

THE DULUTH LAKEWALK INTERPRETIVE PLAN





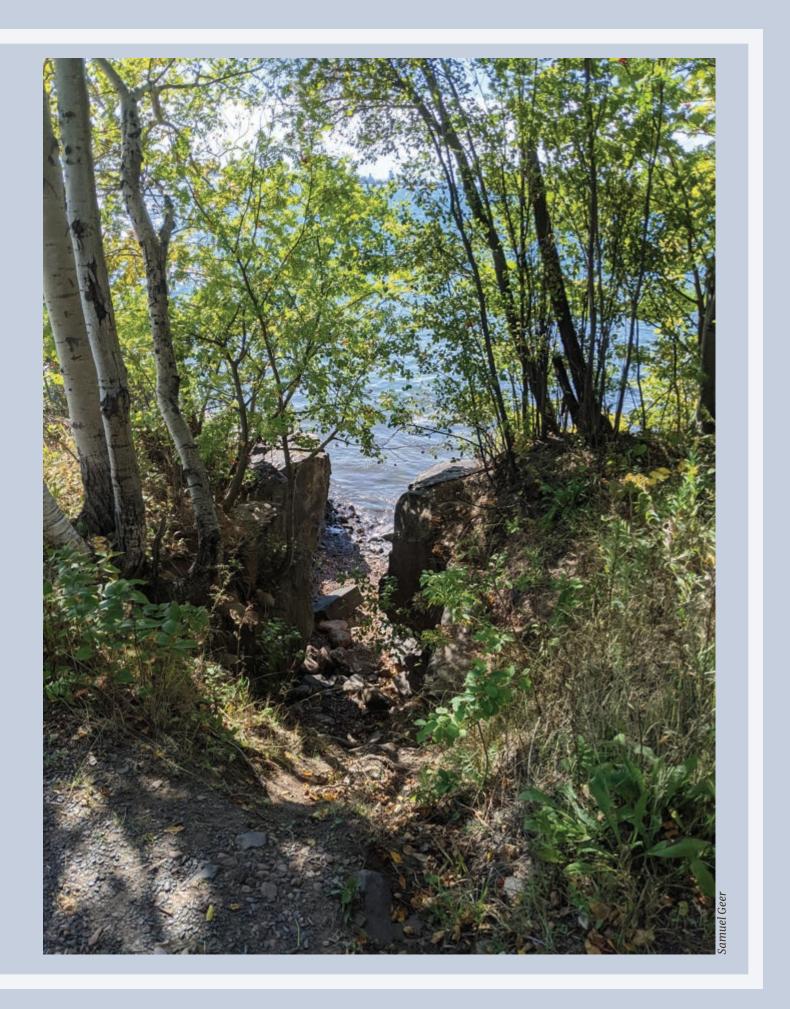
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Report Prepared By: Urban Ecosystems for the City of Duluth

Historic research provided by Friends of the Lakewalk, Christine Carlson, Clarence "Coopen" Johnson, Ken Buehler, Dr. John Green, and Samuel Geer.



Acknowledgements

This plan recognizes the individuals and organizations who have an opportunity to work together to make this plan a reality. These stakeholders have helped select the stories and content behind the interpretive materials, and participated in the development of the project content. The organizations and individuals listed here are those with a vested interest in the long term objectives established in this plan.



City of Duluth

- Mayor's Office
- Property & Facilities Management
- Parks & Recreation
- Parks and Recreation Commission
- Indigenous Commission
- Duluth Public Arts Commission
- Heritage Preservation Commission
- Duluth African Heritage Commission

Agency Partners

- US Army Corps of Engineers
- Duluth Seaway Port Authority
- Minnesota Pollution Control Agency
- Fond du Lac Band of Lake Superior Chippewa
- Western Lake Superior Sanitary District
- US Environmental Protection Agency

Non-Profit Partners

- Friends of the Lakewalk
- The North Shore Scenic Railroad
- Lake Superior Maritime Museum
- Clayton Jackson McGhie Memorial, Inc

Consultants

- AMI Engineers
- Confluence
- Design Workshop
- LHB
- Urban Ecosystems

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Executive Summary

he Duluth Waterfront is a beloved and iconic destination and gateway to the North Shore. The rocky coastline and long sandbar at the end of Lake Superior have been a destination for centuries, providing a safe harbor and passage to the west following the St. Louis River. This geographically remarkable shoreline is a vital crossroads for wildlife, commerce, and recreation.

Duluth's waterfront is massive, quality grounds the visitor in place and shore of the city.

The Duluth Lakewalk runs from the industrial piers of the Inner Harbor all the way out to Brighton Beach, which connects to the Gitchi-Gami State Trail, a recreational gateway to the North Shore of Lake Superior.

Originally built in 1986 as a halfmile path, the Lakewalk has been extended over the years with the advocacy of local groups like Friends

extending for 21 miles along the orients them to the water, the sky, and entirety of the south and eastern the landscape texture. This immersive environment provides the experiential backbone for the Duluth Lakewalk, through which layers of cultural history, ecology, and urban development can be perceived.

> The principal goal of this plan is to develop a spatial and interpretive framework that improves the ability of people to access the Lakewalk and discover the rich history and cultural legacies which shaped this urban landscape.

of the Lakewalk. Along the way, First and foremost, this means improving the Lakewalk connects dozens of the connections between the Lakewalk neighborhoods to the waterfront and the City. The construction of Interstate and encompasses a diverse mix of 35 in the 1980s separated the City from landscapes, urban conditions, and the waterfront, but also provided the fill historic landmarks. All of these materials used to build the waterfront land aspects are framed by the broad where the Lakewalk now resides. This plan sweep of the shoreline, which unites seeks to address this divide by identifying the whole waterfront into a single improvements to trail access points that massive viewshed. This unique make these connections more seamless.

Secondly, this interpretive plan functions authentic local aesthetic with an as an overlay for the redesign of the emphasis on local landmarks, public Baywalk Plaza and the Lakewalk & Coastal art, and legible, easy to navigate Resiliency Plan. These plans improve the paths. functionality of the trail by introducing Lastly, the plan sites a sequence of new programming, addressing conflicts freestanding signs that tell a layered between user groups, and adding new story of the Duluth Waterfront. These seating and waterfront amenity spaces. signs reveal glimpses of Duluth's This plan builds on these efforts by siting history that otherwise would be artwork and interpretive signage within the invisible. This includes what picturing redesigned waterfront. All together, these the original form of old ruins, creating efforts will make the waterfront a more space for cultural storytelling, and comfortable, pleasant, and enjoyable foregroundin ongoing efforts to experience for visitors. mitigate water pollution.

The Interpretive Plan builds on this by These signs will help connect establishing "experience districts" that visitors to nearby institutions and celebrate specific aspects of the waterfront programming. This will help create that are nearby and discoverable. These opportunities for local businesses, thematically relate to themes like local concessions, and streetscape ecology, Native American landscapes, improvements to take place as well industrial history, geography, racial as for groups to organize events and justice, community service, infrastructure, spaces for cultural expression. entertainment and the many other experiential opportunities that Duluth has The Lakewalk Interpretive Plan will available. serve as a curated set of stories

and experiences that will help place Within these districts, there is the the ongoing improvements to the opportunity to create places for landscape in a larger cultural and contemplation, natural play, public ecological context. It also identifies gatherings, and cultural expression. The urban design challenges that must plan also aims to confront challenging be thoughtfully considered to make episodes from history and to integrate the connections between the city and existing memorials. water more intuitive. This plan will The plan also identifies public realm help the Duluth Waterfront continue investments that will improve the to grow into an even more iconic experiences of visitors and cultivate an destination experience for visitors.

Interpretive Plan Structure

An Experience Framework for the Duluth Lakewalk

INTRODUCTION

The History & Planning of the Waterfront

INTERPRETIVE **APPROACH**

Observing the Parts / Perceiving the Whole

INTERPRETIVE **ELEMENTS**

Telling Stories on the Waterfront

EXPERIENCE DISTRICTS

The Many Aspects of the Waterfront



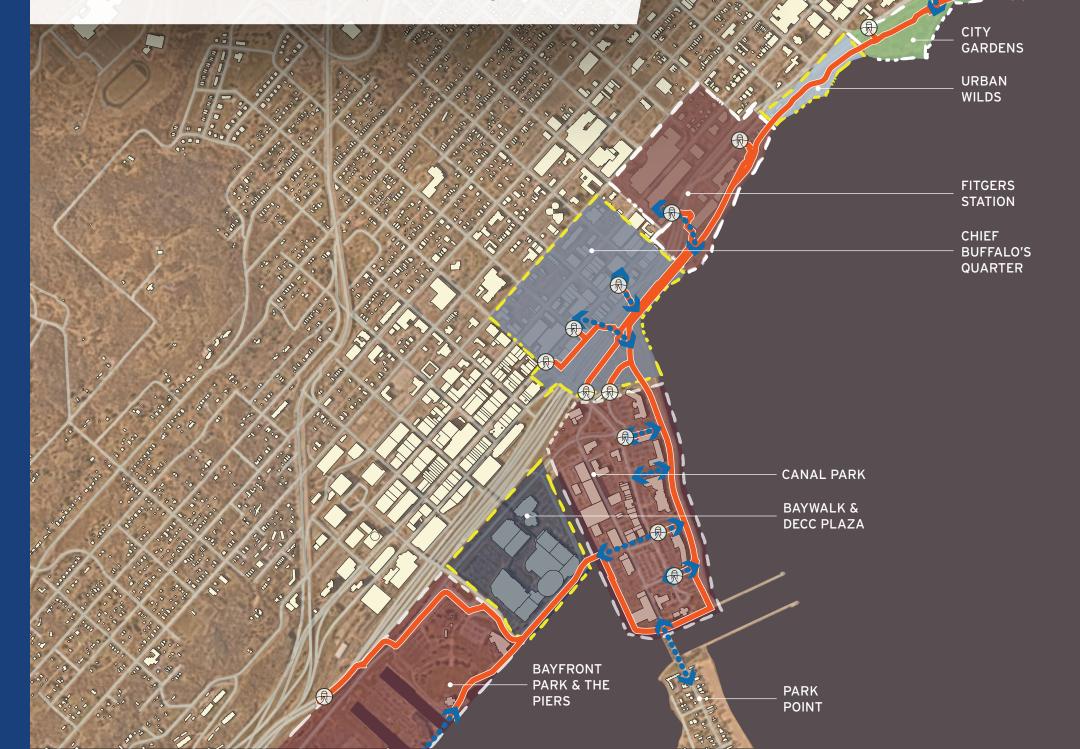
APPENDIX

Making it Real

References & Assets

Lakewalk Interpretive Plan Connecting the Downtown Waterfront

The broad arc of the Duluth Waterfront allows visitors expansive views of the water and sky as well as the ability to see the collection of landmarks that stretch out across the water. The different areas along the waterfront each have distinct qualities that reflect the rich history and geography of this unique place. When viewed in sequence these districts reveal a layered story of how the waterfront has been shaped and changed over time.





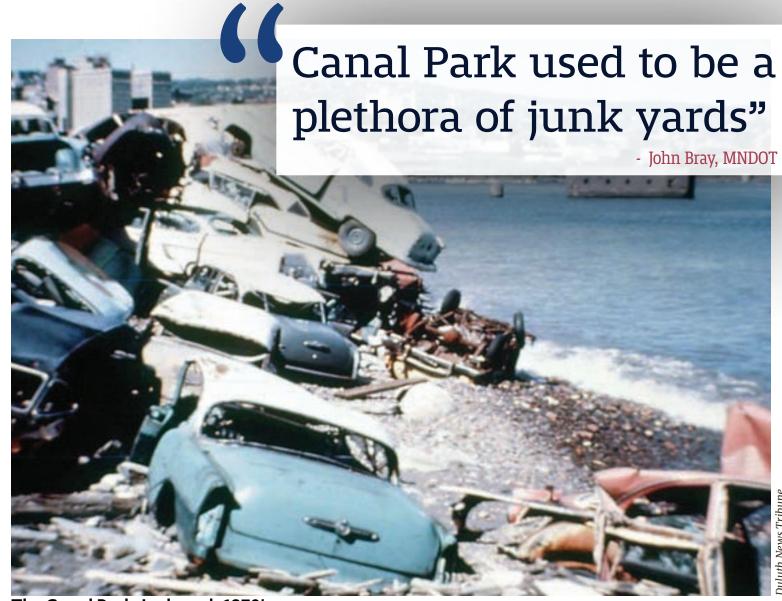


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Planning History & Context

The contemporary planning of the Lakewalk and Duluth Waterfront as public spaces was instigated by the construction of I-35 in the early 1980s. The original plan was to build the interstate elevated above the water, which would have dramatically disturbed the waterfront and skyline. There was a local backlash against this proposal, which resulted in the formation of a dedicated advisory committee of local advocates who developed an alternative alignment with MNDOT. Based on these recommendations, I-35 was extended through downtown using a sub-grade route, with covered tunnels to maintain connections to the waterfront across the corridor. While the Interstate's final location protected the viewshed and the water's edge, it did create a new barrier between the city and the waterfront, heightening the importance of the remaining connections. It also created a new awareness of the ability of local citizens to effect change by participating in the planning process.

The legacy of the I-35 construction transformed the modern day Waterfront and created space for the Lakewalk to come into being. The excavation of I-35 created 179,000 tons of waste rock that needed to be relocated. This material would ultimately be used to fill and stabilize the shoreline in Canal Park and create an additional 6.3 acres of land on Canal Park that became the start of the Lakewalk. Over the years, the Baywalk and Lakewalk have been steadily expanded to reach all the way out to Brighton Beach and this waterfront trail has become the backbone of Duluth's exemplary trail network.



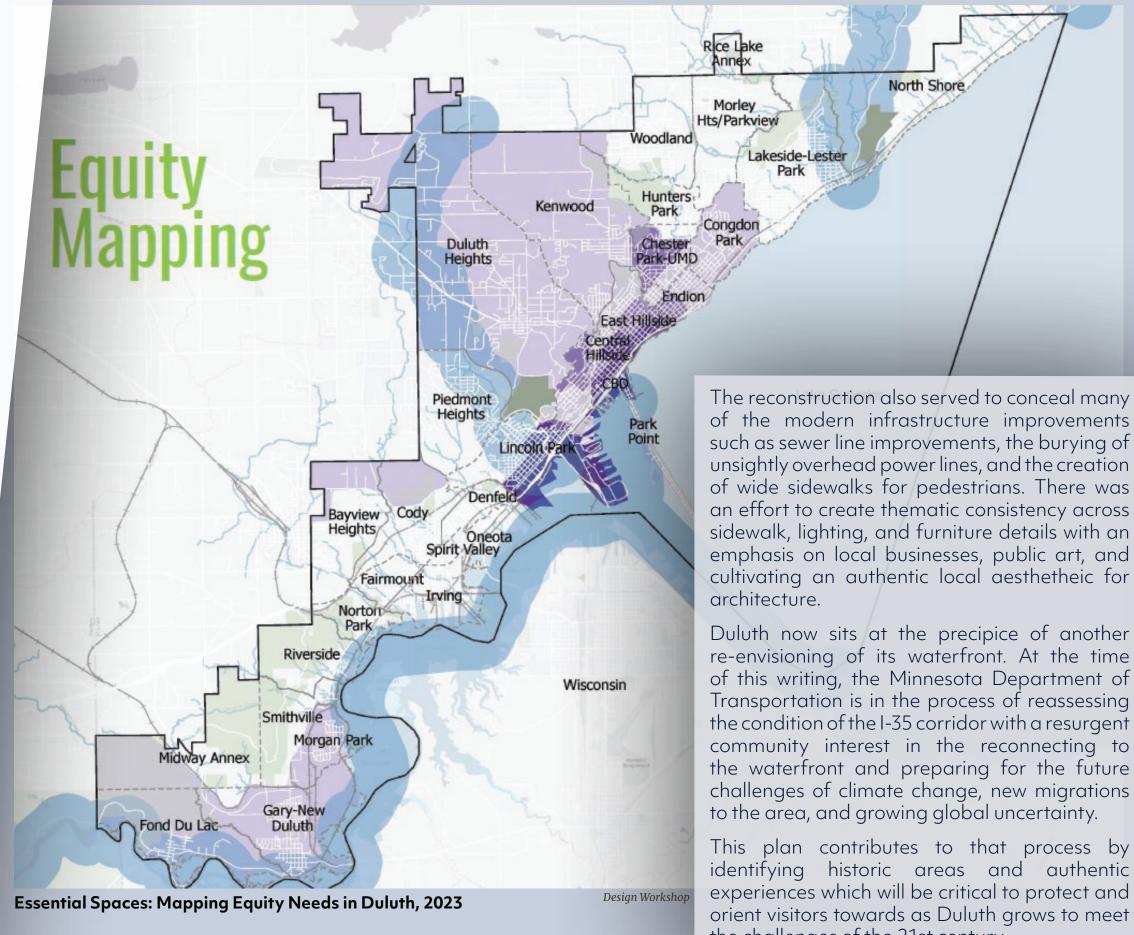
The Canal Park Junkyard, 1970's



The Duluth Lakewalk

Planning History & Context

The Duluth Downtown Waterfront Plan (1985) was developed to guide the transformation of Duluth's waterfront from an industrial waterfront to a destination for locals and tourists. The plan focussed on the two mile stretch between 14th Avenue West and 10th Avenue East. Tourist and other visitor oriented development was identified as a priority with a strong emphasis on public access and preserving the scenic, historic, and aesthetic values along the waterfront. Theplanplaced an emphasis on new services and facilities that would provide residents with more attractive and convenient access to the waterfront. The plan also encouraged building and landscape design programs that reflect Duluth's traditional character and natural environment. Duluth was part of an early wave of waterfront revivals, following Baltimore and Boston in the 1980's and internalized many of the lessons learned in the process, including a focus on the imporantance of historical preservation. Duluth's waterfront district bears many of the hallmarks of this era, with a focus on monumental landmarks, bold wayfinding elements, and major infrastructure projects.



the challenges of the 21st century.

