significant improvements to Great Lakes harbors under the direction of the U.S. Lighthouse Service and the U.S. Army Corps of Engineers. This relocation reflects broader early twentieth-century federal efforts to modernize navigational infrastructure in response to increased commercial traffic, industrial expansion, and evolving maritime technology. The steel tower construction,

mounted directly atop a poured concrete breakwater, exemplifies the utilitarian lighthouse design of the era. These designs prioritized durability, functionality, and resistance to harsh marine conditions over ornamentation.

Over time, the Sheboygan Breakwater Lighthouse adapted to changing navigational technologies while continuing to serve its core purpose. The removal of the original lightroom in the mid-twentieth century corresponds with nationwide transitions in lighthouse operations, including automation, standardization of lighting systems, and reduced on-site staffing. Despite these changes, the lighthouse has remained an active aid to navigation, housing a foghorn, a NOAA weather station, and a flashing white light marking the end of the breakwater. This continued operational role underscores the structure's functional continuity and reinforces its significance as a living component of the Great Lakes navigation network rather than a purely commemorative artifact.

Today, the Sheboygan Breakwater Lighthouse stands as a tangible representation of federal maritime policy, early twentieth-century engineering practices, and the enduring relationship between the City of Sheboygan and Lake Michigan. Preservation of the lighthouse under public ownership ensures that this legacy remains visible and accessible, allowing the structure to continue illustrating its historical role within the evolving story of Great Lakes maritime infrastructure.

## Physical Description

The Sheboygan Breakwater Lighthouse is a utilitarian steel lighthouse tower mounted on a poured-in-place concrete breakwater at the north end of Sheboygan Harbor on Lake Michigan. The structure functions as an active navigational aid and is exposed year-round to harsh marine conditions, including wave action, ice loading, freeze–thaw cycles, and wind-driven moisture. The lighthouse is physically integrated into the harbor's breakwater system and is accessible only via the concrete breakwater, which also serves as the structural base for the tower.

The lighthouse tower itself is a riveted steel plate structure, with overlapping steel plates forming the exterior shell. Supplemental steel framing is present at vertical plate joints and at interior floor levels. The tower contains multiple interior levels accessed by ladders and ship's ladders, reflecting its original functional design rather than public occupancy. A lower chamber beneath the ground floor is accessed through a hatch and ladder; this chamber is partially flooded due to a pipe connection below the lake waterline, and its original purpose is undocumented. The original lantern and lightroom were removed in the mid-twentieth century, leaving the roof/light level open and adapted to modern navigational equipment. The breakwater consists of four primary poured concrete segments, with an additional concrete segment constructed to support the lighthouse tower. The total concrete footprint associated with the tower measures approximately 2,300 square feet.

## Current Conditions

Existing conditions at the Sheboygan Breakwater Lighthouse have been documented through visual observations and a detailed structural assessment completed in September 2025. This documentation provides a baseline understanding of the lighthouse's physical condition and informs prioritization of preservation and stabilization efforts.

### Exterior

The exterior of the lighthouse is generally in fair condition but exhibits deterioration consistent with prolonged exposure to Lake Michigan's harsh marine environment. Areas of spalled and cracked concrete are present along the breakwater and tower base, particularly at interfaces between structural elements. Corrosion of exposed steel components, including the steel tower, connections, and guardrails, is evident where protective coatings have failed. While the primary structural systems remain intact, deterioration of materials and protective finishes poses an ongoing risk to long-term performance if left unaddressed.

### Interior

Interior conditions range from fair to poor and are primarily affected by moisture infiltration, corrosion, and the loss or modification of original materials over time. Paint failure and exposed metal surfaces have contributed to localized corrosion, particularly at stair components, ladders, and tower connections. Evidence of water intrusion is present around openings, hatches, and penetrations through the tower wall, resulting in staining, material degradation, and accelerated corrosion. Despite these conditions, the concrete structural elements and primary load-bearing components remain largely sound.

### General Assessment

Overall, the Sheboygan Breakwater Lighthouse is structurally stable but exhibits widespread material deterioration driven by moisture exposure, corrosion, and aging infrastructure. The most significant preservation needs relate to steel corrosion mitigation, concrete repair, and improved protection at critical connections and openings. Addressing these issues in a timely manner will be essential to prevent further material loss and to ensure the long-term preservation of the lighthouse in accordance with the Secretary of the Interior's Standards.

## **5. Master Plan for the Historic Light Station**

### **A. Preservation & Maintenance Plan**

#### Preservation Plan

The City of Sheboygan is committed to preserving the Sheboygan Breakwater Lighthouse as a historic navigational structure and public asset in accordance with the National Historic Lighthouse Preservation Act and the Secretary of the Interior's Standards for the Treatment of Historic Properties. The preservation approach prioritizes retention of historic materials, protection of character-defining features, and continued functionality within the challenging marine environment of Lake Michigan.

The Sheboygan Breakwater Lighthouse will be integrated into the City of Sheboygan's historic preservation process as a significant maritime resource that complements the City's broader efforts to identify, protect, and interpret historic properties. Although the lighthouse is physically offshore and not accessible to the public, it falls under the guidance of the City's Historic Preservation Commission through review, documentation, and preservation planning. This integration ensures that any preservation actions align with local ordinances, adhere to the Secretary of the Interior's Standards, and are coordinated with other historic resources within the community. By incorporating the lighthouse into the city's preservation process, Sheboygan reinforces its commitment to safeguarding cultural and architectural heritage. Ellise Rose is the City of Sheboygan's Zoning Administrator and staff representative on the Historic Preservation Commission.

The City of Sheboygan Historic Preservation Commission was established under the City's zoning code to advocate for and safeguard historic sites, cultural heritage, and the aesthetic character of the community.

Current Members of the Historic Preservation Commission the current members include:

- Alderperson Susie Boorse
- Fern Lomibao
- Travis Gross
- Peter Mayer
- Wendy Schobert
- Sarah Stemper

These members serve three-year terms, contribute professional perspectives (e.g., architecture, real estate), and together help implement local preservation policy.

## Maintenance Plan

The City of Sheboygan is committed to the ongoing maintenance and preservation of the Sheboygan Breakwater Lighthouse to ensure its long-term structural integrity, continued function as a navigational aid, and protection of its historic character. Maintenance activities will be guided by the findings and recommendations of the Structural Assessment prepared by Concord Group and ZS Architectural Engineering (September 8, 2025) and will be implemented in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Properties.

### *Capital Repairs and Phasing*

More substantial repairs will be addressed through a phased capital approach informed by the ZS report and associated cost estimates. Identified repair categories include steel tower corrosion mitigation, improvements to the tower's connection to the concrete breakwater, selective concrete repairs, replacement or modification of unsafe ladders and stairs, and installation of safety features required for maintenance access. Capital work will be prioritized based on structural necessity, safety, and preservation impact, with professional engineering oversight provided as required.

### *Documentation and Monitoring*

All inspections, maintenance activities, and repairs will be documented and retained as part of the City's asset management and preservation records. This documentation will support ongoing planning, future grant applications, and coordination with preservation agencies.

### *Routine Maintenance*

The City will conduct routine maintenance of the lighthouse tower and concrete breakwater to monitor existing conditions and identify emerging issues. The routine maintenance schedule is identified below. The City of Sheboygan Facilities Department will take on the majority of the routine maintenance outlined in the table below. All maintenance tasks including those noted below will be performed weather permitting; in heavy storm and ice events, the structure is not accessible.

Routine Maintenance Schedule		
Task	Description	Responsible Party
Daily Tasks (continuous)		
Weather Monitoring	Monitor weather conditions and secure property as needed in advance of extreme weather events.	Facilities Department
Weekly Tasks		
Basic Inspection	Visually assess the entire site (interior and exterior) for damage or irregularities.	Facilities Department
Safety Check	Inspect railings, ladders, and staircases for stability and safety, ensure all entrance and egress routes are clear and that safety signage is visible.	Facilities Department
Exterior Clean-up	Remove trash and debris from the site.	Facilities Department
Walkway and Handrail Inspection	Inspect walkways, stairs, ladders and handrails for signs of wear, rust, or instability.	Facilities Department
Pest Control Check	Inspect the property for signs of damage or infestation from pests (rodents, insects, birds).	Facilities Department
Monthly Tasks		
Exterior Surface Inspection	Check for peeling paint, rust, cracks, or damage to masonry, metal, and wood. Perform minor touch-ups.	Facilities Department
Leak and Moisture Check	Inspect interior spaces for leaks or moisture accumulation and address any issues promptly.	Facilities Department
Drainage System Inspection	Inspect gutters and drains to ensure they are clear and diverting water away from the structure.	Facilities Department
Annual Tasks		
Exterior Repainting	Repaint metal, wood, and masonry surfaces to protect against weathering and corrosion.	Painting contractor
Historical Preservation Review	Ensure compliance with preservation standards and update procedures as needed.	Zoning Administrator-Ellise Rose
Recordkeeping and Reporting	Documentation of all maintenance activities will be tracked in CMMS software.	Facilities Department

## B. Use Plan

The Sheboygan Breakwater Lighthouse is an established and recognizable feature of the City of Sheboygan’s lakefront and harbor, and it is regularly incorporated into public and educational programming associated with broader waterfront activities. Seasonal events such as the annual Lakefront Open Houses, coordinated by local harbor and maritime organizations, provide opportunities for the public to experience the harbor environment and view the lighthouse from the water. The lighthouse is visible on the onshore webcam that is available for the public to view on the Visit Sheboygan website. Sailing programs operated by organizations such as the Sheboygan Youth Sailing Center routinely utilize the harbor and breakwater area, making the lighthouse a visible and interpretive backdrop for maritime education, youth programming, and community engagement. The City plans to expand upon these uses moving forward under City stewardship as the lighthouse continues to be an integral part of the Sheboygan community and local events.

The Sheboygan Waterfront and Marina Master Plan (shown in appendix E) establishes a comprehensive, framework for revitalizing the lakefront while enhancing public access, education, and long-term stewardship of the waterfront area, including the breakwater, lighthouse, marina and the surrounding area. The plan integrates broader waterfront improvements, including marina upgrades, shoreline and pier enhancements, public promenades, and new educational and interpretive facilities designed to convey the historical, cultural, and navigational significance of the Sheboygan waterfront area.

The lighthouse will maintain its current community use and be integrated into the programming and improvements of the upcoming master plan work in the waterfront area. The lighthouse will continue to be an iconic cultural landmark with access to the breakwater for public viewing of the lighthouse. The planned uses of each section of the lighthouse are outlined in the table below.

Level	Original / Historic Use	Current / Existing Condition	Anticipated Reuse
Breakwater / Dock Level	Navigational infrastructure and access to the lighthouse tower	Poured concrete breakwater with embedded ladders, boat tie anchors, and metal stairs; subject to spalling, cracking, freeze/thaw exposure	Maintained as navigational infrastructure and controlled access route to lighthouse; no change to historic function
Level 1 (Ground Floor / Entry Level)	Equipment access and internal circulation	Steel tower ground floor with exterior door (non-functional), access hatch to lower chamber, batteries and equipment present	Equipment housing and limited maintenance access

Lower Chamber (Below Grade)	Unknown / utility-related (historic purpose unclear)	Partially flooded chamber connected to lake via submerged pipe; accessed by unsafe ladder	No anticipated reuse; to remain non-public
Level 2 (Intermediate Interior Level)	Service and operational space associated with light and fog signal	Interior steel level accessed by ladder; corrosion present; limited headroom	Continued service and maintenance space; no programmed public use
Level 3 (Upper Interior / Roof-Light Level Access)	Light apparatus level (historically); now supports navigational equipment	Roof/light level accessed by ship's ladder; guardrails non-compliant; active navigational equipment present	Continued housing of navigational equipment (light, foghorn, NOAA station)

## *Organizational Experience and Preparedness*

The City of Sheboygan brings demonstrated expertise in historic preservation, facilities maintenance, and public engagement that underpins its capacity to steward significant heritage resources like the Sheboygan Breakwater Lighthouse. This leadership includes Taylor Zeinert, Director of Planning & Development, who guides preservation policy and cross-departmental coordination; Ellise Rose, Zoning Administrator and Historic Preservation Commission staff representative; and the volunteer members of the Historic Preservation Commission who contribute professional perspectives in architecture, real estate, and community representation to preservation review and advocacy.

The City of Sheboygan's experience with historic renovation is demonstrated in the successful historic renovation of the Sheboygan City Hall, located at 828 Center Avenue in Sheboygan. The historic building underwent a comprehensive \$10.5 million renovation and expansion from 2018 to 2019 to preserve and modernize the 1916–17 Neoclassical civic landmark. Led by the City of Sheboygan and approved by the Common Council, the project addressed aging building systems, accessibility deficiencies, and space limitations while retaining significant historic features such as the grand staircase and Council Chambers. The Sheboygan Historic Preservation Commission played a formal review and oversight role, ensuring that exterior alterations, material selections, and design interventions met local preservation standards and respected the building's historic character. The renovation included a three-story glass entry addition, upgraded mechanical and life-safety systems, reconfigured office layouts, and improved public access, culminating in a public reopening in September 2019.

The City of Sheboygan's leadership demonstrates a strong commitment to historic preservation, facilities stewardship, and community engagement through strategic direction and administrative capacity. Together with the Historic Preservation Commission and staff, this leadership team has guided successful heritage projects such as the sensitive renovation of the historic Sheboygan City Hall. The City has also advanced outreach efforts that connect residents and stakeholders with Sheboygan's historic character, ensuring that preservation remains a visible and valued component of community life. A full organizational chart is provided in appendix C. Key City leaders that will be integral to the lighthouse project are:

*Mayor*, Ryan Sorenson, as the City's chief elected official, provides executive leadership and serves as a visible advocate for community priorities, including support for the lighthouse specifically, preservation-oriented initiatives broadly and partnerships that enhance Sheboygan's cultural resources.

*City Administrator*, Casey Bradley, oversees day-to-day operations and ensures coordinated implementation of municipal programs, including facility maintenance and long-range planning, fostering professional stewardship of public assets.

## C. Financial Plan

The City of Sheboygan has the financial capacity and institutional experience necessary to support the long-term stewardship of the Sheboygan Breakwater Lighthouse. Financial planning for the lighthouse is informed by the conceptual cost estimates prepared by The Concord Group in conjunction with the ZS Structural Assessment, which provides a budgetary framework for anticipated repair and maintenance needs.

### *Funding Sources*

Initial maintenance and preservation activities will be supported through a combination of grants and other external funding sources. The City intends to actively pursue preservation grants, state and federal funding opportunities, and other public-sector resources available for historic maritime structures. Grant opportunities associated with historic preservation, coastal management, and infrastructure resilience will be evaluated on an ongoing basis. A list of potential grant opportunities is provided within the Marina masterplan, shown in Appendix E.

### *Capital Cost Planning*

The structural assessment identified approximately \$495,000 in estimated construction costs for prioritized repairs. These costs will be refined as projects advance through design and bidding. The City plans to fund these repairs with grants and other external funding sources.

### *Operating and Maintenance Costs*

Routine inspection and preventive maintenance activities are expected to represent a modest annual operating cost relative to the City's overall facilities portfolio. These costs will be absorbed within existing departmental budgets or incorporated into annual operating plans as needed. No permanent on-site staffing is anticipated for the lighthouse.

### *Financial Oversight and Controls*

All expenditures related to the lighthouse will be subject to the City's established financial controls, procurement policies, and audit procedures. Capital projects will be competitively bid in accordance with municipal and state requirements, and professional services will be procured using standard qualification-based selection processes where applicable.

### *Projected Construction / Capital Expenses*

The cost estimate for the improvements to the lighthouse are provided below. This estimate focuses on preservation-critical work, including concrete repair, corrosion mitigation of the steel tower, and improvements to key structural connections, which together represent the majority of projected costs. Several items are noted as not applicable or included within larger scopes, reflecting efficiencies in repair sequencing. The total estimated construction cost of \$495,857 provides a planning-level basis for prioritizing stabilization and long-term preservation of the lighthouse.

<b>Item No.</b>	<b>Condition / Scope Item</b>	<b>Estimated Cost</b>
1	Spalled Concrete	\$46,434
2	Cracks in Concrete	\$6,745
3	Joint Between Eastern Breakwater Segment & Tower Segment	N/A
4	Metal Stairs	\$28,142
5	Surface Mounted Conduit	\$5,590
6	Corrosion of Steel Tower	\$249,198
7	Tower Connection to Concrete	\$118,846
8	Ladder to Lower Chamber	\$12,984
9	Doors & Portholes Through Tower Wall	\$2,447
10	Holes in Tower Wall	Included with Item #6
11	Roof / Light Level Hatch	\$4,028
12	Guardrail at Roof / Light Level	\$21,444
13	Unprotected Floor & Roof Openings	N/A
14	Equipment Mounted Within Tower	N/A
	<b>Total Estimated Construction Costs</b>	<b>\$495,857</b>

## D. Management Plan

### *Organizational Structure*

The City of Sheboygan will assume ownership and long-term stewardship of the Sheboygan Breakwater Lighthouse. The City is legally authorized to acquire, manage, and preserve public assets and historic properties for the benefit of the public. Management of the lighthouse will be integrated into the City's existing organizational and administrative framework, ensuring continuity, accountability, and compliance with applicable local, state, and federal regulations.

### *Governance*

Overall governance responsibility for the Sheboygan Breakwater Lighthouse will reside with the City of Sheboygan Common Council, which establishes policy direction, authorizes expenditures, and provides oversight of City-owned assets. Day-to-day management responsibilities will be delegated to appropriate City departments and professional staff in accordance with established municipal procedures. A further breakdown of anticipated responsibilities by department is provided below. The City of Sheboygan organizational chart shows the City's structure and is provided in Appendix C.

The City Administrator, or designee, will coordinate interdepartmental efforts related to lighthouse management, including maintenance planning, capital improvements, risk management, and coordination with external agencies such as the U.S. Coast Guard, Corps of Engineers, and WI DNR.

### *Responsibilities*

Management of the lighthouse will involve coordination among multiple City departments, including:

- *Facilities Department:* Responsible for routine inspection, maintenance coordination, and oversight of contracted repair work related to the lighthouse structure and breakwater, consistent with engineering recommendations and safety requirements.
- *Planning and Development Department:* Provides guidance on historic preservation compliance, coordination with state and federal preservation agencies, and integration of the lighthouse into broader waterfront and heritage planning initiatives.
- *Finance Department:* Oversees budgeting, financial tracking, grant administration, and long-term capital planning associated with the lighthouse, including future preservation funding strategies.
- *Legal Department:* Ensure compliance with liability, insurance, and regulatory requirements, including public access limitations and occupational safety standards.

### *Advisory and Support functions*

The City intends to establish an advisory working group, to support the initial construction project scope to preserve the lighthouse. Such a group may include City staff, preservation professionals, community representatives, and subject-matter experts. This working group would be dissolved after the initial construction process has been completed. At which time the operations and capital needs of the lighthouse will be integrated into the standard City of Sheboygan facilities operations framework.

### *Operations*

Lighthouse-related matters will be addressed through existing City administrative processes, including staff coordination meetings and presentations to the Common Council or relevant committees as needed. Capital projects, major repairs, and policy decisions will be reviewed and approved through established municipal procedures, ensuring transparency and public accountability.

### *Long-term Stewardship*

The City of Sheboygan is committed to maintaining the Sheboygan Breakwater Lighthouse in public ownership and ensuring its long-term preservation as a historic navigational structure. Management decisions will prioritize structural integrity, public safety, and historic character while recognizing the operational constraints associated with a breakwater-mounted lighthouse in an active harbor environment.