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Baywalk Harbor Plaza Duluth's New Port of Entry

The Baywalk Harbor Plaza now also functions as a port of entry for cruise ships arriving in Duluth, meaning that it must be able to provide secure customs and immigration processing for those arriving in Duluth from other countries. This necessitates certain design parameters so that the space may also function as a public waterfront park and trail. The reconstruction of the Harbor Plaza incorporates a wave return wall that protects the buildings on the piers from flooding and storm damage as well as providing a secure clean area for international visitors.



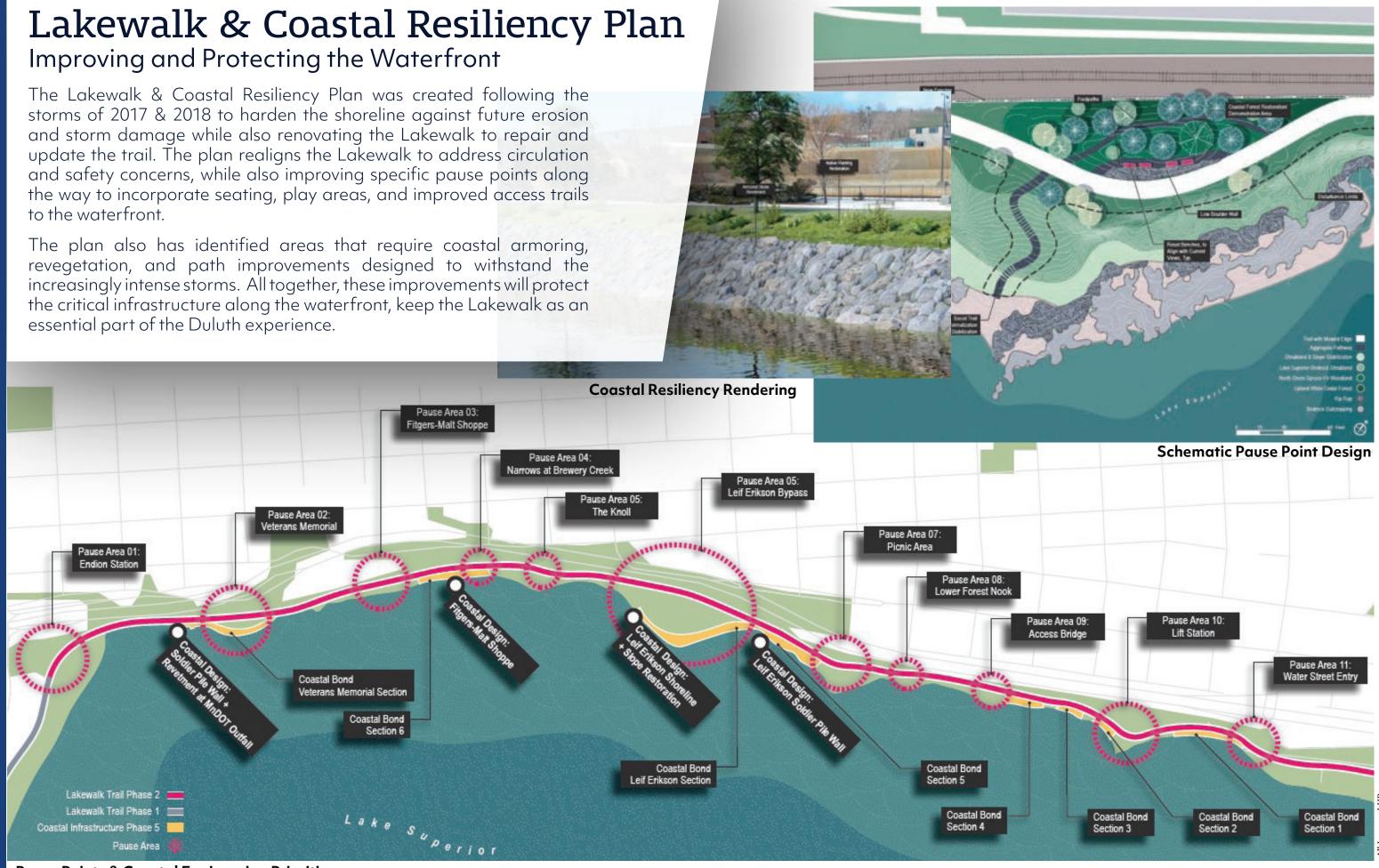


Passenger Vessels Arriving in Duluth

Duluth Seaway Port Autho

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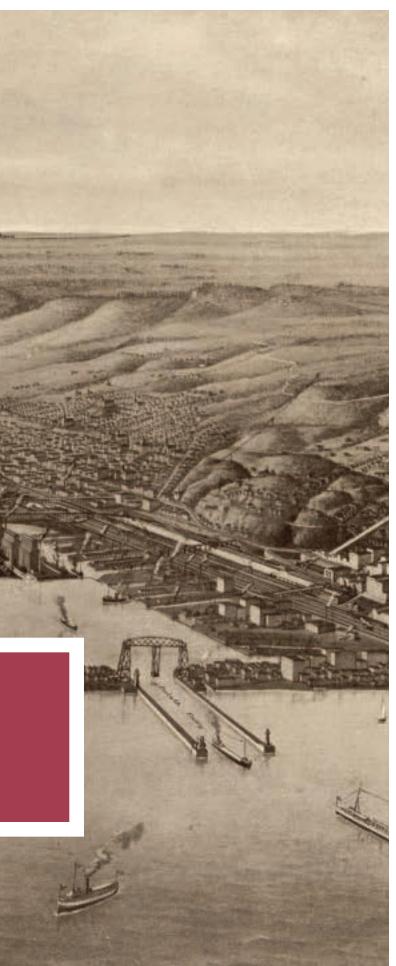




Pause Points & Coastal Engineering Priorities

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INTERPRETIVE APPROACH Observing the Parts / Perceiving the Whole



Interpretive Urban Design

Experience and Meaning Shaping Urban Form

Across the world, urban form has traditionally been driven by economic and cultural forces, with the environmental and human experience often being secondary considerations. Duluth's waterfront was shaped by the economic needs of mining, shipping and railroad interests. After reaching their apex in the 20th Century, these industries retreated and left a postindustrial landscape that has been in the process of reinvention since the 1980s.

Interpretive urban design seeks to foreground the importance of spaces for plants, wildlife and water in the city as well as prioritizing the importance of human experiences. It also aims to recognize and create space for the diverse communities which inhabit the city. Furthermore, helping visitors to see the layers of Duluth's history prompts them to consider how it has changed over time and could change in the future.

This plan considers Duluth's Waterfront through this lens and here outlines strategies that will be used to create an urban environment that provides opportunities for exploration, play, gatherings, and contemplation. These opportunities are the basis for the experience district concept elaborated later in this plan.

The experience district framework empowers visitors to author their own experience on the waterfront.



A Welcoming Place for all People





Make Space for Nature in the City



Uplift Marginalized People & Cultures





Celebrate Existing Amenities

Places for People to Activate

Orientation to the Lake

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Stakeholder Engagement

The engagement efforts for this project involved extensive consultation with public and private stakeholders to identify storytelling opportunities along the waterfront. The Friends of the Lakewalk have been major contributors in time and energy to the planning process, and have provided a significant portion of the content for the new interpretive signage.

Similarly, the interpretive design team has engaged with the design consultants for the Lakewalk Coastal Resiliency Plan and the Baywalk / Harbor Plaza to ensure that the interpretive elements will be able to seamlessly integrate with their proposed design interventions.

The draft version of the plan was first presented to project stakeholders on November 3rd, 2022 and then subsequently presented to the City of Duluth staff on December 15th, 2022. At each of these sessions, the design team gathered feedback and integrated these findings where possible. The draft plan was presented for public comment on February 15th, 2023.

The Clayton Jackson McGhie Memorial and the City's African Heritage Commission provided guidance and input on the siting of a monument associated with the National Memorial for Peace and Justice. The City also engaged with the Fond du Lac Band to more fully bring Native American art, life, and culture into the very heart of the Duluth Waterfront.







Community Presentations

Historic Research Connecting the Past to the Present

This plan is built on the back of historic research conducted by a range of contributors. The input and content provided by the Friends of the Lakewalk and Visit Duluth, served as a starting point for the documents and materials. Local historian Christine Carlson provided background research about the contributions of members of Duluth's African American community who migrated to this area in search of a better life and enriched Duluth's heritage. She also provided research regarding Anishinaabe history on the waterfront. This report also adapted content from other local websites, newspapers, and photographers whom are listed in the reference section.

Revealing the transformation of the built environment involved assembling many different stories and historical references through catalogs of maps and photographs from the University of Minnesota Duluth and The Minnesota Historical Society.

Staff from the North Shore Scenic Railroad also provided substantive input regarding the history of the Duluth & Iron Range Railroad and its reincarnation as the North Shore Scenic Railroad.





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Existing Signage & Interpretive Elements

Integrating the Legacy of Duluth's Waterfront

This plan proposes the removal of the existing Visit Duluth interpretive signs and their replacement with a coherent collection of new interpretive panels that will run the entire length of the Lakewalk. This plan is specifically concerned with the Downtown Lakewalk, but incorporates panel designs which will be sited on the remaining trail alignment out to Brighton Beach. This plan identifies areas where wayfinding and access improvements are needed, but does not address the specific replacement or configuration of any of the other elements that currently exist.

The Lakewalk contains a significant number of signs, wayfinding, art and other elements which contain branding and stylistic elements implemented over the course of the last forty years. This plan does not recommend the wholesale removal of these elements, but aside from the addition of wayfinding this plan recommends elements, against the placement of new branded elements. Existing signage and furniture may reasonably be removed over time as specific trail segments are rebuilt. This will have the effect of making the Lakewalk a more coherent experience that is not overwhelmed with too much signage or spatial clutter and will rely instead on the intuitive encouragement of exploration.



Visit Duluth Signage



Lake Place Iconography



Trail Access Arches

Interpretive Elements A Placemaking Toolkit

This plan takes a broader perspective of what constitutes an interpretive element that blurs the line between exhibits, built structures and the environment itself. The following symbols are present on the maps so that visitors can find watefront destinations and different interpretive experiences.

These interpretive elements provide a convenient way to identify specific elements or projects that will involve creative placemaking, public / private programming, artwork, and places to experience history or cultural landscapes.

The following pages profile each of these elements in earnest. Many of these places already exist and need merely to be protected, others require improvements, while others are simply an open opportunity to add additional vibrancy and function to the public realm.



Landmarks Icons of Duluth's Skyline



The Duluth waterfront has a truly epic scale with a grand sweep of panoramic views. From nearly any point overlooking the water, visitors can take in the long sandbars of Minnesota & Wisconsin Points, the rocky crags of the North Shore, and the big sky over Lake Superior. Places like the Aerial Lift Bridge, Gichi-Ode' Akiing (Lake Place Park), and the Fitgers Brewery Complex stand out as highly visible landmarks. These iconic destinations orient visitors along the trail and provide a highly legible sense of place.







Overlooks & Pause Points Orientation to the Water

This plan recommends the incoporation of seating, signage, and artwork in locations that orient visitors towards the water. Despite incorporating more than 21 miles of shoreline, certain stretches of Duluth's waterfront have surprisingly few places where visitors are able to sit comfortably and enjoy the view. This plan identifies where interpretive signage and placemaking can be integrated with overlooks and pause points.





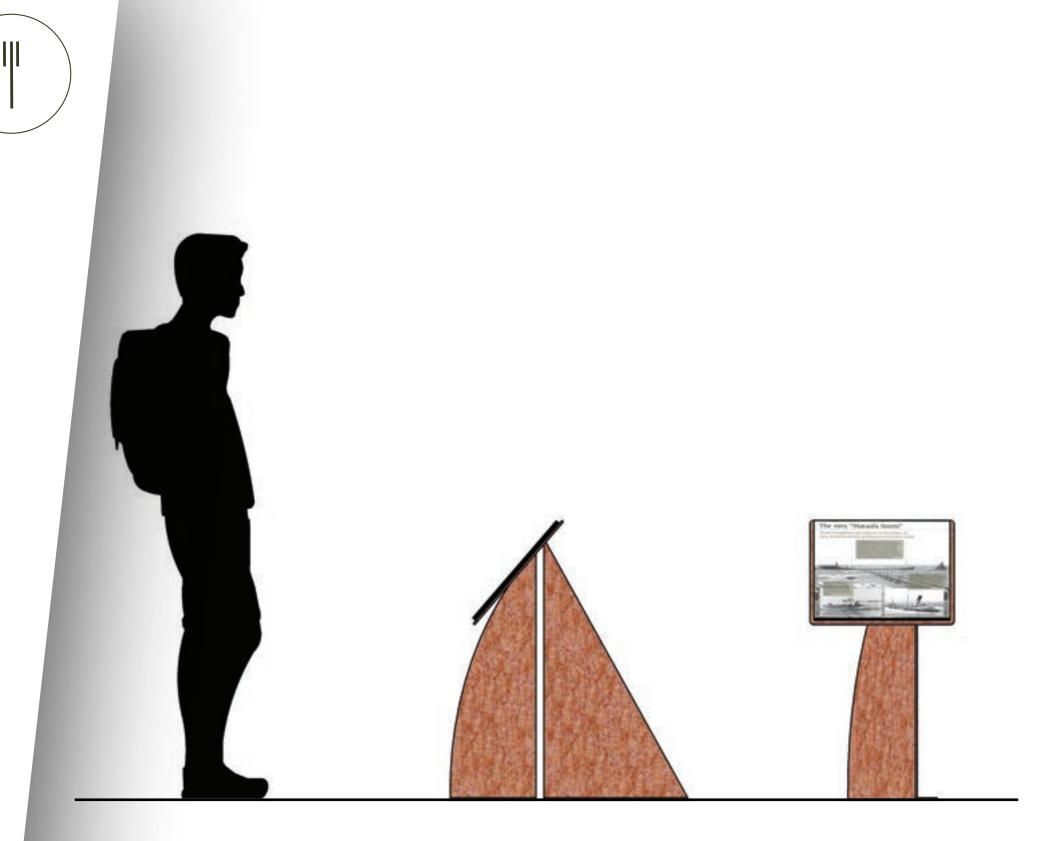


Freestanding Signs Windows into History

These signs will typically be located at overlooks or other points of interest along the trail. Each sign will have a single interpretive panel containing a map, historic imagery, or stories that are relevant to the visitor's current location and viewshed. Collectively, the signs connect important points along the waterfront and tell the story of how Duluth has grown and evolved over the years.

Many of these freestanding signs have been sponsored by local groups with an interest in commemorating specific stories, and individual or local histories.

The signs also are designed to function as a prompt to visitors to visit local museums, explore the landscape, engage with cultural activities, and visiting commercial districts. In this way, the signs functions as satellites that orient visitors toward established local destinations.



The freestanding sign's form interprets the sails of a ship, oriented perpendicular to the trail, it provides an invitation to step off the trail and explore history

Trail Access Points Gateways to Greenspace

Improving trail access is an important goal of this interpretive planning process. The Lakewalk currently suffers from a lack of visible and intuitive connections between the city and the waterfront. Improving these connections requires more than just additional wayfinding signage, and will involve thoughtful urban design to create more inviting, safe, and accessible connections in the future.

Improving the visibility and safety of trail access points is critical to the success of the Lakewalk.

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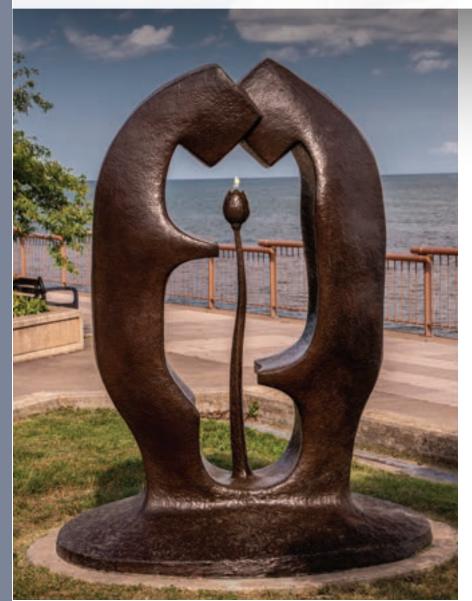
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Artwork Adding Texture & Meaning

Public Art has been a priority of Duluth's waterfront improvement efforts since the 1985 plan to convert Canal Park from an industrial landscape to one oriented towards tourism and economic development. This has led to the extensive placement of public artwork as an expression of people's cultural values. Artwork adds vibrancy and meaning to the landscape, but also creates potential liabilities. This plan proposes the dedication of new spaces for public art, but also highlights the importance of curation to prevent artwork from creating visual clutter and standing in the way of improving public spaces.







The plan identifies locations for future public art installations and the curation of existing pieces.

ll Photos: Brian Rauvola, HBR Studio

Memorials Remembering Loss, Service, & Sacrifice

The Lakewalk and its vicinity contains a number of memorials that reflect Duluth's respect for the families, veterans, and community members that through hard work, sacrifice or tragedy have changed the face of the city. Many of these memorials, are sculptures recognizing noteworthy city benefactors and political figures. Likewise, the waterfront also contains a concentration of memorials recognizing the military service of those who fought in America's wars. There are also memorials that bring attention to tragic episodes from the Duluth's history, such as the lynching of Elias Clayton, Elmer Jackson, and Isaac McGhie that took place in 1920, or the Angel of Hope Memorial, which commemorates those families who have lost children to accidents and disease.

This plan recognizes the importance of these existing memorials and incorporates the placement of a new monument for equity and justice that celebrates the contributions of African American community members who came to Duluth to build a better life for themselves and enrich the community with their diversity and hard work. This plan also calls for ending the practice of dedicating individual memorial benches, trees, and plaques to minimize upkeep liabilities and focus attention on the more intentional memorials that exist along the Lakewalk.







Interpretive Experiences Seeing and Understanding

Interpretive Experiences are the most open ended of the interpretive elements, because they encompass a large range of experiences. These include experiences like visiting historic buildings, exploring ruins, touring a museum ship, or exploring beaches and rocky outcroppings. These experiences present opportunities for visitors to add to the depth of their visit and potentially gain new perspective on the people and places that exist in Duluth.







Concessions Places to Eat, Drink & Rest

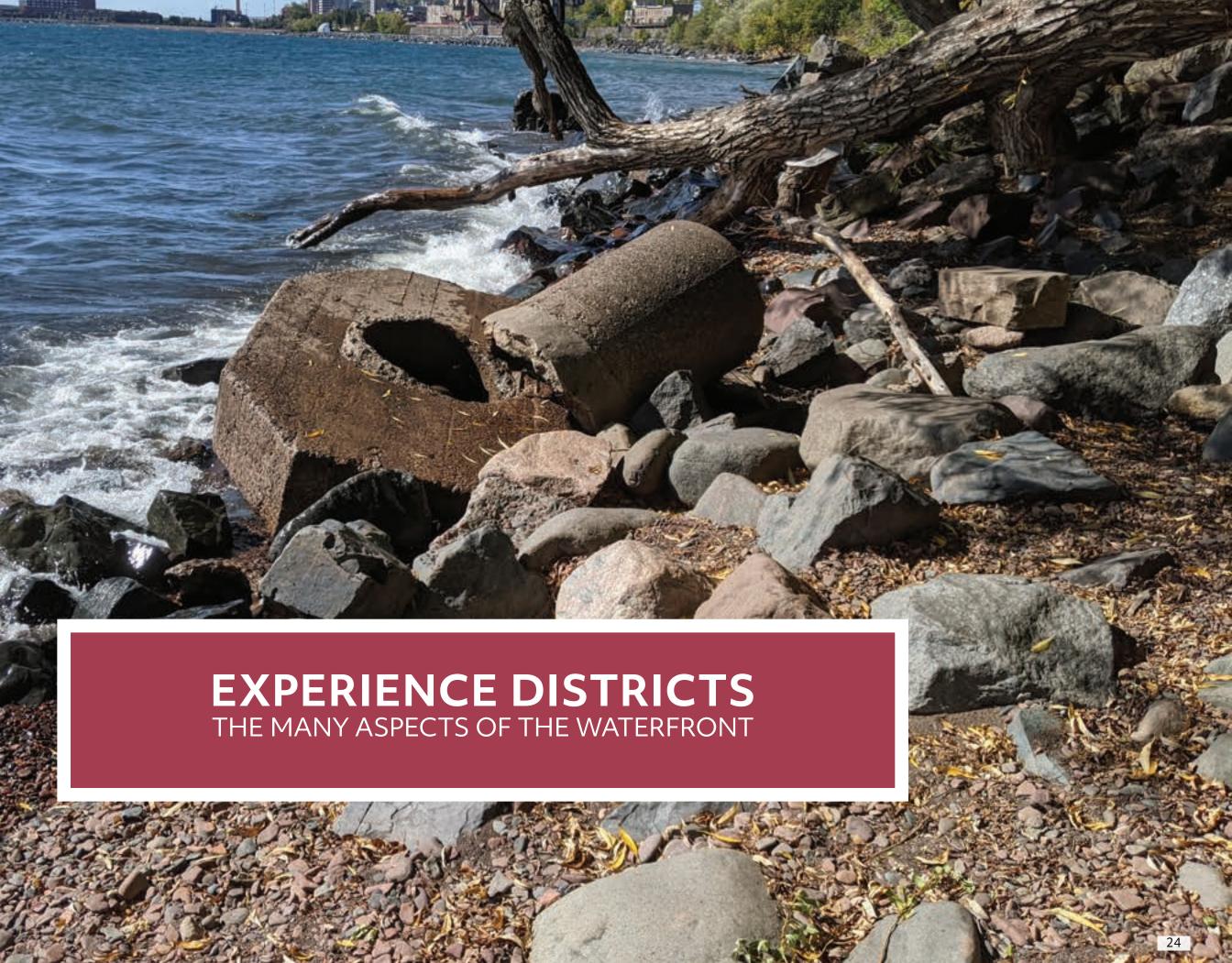


These icons represent places along the waterfront where there is an opportunity for the sale of food and beverages that can be integrated into the design of a public landscape. These services present revenue generating opportunities for the City and help activate public spaces by extending the time that visitors are able to spend enjoying the waterfront. These amenities are often clustered near restrooms and water fountains.





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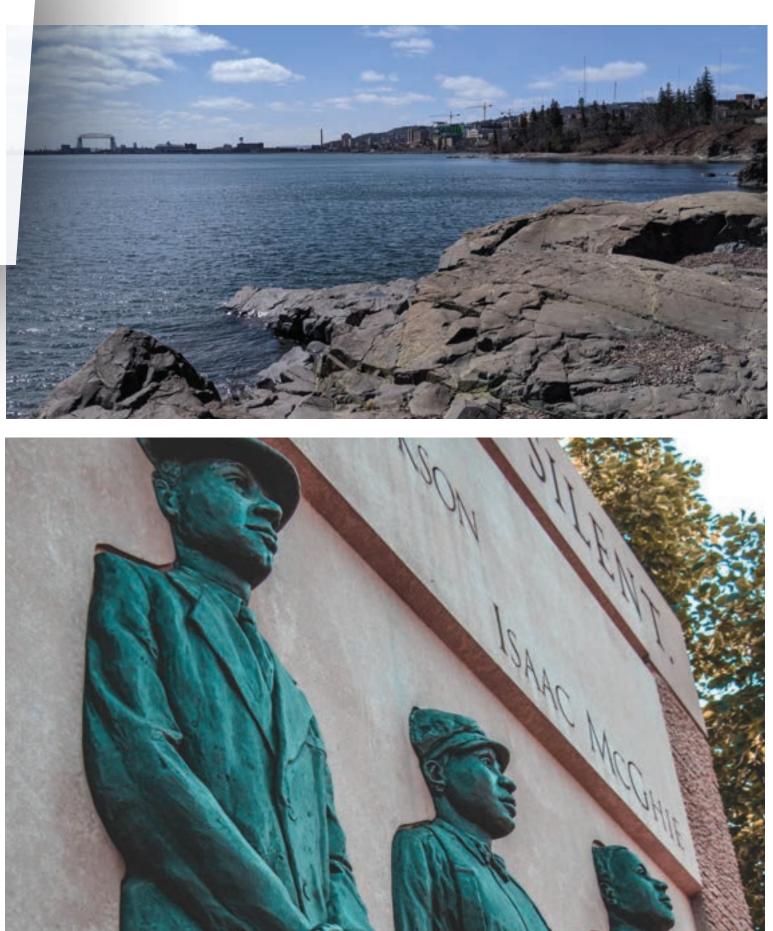


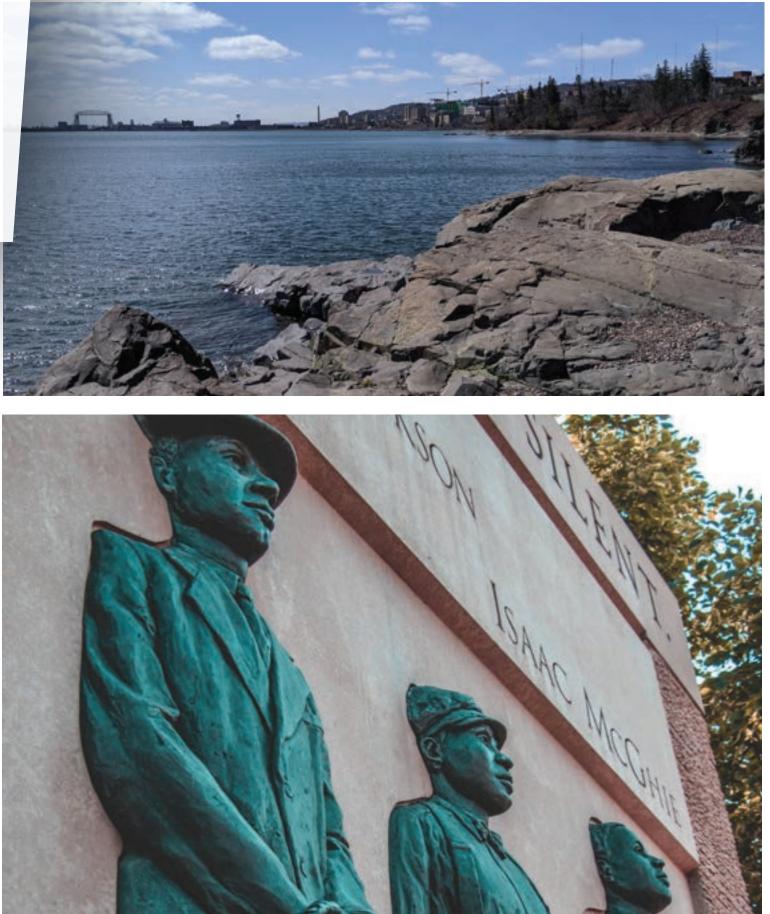
Experience Districts Uncovering the Themes of the City

The experience district concept embraces the diverse character of Duluth's Waterfront. There are areas of tall buildings and landmarks as well as wild and natural spaces. The interpretation in these districts will reveal architectural history, local geology and ecologies, and new perspectives on the world. The plan seeks to incorporate some standardized interpretive elements along the trail to create a sense of continuity, but also to highlight the experiences an individual can enjoy while exploring the distinctive and dramatically different segments of the trail.









Experience Districts The Many Aspects of the Waterfront

This portion of the report provides a linear tour of the different experience districts that visitors encounter as they explore the Lakewalk. It also introduces the themes and stories that visitors can experience on the trail.

CITY GARDENS URBAN WILDS FITGERS STATION CHIEF **BUFFALO'S** QUARTER CANAL PARK BAYWALK & DECC PLAZA BAYFRONT PARK & THE PARK PIERS POINT



LEGEND Lakewalk Trail & Access Improved Access Improved Access Experience District Boundaries Improved Access Point Improved Access Point Improved Access Point

The Piers & **Bayfront Park**

An Estuary Garden & Festival Space

The southern terminus of the Lakewalk starts atop the piers at the heart of Duluth's Inner Harbor, which now are a regional recreational destination.

Bayfront Festival Park is a newer urban park built in 2004 and designed to host major events, and its shoreline could be improved to be a microcosm of the estuary's ecology and an activated space for visitors.

The Lakewalk connection to the Pier B Resort & Marina allows visitors easy access to downtown. Pier C presents a major redevelopment opportunity for the community, and is a logical potential place to extend the Lakewalk.



Great Lakes Aquariun Neia-shi & Wubishingweka (Minnesota Point & Rice's Point)

Beer Garden

The Estuary Garden

The Historic St Louis **River Estuary**

Walk of Fame

Inner Harbor Slip Remediation Pier B Marina & Boat Slip

- Landmark
- Overlook
- Memorial
- Artwork
- Freestanding Sign
- Trail Access Point
- Interpretive Experience
- Concessions

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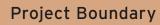
- **Bituminous Trail**
- **Improved Access**
- **Pedestrian Trails**
- Railroad . . .



- Beach
 - **Coastal Revetment**



Rocky Outcropping





Pier C Expansion & Redevelopment The Lakewalk Connection

The redevelopment of Pier C will create a potential to expand the Lakewalk and create a strong connection from this development to downtown. In addition to economic development, there is also the opportunity to incorporate pollinator habitat into the landscape.



View from Pier B towards Pier C

Inner Harbor Slip Remediation

Addressing the Legacy of Industrial Pollution

The harbor shoreline that you see today is much different than the historical waterfront. Gone are most of the coal and scrap yards, salt and cement processors, metal fabricators and ship builders. Gone is the practice of dumping waste directly into the harbor without treatment, thanks to the 1970's environmental laws. However, PAHs, PCBs, and heavy metals were contaminants left behind in the sediment, several feet deep in places.

A legacy of contaminated sediment can have negative impacts on human and environmental health. If remedies are not applied, fish and wildlife habitat and populations degrade, fish consumption advisories result, and restrictions are placed on dredging. Thanks to the combined efforts of local, state, federal and tribal partners, solutions that address these problems have been funded to reduce the risk of contaminated sediment hotspots in the St. Louis River Area of Concern. The St. Louis River Area of Concern was federally designated in 1987 because historic, local human activities caused lost habitat and legacy contamination. Remedial caps made of clean sand and armoring stone were constructed over the top of contaminated sediments in these slips. The caps protect living organisms from exposure to the legacy contamination.



Minnesota Pollution Control Agency

Bayfront Festival Park

Duluth's Destination Park

Bayfront Festival Park serves as a regional recreational amenity for major outdoor events, seasonal programming, and passive recreation.

The park is currently serving these functions admirably, but the water's edge is under developed in terms of the ability of people and wildlife to comfortably inhabit the water's edge.

The shoreline is currently turfgrass up to the edge of a rip-rap shoreline. It would benefit from the addition of pollinator plantings, spots for fishing, artwork, and places to sit overlooking the water. Pollinator plantings already exist along the slip facing the Pier B Resort.

There also is the potential to incorporate a Wall/Walk of Fame into the pavement on the backside of the bandshell to commemorate the different groups that have played at the park.

While there is no immediate plan to implement these interventions to the waterfront, this plan will inform future improvements and help activate this overlooked segment of the Baywalk.





Rip-Rap Shorelines & Turfgrass Edges



Bayfront Festival Park Events

Duluth News Tribur

The Estuary Garden An Ecological Microcosm

The St. Louis River Estuary is one of the most ecologically productive estuaries in the world, and a major success story in terms of environmental cleanup and habitat restoration.

The area of the Baywalk in front of the Great Lakes Aquarium is an obvious place to create a waterfront natural play area that is stabilized against wave action, but contains plants, spaces, and interpretive installations that share interesting perspectives on the ecology of the estuary.