## **6. Resolution/Certification of Authority to Acquire Property**

Whereas, certain real property owned by the US Coast Guard, located in the City of Sheboygan, County of Sheboygan, State of Wisconsin, has been declared surplus at the discretion of the General Services Administration, and the National Historic Lighthouse Preservation Act (16 U.S.C. § 470w-7) and policies promulgated pursuant thereto, more particularly described as follows:

The Sheboygan Breakwater Lighthouse

Estimated to sit on a breakwater on the lakebed of Lake Michigan, which occupies approximately 2,300 square feet

GSA Control # 1-U-WI-630

Whereas, City of Sheboygan needs and will use said property in perpetuity for the purposes as set forth in its application and in accordance with the requirements of said Act and any regulations and policies promulgated there under;

Now, Therefore, Be It Resolved, that City of Sheboygan shall make application to the National Park Service acting for the Secretary of the Interior for, and secure the transfer to, the above-mentioned property for said use and subject to such exceptions, reservations, terms, covenants, agreements, conditions, and restrictions as the National Park Service and the Federal disposal agency may require in connection with the disposal of said property under said Act and the regulations and policies issued pursuant thereto.

Be It Further Resolved that City of Sheboygan has legal authority, and is willing and able, to properly develop, maintain, operate, and assume liability of the property, and that Ryan Sorenson is hereby authorized, for and on behalf of the City of Sheboygan to do and perform any and all acts and things which may be necessary to carry out the foregoing resolution, including the preparing, making, and filing of plans, applications, reports, and other documents, the execution, acceptance, delivery, and recordation of agreements, deeds, and other instruments pertaining to the transfer of said property, including the filing of copies of the application and the conveyance documents in the records of the governing body, and the payment of any and all sums necessary on account of the purchase price thereof or fees or costs incurred in connection with the transfer of said property for survey, title searches, recordation or instruments, or other costs identified with the acquisition of said property.

City of Sheboygan  
828 Center Ave  
Sheboygan, WI 53081

I, Ryan Sorenson, hereby certify that I am the Mayor of the City of Sheboygan; and that the foregoing resolution is a true and correct copy of the resolution adopted by unanimous written consent of the members of the City Council of the City of Sheboygan, on the 2nd day of March, 2026, at which a quorum was present.

Ryan Sorenson,

Mayor, City of Sheboygan

## 7. Environmental Analysis of Probable Impacts

### *Description of affected property in terms of its current and proposed use:*

The Sheboygan Breakwater Lighthouse is a breakwater-mounted lighthouse located at the north end of Sheboygan Harbor on Lake Michigan, marking the harbor entrance and the mouth of the Sheboygan River. The lighthouse consists of a steel tower mounted directly on a poured-in-place concrete breakwater. The structure currently functions as an active aid to navigation and houses a foghorn, NOAA weather station, and flashing white light. The proposed use of the property is continued preservation and maintenance of the lighthouse as a historic navigational structure under public ownership, with any future public access limited and subject to safety and preservation considerations.

### *Description of the surrounding area:*

The lighthouse is located within Sheboygan Harbor and is physically integrated into the harbor's breakwater system. The surrounding area consists of Lake Michigan waters, the harbor channel, and adjacent breakwater segments. The nearest upland areas include public waterfront and harbor facilities within the City of Sheboygan. There is no immediate surrounding land use directly adjacent to the lighthouse structure itself.

### *Floodplain considerations:*

The Sheboygan Breakwater Lighthouse is located within Lake Michigan waters and is subject to fluctuating lake levels, wave action, ice loading, and storm events. The structure was originally designed to accommodate these conditions and will continue to function within an active aquatic environment.

### *Wetland Impacts:*

The lighthouse is located on an existing concrete breakwater within Lake Michigan. The project does not propose new in-water construction or disturbance of wetlands. Continued ownership and preservation of the lighthouse are not anticipated to result in wetland impacts.

### *Federal or State-listed endangered species:*

Preservation, maintenance, and stewardship of the Sheboygan Breakwater Lighthouse are not anticipated to adversely affect any federal or state-listed endangered or threatened species. No habitat disturbance or expansion of the existing structure is proposed.

### *Coastal zone impacts:*

The State of Wisconsin has a coastal management program; however, the proposed acquisition and continued preservation of the lighthouse do not involve new development or changes to the shoreline or lakebed. As such, no adverse coastal zone impacts are anticipated.

*Visitor impact:*

Access to the Sheboygan Breakwater Lighthouse is limited to the concrete breakwater and is subject to weather, lake conditions, and safety constraints. Public access to the interior of the lighthouse is currently restricted due to safety and code considerations. There is no currently planned public access to the lighthouse structure, any future visitor access would be limited in scale and carefully managed to ensure public safety and protection of the historic structure.

*Water / sewage:*

The lighthouse is not currently served by municipal water or sanitary sewer. There are no active plumbing systems within the structure. No installation of water or sewer infrastructure is proposed as part of the acquisition.

*Hazardous materials:*

The intended use of the lighthouse for navigational purposes will not involve the use, storage, or release of hazardous materials.

*Archeological impacts:*

There are no known archaeological resources associated with the lighthouse or the concrete breakwater on which it is located.

*Nuisance:*

The intended use of the lighthouse will not require or violate any local, state or federal nuisance laws.

*Land, air or water pollution impacts:*

The intended use of the lighthouse will not violate any local, state or federal laws pertaining to land, air or water use.

**Name of preparer:** Kathleen Ellis

**Qualifications of preparer:** Project Manager, Concord Group.

**Contact information of preparer:**

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Suite 1500  
Milwaukee, WI 53202  
Office: 414-225-5305  
kellis@concord-cc.org

## **8. Appendices**

### **Appendix A: Application Cover Letter**

December 29, 2025

City Hall  
828 Center Ave.  
Sheboygan, WI. 53081  
Attn: Ryan Sorenson

Dear Mayor Sorenson:

In response to your recent expression of interest, the General Services Administration recently qualified your organization's eligibility to apply for the acquisition of the Sheboygan Breakwater Lighthouse under the National Historic Lighthouse Preservation Act (NHLPA). NHLPA authorizes the no-cost conveyance of historic lighthouse properties to federal, state or local government agencies, nonprofit corporations, or community development organizations for education, park, recreation, cultural or historic preservation purposes.

NHLPA authorizes the Secretary of the Interior to review and select qualified lighthouse property recipients. The National Park Service, as the representative of the Secretary of the Interior, will conduct a review of applications to obtain lighthouse properties and forward a recommendation to the Secretary of the Interior. Pursuant to NHLPA, the General Services Administration will execute a conveyance document to the recipient selected by the Secretary, subject to reservations and conditions for the continued operation of aids to navigation and other requirements under federal law.

Enclosed are instructions for the preparation of an application and related materials which must be received at this office not later than ninety (90) days following the date of this letter (March 30, 2026). Extensions may be granted for special circumstances. I have also included a recent example of a successful application, minus private information such as financials, so you can see the level of documentation required. Complete applications will be reviewed and scored by a selection panel; any application that ranks as unacceptable will not have an opportunity to revise the application.

If you have any questions regarding the application or NHLPA requirements, please contact Mark Buechel, AIA at 402-661-1920 or mark\_buechel@nps.gov.

Sincerely,

*Mark T Buechel*

Mark Buechel, AIA  
Historical Architect – DOI Regions 3, 4, 5, NHLPA lead

Enclosures

Cc: Kristopher Mendez - GSA

**Appendix B: Existing Conditions – Structural Assessment**

# Structural Report



## Sheboygan Harbor Lighthouse Structural Assessment

Sheboygan, WI

September 8, 2025

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- APPENDIX A: REPRESENTATIVE PHOTOS
- APPENDIX B: COST ESTIMATES

## 1. INTRODUCTION

### **PURPOSE**

The intent of the Sheboygan Breakwater Lighthouse structural assessment was to provide a visual inspection of the existing conditions for all physical assets integral to the lighthouse structure, including the lighthouse tower and concrete breakwater. The information gathered from the assessment and provided within this report can assist in planning for repairs and maintenance of the lighthouse upon transfer of ownership to the City of Sheboygan. The data developed during the inspection process should be used to provide the basis for evaluating immediate replacement and repair costs.

The Sheboygan Breakwater Lighthouse serves the Sheboygan Harbor on Lake Michigan and the head of the Sheboygan River. It was moved to its current location when the north breakwater was extended in 1915. The lighthouse consists of a steel tower that sits atop a poured concrete breakwater. The lightroom was removed from the top of the tower in the mid-20<sup>th</sup> century. The lighthouse now houses a foghorn, NOAA weather station and a flashing white light to mark the end of the wall.

The purpose of this assessment is to identify any deficiencies as the City of Sheboygan considers the purchase of the lighthouse from the United States Coast Guard. ZS assessed the structural condition of the steel tower and the breakwater that the tower is mounted on which measures approximately 2300 square feet of poured concrete (Figure 1). The electrical systems (weather station, foghorn, and lights) were not reviewed other than the cursory observations included with this report. Following the inspection, the Concord Group provided cost estimates related to the recommendations provided from the assessment to aid the City of Sheboygan in determining a path forward.

Although the information presented in this report is based on thorough research, sound evaluation, and deep data analysis, it should be used only as a guide by stakeholders as they build plans that will best serve the interests of the City of Sheboygan. Likewise, all dollar values provided in this report are budgetary estimates and are not intended for use as final costs for project implementation. All inspections conducted as part of this facility assessment are based on visually detectable conditions and should not replace legally mandated inspections.

### **COST ESTIMATING METHODOLOGY**

The Concord Group provided an in-house cost estimate based on unit rates that have been generated from current material/labor rates, historical production data, and discussions with relevant subcontractors and material suppliers. The unit rates reflect current bid costs in the area. All unit rates relevant to subcontractor work include the subcontractors' overhead and profit.

Since The Concord Group has no control over the cost of labor, material, equipment, or over the contractor's method of determining prices, or over the competitive bidding or market conditions at the time of bid, this statement of probable construction cost is based on industry practice, professional experience, and qualifications, and represents The Concord Group's best judgment as professional construction cost consultants familiar with the construction industry. However, The Concord Group cannot guarantee that the proposals, bids, or construction cost will not vary from opinions of probable cost prepared by said contractors.

The Concord Group uses an all-digital platform for estimate preparation, leveraging the latest in estimating and BIM technology to prepare detailed and accurate estimates. This methodology involves the utilization of a software platform consisting of On-Screen Take-Off (OST) by On Center for quantity take-off, Assemble for extraction of estimating data from 3D models, and Interactive

Cost Estimating (ICE) by RIB. Using OST for quantity take-off from digital documents allows us to be more accurate in take-off and removes the potential for human error in math calculations. This program also allows us to accurately document our take-off in a digital format for easy use in reconciliation and quantity comparison exercises.

This organized and conditioned data allows us to generate estimates for building components directly from the model, resulting in much more accurate and efficient estimate preparation. Quantities are then entered into the ICE system, which generates the unit cost based on several factors that are pre-loaded into the estimate. These factors are wage rates, crew size/makeup, productivity factors, material cost, equipment cost, and all mark-ups, etc. The major benefit of using this system is that we can easily drill down to show what is in the make-up of any unit rate applied in the estimate. We maintain a database of actual bid information to use as a historical reference source for future projects. We also maintain a cost database of construction materials, equipment, and labor costs that we update on a regular basis. The primary tools and processes we use to achieve this objective are as follows:

1. Feedback for the almost weekly bid results we receive and the analysis of overall and specific trade variances.
2. Analysis of the detailed cost information related to materials, equipment, labor, overhead, and profit submitted by contractors and their subcontractors to substantiate major change-order requests.
3. Monitor and adjust for recent and planned labor cost increases based on local union wage agreements, which tend to closely track the prevailing wage rates used on all local projects.
4. Monitor, on a local, national, and international basis, material pricing trends for major construction materials, such as, but not limited to steel, concrete, lumber, gypsum drywall, petroleum-based products, copper, aluminum, etc.
5. Monitor respected construction cost publications from sources such as ENR, Means, etc., and factor their findings into our cost models. Trends identified in these publications can be particularly helpful when predicting possible future cost increases that should be factored into budgets/estimates for projects planned to be bid in the future.

Project-specific estimating includes 15% Design Contingency, 25% General Conditions/Bond/Insurance, and 10% Contractor Fees. All unit costs are priced in today's dollars. The estimated costs do not include Soft Costs such as design fees, permitting, insurance fees, legal fees, and other pre- and post-construction expenses.

## 2. FIELD OBSERVATIONS

ZS was onsite Tuesday, April 12, 2025 to perform the visual survey of the Lighthouse. Representatives of the City of Sheboygan and the United States Coast Guard were also present. The following observations represent the condition of the lighthouse and the concrete breakwater at the time of the site visit with representative photos included in Appendix A. Concord Group cost estimates are included in Appendix B and correlate to the observations and photos provided in this report.

### BACKGROUND

The lighthouse tower is a steel plate structure. The plates overlap and are riveted together (Photo 1). There is supplemental steel inside the tower at the vertical plate joints and at the interior floor levels. There are two interior levels above the ground level with the first accessed by ladder and the second by ships ladder (Photo 2). The roof/light level is accessed by a ships ladder from the 2nd level.

The concrete breakwater is four poured concrete segments with a fifth poured atop one of the segments to form the base of the tower (Photo 3). There are steel ladders from the lake and steel boat tie anchors embedded in the breakwater (Photo 4 and Photo 5). The upper concrete segment is accessed by a steel stair (Photo 2).

There is a chamber beneath the tower accessed by a steel hatch in the ground floor (Photo 6). The lower chamber is accessed by a steel ladder (Photo 7). The chamber is connected to the lake at a pipe below the water level, causing the chamber to partially fill with water. The purpose of the chamber is not clear.

### CONCRETE BREAKWATER

No indication of reinforcing steel was observed in the breakwater, neither exposed at a spall nor through evidence of corrosion staining. The following specific conditional issues were noted during the visual survey of the breakwater system:

1. **Spalled Concrete:** Spalls in the Concrete surface have occurred at the edge of the breakwater (Photo 8) as well as on the surface of the breakwater (Photo 9). Some of the spalls appear to be normal wear of the concrete surface while others are related to embedded steel (Photo 10). The spalls caused by normal wear of the concrete do not pose a structural concern at this time. The spalls at the embedded steel will continue to deteriorate over time and compromise the integrity of the embedded steel. At this time none of the embedded steel was loose. No attempt to load test the embedded objects was made.

**Recommendation:** The concrete breakwater should not be patched with repair mortar. The constant exposure to water and annual freeze/thaw cycles will limit the effectiveness of that type of repair. Typically, no repair would be necessary to the concrete spalls. At the steel ladder shown in Photo 10, no repair is required at this time, however, ZS recommends removing the ladder to stop the deterioration of the concrete surrounding it. The ladder could then be replaced with a style similar to that shown in Photo 4 with the rungs installed directly into the concrete.

2. **Cracks in Concrete:** Cracks were observed throughout the breakwater structure. Many of the cracks occur where the concrete is in contact with steel: at the base of the tower (Photo 11); at the boat tie off anchor (Photo 5); and at the steel stairs (Photo 12). The

cracks at the embedded metal objects are likely caused by thermal expansion of the metal. As the metal expands, it puts pressure on the concrete which is relieved by cracks in the concrete. No differential movement was observed across the cracks suggesting the breakwater is still sound. Several cracks not located at embedded metal were also observed but these cracks were hairline cracks and did not exhibit differential movement.

**Recommendation:** None of the observed concrete cracks are a structural concern at this time. Over time water in the cracks will freeze and spall the concrete surface at the cracks (Photo 9). The concrete may be protected against this by routing and sealing the crack which would create an ongoing maintenance item. Otherwise, the spalls could be allowed to occur, and the condition of the concrete should be monitored for changes in the cracks over time.

3. **Joint Between the Eastern Breakwater Segment and Tower Segment:** A gap has opened between the eastern most breakwater segment and the adjacent one, which the tower sits on. At the time of the site visit, the eastern most segment was actively being used by fishermen.

**Recommendation:** The gap does not pose a structural concern, and no repairs are required at this time. As the deterioration continues it will make accessing that segment hazardous and access may need to be restricted. Over time, water freezing within the gap will continue to exert pressure on the eastern segment. This condition warrants ongoing monitoring

4. **Metal Stairs:** The metal stairs up to the lighthouse level are in good condition. The concrete around the stair anchors has spalled (Photo 14) and cracked (Photo 12). There is no handrail at the stairs. The rise and run of the steps do not meet current building code.

**Recommendation:** The stairs are functional but may require a revised mounting to the concrete breakwater in the next five to ten years. The lack of guardrails and narrow steps are a safety concern. There are warning signs at the entrance to breakwater stating the hazardous conditions of the breakwater. The warnings should be reviewed by the city for compliance and proper protection of public access to the stairs. Guardrails are still required to comply with OSHA regulations for workers accessing the lighthouse and its internal equipment

5. **Surface Mounted Conduit:** There is surface mounted conduit on the concrete section directly beneath the lighthouse tower. The covers to all of the right-angle junctions have been removed exposing the wiring to the elements (Photo 15). The specific function of the conduit wiring could not be confirmed; however, the conduit continued upward through the lighthouse tower after entering the building.

**Recommendation:** The system should be reviewed by an electrician and the conduit sealed against the elements.

## LIGHTHOUSE TOWER

The following specific conditional issues were noted during the visual survey of the Lighthouse Tower:

6. **Corrosion of Tower Steel:** Corrosion was observed throughout the tower. For the most part, the observed corrosion was on the surface or just beginning to delaminate the steel (Photo 16). The most severe corrosion observed was located at the top of the paired angles reinforcing the vertical joint between two steel panels. At this location, the outstanding angle legs were experiencing 100% loss of section (Photo 17). Corrosion at the lapped seam between plates was a typical condition with the severity of the corrosion varying throughout the tower (Photo 18). At some location the steel has begun to delaminate causing the lapped seam to begin to open (Photo 19). The paint on the underside of the second level has delaminated from the steel and is hanging in a large sheet (Photo 20).

**Recommendation:** All steel plates require cleaning of the corrosion followed by painting. Removal of the rust pack at the open lap joints will likely create openings through the tower wall that will require sealing. After the steel is cleaned of paint and rust, it should be inspected by a structural engineer. While the steel section loss due to corrosion is minimum at this time, there are locations observed that have measurable section loss. Isolated repairs to the steel plate should be expected as part of the cleaning and painting of the tower. Given the age of the tower, the weldability of the steel should be confirmed before repairs begin.

7. **Tower Connection to Concrete:** There is a curved angle bolted to the concrete breakwater and riveted to the lowest section of steel plates. The steel in contact with the concrete is corroding with measurable section loss (Photo 21). The tower also appeared to be leaning to one side (Photo 22).

**Recommendation:** Similar to the steel tower recommendation, the steel in contact with the concrete should be cleaned and all the corrosion removed. Then the steel should be assessed by a structural engineer. If there is section loss at the concrete anchors additional repairs may be required. These repairs could be accomplished by doubler plates on the base ring of steel and/or additional concrete anchors. A survey of the tower and breakwater should be conducted to identify any areas where the tower is out of plumb. While the observed lean does not currently pose a structural concern, it should be monitored for any future movement.

8. **Ladder to Lower Chamber:** The ladder leading down to the lower chamber was originally anchored to a structure at its base (Photo 7). That structure has since been removed from the tower, leaving the ladder secured only on one side at its base.

**Recommendation:** The ladder should be considered unsafe and should be reinforced or removed.

9. **Doors and Portholes Through Tower Wall:** There is a door to the exterior on the first level that opens to nothing. It is not clear what the intention for the door was, but it no longer serves a purpose (Photo 23 and Photo 24). The door does not currently open though it's not clear if that is because of corrosion or if it has been welded close. In addition to the door, several portholes in the tower have been covered by steel plates (Photo 25).