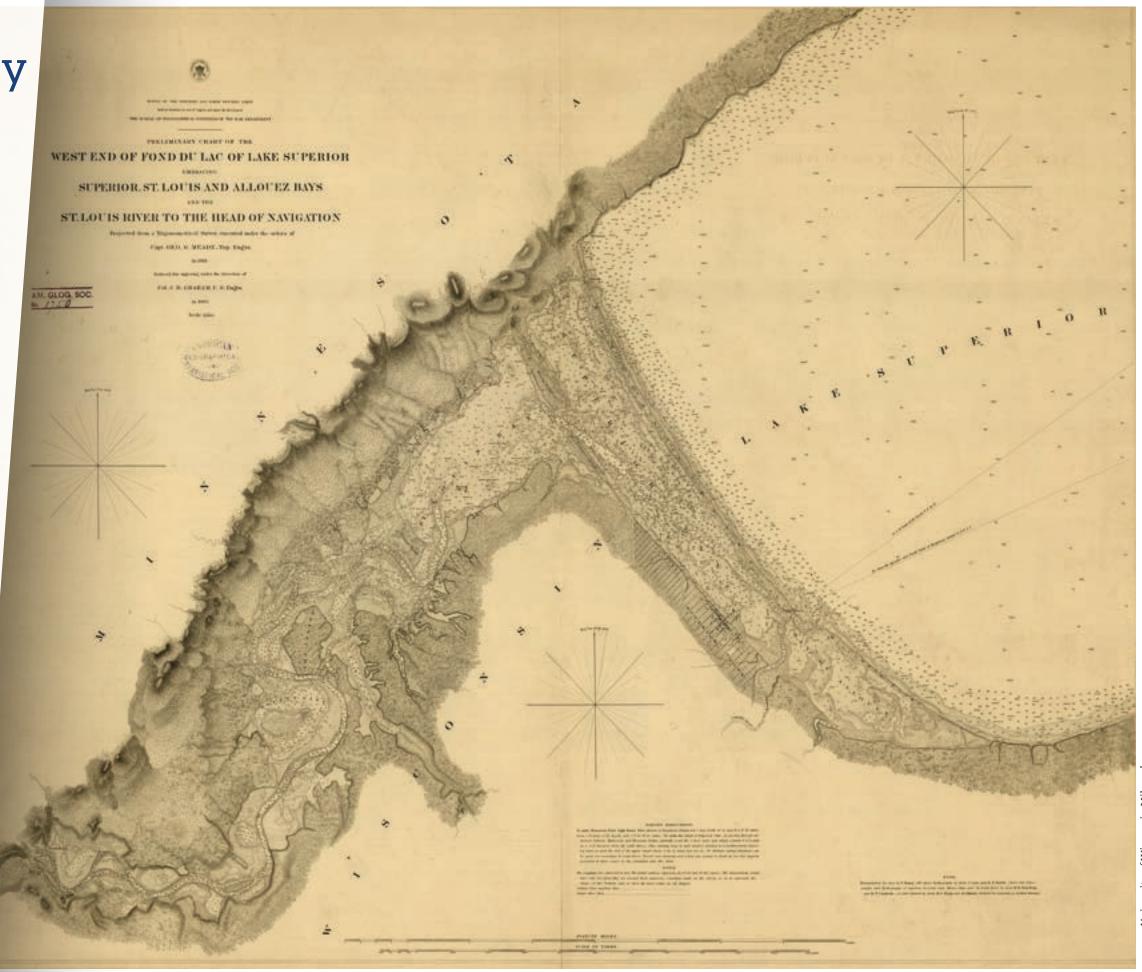
By developing this as a natural play area surrounded by a boardwalk, it will be a natural spot for kids and school groups to play and explore. Furthermore, this condition could potentially extend along the reconstructed edge of Bayview Park.

The aquarium has an area overlooking the water that functions as a beer garden and presents a future opportunity for public / private collaboration.



The Historic St. Louis River Estuary A Look at the Landscape

This map depicts the bathymetry of the St. Louis River Estuary in 1863, prior to major industrial engineering and shows the location of tributaries and backwaters. The Duluth Ship Canal was excavated in 1871, and in 1896 the United States Congress appropriated \$3 million to dredge twenty foot deep shipping lanes between Duluth and Superior to modernize the harbor for deeper hulled vessels.



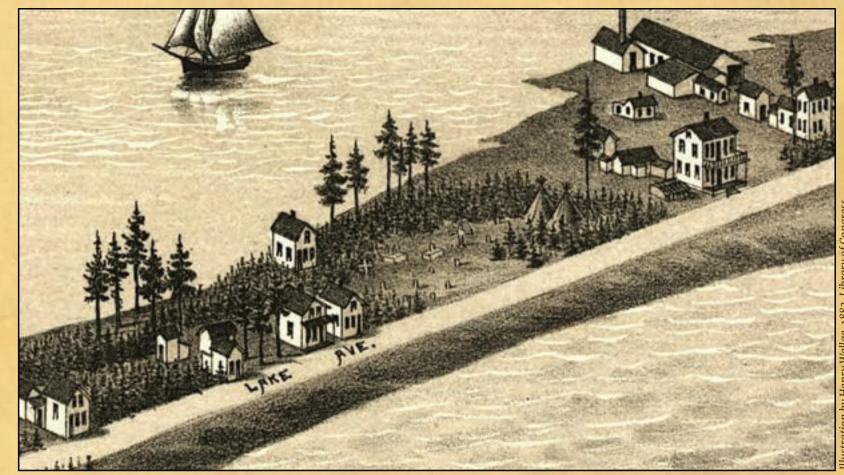
iiversity of Wisconsin Milwauke

Neia-shi & Wubishingweka A Sacred & Historic Landscape

This long sandbar at the end of Lake Superior at the mouth of the St. Louis River Estuary is formed by sand deposits from waves and longshore currents deposited atop the estuary sediments. This unique landscape has been a settlement and crossroads for centuries, and remains a sacred landscape for the Ojibwe people. This landscape has since been heavily reconstructed to accommodate shipping, urban development and coastal armoring.

At the time of European settlement, Minnesota point was an important summer encampment for the Ojibwe people and the Dakota before them. Some of the earliest European trading posts were located where Canal Park currently sits, and several important battles were fought on this landscape.

The Native American burial grounds along Minnesota Point and Rice's Point have been subject to numerous disturbances over the years, as a result of storms, engineering projects, as well as excavation to move human remains and grave robbery. One such burial ground once existed in what is now Franklin Square on Park Point. In 1883, the bodies interred here were removed and reinterred elsewhere. The protection and recognition of these sacred landscapes is an ongoing effort by Minnesota's indigenous peoples.



The Native American Burial Ground on what is now Franklin Square Park, 1883

Duluth, 1871



Baywalk Harbor Plaza

Maritime History at the Port of Entry

Built atop the industrial piers of the inner harbor, this space now is a central hub for cultural events, hosting the Duluth Entertainment Convention Center, Symphony Hall, and the Amsoil Arena.

The Baywalk Harbor Plaza now also functions as a port of entry for cruise ships arriving in Duluth, meaning that it must be able to provide secure Customs and Immigration processing for those arriving in Duluth from other countries.

The reconstruction of the Harbor Plaza incorporates a wave return wall that protects the buildings on the piers from flooding and storm damage as well as providing a secure clean area for international visitors. This plan recommends the installation atop the wave return wall of scale models of noteworthy vessels from Duluth's history.

Bece ceebrast

William A. Irvin **Museum Ship**

an a thing

Duluth Slip Bridge

Neia-shi & Wubishingweka (Minnesota Point & Rice's Point)

USS Menemsha

M

Wiigwaasi Montreal -jiimaan Canoes (Birchbark Canoes)

SS Meteor

Duluth's Industrial Inner Harbor





Landmark

Interpretive Element: Miniature Ships

Freestanding Sign

Miniature Ships Maritime History on the Waterfront

Located at the head of Lake Superior, Duluth has a rich maritime history stretching back to prehistoric times. The Lakewalk has always had a strong maritime theme, but it has been largely focused on the era after widespread European settlement. Installations like the Duluth Image Wall celebrate this history, but deserve an update to incorporate a more inclusive and holistic worldview that does not begin at the time of European settlement.

By incorporating exhibits that highlight how Native American watercraft and cultural values influenced the trading and economics of the Great Lakes Region, we can tell a more complete story.

Innovations in digital scanning, printing, and fabrication make it possible to build miniature replicas of these ships which can then be cast in bronze and mounted along Harbor Plaza and the Baywalk to commemorate noteworthy ships.

These miniatures can be integrated into the wave return wall which will help add visual interest to what otherwise will be a long featureless concrete expanse.

The exhibits will orient visitors to local resources, like the Lake Superior Maritime Museum, The William A. Irvin Museum Ship or the S.S. Meteor Whaleback Ship Museum where visitors can have a more hands on experience. These exhibits allow visitors to experience famous vessels and interactive exhibits that bring to life the diverse and fascinating maritime history of Duluth.

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The SS Meteor & The Thomas Wilson

The Whaleback Ore Haulers

The "whalebacks" were the brainchild of Captain Alexander McDougall, owner of the American Steel Barge Company in Superior, WI. The whalebacks were designed as ore haulers with a rounded, cigar shaped hull that minimized resistance from wind and waves and was able to ride low in the water with minimal risk of foundering. The Thomas Wilson, one of 19 whaleback ore haulers built in Superior, tragically sank less than 3/4 of a mile from the Duluth Entry in 1902. Laden with iron ore, the ship was damaged in a collision with another vessel and sank in minutes, taking nine of its twenty crew members to the bottom with it.

The Thomas Wilson, 1892

The *SS Meteor*, is the last surviving whaleback ship, and the longest serving. Originally launched in 1896 as the *Frank Rockefeller*, it served as an ore hauler until 1927 when it was renamed the South Park, and converted to haul sand for a dredging company. During World War II it was renamed the *SS Meteor* and converted to be an oil tanker, and carried cargoes of crude oil, gasoline, and jet fuel until 1969 when it ran aground near Marquette, Michigan. The ship was then converted to a museum ship and returned to Superior in 1971 and remains open to the public for tours.

The SS Meteor



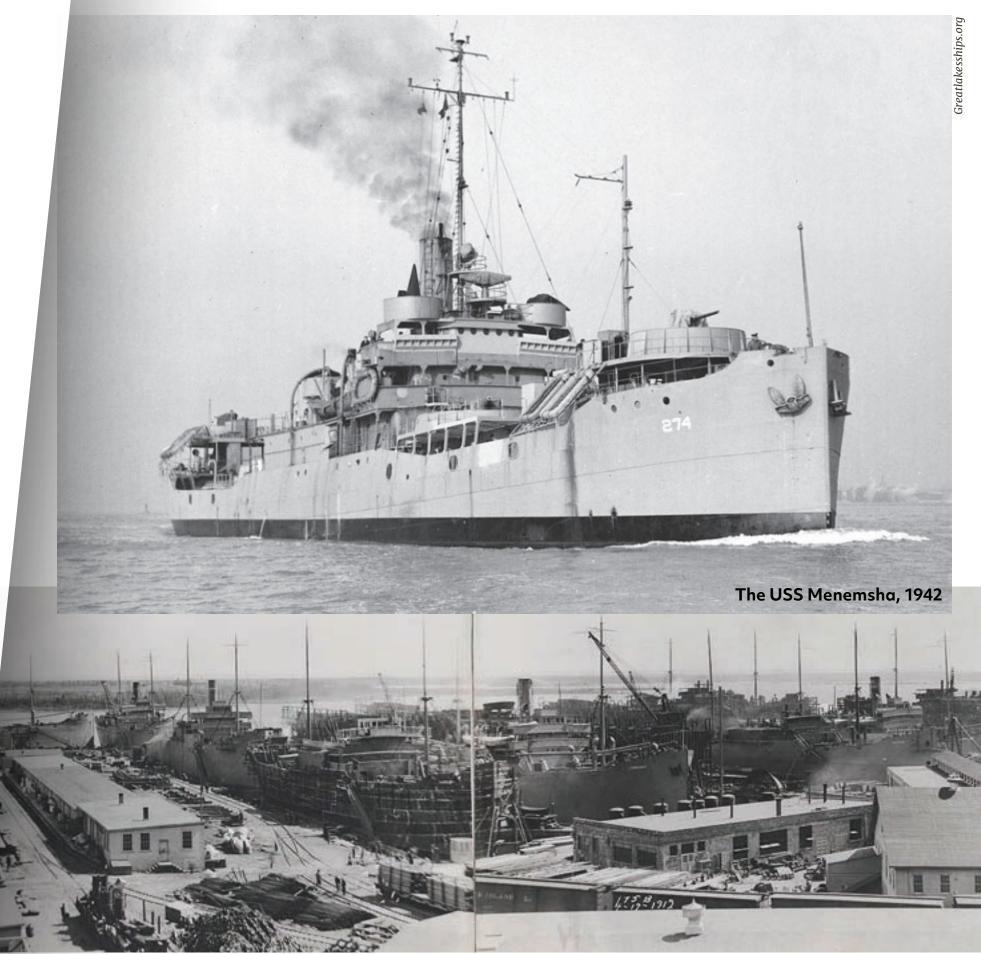
USS Menemsha

The Shipyards of Duluth & Superior in World Wars I & II

Originally the Lake Orange, this vessel was built at the McDougall Duluth Shipbuilding Company in Duluth's Riverside Neighborhood in 1918. First commissioned as a Great Lakes Cargo Hauler, in 1942 it was renamed the Menemsha and converted to a weathership to serve in the US Navy and later the Coast Guard.

During World War II, the Menemsha was assigned to the North Atlantic Weather Patrol. It braved the stormy North Atlantic Ocean and the perils of German U-Boats to gather valuable weather data and rescue the survivors of torpedoed ships.

On August 11, 1943 the Menemsha's lookout spotted a surfaced U-Boat, U-760. She closed to attack, shelling the U-Boat with gunfire, but failed to hit the enemy ship. Fearing ambush from another vessel, the Menemsha broke off the attack. On October 1943, the Menemsha was transferred to the Coast Guard, where she was rebuilt to be a gunnery training ship. After a long and valuable service, she was scrapped in 1951.



The University of Minnesota Duluth, Kathryn A. Martin Libr

Riverside Shipyard, 1919

The Montreal Canoe The Voyageur's Cargo Vessel

Also known as the Canot d'Maitre, it was based on the Native American birch bark design, but upscaled to improve cargo capacity and resistance. It was a symbol of pride for the Voyageurs who used it for both transportation and shelter during their fur trading expeditions.

The canoes typically held between 8 and 16 people, were 35-40 feet long and could carry up to 3,800 kg when fully loaded. These canoes were capable of traveling around 2000km over a six week period, and was capable of being portaged across the land when necessary.

On portages, each Voyageur would be responsible for carrying 180lb loads, plus their own kit for 1/2 mile carries, followed by a pause to rest, upon which they would return to repeat the process, until all of the cargo and the canoe had been successfully carried to the end of the portage.



Shooting the Rapids, Francis Anne Hopkins, 1879

Wiigwaasi-jiimaan The Birch Bark Canoe of the Native American Peoples

The Birch Bark Canoe was a technological innovation perfect for navigating the inland waterways of the Great Lakes region. Light enough to be easily carried on portages and able to navigate both deep and shallow water, these vessels were hand crafted from materials from the region's forests and could be easily repaired if damaged.

Its frame is built from cedar or spruce wood. Sheets of carefully harvested birch bark are soaked in hot water and fit upon the frame, with the white outer bark inside the canoe, and its tan inner bark forming the outer hull. These panels are lashed to the frame using watap, the long slender roots of the white spruce and then sealed with a pitch made from pine sap and charcoal. A handmade canoe is a deeply personal item, reflecting the skill, value, and iconography of its builder and their culture.

Canoes are a key part of traditional Ojibwe life. Used not only for transportation, but also for the gathering of food. In the summer months, the Ojibwe harvest Manoomin (wild rice) by collecting it in the hull of their canoes, and in the spring use it as vessel for spearfishing walleye.



An Ojibwe Birchbark Canoe, 1910

Duluth's Industrial Inner Harbor A Safe Haven for Industry

The excar with near investors. waterfrom was once busts occ testiment

The excavation of the Duluth Ship Canal in 1871 was inspired by competition with nearby Superior, over which city would be more attractive to railroads and investors. The last decades of the 1800's saw the dramatic transformation of the waterfront as new piers, railroad infrastructure, and industries transformed what was once a marshland into an industrial landscape. Multiple economic booms and busts occured over the years, with the transformation of water's edge a physical testiment to the rise and fall of industries.

Idealized View of Duluth,1883

Idealized View of Duluth,1893



Illustration by Henry Wellge, 1883, Library of Congress

A diverse collection of Industries sprang up along Duluth's waterfront, including commercial fishing, manufacturing, metalwork, ship building, warehousing, and milling of lumber and flour. Despite significant deindustrialization in the late 20th century, the inner harbor remains an active working waterfront.