**Recommendation:** The door would be hazardous if it was rendered operational when the steel is cleaned and painted. The door should be permanently shut or the opening guarded. The sealed portholes may be left as they are. New fittings would be required to restore them.

10. **Holes in Tower Wall:** Beneath the roof / light level there are several holes through the tower wall (Photo 26). Most of the holes look like abandoned openings or holes for connections. The hole in the middle doesn't appear to be round and may be a result of corrosion.

**Recommendation:** The holes should be covered with steel plate when the tower steel is cleaned and painted.

11. **Roof / Light Level Hatch:** The lock on the roof hatch and the arm which is supposed to keep the hatch open are not functional. The hatch stays open on its own. The hatch cannot be locked.

**Recommendation:** The arm should be reconnected or removed. In its current position, the arm hangs down in a way that poses a hazard to individuals using the hatch. Although the lock is non-functional, it is not essential due to the lock on the ground-level door. However, if the lock is reinstated, the mechanism that secures the door in the open position should also be replaced.

12. **Guardrail at Roof / Light Level:** There is a guard rail around the roof level that is 36" high and is not continuous around the entire roof (Photo 28). The mid-rail is below mid-height of the guardrail and also not continuous. The railing is not OSHA compliant since the required minimum height is at least 39".

**Recommendation:** The roof cannot be safely accessed for work on the equipment located there per OSHA guidelines. New guardrails or fall protection anchors should be installed to make roof work access OSHA compliant.

13. **Unprotected Floor and Roof Openings:** There is no guardrail to protect floor or roof openings when the hatches are open (Photo 29). Similarly, there is no swing gate or protection at the 1st level ladder access.

**Recommendation:** A complete OSHA assessment of the tower should be carried out to accommodate workers servicing the tower and equipment located within.

14. **Equipment Mounted Within the Tower:** Some of the equipment within the tower is either mounted to or resting on plywood. Where equipment mounted to plywood suspended above the floor, the plywood is in good condition (Photo 30). At the ground floor there are batteries sitting on plywood in contact with the floor (Photo 31).

**Recommendation:** The owners of the equipment on the deteriorated plywood should provide proper mounting for the batteries that keep them off the floor.

### 3. CONCLUDING REMARKS

Given the environment and conditions that the Sheboygan Lighthouse is subject to, including constant exposure to water, freeze/thaw cycles, and shifting ice conditions from the harbor, the lighthouse tower and breakwater are in good to fair condition. The conditions observed at the concrete breakwater are typical of similar structures, and the maintenance requirements are expected to align with those of the other breakwaters within Sheboygan Harbor.

The tower steel plates require cleaning and painting. Given the age of the tower, it is a fair assumption that there is lead paint present so testing and, if required, proper abatement should be performed as part of the cleaning and painting work. It is important that the cleaning and painting is performed within two years to prevent the corrosion from becoming detrimental to the tower.

Review of the lighthouse, breakwater, and ZS' subsequent conclusions are limited by what can be visually observed and by the information available to ZS at the time of observation. It should be understood that ZS' assessment may not identify deterioration concealed from view. ZS reserves the right to update its assessment and conclusions as new information becomes available.

# APPENDIX A

## REPRESENTATIVE PHOTOS

**Appendix A: Representative Photos**

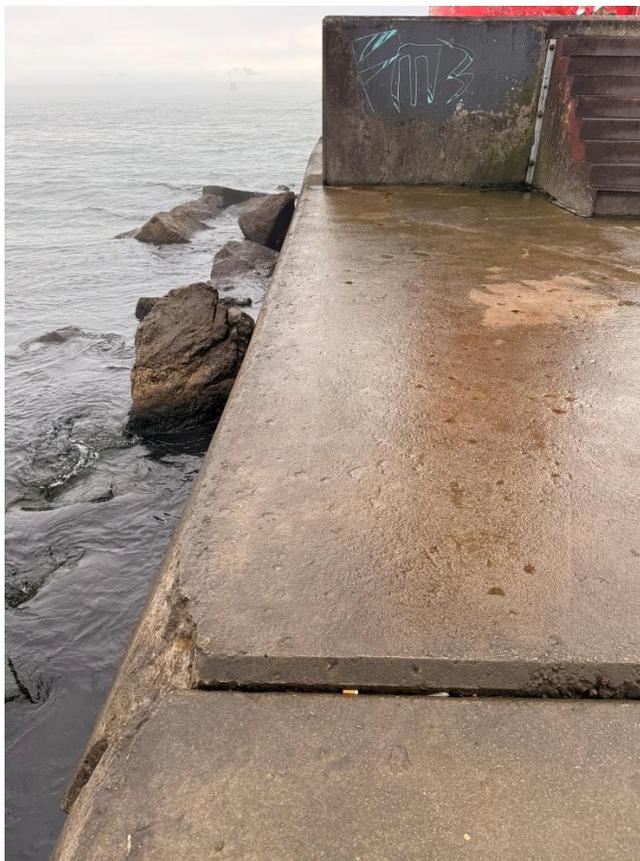


*Photo 1: Overlapping Steel Plate Structure with Reinforced Vertical Joints*



*Photo 2: Ships Ladder for 2<sup>nd</sup> Floor Access*

# Sheboygan Harbor Lighthouse Assessment



*Photo 3: Breakwater Segments*



*Photo 4: Integrated Ladder*

Sheboygan Harbor Lighthouse Assessment



*Photo 5: Boat Tie Anchor*



*Photo 6: Ground Floor Access Hatch*

Sheboygan Harbor Lighthouse Assessment



*Photo 7: Lower Chamber*



*Photo 8: Spalled Concrete*

Sheboygan Harbor Lighthouse Assessment



*Photo 9: Spalled and Cracked Concrete*



*Photo 10: Concrete Spall at Embedded Ladder*

Sheboygan Harbor Lighthouse Assessment



Photo 11: Cracks in Concrete at Tower Base



Photo 12: Crack in Concrete at Metal Stair

Sheboygan Harbor Lighthouse Assessment



*Photo 13: Joint Between Eastern Most Breakwater Segment and Adjacent Segment*



*Photo 14: Metal Stairs*

Sheboygan Harbor Lighthouse Assessment



*Photo 15: Open Conduit*



*Photo 16: Surface Corrosion and Unbonded Paint*

Sheboygan Harbor Lighthouse Assessment



*Photo 17: Corrosion of Angles at Vertical Seam*



*Photo 18: Corrosion at Lap of Steel Plates*

Sheboygan Harbor Lighthouse Assessment



*Photo 19: Rust Pack at Steel Plate Overlap*



*Photo 20: Corrosion at Underside of 2<sup>nd</sup> Level and Paint No Longer Bonded*

Sheboygan Harbor Lighthouse Assessment



*Photo 21: Corrosion at Base of Tower; Arrow Indicates Section Loss*



*Photo 22: Tower Appears to be Leaning to the Right (South)*

Sheboygan Harbor Lighthouse Assessment



*Photo 23: Door on 1<sup>st</sup> Level with Nothing on the Exterior Side*

Sheboygan Harbor Lighthouse Assessment



*Photo 24: First Level Door with Nothing to the Exterior*



*Photo 25: Porthole Welded Shut*

Sheboygan Harbor Lighthouse Assessment



*Photo 26: Holes in Tower Wall Beneath Roof/Light Level*



*Photo 27: Hatch Hold and Lock Not Functional*

Sheboygan Harbor Lighthouse Assessment



*Photo 28: Guardrail Incomplete and Not at Proper Height*



*Photo 29: Unprotected Openings in Floors and Roof*

Sheboygan Harbor Lighthouse Assessment



*Photo 30: Electrical Terminal Mounted to Plywood*



*Photo 31: Batteries on Deteriorated Plywood*

# APPENDIX B

## COST ESTIMATES

# Sheboygan Lighthouse Assessment Repairs

Street Address  
Sheboygan, WI 53081

## **Conceptual Estimate**

September 5, 2025

**DRAFT**

Project: 2025C845

### **Prepared For:**

City of Sheboygan

## **NOTES REGARDING PREPARATION OF ESTIMATE**

This estimate was prepared based on the following documents provided by ZS Architectural Engineering:

1. Lighthouse Assesment Report dated August 15, 2025.
2. Information regarding the project was also obtained via meetings, phone conversations, and email messages that clarified the project scope.

## **BIDDING PROCESS - MARKET CONDITIONS**

This document is based on the measurement and pricing of quantities wherever information is provided and/or reasonable assumptions for other work not covered in the drawings or specifications, as stated within this document. Unit rates have been generated from current material/labor rates, historical production data, and discussions with relevant subcontractors and material suppliers. The unit rates reflect current bid costs in the area. All unit rates relevant to subcontractor work include the subcontractors overhead and profit unless otherwise stated.

Pricing reflects probable construction costs obtainable in the Sheboygan, Wisconsin area on the bid date. This estimate is a determination of fair market value for the construction of this project. It is not a prediction of low bid. Pricing assumes competitive bidding for every portion of the construction work for all subcontractors with a minimum of 3 bidders for all items of subcontracted work and a with a minimum of 3 bidders for a general contractor. Experience indicates that a fewer number of bidders may result in higher bids, conversely an increased number of bidders may result in more competitive bids.

Since The Concord Group has no control over the cost of labor, material, equipment, or over the contractor's method of determining prices, or over the competitive bidding or market conditions at the time of bid, this statement of probable construction cost is based on industry practice, professional experience and qualifications, and represents The Concord Group's best judgment as professional construction cost consultants familiar with the construction industry. However, The Concord Group cannot and does not guarantee that the proposals, bids, or the construction cost will not vary from opinions of probable cost prepared by them.

## **ASSUMED CONSTRUCTION PARAMETERS**

The pricing is based on the following project parameters:

1. The contract will be competitively bid to multiple general contractors.
2. All work will take place within the next year.
3. All contractors will be required to pay prevailing wages.
4. There are no phasing requirements.
5. The contractors will have full access to the site during normal working hours
6. Estimate detail includes pricing as of September 2025.

### **EXCLUSIONS**

The following are excluded from the cost of this estimate:

1. Professional Design Fees
2. Testing Fees
3. Owner Contingencies/Scope Changes
4. Construction Contingency
5. Premium Time / Restrictions on Contractor Working Hours
6. Cost Escalation Beyond a Construction Mid-Point Date of Q2 2026
7. Finance and Legal Charges
8. Environmental Abatement Costs
9. Temporary Owner Facilities
10. Moisture Mitigation
11. Equipment (Owner Furnished/Installed)
12. Unforeseen Future Cost Impacts Based on Supply Chain Impacts
13. Unforeseen Cost Impacts Based on Future Tariffs

**COST SUMMARY**

**BUILDING  
TOTAL**

<b>1</b> SPALLED CONCRETE		\$46,434
<b>2</b> CRACKS IN CONCRETE		\$6,745
<b>3</b> JOINT BETWEEN EASTERN BREAKWATER SEGMENT & TOWER SEGMENT	N/A	
<b>4</b> METAL STAIRS		\$28,142
<b>5</b> SURFACE MOUNTED CONDUIT		\$5,590
<b>6</b> CORROSION OF STEEL TOWER		\$249,198
<b>7</b> TOWER CONNECTION TO CONCRETE		\$118,846
<b>8</b> LADDER TO LOWER CHAMBER		\$12,984
<b>9</b> DOORS & PORTHOLES THROUGH TOWER WALL		\$2,447
<b>10</b> HOLES IN TOWNER WALL	Included w/ #6	
<b>11</b> ROOF/LIGHT LEVEL HATCH		\$4,028
<b>12</b> GUARDRAIL AT ROOF/LIGHT LEVEL		\$21,444
<b>13</b> UNPROTECTED FLOOR & ROOF OPENINGS	N/A	
<b>14</b> EQUIPMENT MOUNTED WITHIN TOWER	N/A	

<b>TOTAL ESTIMATED CONSTRUCTION COSTS</b>	<b>\$495,857</b>
---	------------------

**Note: the above costs include the following markups:**

DESIGN CONTINGENCY	20.0%
GENERAL CONDITIONS/BOND/INSURANCE	25.0%
CONTRACTOR'S FEES	6.0%

DESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
<b>SPALLED CONCRETE</b>				
<b>02000 EXISTING CONDITIONS</b>				
<b>02100 Selective Demolition</b>				
Sawcut & remove section of concrete wall	1	EACH	4,052.10	4,052
Remove steel ladder	1	EACH	4,316.39	4,316
<b>SUBTOTAL: Selective Demolition</b>				<b>\$8,368</b>
<b>TOTAL: EXISTING CONDITIONS</b>				<b>\$8,368</b>
<b>03000 CONCRETE</b>				
<b>03300 Cast in Place Concrete</b>				
Repour section of concrete walls, tie into existing. Install embedded ladder rungs	1	EACH	20,835.11	20,835
<b>SUBTOTAL: Cast in Place Concrete</b>				<b>\$20,835</b>
<b>TOTAL: CONCRETE</b>				<b>\$20,835</b>
<b>TOTAL: SPALLED CONCRETE</b>				<b>\$29,204</b>



**Sheboygan Lighthouse  
Assesment Repairs**

Conceptual Estimate  
09/05/2025  
DRAFT

DESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
<b>CRACKS IN CONCRETE</b>				
<b>03000 CONCRETE</b>				
03300 Cast in Place Concrete				
Route & seal crack in concrete	1	LSUM	4,242.44	4,242
<b>SUBTOTAL: Cast in Place Concrete</b>				<b>\$4,242</b>
<b>TOTAL: CONCRETE</b>				<b>\$4,242</b>
<b>TOTAL: CRACKS IN CONCRETE</b>				<b>\$4,242</b>



**Sheboygan Lighthouse  
Assesment Repairs**

Conceptual Estimate  
09/05/2025  
DRAFT

DESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
<b>METAL STAIRS</b>				
<b>05000 METALS</b>				
05300 Stairs				
Remove & replace metal stair w/ code compliant stair	1	EACH	17,699.10	17,699
			<b>SUBTOTAL: Stairs</b>	<b>\$17,699</b>
<b>TOTAL: METALS</b>				<b>\$17,699</b>
<b>TOTAL: METAL STAIRS</b>				<b>\$17,699</b>



DESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
<b>SURFACE MOUNTED CONDUIT</b>				
<b>26000 ELECTRICAL</b>				
26200 Main Power Distribution				
Review exterior conduit. Seal from elements	1	EACH	3,515.41	3,515
<b>SUBTOTAL: Main Power Distribution</b>				<b>\$3,515</b>
<b>TOTAL: ELECTRICAL</b>				<b>\$3,515</b>
<b>TOTAL: SURFACE MOUNTED CONDUIT</b>				<b>\$3,515</b>

DESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
<b>CORROSION OF STEEL TOWER</b>				
<b>01000 GENERAL REQUIREMENTS</b>				
<b>01600 Construction Access</b>				
Scaffolding to access Steel Tower	1	LSUM	63,669.30	63,669
<b>SUBTOTAL: Construction Access</b>				<b>\$63,669</b>
<b>TOTAL: GENERAL REQUIREMENTS</b>				<b>\$63,669</b>
<b>05000 METALS</b>				
<b>05900 Miscellaneous Metals</b>				
Isolated steel repairs & replacement at Steel Tower - Allowance	1	LSUM	28,581.94	28,582
<b>SUBTOTAL: Miscellaneous Metals</b>				<b>\$28,582</b>
<b>TOTAL: METALS</b>				<b>\$28,582</b>
<b>09000 FINISHES</b>				
<b>09600 Paints &amp; Coatings</b>				
Prepare & paint steel tower	1	EACH	64,477.30	64,477
<b>SUBTOTAL: Paints &amp; Coatings</b>				<b>\$64,477</b>
<b>TOTAL: FINISHES</b>				<b>\$64,477</b>
<b>TOTAL: CORROSION OF STEEL TOWER</b>				<b>\$156,729</b>



DESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
<b>TOWER CONNECTION TO CONCRETE</b>				
<b>05000 METALS</b>				
<b>05900</b> Miscellaneous Metals				
Survey tower & breakwater. Perform correctional repairs as necessary - Allowance	1	LSUM	74,745.82	74,746
			<b>SUBTOTAL: Miscellaneous Metals</b>	<b>\$74,746</b>
<b>TOTAL: METALS</b>				<b>\$74,746</b>
<b>TOTAL: TOWER CONNECTION TO CONCRETE</b>				<b>\$74,746</b>

DESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
<b>LADDER TO LOWER CHAMBER</b>				
<b>05000 METALS</b>				
<b>05400 Metal Fabrications</b>				
Remove & replace ladder to lower chamber	1	EACH	8,166.11	8,166
	<b>SUBTOTAL: Metal Fabrications</b>			<b>\$8,166</b>
<b>TOTAL: METALS</b>				<b>\$8,166</b>
<b>TOTAL: LADDER TO LOWER CHAMBER</b>				<b>\$8,166</b>



**Sheboygan Lighthouse  
Assesment Repairs**

Conceptual Estimate  
09/05/2025  
DRAFT

DESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
<b>DOORS &amp; PORTHOLES THROUGH TOWER WALL</b>				
<b>05000 METALS</b>				
<b>05900</b> Miscellaneous Metals				
Weld existing door shut	1	EACH	1,538.80	1,539
			<b>SUBTOTAL: Miscellaneous Metals</b>	<b>\$1,539</b>
<b>TOTAL: METALS</b>				<b>\$1,539</b>
<b>TOTAL: DOORS &amp; PORTHOLES THROUGH TOWER WALL</b>				<b>\$1,539</b>



DESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
<b>ROOF/LIGHT LEVEL HATCH</b>				
<b>07000 THERMAL &amp; MOISTURE PROTECTION</b>				
<b>07500 Roofing Specialties</b>				
Reconnect arm at hatch. Service & install new lock	1	EACH	2,533.06	2,533
			<b>SUBTOTAL: Roofing Specialties</b>	<b>\$2,533</b>
<b>TOTAL: THERMAL &amp; MOISTURE PROTECTION</b>				<b>\$2,533</b>
<b>TOTAL: ROOF/LIGHT LEVEL HATCH</b>				<b>\$2,533</b>