The Harbors of Duluth & Superior A Working Industrial Waterfront

The Duluth Seaway Port Authority is an independent public agency created by the Minnesota State Legislature to foster regional maritime commerce, promote trade development, facilitate industrial development and serve as an advocate for port interests here and around the world. The Port Authority also owns and manages multiple waterfront properties, including the 120acre Clure Public Marine Terminal (the port's only general cargo facility), Erie Pier and an industrial park near the Duluth International Airport. The Port Authority is the grantee of Foreign Trade Zone No. 51. The Port of Duluth-Superior is the largest tonnage port on the Great Lakes and ranks among the top 20 ports in the U.S., handling an average of 35 million short tons of cargo and hosting approximately 800 vessel visits each year.

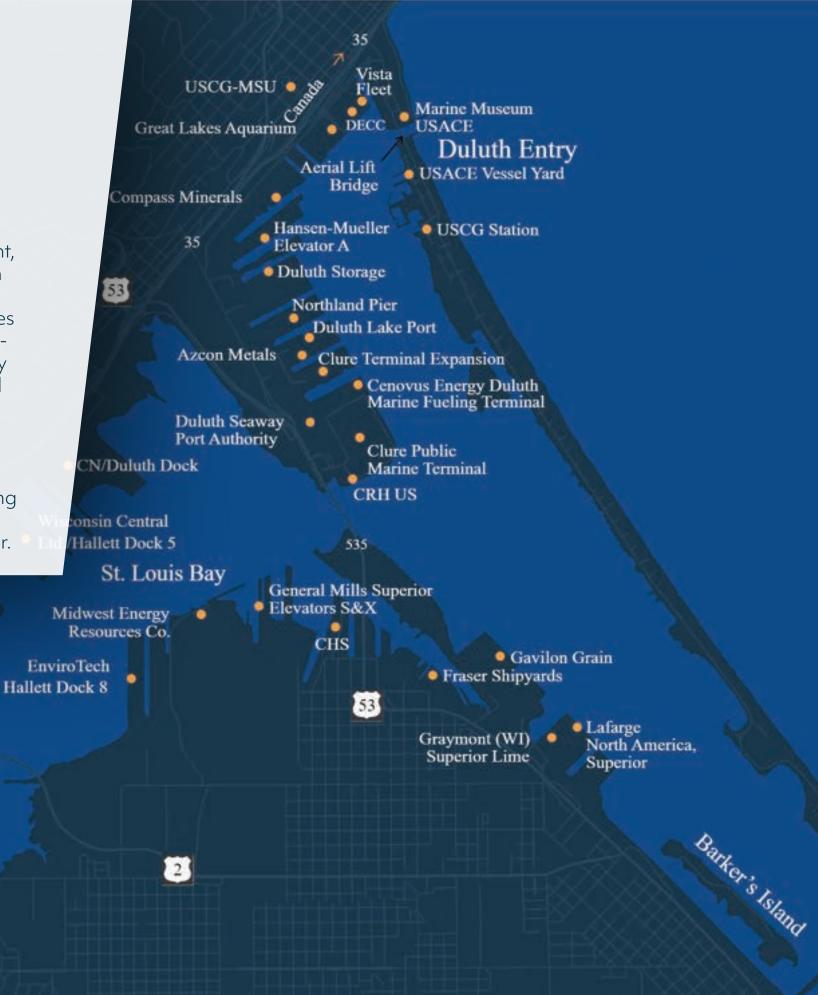
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Hallett Dock 6

Erie Pier

2

C. Reiss
 Terminal



Superior Ent

Hansen-Mueller
 Superior Elevator

41

Canal Park The Downtown Entertainment District

Canal Park has transformed over the years from an industrial area into the center of Duluth's Waterfront Tourism district. It is the central hub from which many of Duluth's most iconic landmarks and destinations can be accessed, and is a major center for hospitality services.

In addition to interpreting major landmarks and historic events, the plan calls for improvements to the pedestrian experience, which currently is secondary to automobile circulation. By improving pedestrian connections to waterfront, destinations, and adjacent districts, the overall experience can be enhanced.

> Duluth Entertainment Convention Center

Marcus

Duluth Cinema

Amsoil Arena

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DECC

Symphor

Duluth's Industrial Inner Harbor

Miniature Ships & Interpretive Panels

Estuary Garden & Natural Play Area Equal Justice Initiative Memorial & Park Renovation

LEGEND

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Landmark		Bituminous Trail		
Overlook	••	Improved Access		
	—	Pedestrian Trails		
Memorial		Railroad		
Artwork		Beach		
Freestanding		Coastal Revetment		
Sign		Rocky Outcropping		
Trail Access Point		Project Boundary		
Interpretive Experience		N		
Concessions	0	60 120 240 Feet		

The Cribs / Uncle Harvey's Mausoleum

William A. Irvin Museum Ship Canal Park Pedestrian Improvement Zone Minnesota Slip Bridge

North America's Furthest Inland Seaport

The 1905 "Mataafa Storm"

The Duluth Aerial Lift Bridge

Canal Park Pedestrian Improvements

Putting Pedestrians at the Heart of Duluth's Waterfront

Canal Park is the starting point for many people's visit to Duluth and contains many resorts, restaurants, and destination landmarks. Yet, the majority of the area remains largely covered with surface parking, and despite years of improvements, this heart of Duluth's Waterfront would benefit from a dedicated focus on improvements to the pedestrian experience.

The streetscapes of Canal Park have seen incremental improvements over the years including the addition of art, fountains, signage, and trees. However, these spaces would benefit from a couple of larger plazas to orient visitors to key landmarks and a major pedestrian corridor across the center of Canal Park. These improvements will be dependent on further design and integration with any future redevelopment that takes place in Canal Park.

Lift Bridge

Strengthen the visual importance of pedestrian connections

Shops & Restaurants

111111

Create an arrival plaza with wayfinding that orients visitors to the Lift Bridge and Canal Park Connection

The Baywalk Connection Framing Landmarks & Removing Obstructions

There is currently a disconnect between the Lakewalk and Baywalk because of a lack of wayfinding, framing, and visibility. These improvements will involve a public / private collaboration to consolidate parking lot access, remove trees and other viewshed obstructions, and improve walkway connection across Canal Park.



blocking the View

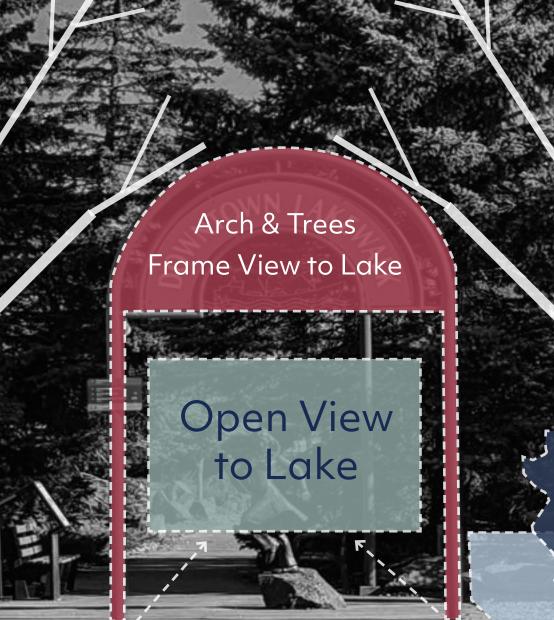
Frame View of Minnesota Slip Bridge Connection

Improved Access Opening Views & Making Intuitive Connections

The streetscape along Lake Avenue has several points that allow visitors to reach the waterfront trail. Private businesses control most of the land between Lake Avenue and the Superior side of Canal Park, but there is a lack of clearly defined access points for members of the public to reach the waterfront.

The existing connections are marked with wayfinding arches, but are visually cluttered and do not create a visual connection to the waterfront. By removing obstructions and framing views, you increase interest in the trail.

This plan also proposes engaging with the resorts along the waterfront to improve the public path connections to the waterfront from Lake Avenue. These connections are currently hidden between parking lots, do not have formal sidewalks, and lack any kind of wayfinding. This would help increase the vibrancy of the waterfront.



Align Crossings & Access Points

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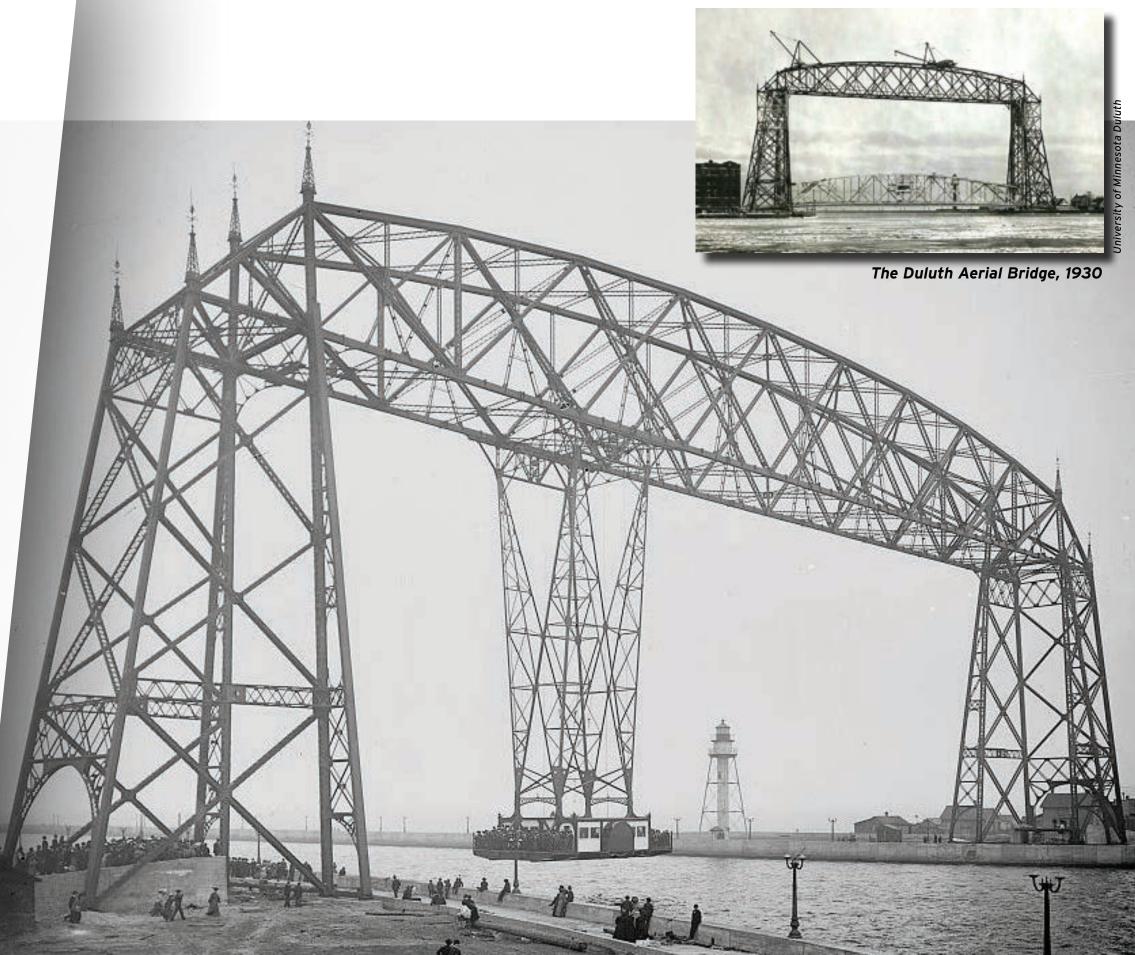
The Duluth Aerial Lift Bridge An Iconic Landmark & **Engineering Marvel**

The Duluth Ship Canal, built in 1871, improved shipping access to the harbor, but cut off access to the Park Point Neighborhood. This led the City to build an improved crossing that would still allow tall ships to pass beneath.

The bridge, designed by Thomas McGilvray, the Duluth City Architect, and engineer Claude Allen Porter Turner, was completed in 1905. It was a steel suspension bridge with a horizontal tramway that carried a gondola from one side to the other.

Over the years, the Duluth Lift Bridge has undergone several renovations and upgrades to improve its functionality and safety. In 1929-1930, the bridge was modified to add structural supports and replace the tramway with an elevating roadway platform that allows passage for automobiles

Today, the Duluth Lift Bridge is used daily by vehicles, cyclists, and pedestrians, as well as boats and ships entering the Duluth Harbor. It has become a symbol of the city's industrial past and is recognized as a National Historic Civil Engineering Landmark.



The Duluth Aerial Bridge, 1905

The Duluth Ship Canal The Scale and Power of Duluth's Waterfront

The construction of Duluth's Ship Canal was completed in 1871 in an effort to establish Duluth as a commercial harbor and attract railroad infrastructure and business investments. The natural point of entry to the estuary is almost seven miles away in Superior, giving Duluth a geographic disadvantage.

At the time Duluth boosters wanted to build a canal, but the US Army Corps of Engineers expressed concern that the canal would cause the river to re-align. The City of Superior filed an injunction to halt construction due to concerns that it would damage their entry. Despite these concerns, Duluth proceeded with construction and worked quickly to complete and expand the Canal.

The harbors of Duluth and Superior came under federal jurisdiction in 1873, and were joined in 1896 under the authority of the Duluth-Superior Harbor Authority. Structural piers, deeper channels, and slips were expanded during the late 1800's and early 1900s.

Today, the harbor remains an active working waterfront and watching a large cargo vessel sail through the canal is an essential Duluth experience.



Samuel Gee

The Duluth Entry

The 1905 Wreck of the Mataafa A Maritime Disaster at the Duluth Entry

The Mataafa appeared out of the squall in mid afternoon, steaming hard for the Duluth Ship Canal and the safe harbor beyond it. As the Mataafa approached the canal, currents and wind gusts forced the vessel against the north pier, carried it briefly back into the lake, and then slammed it broadside against the pierhead. Waves then carried the Mataafa roughly 150 yards from shore where she split in two and settled on the lake bottom.

Desperate sailors in the fore and aft cabins, both still above water, signaled for help. Duluth's U.S. Life Savers crew stood helplessly on shore, the storm too strong to launch their lifeboats.

That night thousands of Duluthians lined the shore, standing vigil as the storm pounded the wounded ship. When the Life Savers finally reached the Mataafa the next morning they found fifteen sailors alive in the fore cabin. Unfortunately, nine crewmen trapped in the aft cabin either drowned or froze to death.





The Wreck of Mataafa

The Cribs aka "Uncle Harvey's Mausoleum" An Abandoned Gravel Hopper and Enigmatic Ruin

Harvey Whitney, a businessman from Superior built the structure speculatively in 1919 to provide sand and gravel for use as fill material in wetlands, and to construct a breakwater to create a new outer harbor for Duluth. When these plans did not take place and demand for the aggregate faltered, Whitney abandoned the structure in 1922.

The hopper was designed to receive aggregates by barge and transfer them via conveyor belt back to land where it could be directly loaded onto trucks bound for local construction projects. It is built atop a crib structure (stacked timbers backfilled with other media) and now is primarily used as a nesting site for ducks and other waterfowl.

The structure has been steadily collapsing over time. It's underwater support cribs have buckled in places causing it to list to one side. The columns that once held the conveyor aloft have one by one collapsed. The structure has been a destination for swimmers and urban explorers, but is dangerous and has been the site of numerous drowning deaths and accidents over the years.



The Whitney Brothers Gravel Business Structure, 1919

Army Corps of Enginee

Chief Buffalo's Quarter Creating Equitable Waterfront Access

The Corner of the Lake is the principal connection point between Superior Street and the waterfront, but currently suffers from a lack of legible points to cross the interstate. Improving these connections is a priority to better serve the residents of the Hillside Neighborhood and Downtown Business District and also to improve the amenity value of the waterfront. This plan also seeks to recognize the significance of this indigenous landscape and celebrate the often overlooked contributions of Duluth's Native American and African American communities to the betterment of Duluth's culture.

> Clayton, Jackson McGhee Memorial



Gichi-Ode' Akiing (A Grand Heart Place)

Duluth Mosaic Art Wall & Freestanding Sign

Kechewaishke (Chief Buffalo) Murals & Signage

Equal Justice Initiative Memorial & Park Renovation

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Northland Vietnam **Veterans Memorial**

Duluth's Lost Outer Harbor

The Crossroads

Overlook

Memorial

Artwork

Freestanding Sign

Trail Access Point

Interpretive Experience

Concessions

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Railroad

Beach

Coastal Revetment

Bituminous Trail

Improved Access

Pedestrian Trails



Rocky Outcropping

Project Boundary

50

240 Feet

Chief Buffalo's Quarter

The Ontonagon band and that subdivision of the La Pointe band of which Buffalo is chief, may each select, on or near the lake shore, four sections of land, under the direction of the President, the boundaries of which shall be defined hereafter. And being desirous to provide for some of his connections who have rendered his people important services, it is agreed that the Chief Buffalo may select one section of land, at such place in the ceded territory as he may see fit, which shall be reserved for that purpose, and conveyed by the United States to such person or persons as he may direct."