**Sheboygan Lighthouse  
Assesment Repairs**

Conceptual Estimate  
09/05/2025  
DRAFT

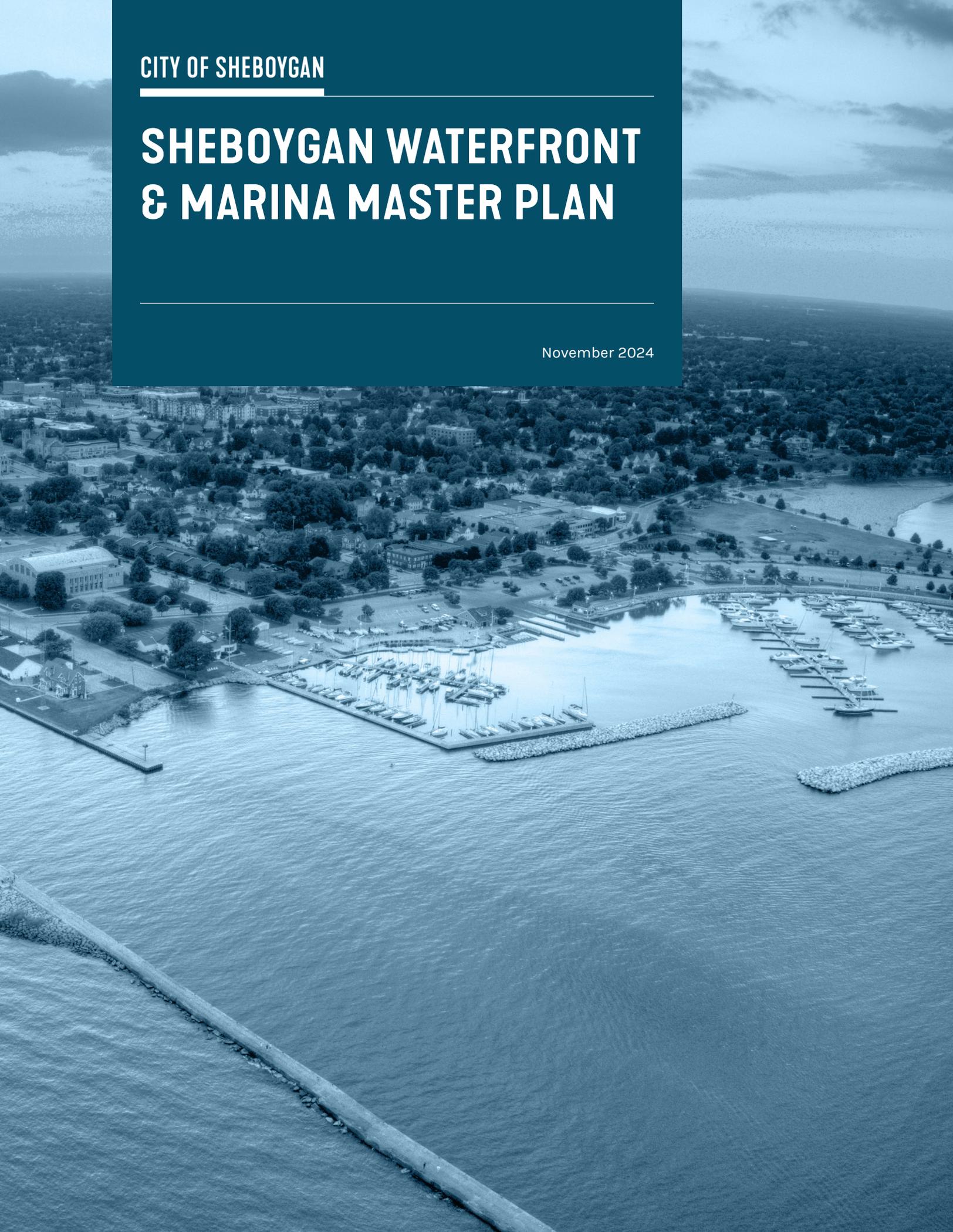
DESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
<b>GUARDRAIL AT ROOF/LIGHT LEVEL</b>				
<b>05000 METALS</b>				
<b>05400 Metal Fabrications</b>				
Remove & replace roof guardrail	1	EACH	13,486.72	13,487
			<b>SUBTOTAL: Metal Fabrications</b>	<b>\$13,487</b>
<b>TOTAL: METALS</b>				<b>\$13,487</b>
<b>TOTAL: GUARDRAIL AT ROOF/LIGHT LEVEL</b>				<b>\$13,487</b>

# **Appendix D: Sheboygan Waterfront and Marina Master Plan Report**

CITY OF SHEBOYGAN

# SHEBOYGAN WATERFRONT & MARINA MASTER PLAN

November 2024



## CITY LEADERSHIP TEAM

**Ryan Sorenson**

Mayor

**Casey Bradley**

City Administrator

**Marie Foss**

Project Manager

**Veronica Valdez**

Communications Specialist

**Nick Warminsky**

Marina Manager

**Joe Kerlin**

Superintendent of Parks & Forestry

**Tim Bull**

City Forester

**Kaitlyn Krueger**

Director of Finance/Treasurer

**Aaron Groh**

Acting City Engineer

**Travis Peterson**

Director of Public Works

**Eric Montellano**

Fire Chief

**Christopher Domagalski**

Chief of Police

**Diane McGinnis Casey**

Director of Planning and  
Development Sustainability  
Coordinator

**Kevin Jump**

Engineering

**Derek Muench**

Shoreline Metro

## SMITHGROUP DESIGN TEAM

**Tom Rogers PLA**

Principle-In-Charge

**Tim Wagner PE**

Project Manager

**Amber Piacentine**

Architectural

**Xu Zhang**

Landscape Architecture

**Ruijie Liu**

Landscape Architecture

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DELAND BEACH

# EXECUTIVE SUMMARY

## PROJECT OVERVIEW

The waterfront of Sheboygan has been a central part of the lives of residents and visitors for generations. It shapes the city's identity and influences those who live in and visit it. The importance of the lakefront not only remaining but evolving to meet the needs of the future cannot be understated.

In 2023, the City of Sheboygan initiated the transformation of Harbor Centre Marina and Deland Park as a destination that appeals to a broader range of residents, connects people to the water and increases the quality of life in Sheboygan.

## PURPOSE & NEED

The Harbor Centre Marina has reached a critical point necessitating an important decision. Various operators have managed the marina for the city, but over the past several years, the marina has experienced financial losses, and the current operating budget is no longer sustainable. Additionally, the docks and buildings have deteriorated over time and require more than just repairs. The city took over as the marina operator in 2024 to have more direct control of the facility and to evaluate the future needs of the marina.

Deland Park is a cherished community space, known for hosting large events, being a regional surfing destination, providing public access to the waterfront and acting as an access point to Lake Michigan for boaters of all types. Unfortunately, the park is not as heavily used by the public as it once was. Many festivals that once took place on the lakefront have lost their organizers over time, and the current facilities do not meet the needs of larger user groups for events. Despite being fully open and available to the public there is a perception that portions of the park are only for boaters.

The City of Sheboygan aims to address the critical infrastructure needs of the marina, improve the facilities, and provide additional opportunities at Deland Park for a broader spectrum of the community to use the park throughout all four seasons with improvements that promote tourism, connectivity, safety and economic prosperity.

## 1 COMMUNITY GATHERING & RECREATION

## 2 ECONOMY & EDUCATION

## 3 LAKEFRONT AMENITIES

## 4 ECOLOGICAL FUNCTIONS

## 5 CONNECTIVITY

## KEY GOALS & PRIORITIES

The goals and priorities for Deland Park and Harbor Centre Marina were shaped by extensive meetings with the City Leadership Team, stakeholder input, public meetings, an on-site charrette and three online input sessions. Key goals and priorities include

### COMMUNITY GATHERING & RECREATION

Expand the park offerings to create a year-round destination that serves daily use, flexes for large events and creates opportunities for residents and visitors to use the park.

### ECONOMY AND EDUCATION

Create tourism opportunities that leverage the waterfront that could include education, art, concessionaire spaces for a restaurant or bar, and add flexible, rentable space

### LAKEFRONT AMENITIES

Protect, repair and enhance the Marina, provide essential services and management with flexibility for vendor spaces. Provide amenities to support local slip holders and attract boaters from other communities. Provide opportunities to support charter fishing, boat and paddle craft rentals. Seek boat storage alternatives off-site.

### ECOLOGICAL FUNCTIONS

Provide enhancements to support habitat and water quality, embrace the natural character for the beach and shoreline, provide a clean marina facility, consider WEDG certification.

### CONNECTIVITY

Improve trails and wayfinding for an intuitive multimodal experience, right size parking and introduce traffic calming measures to connect the park with the downtown and local businesses and enhance pedestrian safety.

## DESIGN COMPONENTS

The three main components of the master plan include:

### MARINA

The City will provide new, basic services for the marina with vendor opportunities for additional amenities. Work will include construction of a new administration building, fuel service building and system, including a wave attenuator dock that also doubles as transient docking for larger vessels.

Boat storage will remain in the adjacent parking lot for the 24/25' season and then shift to a new location upriver and out of Deland Park.

### PROMENADE & POINT

A pedestrian scale promenade will be incorporated adjacent to the marina. The promenade will feature shade structures, power for vendors, flexible plaza and small event space.

Two new buildings located at the point will create a dramatic public destination on the water. One building will house a concessionaire operated a restaurant and reservable event space, the second building will be focused on water-based education.

### PARK & UPLAND

The plan will preserve a central, two acre open green space that is larger than a football field for large special events and to protect open space and flexibility at the water. A new skating ribbon and splash plaza will border the lawn to create four season programming.

The existing play structures will be replaced by a single destination playground and a new bathhouse with changing space, restrooms, storage and vendor space. The building will create a gateway moment and serve the ice ribbon, playground and beach.

The existing Hmong Memorial will be preserved as a more formalized green space. The existing tennis courts will be reconstructed for pickleball. Other potential amenities include potentially moving the Lottie Cooper north and providing additional protection, adding a shade structure to anchor the lawn space and providing an additional restroom north of the beach.

### BROADER CONNECTIONS

In addition to the three main components above, several other opportunities arose during the master plan to enhance broader connectivity to the waterfront:

- Incorporating a kayak launch with potential rentals at Rotary Park and enhancing the overlook to create a more functional destination space. A river launch site is safer, more accessible and creates less conflicts than a marina site.
- Exploring adding a public destination pier space at the end of Pennsylvania Avenue. The space would create an iconic destination along the water, and act as a debris deflector adjacent to the marina. Designing, permitting and building a structure will require cooperation and coordination between the city, coast guard and Yacht Club.
- Provide enhancements to Broughton Drive to calm traffic and improve pedestrian safety that will be developed in concert with the City's Complete Streets Plan. In addition, the plan will improve trail connections and signage along the waterfront and the city continues to enhance connections between the waterfront and downtown.

### NEXT STEPS

The master plan creates a framework to guide more detailed design and recommends an approach to phasing that begins with the marina basin and moves upland to the promenade and then the park. Final design and phasing will depend on funding, city priorities and additional public input and will likely evolve over time.

Overall, the plan embraces the waterfront as a defining feature of the community and seeks to balance a broad range of waterfront activities for a range of user groups. When fully implemented, the individual components of the plan will create a four-season community focuses destination that attracts residents and visitors to the water and supporting Sheboygan's identity as a great lakefront community to live in and visit.





# EXISTING CONDITIONS

## HISTORY

Sheboygan's Lake Michigan shoreline, north of the Sheboygan River, has been changed by the influences of man over the last 100 years. The land, lakeward of present-day Broughton Drive, has been "reclaimed" from the lake through placement of dredge material and other fill as various projects have been performed to create new waterfront facilities. The federal breakwater that was designed for shipping created an opportunity to build a marina and access point for the community. The marina was constructed in the 1990s.

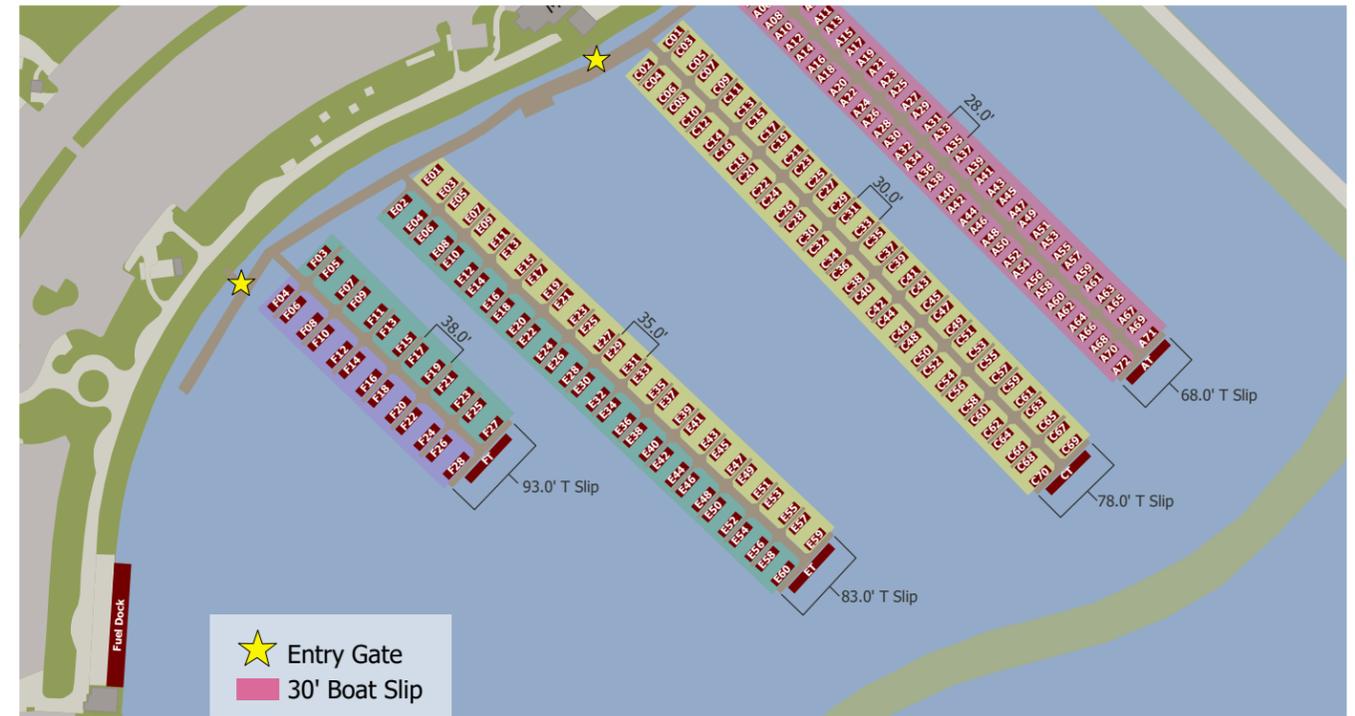
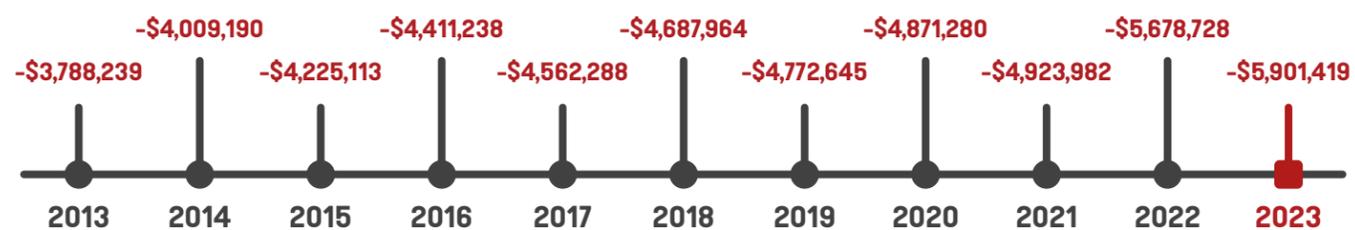
## EXISTING CONDITIONS

### MARINA OPERATIONS & FACILITIES

Originally planned to support over 400 vessels, the marina's growth has been limited by operational and

maintenance challenges. For most of its operational life, the City contracted with an outside firm to oversee day-to-day operations of the marina while retaining the responsibility for major maintenance projects. In 2024 the City took over marina operations and hired a full-time marina manager as a city employee, after determining the financial position of the marina was unsustainable. Yearly financial losses and management challenges led to deferred maintenance, a reduction in services, and diminished amenities, which are taken into account when looking at future plans for the marina.

### MARINA FINANCIAL HISTORY



HARBOR CENTRE MARINA  
current slip map

## DOCKS & LAYOUT

The marina currently operates at a capacity of 260 slips spread among four docks (A, C, E, and F). Historically one more dock (G) was used, but the number and size of the docks have been reduced due to operational and maintenance reasons. Over the past five years, ice and wave damage, along with sedimentation on the north side of the marina basin have severely impacted dock operations. Available dock sizes range from 30 feet to 50 feet, with side mooring for vessels greater than 50'

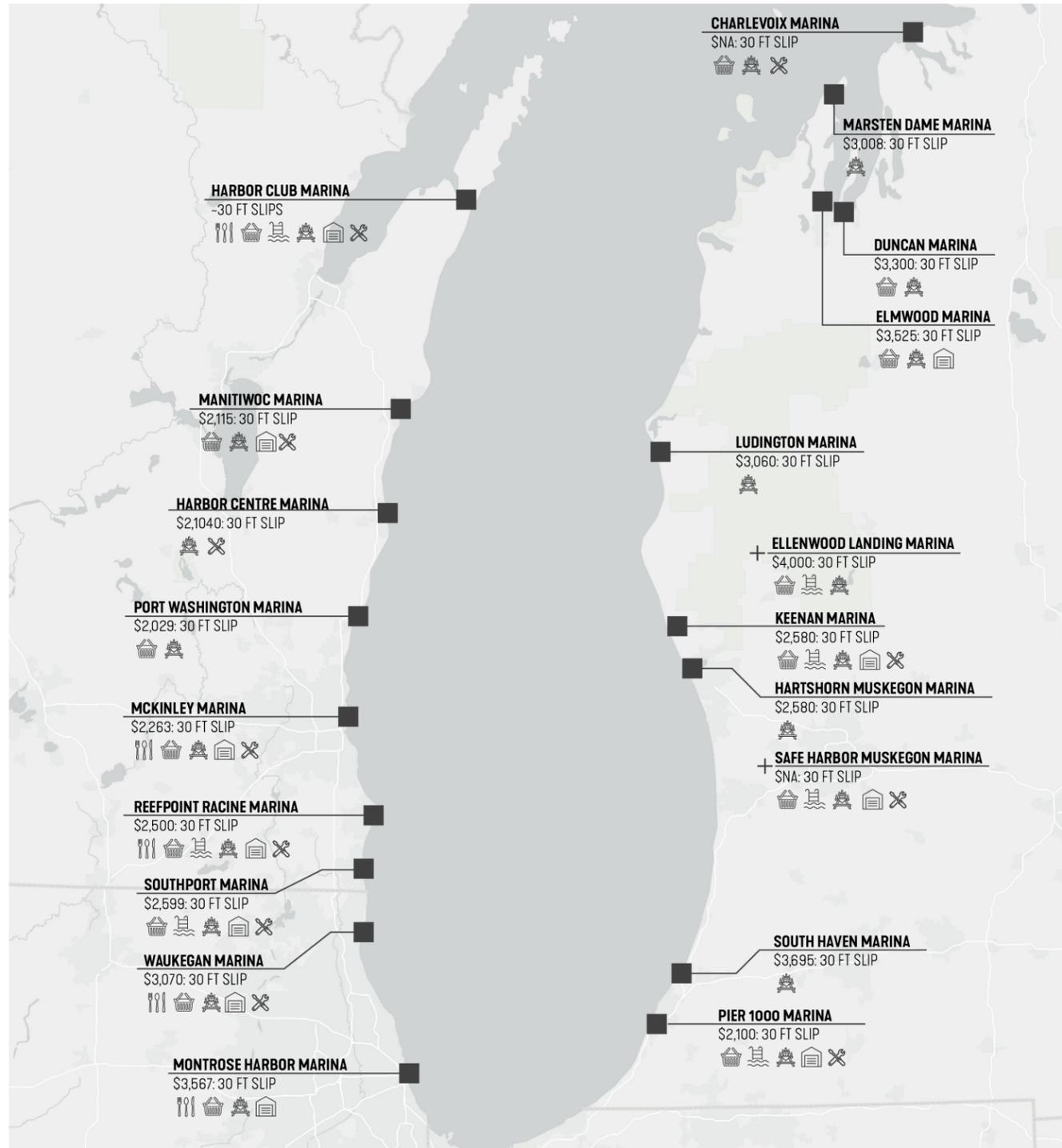
A marginal dock runs parallel to shore and connects the four docks together, providing shore access via gangways. The marginal dock includes a picnic area with grills for the boaters, along with a kayak storage and launching facility. In addition to the main dock areas, the marina also has a separate fuel and pump out dock.

The federal breakwater, constructed in about 1915 has deteriorated and suffers from siltation issues that have impacted the basin. The city does not have legal authority to fix the breakwater. It is not presently a priority for the Army Corps of Engineers to repair, and future marina plans will need to consider this influence.