> 1854 Treaty at La Pointe, Establishment of the Fond du Lac Reservation and Chief Buffalo's Reservation. Article 2, Section 6

An Interpretive District that reclaims the waterfront, offers perspective and confronts Duluth's legacy of colonialism and racial violence.







The 1852 Chippewa Delegation to President James K. Polk

Symbolic Petition of the Chippewa Chiefs, 1849 represented in Gichi-Ode' Akiing

Peace & Justice Memorials

Facing the Legacy of Racial Violence

The 1920 Lynching that took place in Duluth stands as one of the most dark and tragic episodes of the City's history. This plan proposes a new memorial space that is thematically connected with the National Monument for Peace and Justice (NMPJ) in Montgomery Alabama. This is part of the larger Equal Justice Initiative (EJI), a non-profit dedicated to fighting racial violence.

The NMPJ brings visitors face to face with the brutal details of individual lynchings and racial murders. As the visitor descends into a long trench they are brought into the perspective of someone viewing a lynching, looking up to feel the weight of these episodes as well as the staggering scale of racial violence in America.

The NMPJ created pillars for every county in which a lynching took place that will be shipped to the participating county and city partners. These will be displayed as a commitment to remember and atone for this dark moment and commit to stand together against racial violence in the future.

This interpretive plan recommends the placement of this pillar at Corner of the Lake Park. This placement was the result of an intentional process by Duluth's African Heritage Comission, members of the Clayton Jackson McGhie Memorial, and community representatives to find a suitable location for this monument.



The National Memorial for Peace and Justice in Montgomery, Alabama

52

Equity & Justice Memorial

A Commitment to Stand against Racism

Visitors approach the memorial along an eliptical path that takes them through a garden and into a grove of trees that shelters and frames the memorial.

The memorial sits in a position of honor. The approach is flanked by portraits of Duluth's African American community. Viewed from the Lakewalk, the portraits stand together, forming a ghostly vigil.



Equity & Justice Memorial

A Commitment to Stand against Racism



Monument honoring Clayton, Jackson, and McGhie

A shift in perspective, from passive observer to respectful mourner and witness.

The memorial allows visitors to assume the role of respectful mourner, bearing witness to the City / County's commitment to fight racism and atone for the wrongs of the past.

The memorial is placed on a polished stone slab engraved with a single pair of hand prints, prompting visitors to touch the monument and reflect on their shared humanity.

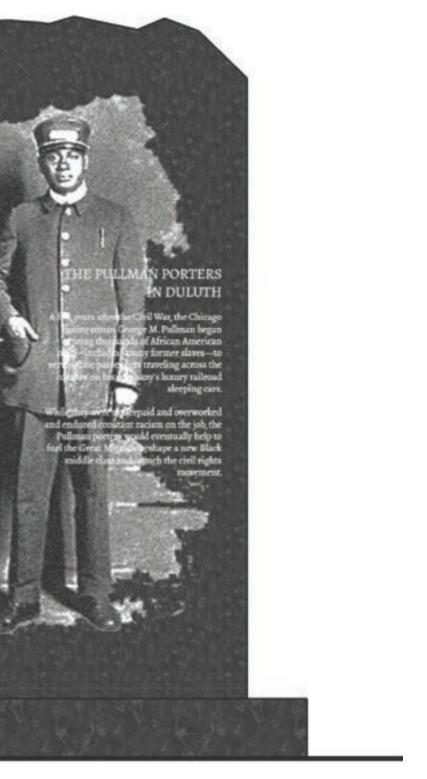
Stone Portraits Honoring the Lives of Black Duluthians

We have to listen to all of us...

We have a long way to go to understand how design can be attractive, welcoming, available, and nonthreatening to our diverse community, spatially and socially. We designers are only scratching the surface of gaining that understanding and that will take generations."

> - Ken Saiki, Landscape Architect, 2022

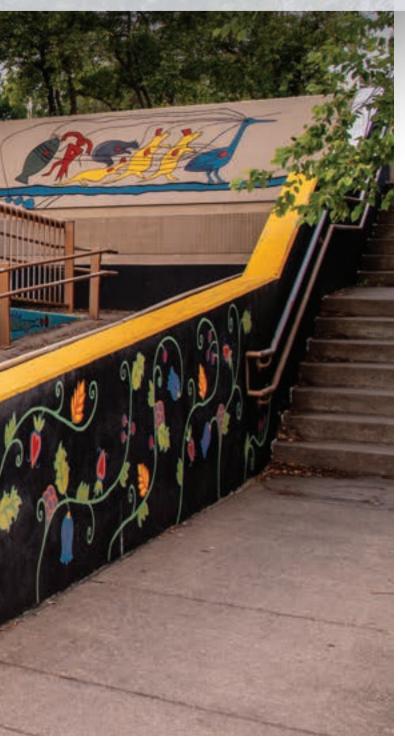




Kechewaishke Murals The Living Story of the Ojibwe

Chief Buffalo (circa 1759 – September 7, 1855), known as Bichiki (Bizhiki, Buffalo/ Bison) and Gichi-waishke, was a revered figure in the history of Ojibwe people in the western Lake Superior region. Born around 1759 at La Pointe on Madeline Island along the south shore of the lake, he was a member of the Loon clan. The pictograph illustrates the symbolic petition of the Chippewa chiefs, an item used by tribal leaders, including Chief Buffalo, to demonstrate the support of their communities. These murals were designed and painted collaboratively by a team of artists led by Moira Villiard (Fond du Lac Band of Ojibwe direct descendant), including Michelle Defoe (Red Cliff Band of Ojibwe), Awanigiizhik Bruce (Turtle Mountain Band of Ojibwe), Sylvia Houle (Turtle Mountain Band of Ojibwe), with assistance from Mana Bolton and Connor Fairbanks. The walls feature both historical and contemporary depictions of Indigenous people connected to our region, maps of both treaty territories and Chief Buffalo's famous journey, Ojibwe stories and folklore, and traditional florals designed by Michelle Defoe.

The paintings celebrate contemporary Ojibwe people in the region, referencing photos taken by Grand Portage direct descendant Ivy Vainio. These murals also commemorate those lost in the Sandy Lake Tragedy. To force the Ojibwe west of the Mississippi, the Bureau of Indian Affairs (BIA) in 1850 decided to change the site of the fall payment of annual annuities and provision of supplies. The site was moved from La Pointe to Sandy Lake. The timing of the journey made it so the Ojibwe who traveled would need to stay in Sandy Lake over winter, but when they arrived, the payments and supplies largely didn't exist. About 400 Ojibwe died of disease, starvation and cold as a result of this journey, triggering Chief Buffalo's final journey to D.C. to stop the mistreatment and removal of his people, resulting in the Treaty of 1854.



Urban Passages Creating Destinations and Openings to the Water

Improving the intuitive pathways that connect the city to the waterfront is the most critical aspect of the Lakewalk's enduring success. This work will be highly dependent on the decisions made in the renovation of I-35 through Downtown and the planning decisions therein.

The connections from downtown and the Lakewalk currently suffer from a lack of wayfinding, visibility, and legitimate public safety concerns.

This plan identifies a number of locations where there is need for concerted improvements to the character and quality of the connections and diagrammatically indicates how they can be designed to be intuitively appealing.

The final configuration of these passages will be highly dependent on future planning and design.

Open View to Park & Sky

Wayfinding Z**Gichi-ode' Akiing** ___

Create Interstitial Spaces & Seating Elements



Fitgers Station Connecting an Entertainment Landscape to Downtown's Edge

There are three distinct places within this stretch of the waterfront. The memorial landscape recognizing the sacrifice of Northland Veterans, an overlooked, but vital connection to the new Essentia Health campus, and the waterfront landing beneath the Fitgers Complex. The remaking of this landing into a natural rest area will strengthen the connections to Fitgers, and tell the story of the railroads and brewing history in Duluth.

> Essentia Health



Duluth's Lost Outer Harbor

The Crossroads



The Historic Fitgers

The Duluth & Iron

Brewery

Beach



Coastal Revetment



Rocky Outcropping

Project Boundary

The Edge of Downtown Creating a New Corridor to the Waterfront

Currently, this intersection does not have a sense of place, lacks wayfinding, and presents pedestrian safety concerns. The built landscape blocks line of sight, creating a logical space for informal encampments.

The Essentia Health Campus is a major economic and community landmark for Duluth. The hospital's staff, patients, and visitors require a proper connection to the waterfront and this crossroads is a critical area for improvement.

Improved Vayfinding to the Lakewalk

Open Plaza Space

Improved Pedestrian **Crossings & Landings**

Defined Entrance

to Downtown

The driveway serves the Fitgers Parking Ramp, but also acts as a vehicular access point for City service vehicles. This route is currently poorly marked and is not intuitively visible or accessible

> A new pedestrian plaza and art walk that connects the Essentia Health Campus to the waterfront will be an important healing amenity for the community.



This location is also the eastern entrance to the Duluth Historic Commercial District, and this plan proposes the creation of a more formal entry experience with improved plazas and pedestrian crossings.

The Crossroads Making Connections Legible

At the opposite end of this passage between Superior Street & the Lakewalk is the rail crossing between Gichi-Ode' Akiing and Fitgers. The space currently lacks wayfinding or visual cues to indicate where it leads and a secondary gravel path that is used as an access road by utility vehicles creates confusion. The lighting in this area is particularly bright, leading to an uninviting feeling with overgrown vegetation and shaded blind spots that present safety concerns.

A thoughtful renovation of this crossroads and an improved passage to downtown will involve coordination with MNDOT, Essentia, and Fitgers, but creates the opportunity for improved paths and wayfinding, there is an opportunity to create a new community open space activated by intentionally designed greenspace and artwork.

Consider More Sensitive Lighting

Programmable Green Space Combined access p

Create Open Space

> Improved Wayfinding Signage

Create Crossroads Landmark Space

Lighting & Public Safety

Protecting People and Wildlife

This plan also considers how Duluth's Waterfront is experienced at night. Lighting is a challenging subject, as it involves compromises between different competing needs.

The corner of Lake Superior is a vitally important flyway for migratory birds, and preventing light pollution will be key to protecting these populations. At the same time, the waterfront must be thoughtfully lit to create a safe environment for visitors.

These two lighting design objectives go hand in hand when creating a more human scaled and environmentally sensitive lighting scheme.

There are a number of areas that are brightly lit with hot white light, which create shadows and places for people to hide and other areas which have almost no lighting, making them inaccessible or dangerous places to be at night.



The Lakewalk lighting should provide an evenly and warmly-lit pathway with shielded lights to minimize light pollution, hot spots, and unsafe conditions.

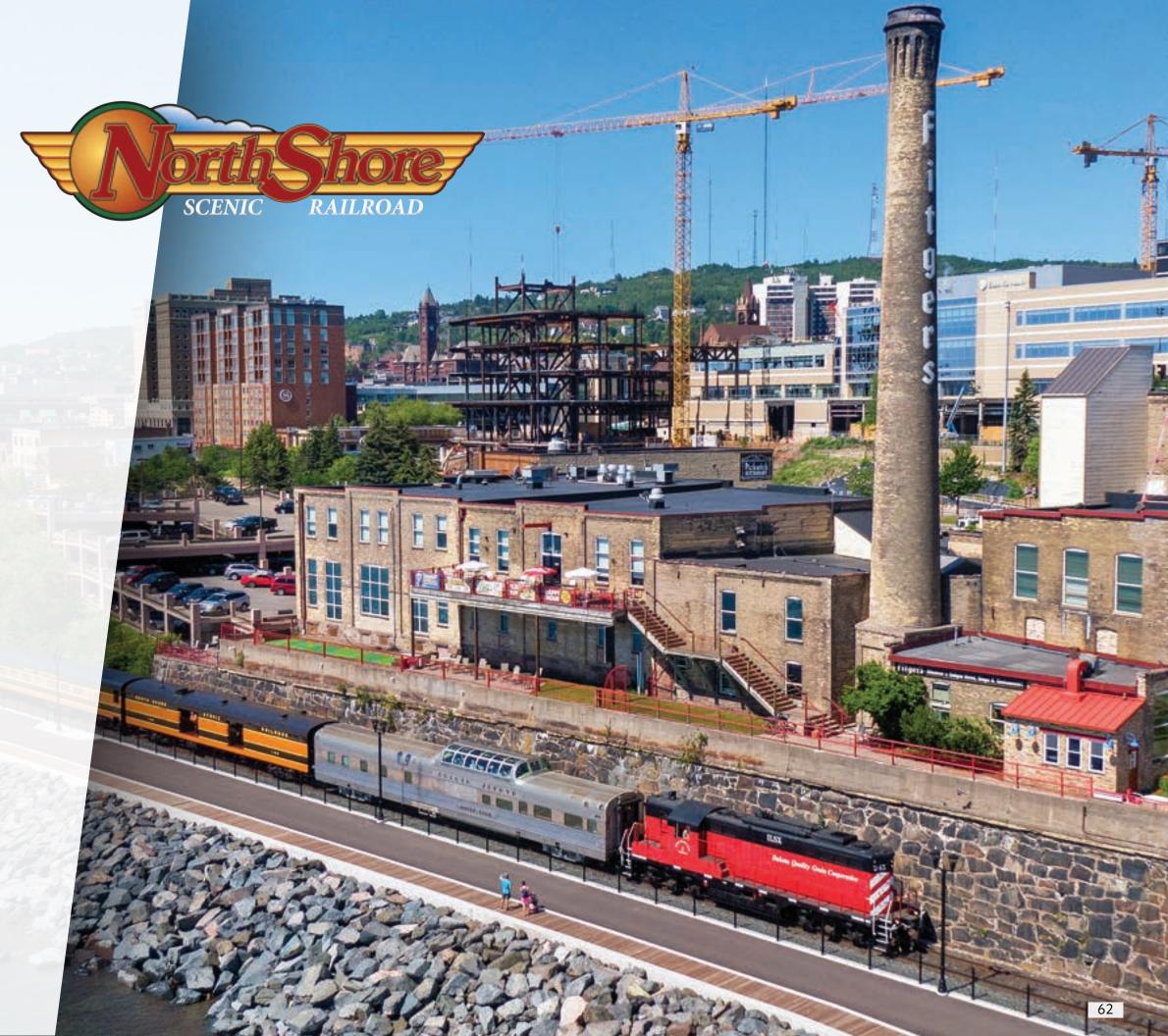
The North Shore Scenic Railroad Experiencing the Waterfront by Rail

In 1990, Don Shank started the North Shore Scenic Railroad (NSSR). After the line was abandoned by the Duluth, Missabe, and Iron Range Railroad, The St. Louis & Lake Counties Regional Rail Authority was formed to preserve the tracks. Today, the line is operated by the Lake Superior Railroad Museum and runs public excursions along the 26 mile line from the historic St. Louis County Depot in Duluth to Two Harbors from early summer into the holiday season.

Several trains run by here each day during the operating season. Trips are fully narrated and passengers learn the history of the region and are alerted to unique sites along the route.

Sightseeing trains travel to Lakeside in Duluth while others go all the way up to Two Harbors or stop at stations along the way. Specialty trains are available featuring pizza, fine dining and even murder mysteries.

The experience features a rotating range of vintage locomotives, passenger cars, and cabooses, including the full length dome car The Skyview, which allows panoramic vistas of the waterfront.



Fitgers Historic Brewery

A Landmark of Duluth's Historic Brewing Industry

Duluth's first brewery was built in 1857, but in 1881 the owner built a larger brewery on this site and hired August Fitger, a graduate of one of Germany's finest brewing schools, as their brewmeister.

Fitger's Beer quickly became one of the most popular beers in Minnesota, innovating in the sale of bottled beers for export to a larger regional audience. The brewing complex was steadily expanded over the first decades of the 20th century, including a brewery saloon on site. The advent of Prohibition in 1920 upended the brewing business. Fitgers survived this period by transitioning to products such as soda pop and candy, but quickly transitioned back into brewing alcoholic beverages when Prohibition ended in 1933.

The Brewery boomed in the period of the 1930's and 1940's, diversifying its offerings to include champagne and canned beer. The Fitgers / Anneke families sold the brewery in 1944, but the brewery continued operating until 1972 when it closed its doors after 115 years in operation.

The Fitgers Brewery Complex reopened in September 1984 with a 48 room hotel, three full service restaurants, and a retail center. In 1995, a group of Duluth business people bought the complex and have improved it to have a spa, luxury suites, a theater, and a brewpub where beer is once again brewed and sold on site.