## MARINA BUILDING

A three-story building which dominates waterfront sight lines houses marina offices, a boaters' lounge, laundry facilities, and restroom/shower spaces. Previously, a store and a bar operated in the building; however, those services were cut back when the city took over marina operations. The bar area on the upper floor is currently unused, while the store area on the first floor is used by Marina staff to provide coffee bar and other services to marina slip holders.

Maintenance of the building has been a challenge due to water intrusion and structural issues. In 2016 the City hired ZS to provide consulting services for structural inspections of the building. The inspections found evidence of major water damage including rot and sheeting delamination, and deficiencies in construction which increased the risk of further deterioration to the structure. Some items were addressed and repaired. The roof is currently in need of replacement. Repair of the existing structure, plus desired improvements would be significantly expensive, and the city may be better served by a new building.



LEGEND

- RESTAURANT/BAR
- STORE
- POOL
- PICNIC /GRILL AREA
- WINTER BOAT STORAGE
- ONSITE MAINTENANCE

MARINA AMENITIES MAP

Marinas around Lake Michigan offer the amenities noted above (based on readily available data public data).



SHEBOYGAN COUNTY SPRING 2003 AERIAL

AMENITIES

Marina amenities are crucial for attracting boaters to Harbor Center Marina. Harbor Centre Marina has historically offered the following amenities:

WINTER BOAT STORAGE

Storage was located outside in the marina parking lot, and vessels were shrink wrapped. Storage will be offered for the 2024-2025 winter season. The City is seeking future alternative storage sites.

POOL & HOT TUB

A heated pool and hot tub area has provided an upland space for slip renters. It was closed in 2024 by the City and there are no plans to reopen the pool or hot tub area.

MAINTENANCE

There are currently no on-site vessel maintenance services. Previously there have been some on-site maintenance services provided for a fee.

RESTAURANT & BAR

A bar was previously operated on the second floor of the marina building and currently is not being reopened.

STORE

A store was operated which provided souvenirs, ice cream, some boat parts, and other sundry items, however it was closed for the 2024 season. The space currently houses a coffee station and some small food/vending items.

DELAND PARK & NORTH SIDE BEACH

Deland Park has been the waterfront lawn of Sheboygan for decades. Spanning over 15 acres, it has hosted concerts, festivals, and holiday gatherings. Today the park features tennis and pickleball courts, the Lottie Cooper shipwreck, Richardson Shelter, Deland Community Center, Hmong Memorial, and several play spaces. These amenities are centered around a large open greenspace which plays host to community events throughout the year. A large parking lot separates the park area from the Marina and has been used for boat storage blocking views and access.

North Side Beach is often seen as independent of Deland Park. It features a playground, sand volleyball courts, and an aged bathhouse with restrooms and changing rooms. The beach is a premier Midwestern surfing destination and an important tourist attraction. Several groins to the north of the beach, though dilapidated, help support the wave action that makes this an attraction.

ROTARY PARK

Located along the riverfront boardwalk, Rotary Park is a hillside natural amphitheater with a focus on green space. At the top of bluff, a park shelter provides an overlook and the south shore of the river. The park is currently used to house smaller intimate events.



SITE ANALYSIS

① DELAND BEACH HOUSE + OVERLOOK

Bathrooms are important for the beach users and surfing community. The structure is past its useful life. It's in an odd spot relative to the other improvements and the beach might be better served by a restroom farther north and a restroom with changing facilities and an outdoor shower in conjunction with future improvements.

② NORTHSIDE MUNICIPAL BEACH

The beach is highly valued and used. It is a regional surfing destination. The breakwater and groins to the north create an ideal wave climate for surfing. This use could be accentuated.

③ PLAYGROUNDS

Both of the playgrounds are past their useful life. A single playground with better accessibility is preferred. A destination structure could create a major draw adjacent to the park and beach.

④ DELAND PARK

Large open space is filled for large events, but there are fewer organizers and many of the events have fallen off. The space is also used by kites, as large flexible space and appreciated for its openness and views to water. Future improvements should consider space for large gathers and potential music, but be mindful not to compete with other nearby venues.

⑤ DELAND COMMUNITY CENTER

The building is utilized and well appreciated, but it's not very large, and there is demand for larger events. The building is not unique and could use modernization. It might be better served as part of a larger structure.

⑥ PARKING

The parking in front of the boat ramp fills regularly. There are traffic conflicts at the exit. In addition, the transition

between the two lots is awkward and might create better circulation and reduce traffic problems if the lots were connected and the exit shifted to the intersection, rather than mid-block.

The main parking lot rarely fills more than 70% outside of holidays and special events. YMCA users frequently fill the most adjacent spaces. The overall parking count could be reduced, but should be done with consideration for additional services that are being considered.

Currently, the parking lot is used for boat storage in winter months. It blocks much of the view and creates a perception that the marina is private. Boat storage is important to the users, but not the highest and best used for the public. The plan should consider adding a new boat storage location upriver that is convenient for boaters, but does not obstruct a key public use.

⑦ HARBOR CENTRE MARINA

Generally, there are extensive repairs needed to the existing building. The existing docks need replacement. There are challenges with basin sedimentation and ice damage. See Appendix for full report.

⑧ EXISTING PARK STRUCTURE

The structure is newer, but could be relocated if needed

⑨ TENNIS COURTS

The courts have settled and cracked enough that they probably need to be rebuilt rather than repaired. Based on current use patterns, they might serve more people setup for pickleball.

⑩ LOTTIE COOPER

The Shipwreck is deteriorating because of exposure to the elements. There have been some comments to move it. Explore protection and relocation with consideration that there were grant

dollars funding its current placement and there may be restrictions on relocation.

⑪ BROUGHTON DRIVE

Traffic calming is needed to reduce speed throughout corridor. Speeding is also a problem in the existing parking lot. Pedestrian safety, accessibility, wayfinding and connectivity should be incorporated. Portions of the drive have parallel parking, these could be expanded to a larger portion of the street.

⑫ FUEL DOCK + FISH CLEANING STATION

The fuel facilities should be updated. The adjacent fish cleaning station is sufficient, but has challenges backing up because of undersized utilities. The marina might be better served with a new facility and structure that combines both.

⑬ PENNSYLVANIA AVENUE

Pennsylvania Avenue ends in a prominent location that creates an opportunity for a destination space. Consider proximity to and needs for the Yacht club and Coast Guard.

⑭ ROTARY PARK

The park is used for special events including the 4th of July. The shelter is underutilized and needs repairs. A new shelter could provide a better destination and more useable space. Food trucks could double with Blast to provide a summertime destination.

The park would make an ideal paddle craft access, but needs considerations for parking and accessibility.

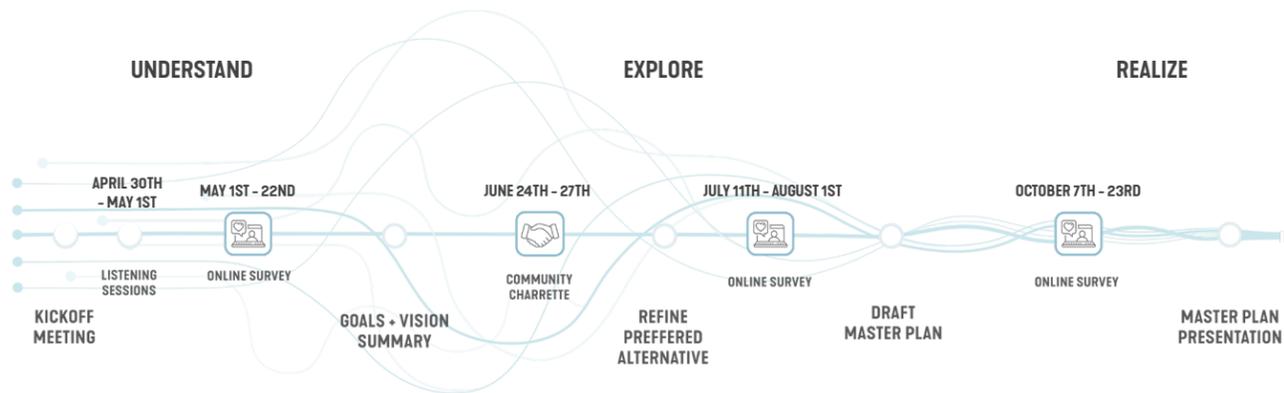


# COMMUNITY ENGAGEMENT

## COMMUNITY ENGAGEMENT PROCESS

The master plan was developed based on feedback from the City of Sheboygan Leadership team, key stakeholders and public input which included live meetings, a four-day charrette on-site and three

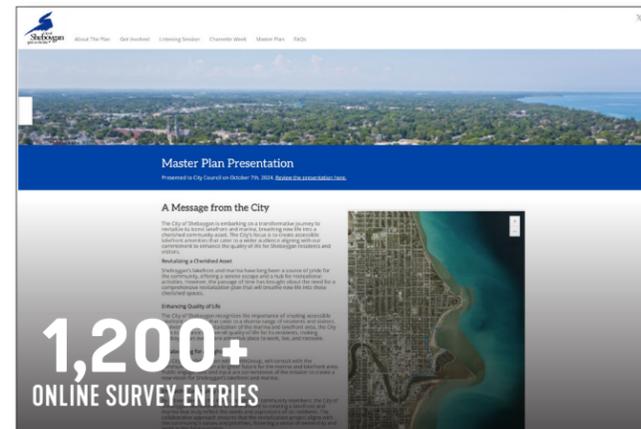
online input sessions. Individual stakeholder groups included business leaders, neighborhood groups, charter fishermen, and active recreation and young professionals.



## PUBLIC LISTENING SESSION

April 30, 2024

The listening session was an introduction of the project to the community and a way to gather baseline information.



## PROJECT WEBSITE

Launched April 2024

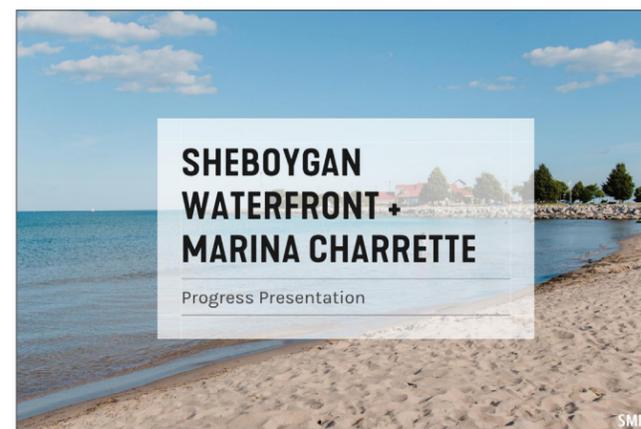
The team launched the website as a resource for the community to keep track of the project throughout all of its phases.



## DESIGN CHARRETTE

June 24th- 27th

The charrette information was shared in an online survey and additional feedback was requested for design priorities.



## COUNCIL PRESENTATION

October 7, 2024

The Master Plan was Presented to City Council on October 7th, 2024.

# COMMUNITY FEEDBACK

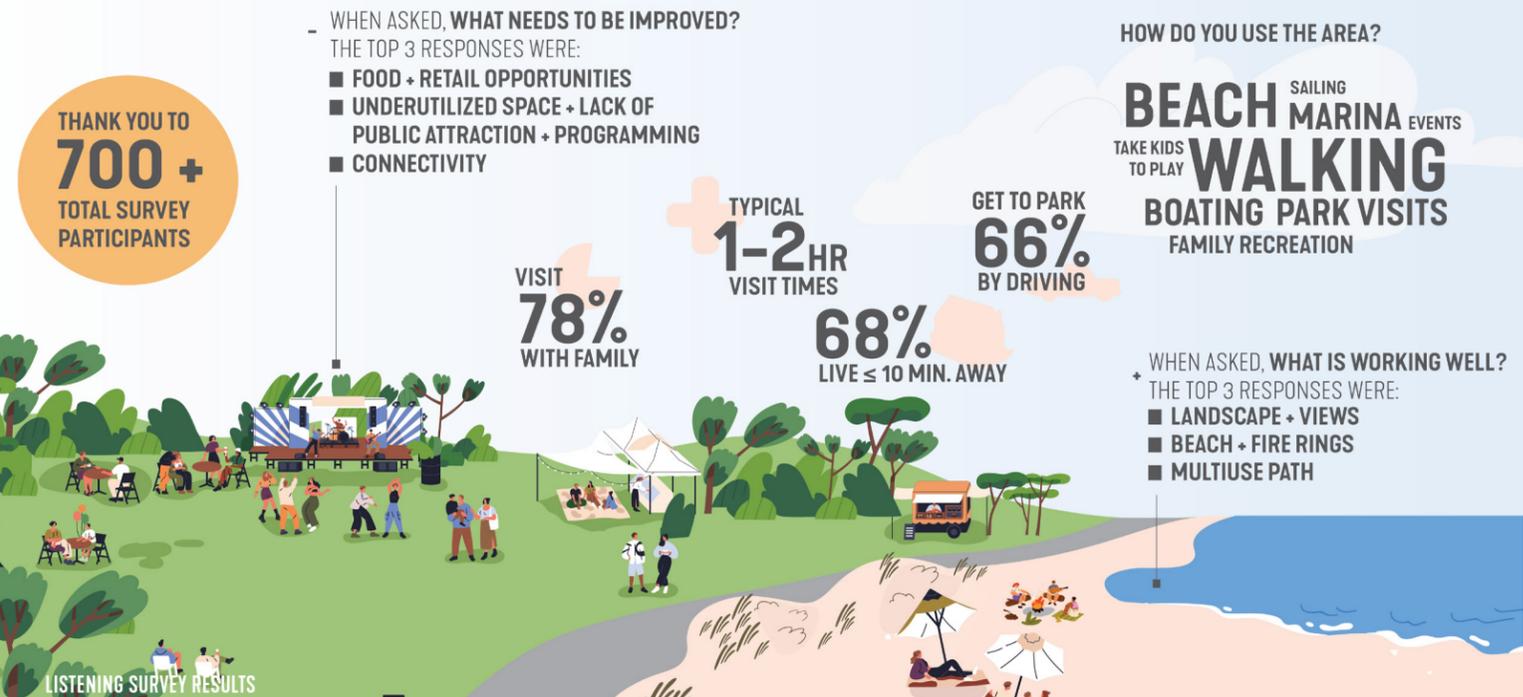
AN ASSET FOR ALL

MOSAIC OF LANDSCAPES

COMMUNITY MAGNET

## KEY TAKEAWAYS FROM LISTENING SESSION

- An Asset For All: the community wants a public space for everyone to enjoy
- Mosaic of Landscapes: everyone loves the natural areas, such as the beach, and they must remain to balance the creation of other pocket landscapes serving diverse needs.
- Community Magnet: the waterfront should be a place that draws people in, local and tourist alike, and represents the spirit of Sheboygan.



## CHARRETTE OPEN DESIGN STUDIO

### Design Sketches

Charrette attendees reviewed and provided feedback on sketches to inform a preferred concept.



# PREFERRED ALTERNATIVE SKETCH

NORTH ↑



## PREFERRED ALTERNATIVE

### Design Sketches + Plan

The sketches were refined into a composite preferred alternative that evolved into the master plan.



NORTH POINT BEACH

# MASTER PLAN

The Deland Park and Marina Plan focuses on maintaining key infrastructure, enhancing existing park features and providing new amenities to expand year-round use. The overall plan is guided by key goals and design priorities that will drive future decisions for the waterfront and inform the design of individual components over time.

## COMMUNITY GATHERING & RECREATION

Expand the park offerings to create a year-round destination that serves daily use, flexes for large events and creates opportunities for residents and visitors to use the park.

## ECONOMY AND EDUCATION

Create tourism opportunities that leverage the waterfront that could include education, art, concessionaire spaces for a restaurant or bar, flexible, rentable space

## LAKEFRONT AMENITIES

Protect, repair and enhance the Marina, provide essential services and management with flexibility for vendor spaces. Provide amenities to support local slip holders and attract boaters from other communities. Provide opportunities to support charter fishing, boat and paddle craft rentals. Seek boat storage alternatives off-site.

## ECOLOGICAL FUNCTIONS

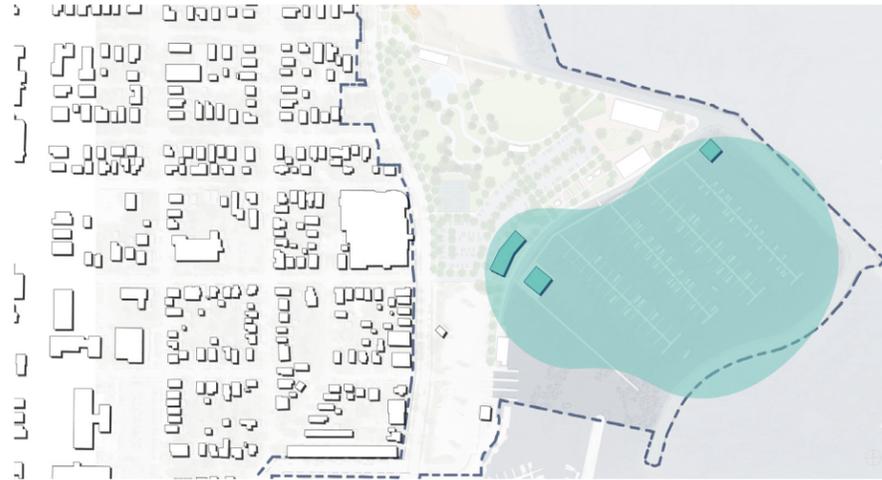
Provide enhancements to support habitat and water quality, embrace the natural character for the beach and shoreline, provide clean marina facility, consider WEDG certification.

## CONNECTIVITY

Improve trails and wayfinding for an intuitive multimodal experience, right size parking and introduce traffic calming measures to connect the park with the downtown and local businesses and enhance pedestrian safety

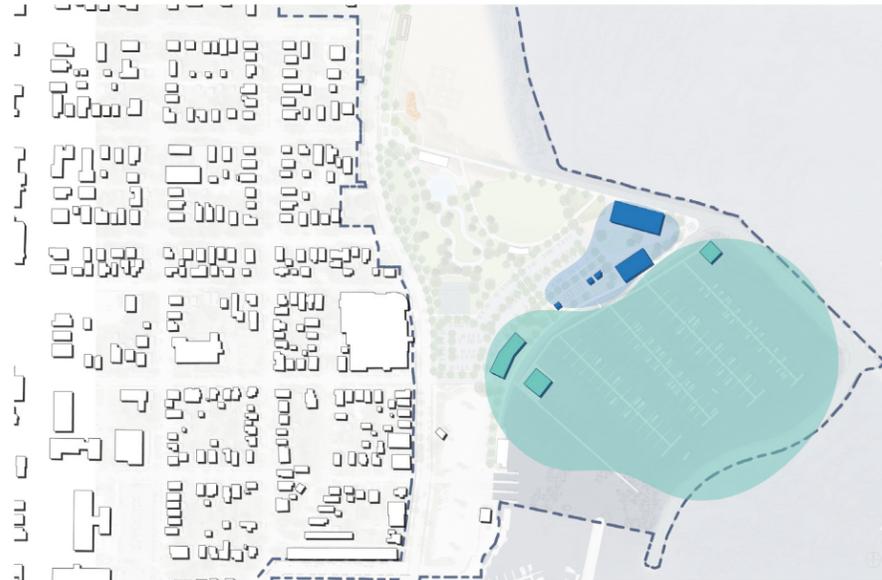


# PLAN ORGANIZATION



## MARINA & WATER BASED IMPROVEMENTS

Replace the docks with a new system and incorporate a wave attenuator, consolidate marina services in a new building and add new boater facilities.



## DESTINATION PROMENADE

Add a new promenade and two buildings to the point focused on concession space such as a restaurant and event rentals.

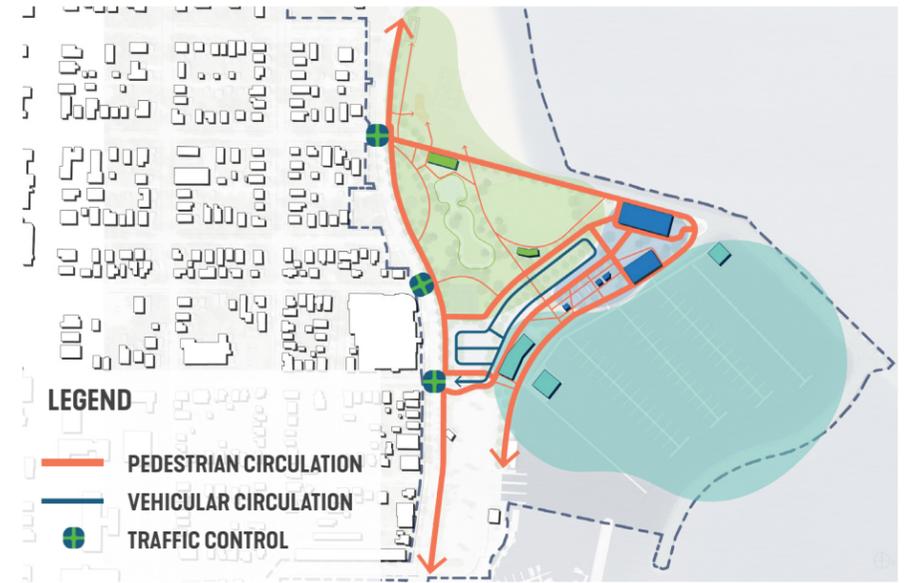


## PARK AMENITIES

Maintain a large open green space and add improvements to support 4 season use including a new playground and park pavilion, ice ribbon and shade structure.

## ENHANCE CIRCULATION & SAFETY

Improve pedestrian circulation and signage within the park and provide complete street improvements to Broughton Drive



### LEGEND

- PEDESTRIAN CIRCULATION
- VEHICULAR CIRCULATION
- TRAFFIC CONTROL

## INTEGRATE LANDSCAPE

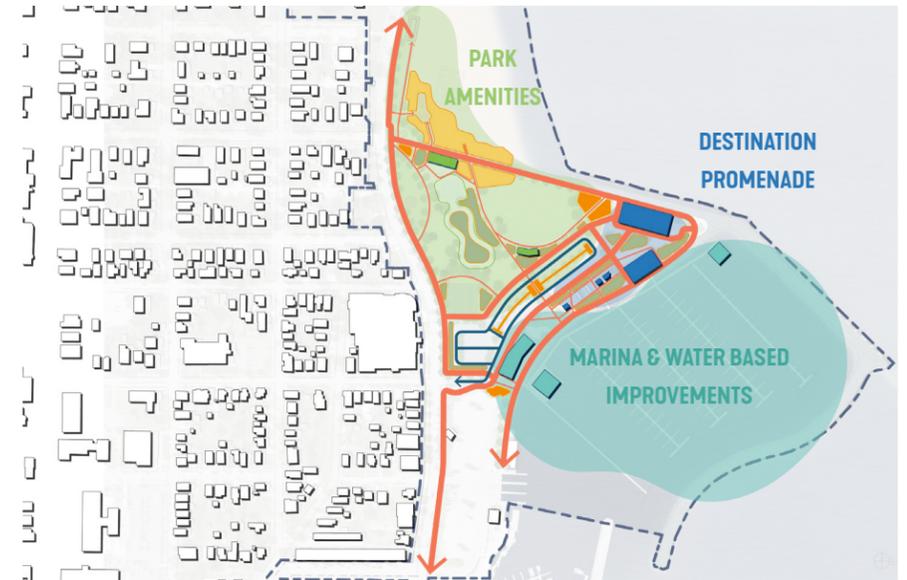
Expand the existing dunes, provide stormwater management areas and native planting to enhance the lakeside character and habitat of the park.



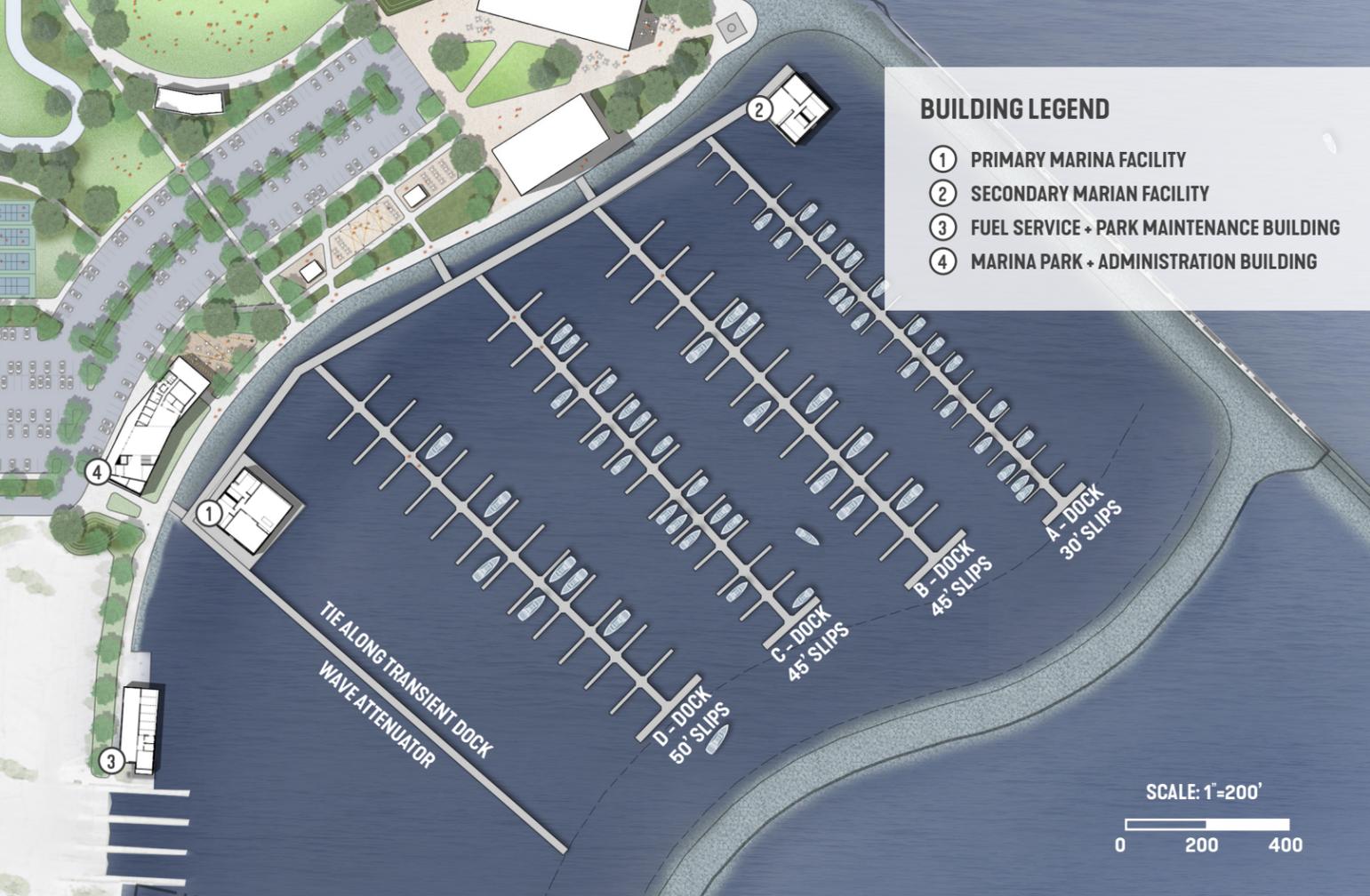
### LEGEND

- DUNES
- STORMWATER
- NATIVE PLANTING

## OVERALL







# MARINA

The future marina will replace the existing docks, offer new accommodations for boaters, and feature a new administration building. Additionally, it will update the fuel service facilities and integrate them with park maintenance. Individual components are described in more detail on the following pages.

## DOCK SYSTEMS

A new dock system will include 194 permanent wet births, with the possibility of 40 additional transient slips. The docks will be connected to a marginal dock running parallel to the shoreline just off the armor stone revetment. Three gangways will link the marginal dock to the landside promenade area. The docks will be organized into a parallel series of double slips ranging in size from 30 to 50 feet in length. At the end of each dock a T-head dock will allow larger vessels to dock broadside. Additionally, a wave attenuator dock will provide transient slipping and reduce the wave height within the marina area.

The docks should be designed and constructed using aluminum or steel and moored through a combination of pilings and anchor chains to minimize wave loading and improve protection from ice damage. One piling per slip is provided in the plan. During final design, it is prudent to explore a combination of methods to provide the most secure mooring at the right cost.

## DOCKSIDE UTILITIES

Water and electrical service will be upgraded and provided through dockside utility centers (DUCs). Each double-well berth will have one DUC at its center. Electrical service to the slips should be designed so the right amp service is available for each slip. Smaller slips may only require single 30-amp service while larger slips may require dual 30-amp or single 50-amp service.



## MARINA SUMMARY

### 1 NEW DOCKS

- Wave Attenuator
- Slip Mix: 30'-50' + Flexible Tie Along Dockage
- Dock Construction

### 2 MARINA FACILITY BUILDINGS

- Primary Building 3,000 SF Footprint
- Secondary Building 1,600 SF Footprint

### 3 FUEL SERVICE + PARK MAINTENANCE BUILDING

- 2,900 SF Footprint

### 4 MARINA ADMINISTRATION + PARKS BUILDING

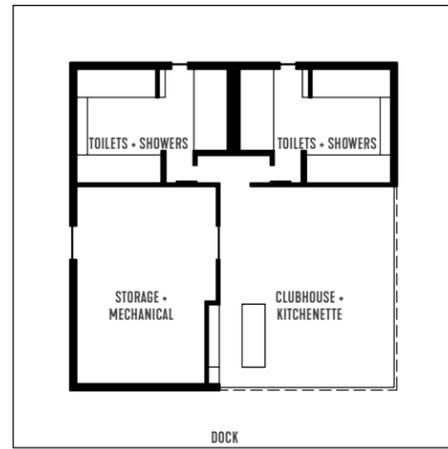
- 8,000 SF Footprint
- 1,100 SF Covered Outdoor Boater's Patio
- 550 SF Upper Level Outdoor Terrace

## FLOATING MARINA BUILDINGS

Two floating buildings are proposed to reduce the on-land footprint of marina amenities and provide the slip holder community with easier access to restrooms, laundry, and clubhouse space. The larger building will be located near the main entrance gateway, adjacent to the wave attenuator dock. This building will offer clubhouse space, restrooms/showers, and storage space. The platform for this floating building will also provide room for outdoor seating around the building. On the northern end of the marginal dock, near A dock, the second floating building will provide approximately 1,600 square feet of restroom and clubhouse space

## FUEL SYSTEM & SANITARY SYSTEM

Upgrades and replacements will be made to the fuel dock area, including new fuel equipment and sanitary pump out facilities. All components, including the fuel storage tanks will be replaced. The existing building at the fuel dock will be torn down and replaced with a new building to house the equipment for the fuel and sanitary pump out as well as additional space for park maintenance staff. Additionally, a larger fish cleaning station and sanitary line will be added to replace the existing station.

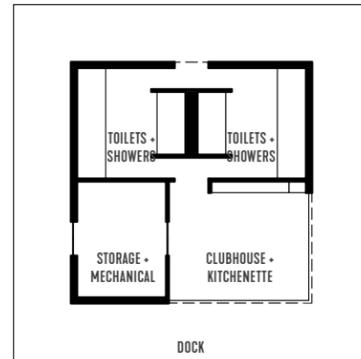


MARINA FACILITIES  
NORTH ↗ 1/32" = 1'-0"

**MARINA FACILITIES**

Primary Building Program

- 3000 SF Total Footprint
- 1100 SF Restrooms + Shower Facilities (4 shower stalls each, 10 toilet fixtures each)
- 1000 SF Clubhouse + Kitchenette

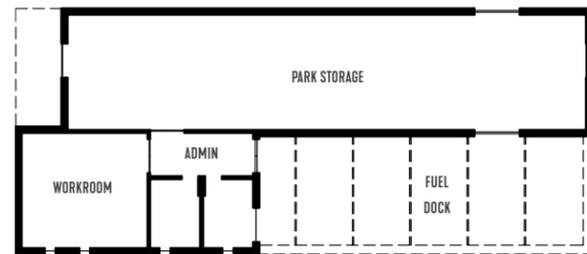


MARINA FACILITIES  
NORTH ↗ 1/32" = 1'-0"

**MARINA FACILITIES**

Secondary Building Program

- 1600 SF Total Footprint
- 790 SF Restrooms + Shower Facilities (3 shower stalls each, 5 toilet fixtures each)
- 500 SF Lounge + Vending
- 315 SF Storage + Mechanical Space

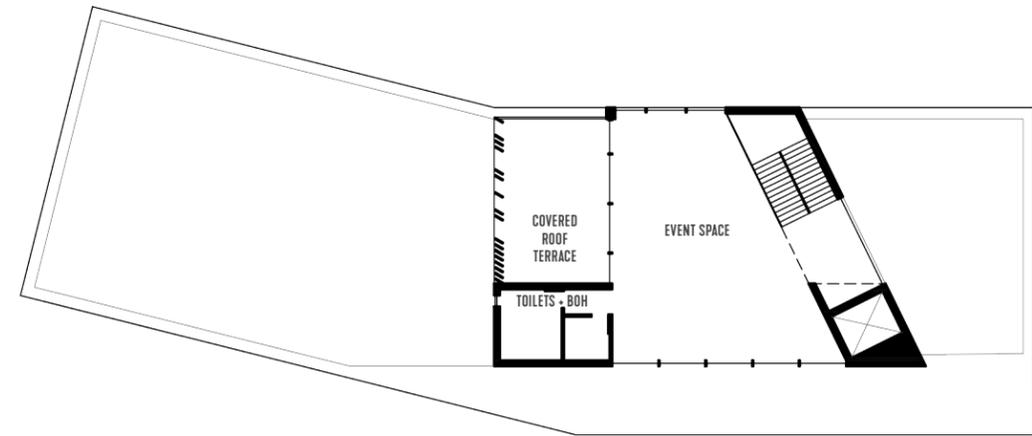


MAINTENANCE & FUEL STATION  
NORTH ↗ 1/32" = 1'-0"

**MAINTENANCE & FUEL STATION**

Program

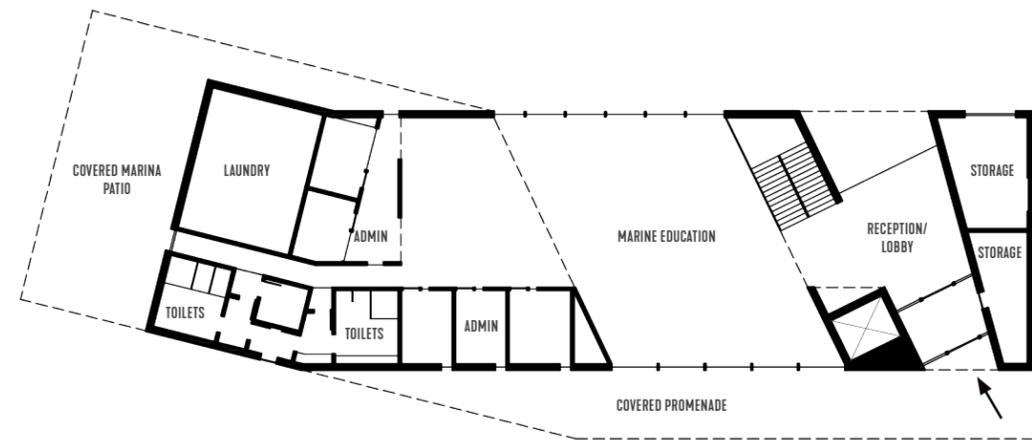
- 2900 SF Total Footprint
- 500 SF Workroom
- 1800 SF Park Storage
- 200 SF Office
- Fuel Dock Stations



PARK ADMINISTRATION BUILDING UPPER LEVEL 1/32" = 1'-0"

**MARINA ADMINISTRATION + PARKS BUILDING**  
Program

- 8000 SF Total Footprint
- 550 SF Restrooms (accessible from exterior)
- 2500 SF Marine Education
- 800 SF Administration Offices
- 500 SF Laundry (accessible from outdoor boater's patio)
- 430 SF Storage (250 SF accessible from exterior only)
- 1100 SF Covered Outdoor Boater's Patio
- 1300 SF Upper Level Event Space (interior)
- 550 SF Upper Level Outdoor Terrace

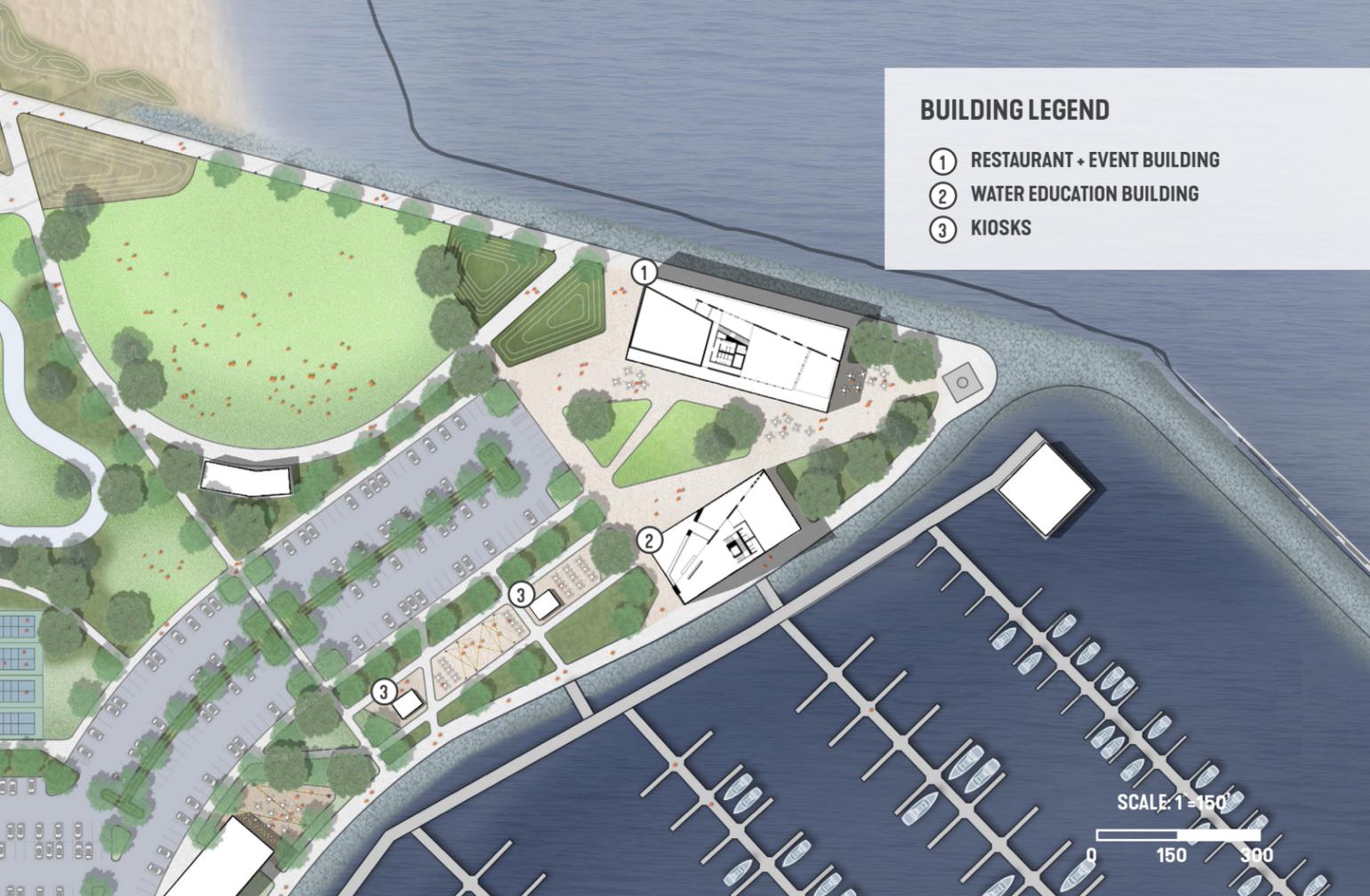


PARK ADMINISTRATION BUILDING LOWER LEVEL  
NORTH ↖ 1/32" = 1'-0"

**MARINA ADMINISTRATION + PARKS BUILDING**

Design Concept

This building serves as the gateway to the Marina. The first level consists of the marine education center, administrative offices, public restrooms, and laundry facilities for the marina. Large openings offer expansive views from both inside and outside of the building, creating a visual connection that draws pedestrians from the parking lot through to the shoreline promenade. Nestled just north of the building, the roof overhangs a gated outdoor space for the boating community with direct access to laundry facilities and marina amenities. An event space on the upper level provides unobstructed views of the park, marina, and Lake Michigan, an iconic Sheboygan experience that will attract both community members and tourists.