A. Fitger & Co's Brewery with horse drawn carts, 1881

Canned Beer 1935

63

Duluth's Lost Outer Harbor An Impossible Dream

Before the arrival of the railroad and the excavation of the Duluth Ship Canal in 1871, the town recieved little commercial traffic, with only a small dock and warehouse at the end of 3rd Street



Duluth's Outer Harbor, 1870

The Lake Superior & Mississippi Railroad built a freight depot, warehouse, and dock along the lake and financed the construction of Elevator A, Duluth's first grain terminal. A breakwater was built to protect docked vessels from Lake Superior's often treacherous waters, jutting out into the lake from the foot of Fourth Avenue East

LAKE SUPERIOR

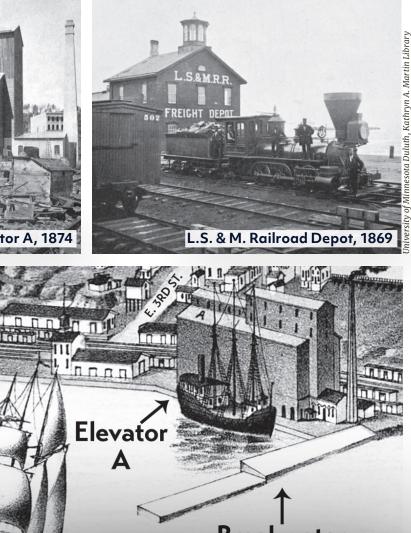
LS&M RR

Facilities

Citizen's Dock

Ship Canal

Duluth's first Mayor, Joshua Culver, financed the construction of Citizen's Dock, a municipal wharf for commercial and passenger vessels that extended into the lake east of Morse Street on Minnesota Point.



Breakwater

The breakwater did not hold up against Lake Superior storms, making the outer harbor notoriously unsafe. After the canal was dug, Duluth developed an inner harbor that was safe from the lake's fury. The outer harbor remained in use until 1886, when fire destroyed its grain elevators. Soon thereafter, the railroad sold its facilities along the lake. By then little remained of the breakwater and Citizens Dock.



Urban Wilds Urban Nature & Infrastructure

This stretch of the lakewalk provides visitors with the first chances to inhabit the wild coastlines of the North Shore while still being in the heart of the city.

This area contains a network of informal trails that allows visitors to explore the pebble beaches, rock outcroppings, secluded overlooks, and the outfalls of buried creeks. This stretch also contains areas where coastal engineering work will take place to stabilize hillsides at risk of collapse from erosion and wave action.

The interpretation frames the opportunities for renaturalization and encourages visitor to explore the improved paths to the waters edge that will be built as part of the coastal armoring.

> Jay Cooke Statue **Brewery Creek** Outlet Urban Wilds **Re-Nature**

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Pollinator Meadow and Bluff Walk

Urban Wilds Re-Nature

Coastal Resiliency Interpretive Sign

Grassy Knoll Overlook

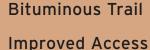
- Landmark
- Overlook
- Memorial
- Artwork
- Freestanding Sign
- **Trail Access** Point
- Interpretive Experience
- Concessions











- **Pedestrian Trails**
- Railroad





Coastal Revetment



Rocky Outcropping

Project Boundary





Coastal Resiliency Rebuilding Stronger for the Future

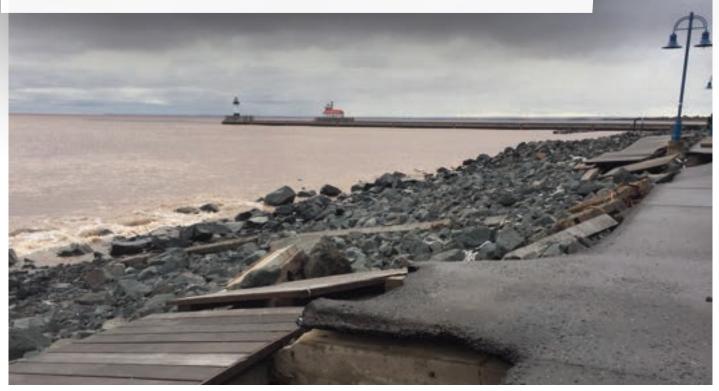
In 2017 and 2018, a series of major storms did significant damage to the Lakewalk and Brighton Beach, necessitating their closure to the public. The storms caused an estimated \$30 million dollars in damage and were declared state and federal disasters.

The City of Duluth has committed to reconstruct and harden its shoreline to protect the Lakewalk and vital urban infrastructure. Duluth has embarked on a multi-year process to rebuild the Lakewalk and harden the coastline against increasingly powerful storms. This effort is funded by a collection of local, state, and federal funds to protect the vital infrastructure that sits along Duluth's waterfront.

Bluffs and Paths along the shoreline have seen major erosion and bank failure in recent years. This requires the construction of new coastal revetments and resilient trails. Duluth is also utilizing this opportunity to improve community access to the waterfront, incorporate new parks programming, and to restore North Shore plant communities in areas disturbed by human use..



Reconstructed Lakewalk and Coastal Revetment, 2022



Damage to the Lakewalk, 2017

Andrew Slade, Minnesota Environmental Partnership



Shoreline Erosion and Restoration, 2022

Samuel Geer

Creek Outlets Connections with the Watershed

The Lakewalk crosses several streams and rivers as it makes its way out to Brighton Beach. This plan proposes labeling these outfall points with stencil maps, painted on the side of the concrete that show the name of the creek and the larger watershed context so that people can see the area drained by this infrastructure

amuel Geer

Brewery Creek Outlet



Re-Nature Bringing the Coastal Ecology of the North Shore into the City

This stretch of waterfront is where visitors get their first glimpses of the wild rocky shorelines and forests of the North Shore. This area has experienced significant erosion and bank failure and so is a major focal point for coastal re-engineering.

In addition to rebuilding these embankments to protect the trail, the improvements also will create stabilized paths to the waterfront and integrate new plantings into the landscape to create habitat, authentic local character and places for people to enjoy the natural landscape.



Coastal Re-vegetation, Existing & Proposed

City Gardens Celebrating Civic Pride

The Lakewalk intersects Leif Erikson Park and the Duluth Rose Garden, with an improved separation between cycling and pedestrian routes. The principal challenges involve improving the visible connections to the two parks from London Road. There is an opportunity to reclaim the space that was once occupied by the Viking Ship and create a formal overlook and access point to the large beach on the back of the park. Likewise, the opportunity to explore the outlets of the creeks and restful overlooks.

> The Duluth **Rose Garden**

Leif Erikson Statue & Entry Plaza

12th Avenue Overlook

The Viking Stair

Angel of Hope Memorial Garden

Leif Erikson Park Bandshell

Pollinator Meadow and Bluff Walk



LEGEND

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- Landmark
- Overlook
- Memorial
- Artwork
- Freestanding Sign
- **Trail Access** Point
- Interpretive Experience
- Concessions



- **Bituminous Trail**
- Improved Access
- **Pedestrian Trails**
- Railroad



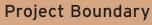




Coastal Revetment



Rocky Outcropping





240 Feet

Pollinator Meadows Transitioning from Lawn to Meadows

The area on the western edge of Leif Erikson Park is going to be rebuilt as part of the shoreline stabilization activities and presents an opportunity to incorporate flower meadows that provide habitat for threatened pollinators and garden interest for visitors.

There are currently gardens near this location that are managed by community volunteer groups like Wild Ones, as well as some that are maintained by City staff.

Public gardens require ongoing management, so it is critical that the City of Duluth establish responsible parties capable of supporting this long term effort.

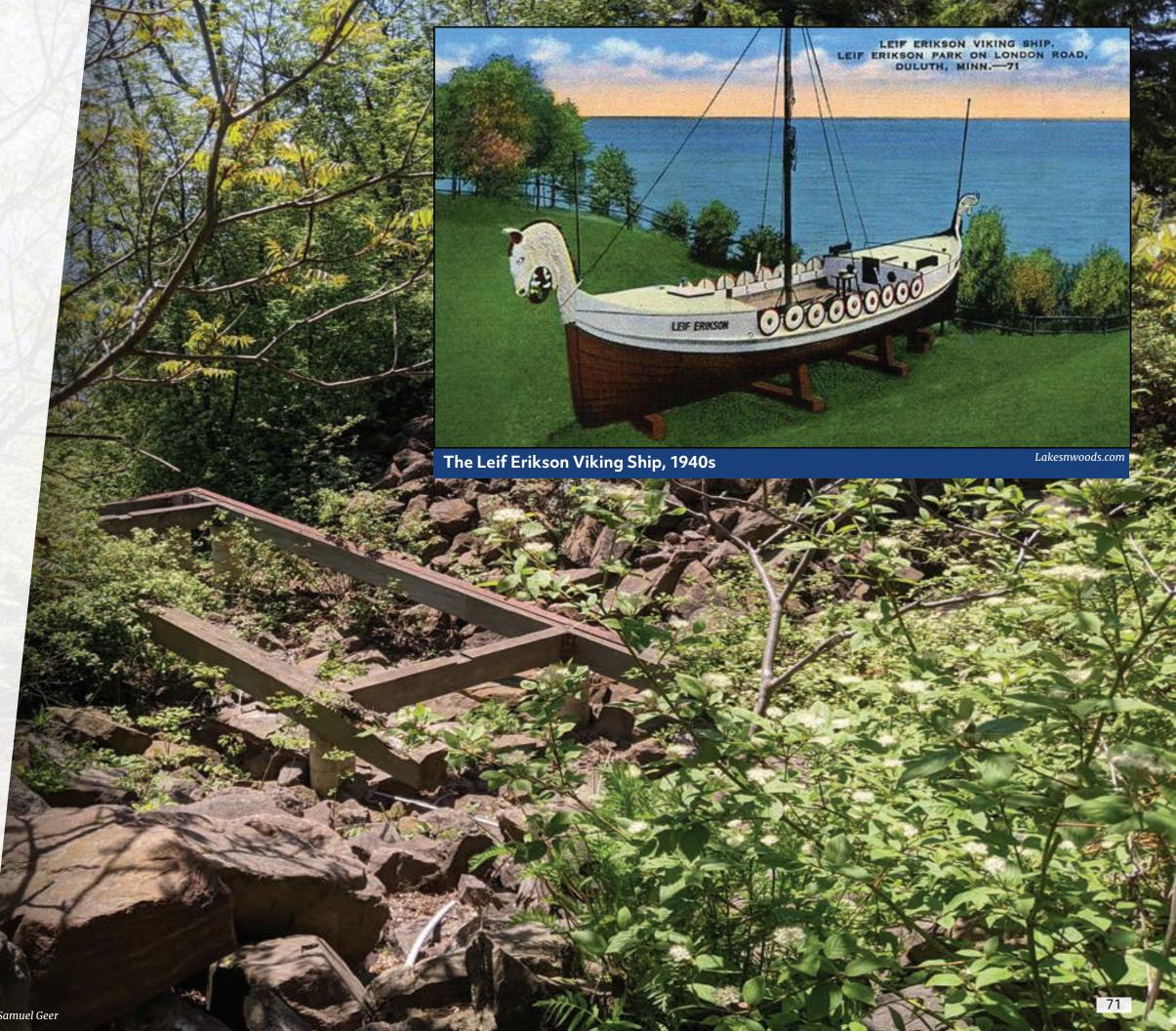


The Viking Stair An Overlook & Formal Path to the Water

This spot once held the replica Viking Shipforwhich LeifErikson Parkis named. The ship was built in Korgen, Norway by local boat builders to replicate the type of ship sailed and the route used by the Vikings in their settlement of North America around 997 A.D. The 42 foot vessel was completed in April of 1926. Captain Gerhard Folgero and his crew of three left Bergen, Norway for North America on May 23rd of that same year.

The boat was gifted to the City of Duluth with the promise that it would be covered and maintained as a public landmark, but a covering structure was never built and due to environmental wear and tear and vandalism issues, the boat was relocated to an indoor facility in Knife River. The wooden boat launch and viewing location remain, but now lack purpose or function.

The beach on the east side of Leif Erikson park is only accessible by informal and eroded paths behind the band shell. Converting this location into an overlook with a formal stair down to the water would build on the history by creating a new experience in the area currently occupied by the boat launch.



Rose Garden Plaza & Waterfront Connections

Creating an Intuitive Path to the Water's Edge

There is an opportunity to create a new plaza space to anchor both the Rose Garden and Leif Erikson Park and orient visitors to the water's edge and adjacent garden spaces. This is an important orientation feature to help visitors and residents enjoy these waterfront parks.

This proposal will result in the renovation of the existing boat launch being renovated into an overlook and formal staircase down to the beach.

> Formal Stairway to Beach

Transitional — Overlook — Spaces Arrival Plaza ---. Orients Visitors to Park & Garden

0

Duluth Rose Garden Celebrating the City's Garden Culture

Duluth's Rose Garden is a 4.5 acre portion of Leif Erikson Park located at the foot of 13th Avenue East off of London Road. The original Rose Garden was established in 1967 by the Duluth Rose Society, but was demolished in the fall of 1989 to make way for I-35. A later agreement between Federal, State and City officials gave Duluth the opportunity to restore the Rose Garden at its present site.

The park was built on a base of sand, fill and top soil 7 to 11 feet deep, over the I-35 tunnel, and is ½ acre larger than before because of a retaining wall built on the east side of the garden.

A historic fountain from the original garden was saved during demolition and reinstalled in 1994. Several benches from England were added, along with an Italian style Gazebo and a wrought iron fence. In the spring of 1994, the Rose Garden was planted by gardening crews from the City, with more than 3,000 rose bushes, and it has become a thriving venture continually growing and changing. The City celebrated with a dedication ceremony of the Rose Garden at Leif Erikson Park on August 27, 1994.

Opportunities for hosting gardening classes and rotating art exhibits should be pursued to further engage the public within the Rose Garden and find ways to further improve the space.



North Shore The Wild Shoreline in the City

This is the most wild district of the downtown lakewalk, with large rock outcroppings, wild beaches, and overpass connections to London Road. Visitors pass the ruins of the old pumphouse as well as the lift station where water is now drawn from the lake to serve the city. This was the former site of Endion Station, where the LSS&MR Railroad's terminus was once located. Slated for demolition during the I-35 construction, visitors can learn the story of how the historic structure was saved and relocated to the corner of the lake.