**BUILDING LEGEND**

- ① RESTAURANT + EVENT BUILDING
- ② WATER EDUCATION BUILDING
- ③ KIOSKS



**PROMENADE + POINT SUMMARY**

- |   |   |   |
|---|---|---|
| <p>① RESTAURANT + EVENT BUILDING</p> <ul style="list-style-type: none"> <li>■ 8,500 SF In/Outdoor Restaurant</li> <li>■ 2,500 SF Event Space</li> </ul> | <p>② WATER EDUCATION BUILDING</p> <ul style="list-style-type: none"> <li>■ Visitor Education Center, Retail, + Storage</li> <li>■ 9,900 SF Footprint</li> </ul> | <p>③ KIOSKS + FLEX GATHERING PARK</p> <ul style="list-style-type: none"> <li>■ 300-500 SF Kiosk Park</li> </ul> |
|---|---|---|

# PROMENADE + POINT

A promenade will replace the former marina building and part of the parking along the marina’s edge to create a multi-season destination space. This four-season area will feature a series of public facing and pedestrian scale spaces to activate the water’s edge. Connected pathways will allow visitors to stroll and enjoy views of the boats moored in the marina. Along the pathway, small areas for informal gatherings will allow for escaping the sun and taking a break. Two small kiosks will offer potential for rental or food options and two focal buildings will create a prominent destination.

**THE PROMENADE**

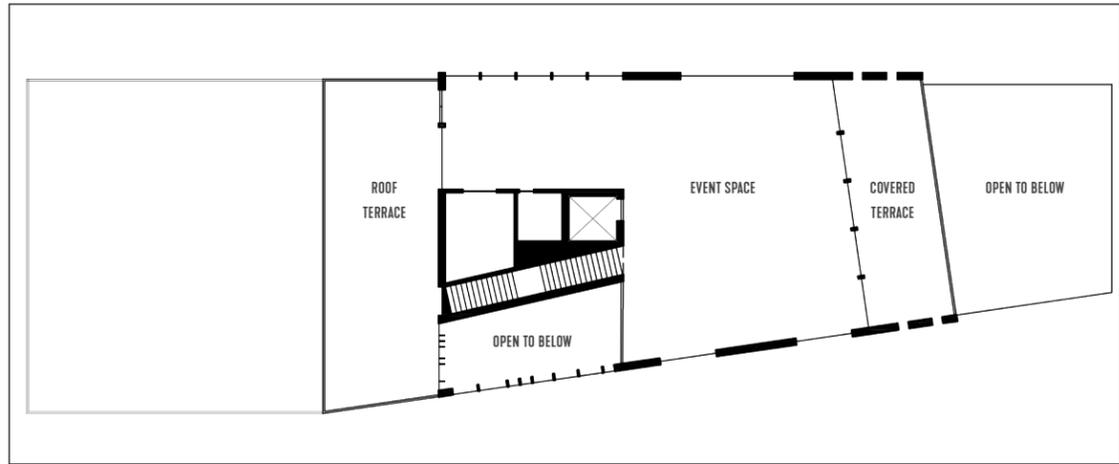
The promenade spaces will include flexible plaza areas with mixed seating accommodating a range of event sizes. These spaces will be small enough to feel comfortable for a few people yet have sufficient flexibility and circulation to support larger events.

Two kiosks will provide shade and storage opportunities, offering vendors the option to rent the spaces. Power hookups, like those at the dock station, will be available at the kiosks and in the plaza providing options for food trucks or other events. Unique lighting and furniture should be incorporated to create a one-of-a-kind Sheboygan experience for residents and visitors.

**THE POINT**

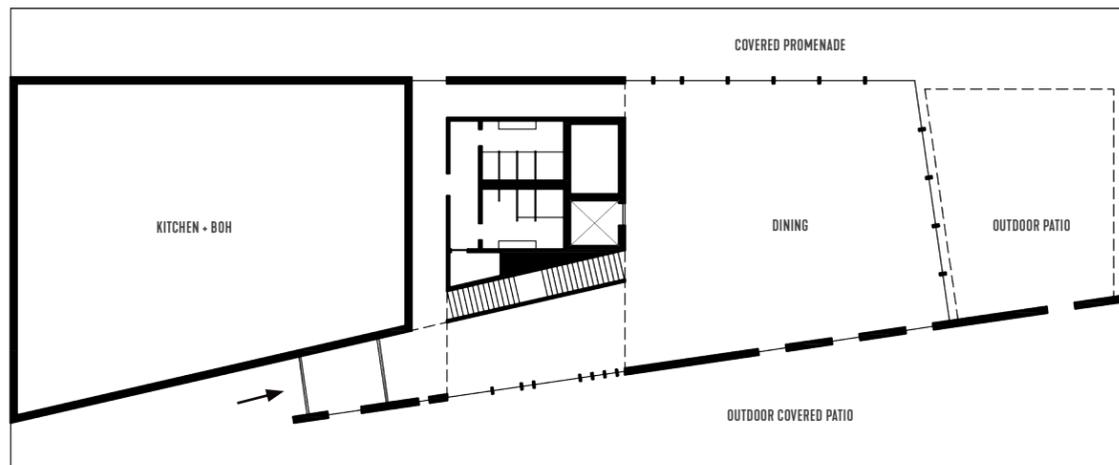
Two buildings at the point will create a public oriented destination with indoor and outdoor gathering spaces. The first building will accommodate a vendor operating a bar and restaurant on the first floor with rentable event space on the second floor. The building will include an occupiable rooftop and be surrounded by flexible outdoor seating spaces.

The second building is envisioned as a potential water education building and may include administration offices, a visitor education center and additional concessioned retail space. The buildings buffer winds and shapes inviting pedestrian gathering spaces at the point.



RESTAURANT UPPER LEVEL

1/32" = 1'-0"



RESTAURANT MAIN LEVEL

1/32" = 1'-0"

NORTH ↗

**RESTAURANT + EVENT BUILDING**

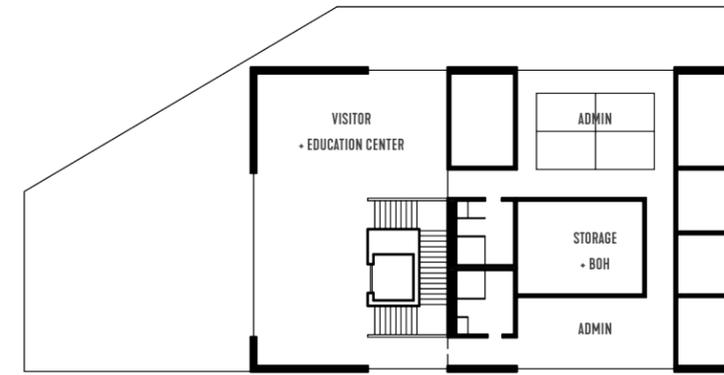
**Design Concept**

Located at the Northeast point of the park, the building serves as a destination for pedestrians and community members seeking an unobstructed view of Lake Michigan and Deland Park. The first floor is designed to accommodate a 160 seat restaurant and bar with ample space for outdoor dining opportunities. The second floor offers an event space with a rooftop patio overlooking Lake Michigan

**RESTAURANTS**

**Program**

- ~11,000 SF Total Building
- 3400 SF Kitchen + Back of House
- 680 SF Restrooms
- 3000 SF Dining/Bar Lounge
- 1500 SF Outdoor Roof Terrace
- 2500 SF Upper Level Event Space (125-150 person. Banquet seated event OR 300 person cocktail event)
- 2400 SF Covered Outdoor Space
- 1100 SF Outdoor Shaded Patio



WATER EDUCATION BUILDING: UPPER LEVEL

1/32" = 1'-0"

**WATER EDUCATION BUILDING**

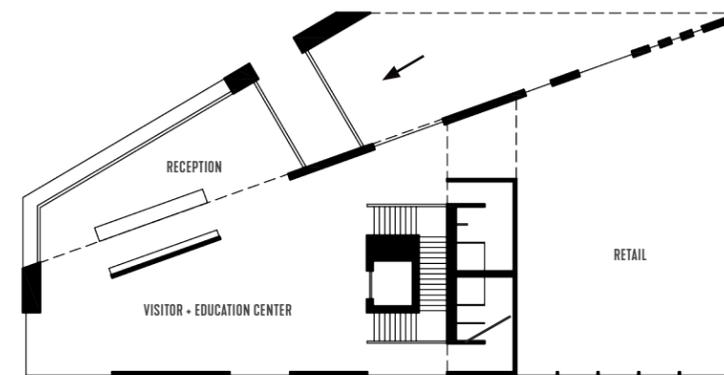
**Program**

- 9900 SF Total Footprint
- 4000 SF Visitor Education Center
- 1600 SF Administration Offices
- 1000 SF Restrooms + Storage
- 2000 SF Retail

**WATER EDUCATION BUILDING**

**Design Concept**

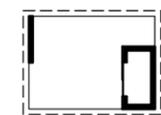
The water education building is located adjacent to the restaurant building. The two buildings are strategically positioned to create a defined plaza space that protects against the harsh winds blowing off the lake while framing views to the marina and horizon beyond. The building offers space for retail, a visitor center, and administrative services related to the visitor and education center.



EDUCATION BUILDING: MAIN LEVEL

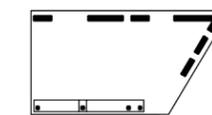
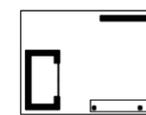
1/32" = 1'-0"

NORTH ↗



KIOSKS

NORTH ↗



1/32" = 1'-0"

**KIOSKS**

**Program**

- 300-500 SF Open Air Kiosks/Stalls

**KIOSKS**

**Design Concept**

Located along the promenade, the open air shelters create an opportunity for rentable kiosks that can rotate weekly or seasonally to host vendors and events. They are conveniently equipped with power and water suitable for a variety of uses.



VIEW OF THE PROMENADE LOOKING NORTH



Shelbygan  
Bistro

ALL DAY  
SPECIALS  
BRUNCH  
LUNCH  
DINNER  
TEA



# UPLAND PARK AMENITIES

Deland Park is an important open space near the water for a variety of community activities including large gatherings. A green space larger than a football field will be preserved, while additional amenities are proposed around the perimeter to create varied, four-season recreational opportunities.

The plan incorporates several existing features. The Hmong memorial will remain but will be framed with a walkway and trees to define the space. The plan

recommends exploring an option to relocate the Lottie Cooper near the beach at the site of the existing bathhouse, which will be removed. The ship should also receive additional weather protection to preserve it. The existing beach volleyball will remain and access between the park and beach will be enhanced. The existing tennis courts will be rebuilt and lined for pickleball. An additional restroom will be provided north of the beach.



## UPLAND PARK SUMMARY

- ① **GATEWAY PAVILION**
  - 4500 SF Total Footprint (including overhang)
  - Restrooms, concessions, and interior gathering space
- ② **SHADE PAVILION**
  - 2300 SF Open Air Shade Structure
- NORTH BEACH RESTROOM**
  - 175 SF Restrooms (2 single occupancy toilets)
  - 3 outdoor showers

Additional, more detailed features include:

### ICE RIBBON & SPLASH PLAY

An ice-ribbon with a cooling system will provide a 4-season destination. During the winter months, it will be cooled by a glycol system that extends the season of skateable days. In warmer months, the ribbon can be used for roller blading or roller skating, and the railings will be removed from the 'pool' area, which will operate as a flexible splash plaza.

### GATEWAY PAVILION

A pavilion structure will serve a variety of users. Strategically located between the beach and park, it creates a welcoming gateway, houses the cooling and pumping facilities for the ice ribbon and splash play, provides vendor space for rentals and incorporates restrooms and changing facilities to support the ribbon, plaza, and playground users. Outdoor cleaning stations will also serve the beach users and surfing

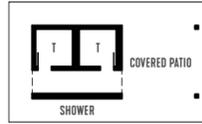
community. The building is nestled in an expansion of the dunes to integrate it with the landscape and provide wind protection to buffer the beach and splash areas.

### PLAYGROUND

The existing playgrounds are proposed to be replaced with a single, destination play structure with a unique Sheboygan themed appearance. The play structure should enhance accessibility for users and include a range of adjacent seating options for parents.

### LANDSCAPE IMPROVEMENTS

Landscape improvements for the park should consider viewsheds and maintenance considerations and should include native vegetation that improved lakeside habitat. The plan incorporates additional dune areas as well as flow-through planters and sweeps of native grasses.



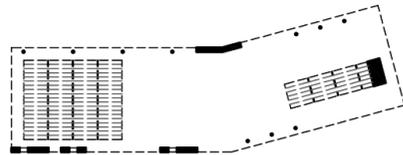
RESTROOM 1/32" = 1'-0"  
NORTH ↑

**NORTH BEACH RESTROOMS**  
Design Concept

Located at the north end of the beach, this building offers restrooms and outdoor rinsing stations for the convenience of beach goers

**NORTH BEACH RESTROOM**  
Program

- 175 SF Restrooms (2 single occupancy toilets)
- 500 SF Covered Space
- 3 Outdoor Shower Rinse Fixtures



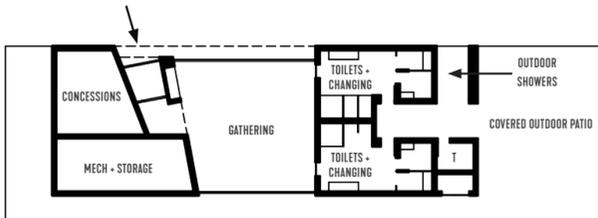
SHADE STRUCTURE 1/32" = 1'-0"  
NORTH ↑

**SHADE PAVILION**  
Design Concept

The shade pavilion serves as a backdrop to the large open green space, offering a covered space for small outdoor events and daily picnics in the park. The roof spans a space large enough to host a variety of events

**SHADE PAVILION**  
Program

- 2300 SF Open Air Shade Structure



GATEWAY PAVILION 1/32" = 1'-0"  
NORTH ↑

**GATEWAY PAVILION**  
Design Concept

The Gateway Pavilion serves as a connection between the beach and park. Inspired by the surrounding sand dunes, the large undulating roof overhangs a patio space that overlooks both the beach and splash pad/ice skate ribbon, offering shade and protection from the elements for year-round activity.

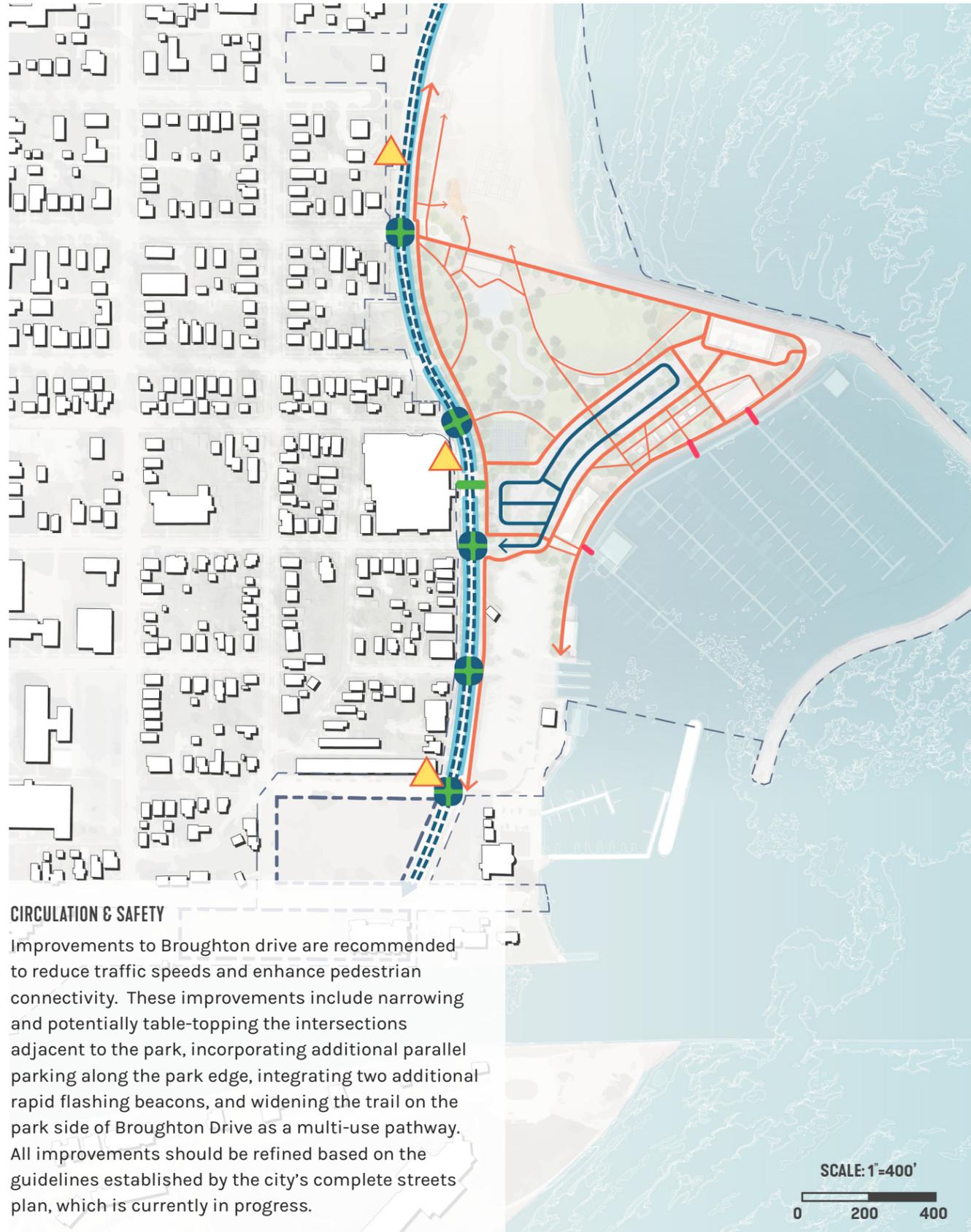
**GATEWAY PAVILION**  
Program

- 4500 SF Total Footprint (including overhang)
- 600 SF Restroom & Changing Rooms: 3 fixtures each & 1 single occupancy family restroom
- 12 LF Outdoor Shower Fixture
- 750 SF Interior Gathering Space
- 280 SF Concessions & Cafe Servery
- 350 SF Mechanical Storage
- 1000 SF Outdoor Covered Patio



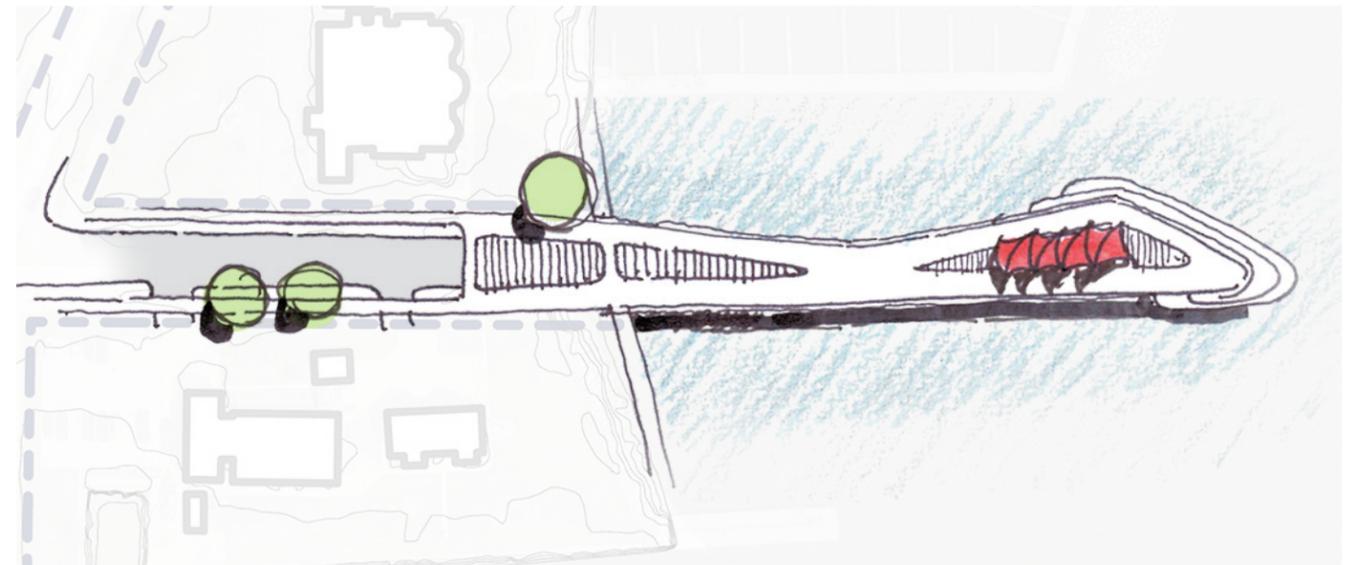
GATEWAY PAVILION SUMMERTIME





**PENNSYLVANIA AVENUE PIER**

Pennsylvania Avenue is a prominent thoroughfare with a direct connection to the water, offering an opportunity to create a destination pier. The structure will extend several hundred feet into the water, creating a dramatic photo moment for visitors while helping to mitigate debris flowing from the Sheboygan River into the harbor. Building the structure would require an agreement with the City, Yacht Club, and Coast Guard to provide a mutually beneficial amenity.



**PENNSYLVANIA PIER**

Proposed

## ROTARY PARK

Rotary Park is valued for its shaded greenspace and hillside views to the water. To maintain the park's essence, changes will focus on updating the shade structure at the top of the hill and adding a small concessionaire kiosk for kayak rentals, a livery and an accessible kayak launch. The existing shade structure at the top of the hill will be replaced with a new, open-air structure with a more flexible layout that provides better gathering space and a shaded area to take in the views of the lakefront. Utility hookups for food trucks are recommended at the street to create destination space that works in concert with Blast Soft Serve across the street. Additional improvements should also be considered in improving accessibility between Pennsylvania Avenue and the Riverfront.





# IMPLEMENTATION

## OPINION OF PROBABLE CONSTRUCTION COST

An Opinion of Probable Construction Cost (OPCC) was created to focus on the large-scale elements, aiding discussions on budgeting and funding opportunities. At the Master Plan level, costs are estimated based on general assumptions and compared to known similar project sizes. To account for these general assumptions and uncertainty in both project detail and timeline, a contingency of 30% has been included.

## FUNDING OPPORTUNITIES

Project funding is often the biggest hurdle in translating a master plan into constructed elements. Many opportunities exist to support realization of the Master Plan, including public and private project partners, local development dollars, and grant funding sources. Grants can provide a significant source of funds to bridge gaps between available funds and project budgets. A grant matrix highlights grant opportunities, their typical funding limits, and the typology of elements they typically fund. In addition to grants, other opportunities for funding include public private partnerships to bring vendors or other users to Deland Park facilities.

## PHASING

A recommended approach to phasing follows a logical progression, beginning with the marina basin and then moving to the promenade and park upland. Ancillary projects, including Broughton Drive, Pennsylvania Pier and Rotary Park will follow. Many of the improvements in the plan provide opportunities for augmented funding, through State or Federal Grant Programs, partnerships or philanthropic investment. The phasing plan provides a general framework to consider relationships, but funding availability may inform modifications to the proposed approach.

### PHASE 1A MARINA & PROMENADE

### PHASE 1B ROTARY PARK

### PHASE 2 PARK & UPLAND

### PHASE 3 PROMENADE BUILDINGS

### PHASE 4 PENNSYLVANIA PIER

## OPINION OF PROBABLE CONSTRUCTION COST

ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	EXTENDED COST
<b>SITE PREPARATION &amp; INFRASTRUCTURE</b>					
	Site Preparation and Demolition	1	LS	\$ 1,500,000	\$ 1,500,000
	Mobilization	1	LS	\$ 2,500,000	\$ 2,500,000
	Site Water Service	1	LS	\$ 100,000	\$ 100,000
	Site Electrical Service and lighting	1	LS	\$ 2,250,000	\$ 2,250,000
	Site Sanitary Sewer	1	LS	\$ 300,000	\$ 300,000
	Site Stormwater	1	LS	\$ 75,000	\$ 75,000
<b>Subtotal:</b>					<b>\$ 6,725,000</b>

<b>MARINA</b>					
	Marina and Admin Building	8,000	SF	\$ 600	\$ 4,800,000
	Fuel Service and Park Maintenance Building	2,900	SF	\$ 400	\$ 1,160,000
	Docks	36,210	SF	\$ 75	\$ 2,715,750
	Wave Attenuator Dock	6,225	SF	\$ 150	\$ 933,750
	Floating Marina Buildings	4,676	SF	\$ 500	\$ 2,338,000
	Floating Marina Buildings Platform	14,465	SF	\$ 75	\$ 1,084,875
	Piling	240	EA	\$ 5,000	\$ 1,200,000
	Gangways (1-60ft ADA, 3-35')	1	LS	\$ 95,000	\$ 95,000
	Dredging	1	LS	\$ 375,000	\$ 375,000
	Fuel System Replacement	1	LS	\$ 350,000	\$ 350,000
	Pumpout	1	LS	\$ 35,000	\$ 35,000
	North Sand Deposit Stone Cover	1000	TON	\$ 110	\$ 110,000
<b>Subtotal:</b>					<b>\$ 15,197,375</b>

<b>PROMENADE</b>					
	Pathways	170,886	SF	\$ 10	\$ 1,708,860
	Kiosks	870	SF	\$ 300	\$ 261,000
	Parking Lot	10,095	SY	\$ 35	\$ 353,325
	Restaurant and Event Building	12,000	SF	\$ 700	\$ 8,400,000
	Water Education Building	9,900	SF	\$ 700	\$ 6,930,000
	Plantings	1	LS	\$ 75,000	\$ 75,000
<b>Subtotal:</b>					<b>\$ 17,728,185</b>

<b>GATEWAY PLAZA, PARK SPACE, AND BEACH</b>					
	Plaza Building	4,500	SF	\$ 500	\$ 2,250,000
	Ice Ribbon	1	LS	\$ 1,500,000	\$ 1,500,000
	Splash Pad	1	LS	\$ 650,000	\$ 650,000
	Pickleball Courts	8	EA	\$ 30,000	\$ 240,000
	Lottie Cooper Move and New Site	1	LS	\$ 750,000	\$ 750,000
	North Beach Restroom Building	1,000	SF	\$ 400	\$ 400,000
	Play Ground	1	LS	\$ 1,250,000	\$ 1,250,000
	Plantings	1	LS	\$ 150,000	\$ 150,000
	Shade Structure	2,300	SF	\$ 500	\$ 1,150,000
<b>Subtotal:</b>					<b>\$ 8,340,000</b>

<b>ROTARY PARK</b>					
	Kayak Launch	1	LS	\$ 10,000	\$ 10,000
	Concessionaire Kiosk	100	SF	\$ 300	\$ 30,000
	Shelter	1000	SF	\$ 500	\$ 500,000
<b>Subtotal:</b>					<b>\$ 540,000</b>

<b>PIER AT PENNSYLVANIA</b>					
	Pier	1	LS	\$ 3,500,000	\$ 3,500,000
<b>Subtotal:</b>					<b>\$ 3,500,000</b>

<b>PROJECT SUBTOTAL</b>					<b>\$ 52,030,560</b>
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<b>ADDITIONALS</b>					
1	MOBILIZATION - 5%				\$ 2,601,528.00
2	CONSTRUCTION CONTINGENCY 30%				\$ 15,609,000
3	DESIGN & PERMITTING CONTINGENCY 20%				\$ 10,406,000
<b>Subtotal:</b>					<b>\$ 28,616,528</b>

<b>PROJECT TOTAL</b>					<b>\$ 80,647,088</b>
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POTENTIAL GRANT FUNDING OPPORTUNITIES: HARBOR CENTRE MARINA & DELAND PARK

PROGRAM	PHASES				FUNDS AVAILABLE	SOURCE	MATCH	APP. DUE DATE	AWARD DATE
	ACQUISITION	PLANNING	DESIGN & ENGINEERING	CONSTRUCTION					
<b>TRAILS</b>									
Congestion Mitigation and Air Quality Fund (CMAQ)	X	X	X	X	Varies	Federal (US DOT)	20% match	Spring 2021 (every other year)	2021 (every other year)
Knowles-Nelson Stewardship Grant	X			X	Varies, typically up to \$250,000	WIDNR	50%	1-May	6 to 18 months post application
<b>MARINA/BOATING</b>									
Boating Infrastructure Grant		X	X	X	Up to \$1,500,000	WIDNR (Federal)	25%-50% Match	June 1, Annually	9-12 Months after Application
Recreational Boating Fund		X	X	X	Varies, typically up to \$250,000	WIDNR	50%	June 1, or September 1	
Pumpout Station Fund (Clean Vessel Act)				X	award based on funding	WIDNR	25%	September 1, Annually	
Sportfish Restoration-Boat Access		X	X	X	award based on funding	WIDNR	50%	February 1, Annually	
Harbor Assistance Program				X	award based on funging, upto 80% of eligible project costs	WIDOT	20%	Aug 1, Annually	
<b>GREEN INFRASTRUCTURE AND RESILIENCE</b>									
NFWF Sustain Our Great Lakes				X	Approximately \$200,000	Federal	Not required, but encouraged	February, Annually	September / October, Annually
Great Lakes Commission's Great Lakes Sediment and Nutrient Reduction Program			X	X	Up to \$200,000 (watershed), \$50,000 for site-specific projects	Federal	25% non-Federal, including in-kind donations	May, Annually	October, Annually
National Coastal Resilience Fund		X	X	X	Approximately \$250,000	Federal (NFWF)	No match required	April (Pre-App): May (Full-App by invitation)	October, Annually
Fund For Lake Michigan		X	X	X	Varies		25%-50%	Quarterly (Mar, June, Oct, and Dec)	3-6 Months After Application
Coastal Management Program		X	X	X	up to \$100,000	WDOA	50% <\$60k, 60% >\$60k	Nov 1, annually	Spring
Army Corps of Engineers Planning Assistance to States (PAS)		X			Varies	Federal	1:1 non-Federal	Rolling	Rolling
Urban Nonpoint Source and Storm Water Management Grant		X	X	X	up to \$150,000	WIDNR	50%	April 15, Annually	
<b>ECOLOGY / HABITAT</b>									
US Fish and Wildlife Service Midwest Coastal Program			X	X	Approximately \$200,000	Federal	Not required, but encouraged	March, Annually	July, Annually
<b>DEVELOPMENT</b>									
Community Development Block Grant (CDBG)				X	Varies by community / entitlements	Federal	No match required	N/A	Annual allocations recieved February, annually
Pay For Success	X	X	X	X	Varies	Private / Public Partnership	Investment to study funding feasibility likely	Rolling	Rolling

## REGULATORY REQUIREMENTS

### LAKE BED LEASE

Lake Michigan waters and lake bed are considered waters of the state, allowing the state to provide local municipalities with lake bed leases for various public benefit functions. These lake bed leases are based on historical shorelines prior to human intervention and dictate the activities which can take place on those sites. The City holds a lake bed lease, issued in 1947, for the harbor area and what is now Deland Park. This lake bed lease states that the area can be “...used by said city for public slips, basins, docks, wharves, structures, roads, railroads, railways, shipping terminals, transportation facilities, recreation and park purposes.”

The presence of a lake bed lease allows the City to build, maintain, and operate the listed types of activities within that boundary. It does not, however, reduce the need for permitting or regulatory review, and any future uses will need to meet the requirements of the lake bed lease.

### PERMIT REQUIREMENTS

Permits will be required from local, state, and federal agencies as part of implementation of the master plan. While some requirements will be limited due to the lake bed lease held by the City, certain activities will still be needed to obtain necessary permits. It is recommended that during the design of the implementation phases, the design teams meet with the appropriate agencies for a pre-application meeting to discuss the project and what items may require permits. Anticipated permits include but are not limited to:

- Wisconsin DNR

Water Quality Certification Section 401 (Joint Permit Application with USACE)

Stormwater Management and Erosion Control Application

- USACE

Section 404 – Dredge or Fill of Waterways (Joint Permit Application with WIDNR)

In addition, all improvements should meet local city and county zoning and permit requirements.

## SUSTAINABILITY

Sustainability should be a fundamental principle in the future redevelopment of Deland Park and Marina. Adapting to local changes driven by Lake Michigan is becoming increasingly critical. Park improvements should focus on conserving natural resources, providing a safe and healthy atmosphere supporting the local economy. These improvements consider long-term financial sustainability to reduce operations and maintenance costs over time.

## STORMWATER

The redevelopment of the harbor site will need to comply with certain technical standards set by the City of Sheboygan and the Wisconsin DNR. Although not required by ordinance because the water elevation of Lake Michigan is not affected by the hydrology of the project, the biofiltration basins will attenuate the peak discharge rate into Lake Michigan. The addition of these basins will increase infiltration volume which, while not mandated for the redevelopment of the project, is a beneficial enhancement. Designed to reduce suspended solids by 40% based on average annual rainfall, the Biofiltration Basins offer significant environmental benefits compared to having no runoff management controls.

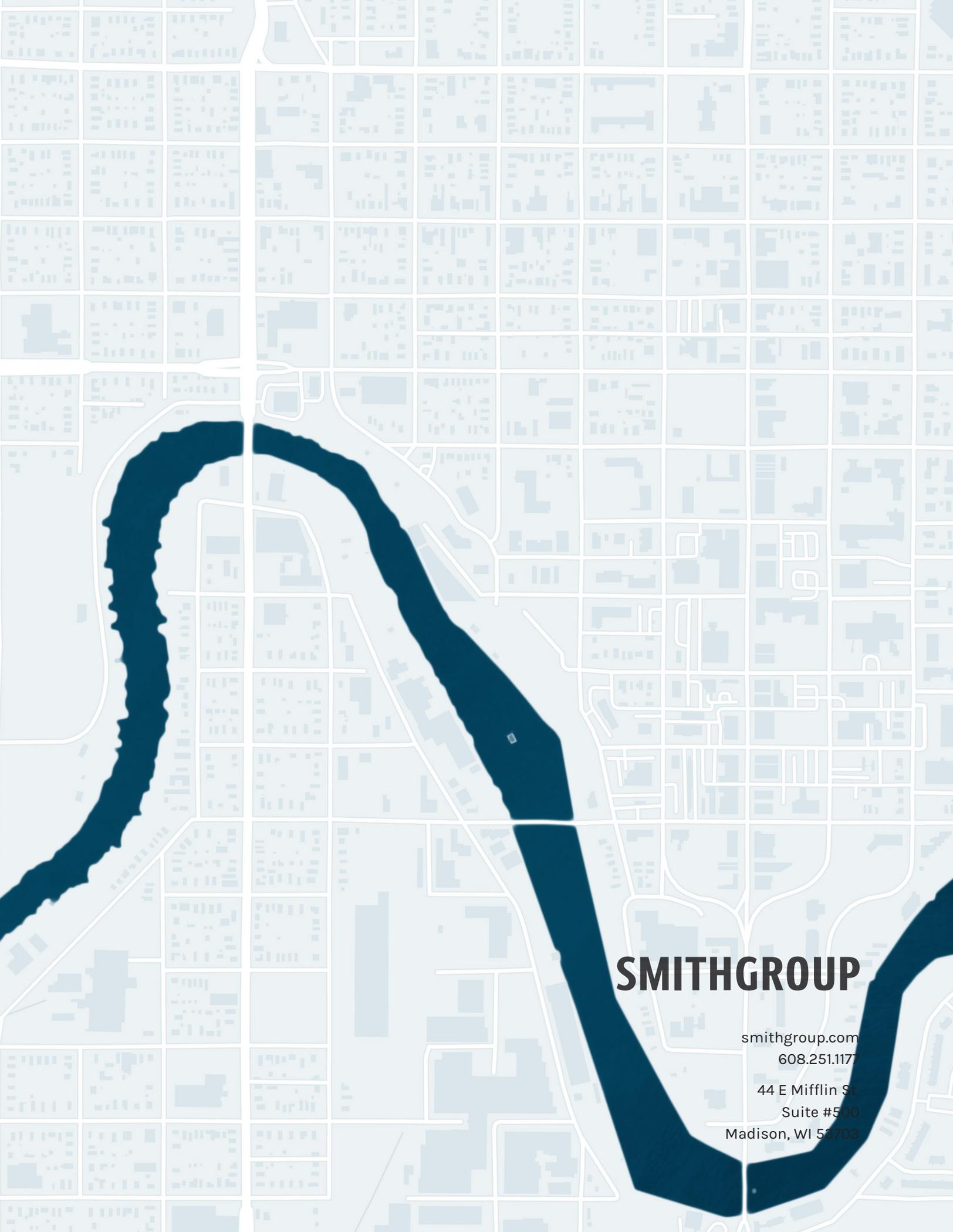
Integrating biofiltration with native landscaping creates a sustainable and effective stormwater management system that benefits both the environment and the harbor community. This approach enhances green spaces and creates native habitat supporting local birds, wildlife, and pollinators like bees and butterflies. Additionally, native landscaping within the stormwater basin and sand dunes promotes biodiversity and enhances the quality and character of the site.

## BUILDING MATERIALS

Building materials are key components in any sustainability plan, choosing the right materials to provide low carbon benefits while meeting design and resiliency goals is. Utilizing locally sourced and low carbon materials can significantly impact climate positive, where appropriate.

## EDUCATION

Education has been a key goal of this master plan process. Bringing education to the waterfront in Deland Park can take on multiple fronts. Opportunities exist for educational materials and signage that highlight the sustainable stormwater control methods, the role of dunes on our beaches, and how native plants can provide pollinator habitat. Additionally, there are opportunities to offer more tangible educational experience. The water education building will provide space that could be used for museum or exhibit space related to the role Lake Michigan has played in Sheboygan’s history.



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