Occupational

& Manual

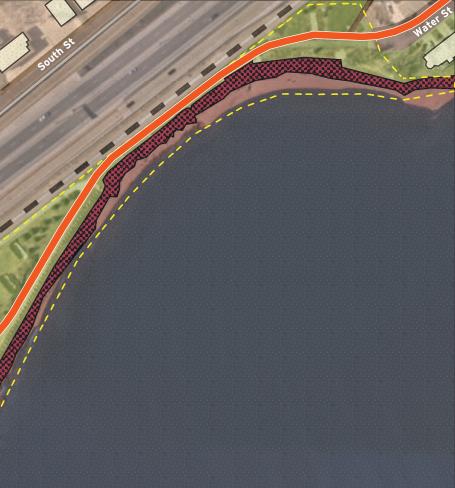
Essentia Healtl

Lakewalk

South Street Access & Overlook

North Shore **Re-Nature** 15th Avenue Wayfinding

Endion Station Pump House Foundation



LEGEND

n	d	m	а	r	
	n	nd	ndm	ndma	ndmar

Overlook

Memorial

Artwork

R

(**W**)

Freestanding Sign

Trail Access Point

Interpretive Experience

Concessions

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9	2	







Pedestrian Trails Railroad

Bituminous Trail

Improved Access



Coastal Revetment



Rocky Outcropping

Project Boundary

240 Feet

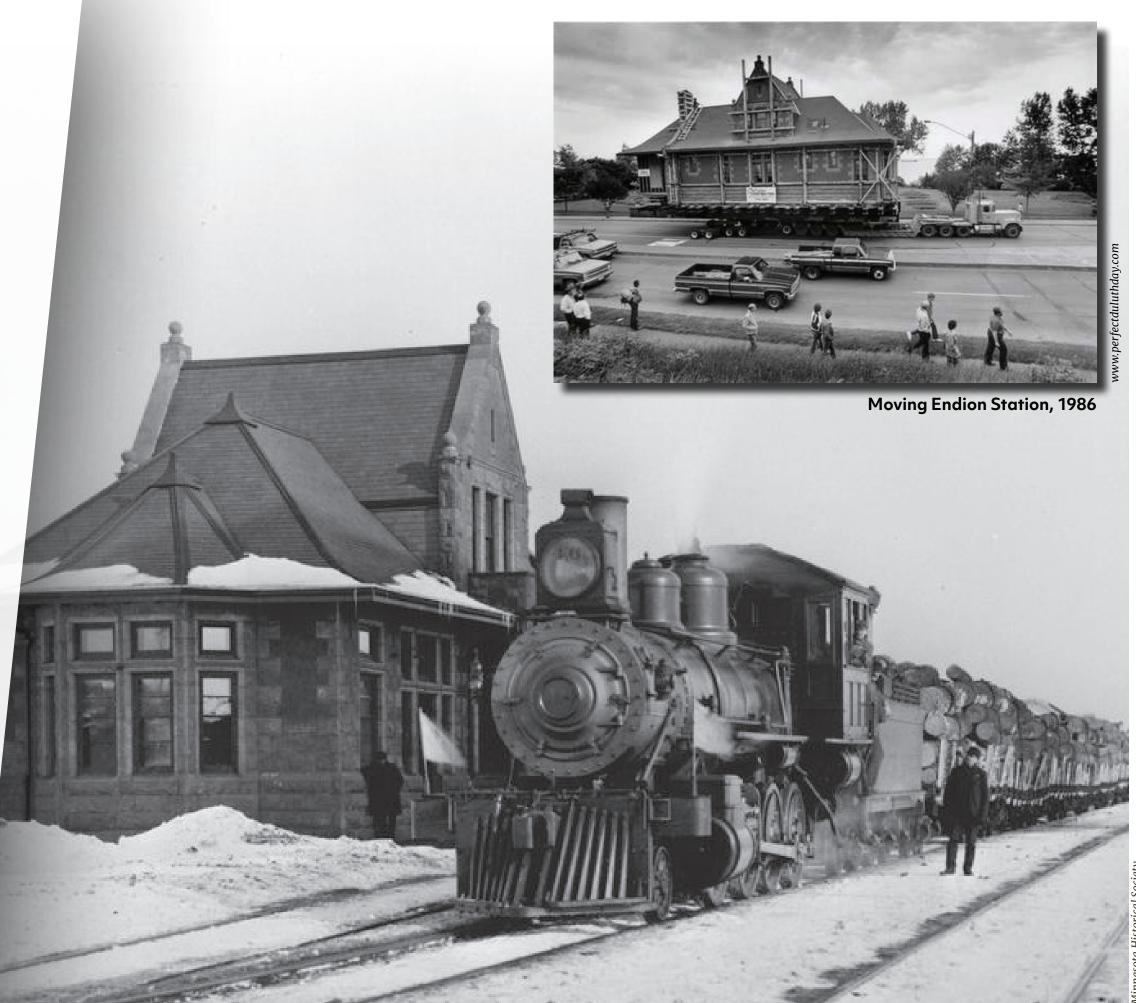


Endion Depot A Historic Landmark that **Escaped Destruction.**

Endion Station, was a passenger train depot in Duluth, built in 1899 as the first stop on the Lakefront Line to Two Harbors. Designed in the Romanesque style by noteworthy local architect I. Vernon Hill, Endion Station is one of the last of its kind. The structure once stood near this location, and was a major hub for commuters from the East End and freight traffic from the North Shore and the Iron Range. In the second half of the 20th Century, rail traffic on the Lakefront Line declined with passenger traffic ceasing in 1961, and the last freight traffic being discontinued in 1978.

In 1980, the depot was purchased by a local architect who renovated it for use as an office. Due to the efforts of local rail historians, the Station was placed on the National Register of Historic Places in 1975.

In 1985 the Minnesota Department of Transportation acquired the Depot and planned to demolish it. Because of its status as a historic landmark, state and local officials decided instead to move the Depot to Canal Park in 1986. In 2012 ,the City of Duluth sold the station, and it now is privately owned and operated as a boutique hotel.



Endion Station with Log Train, 1910

Pump Houses & Fresh Water Water Infrastructure Old & New

This stretch of the trail contains both the ruins of the historic pump house and the operating pump house from which the City draws its drinking water.

The Western Lake Superior Sanitary District (WLSSD) plans to install interpretive signage about the City's water management systems along the trail independently regarding the current water infrastructure present beneath the Lakewalk.



Location Reference Downtown Lakewalk

This page shows the proposed locations of the Freestanding Signs and Interpretive Panels to be positioned on the trail in the downtown area. These locations are schematic and will require additional coordination to finally site as part of construction.



Extended Lakewalk Preliminary Locations

This page shows the proposed locations of the Freestanding Signs to be positioned on the trail after leaving the downtown These locations are schematic area. will require additional coordination and to finally site. The interpretive panels for these locations are included in the appendix to this report.

W Arrowhead Rd

Arlington Ave

Stanford Ave

nce

Palm St

S Arlington Ave

Enger Park

Central Park

1.=

Como Ave





Implementation Partners

Public / Private Partnerships

The implementation of the trail's interpretive elements will involve coordinated efforts by the City of Duluth and other organizations with an interest in the estuary estuary and in Duluth's diverse history. Funding for this work may come from public and private sources at the local, state, federal, and tribal levels and fundraising assistance will be needed. Organizations that may be recruited to sponsor interpretive elements may include but are not limited to:

- City of Duluth: Departments, Boards, & Commissions
- Fond du Lac Band of Lake Superior Chippewa
- Clayton Jackson McGhie Memorial
- Friends of the Lakewalk
- US Army Corps of Engineers
- Minnesota Department of Natural Resources
- Environmental Protection Agency
- U.S. Steel Corporation
- Minnesota Pollution Control Agency
- North Shore Scenic Railroad (NSSR)
- US Army Corps of Engineers
- St. Louis County Historical Society
- Duluth Seaway Port Authority
- Western Lake Superior Sanitary District
- Lake Superior Rose Society



Site Design Interpretive Elements in the Built Environment

The specific placement of the interpretive elements and the design of their associated spaces is portrayed as conceptual and high-level in this plan. This allows the elements to be gracefully fit into the landscape as part of the site planning process.

Some interpretive elements, like the freestanding signs have a standard detail that can be inserted into the technical drawings, but other elements such as artwork, the Equity & Justice Memorial, and custom signage that will require additional design and coordination.

Artwork and custom signage should be carefully sited to prevent intruding on important viewsheds, damaging critical habitat, or conflicting with existing or planned site use. These are highly contextual decisions that must be addressed as part of the trail and park design processes to ensure a balance of useful and attractive park and trail design, which avoids both excessive clearing and excessive placement of vegetation and built assets and amenities.



Artwork & Community Collaboration & Placemaking

This plan identifies specific locations that offer opportunities for sculpture, landforms, murals, and other artwork. These are important opportunities to tell stories and collaborate with artists on the style and content of the artwork.

This plan provides the framework for placement of public art that portrays community history and contemporary culture. Just as important as the placement and installation of such artwork, is establishing and confirming a long-term maintenance plan for all artwork. Community groups have a successful history of helping to raise funds for project implementation, and the City welcomes collaborative efforts, which account for both implementation and long-term maintenance support due to the City's limited resources for long-term maintenance of public artwork.

Groups may submit their ideas via the City's Project Proposal Form, which gets routed to the appropriate City Departments, Boards, or Commissions for consideration. Should the City wish to solicit public art, so too will the appropriate Departments, Boards, and Commissions be involved.

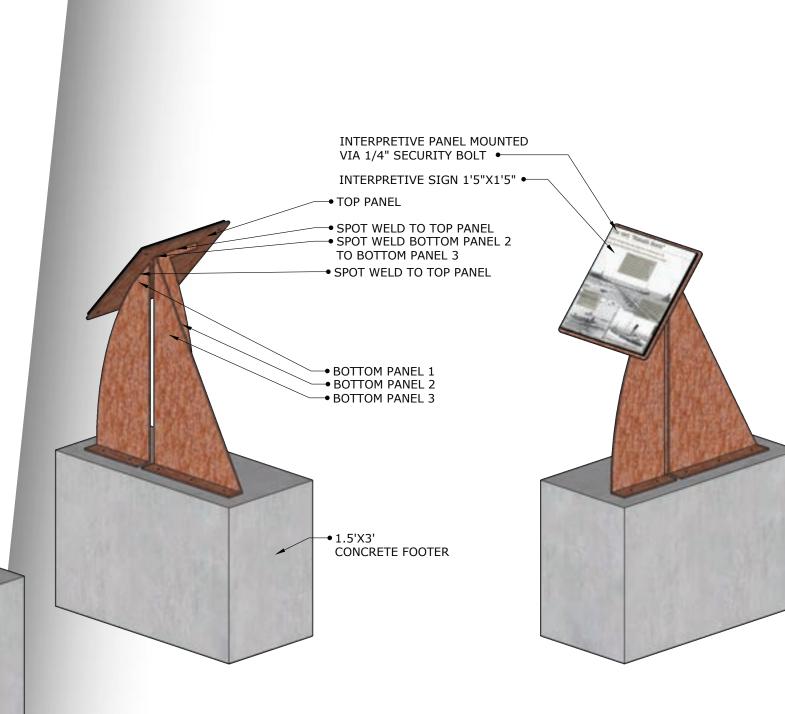


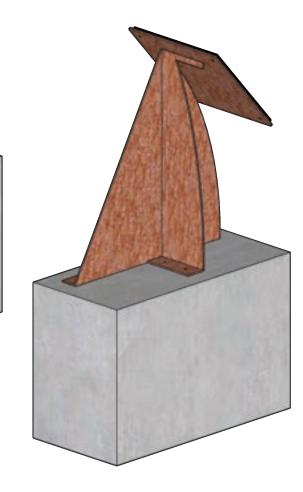
Ganawenjige Onigam, a mural by Forecast Public Art

Fabrication Getting it Built

This plan contains a supplemental appendix of CAD details and Artwork Assets that will be used in the fabrication of the interpretive panels and signage.

The City of Duluth will use these assets to procure the materials needed as they begin completing construction of the Lakewalk Segments.





Opinion of Costs Interpretive Elements in the Built Environment

This plan contains the essential information and necessary design standards to fabricate the interpretive assemblies of the plan. The details and precise locations are schematic to allow for a degree of discretion for site placement and installation during construction planning.

The approximate estimated costs for the interpretive elements shown are based on typical designs, but could vary widely depending on the specific site design, materials, fabrication, and construction team. These costs are based on the design team's experience and the anticipated fabrication and installation methods described previously in the interpretive elements.

Below is the opinion of costs for the total interpretive project. These numbers are broken out in detail in the project roster.

The following opinion of costs were prepared mid-year 2023. Because this plan anticipates a long-term implementation timeline, all costs should factor in inflation cost increases of 10% year over year. When pursuing funding, all proposals should include the projected year-over-year cost increases, rather than the original opinion of cost at the time of plan approval.

Freestanding Sign

Component	Description
Site Placement	Coordination with Trail Designer to Site Eleme
Corten Freestanding Sign	Metal Fabrication and Laser Cutting
Interpretive Panel	iZone - 11" x 17" x 1/2" Exterior Matte Panel -
Installation Labor	Assembly of All Components
Structural Footing	36"L x 18"W x 24"D Poured in Place Concrete
Weathering Sealant	Applying Sealant to Prevent Rust Staining
Regular Maintenance	Graffiti Removal and Weathering Sealant App
Delivery	All Logistics & Delivery
Surfacing & Restoration	Gravel Paths and Reseeding of disturbed area
Installation Cost per Unit	

Upkeep Cost per Unit	
10-20 Year Upkeep Costs	Panel Replacement, Metal Fabrication / Repla
0-10 Year Upkeep Costs	Panel Replacement, Metal Fabrication / Repla

TOTAL ESTIMATED COST

Interpretive Element: Miniature Ships

Component	Description
Digital Design / Sculpting	Creation of STL Digital Sculpt Asset
Bronze Ship	Bronze Cast Fabrication
Interpretive Panel	iZone - 11" x 17" x 1/2" Exterior Matte Panel -
Installation Labor	Core Drilling / Epoxy in Place

Opinion of Cost per Unit

Extended Lakewalk Estimated Budget	
North Shore	
City Gardens	4
Urban Wilds	
Fitgers Station	4
Chief Buffalo's Quarter	4
Canal Park	4
Baywalk Plaza	
Bayfront & The Piers	
Experience District	

	Cost
nents	\$100
	\$1,050
l + Hardware	\$350
	\$750
e	\$600
	\$150
plication	\$250
	\$450
as	\$450
	\$4,150
lacement	\$500
lacement	\$500
	\$1,000
	\$5,150
	Coat
	Cost
	\$3,500
	\$6,500
l + Hardware	\$350

\$11,550

\$1,200

Budget
\$62,600.00
\$51,350.00
\$195,600.00
\$590,300.00
\$190,450.00
\$54,650.00
\$766,500.00
\$80,150.00
\$30,900.00
022,500.00

Project Roster

Experience District	Element	Name	Budget	Content	Implementation Guidance
Bayfront & The Piers	Freestanding Sign (1)	Addressing Pollution in the Inner	\$5,150.00	Part of a concerted effort to remedy legacy contamination to reduce health and environmental risks	Final Panel Approval by MPCA
	Freestanding Sign (2)	Harbor The Historic St. Louis River Estuary	\$5,150.00	Navigation Map of the St. Louis River Estuary, 1863	Panel content included in Appendix
	Artwork	Walk of Fame	. ,	Sidewalk Mural Commemorating Acts that have played at Bayfront	Identify Artist to Refine Concept Art +Means &
	Anwork	walk of Fame	\$2,000.00	Festival Park	Methods
	Eroostanding Sign (7)	Cleaning Up the St. Louis River	\$5,150.00	The Western Lake Superior Sanitary District (WLSSD) was created in	Final Panel Approval by WLSSD
	Freestanding Sign (3)		\$ 5,150.00		
	Interpretive Experience	Estuary The Estuary Garden	\$40,000.00	1971 to treat wastewater and pollution in the Saint Louis River.	Coordinate with City of Duluth Public Works
	interpretive Experience	The Estudry Gorden	\$40,000.00	A waterside garden incorporating the native plants of the Estuary that	Coordinate with City of Doloth Public Works
	Freestanding Sign (4)	Neia-shi & Wubishingweka	\$5,150.00	allows visitors to reach the water's edge. The Eternal Significance of Minnesota Point & Rice's Point	Finalize Language Content with FDL Language
	Freestanding Sign (4)		φο,100.00	The Eleman Significance of Minnesola Folin & Rice's Folin	
					Program
Baywalk Plaza	Miniature Ship (5)	Wiigwaasi-jiimaan	\$11,550.00	The birch bark canoe of the Native American Peoples	Finalize Language Content with FDL Language
Daywaik i laza		Wilgwaasi-Jiintaan	φ11,000.00	The birth bark cande of the Native American't copies	Program
	Miniature Ship (6)	The Montreal Canoe	\$11,550.00	This canoe was the principal cargo vessel of the fur trade era.	Panel content included in Appendix
	Miniature Ship (7)	The SS Meteor & The Thomas	\$11,550.00	The Last Surviving "Whaleback" Ore Hauler & A Local Shipwreck	Coordinate with Superior Museums to finalize
		Wilson	\$11,330.00	The East Solviving Whateback Ore Habler a Webcar Shipwreek	content.
	Miniature Ship (8)	USS Menemsha	\$11,550.00	Built in Duluth, this vessel served as a cargo hauler, weather ship, patrol	
			\$11,555.00	craft, convoy escort, and rescue ship from 1918 - 1951.	
	Freestanding Sign (9)	Duluth's Industrial Inner Harbor	\$5,150.00	The Canal to the Inner Harbor provided a haven for industry &	Finalize Panel Contents with Duluth Seaway Port
			\$3,130.00	shipping, dramatically transforming the harbor in the late 1800's.	Authority
				shipping, didinancary nansionning menabor in menare 1000 s.	/ Conterny
Canal Park	Freestanding Sign (10)	North America's Furthest-Inland	\$5,150.00	The opening of the St. Lawrence Seaway 1959 connected Duluth and	Coordinate Placement with City of Duluth & Private
	g i g i c i ,	Seaport	1-)	the Great Lakes to the marketplaces of the world.	Landowners
	Interpretive Experience	Canal Park Pedestrian	\$175.000.00	Integrate wayfinding with City of Duluth Public Works	Integrate with ongoing public open space planning
		Improvements	1 -)		
	Freestanding Sign (11)	The Duluth Aerial Lift Bridge	\$5,150.00	The Duluth Aerial Lift Bridge is an iconic and beloved landmark of the	Panel content included in Appendix
			. ,	Waterfront and a unique marvel of engineering.	
	Freestanding Sign (12)	The 1905 "Mataafa Storm"	\$5,150.00	Vessels navigating Lake Superior on November 28, 1905, found	Panel content included in Appendix
			. ,	themselves battling hurricane force winds.	
	Freestanding Sign (13)	The Cribs / "Uncle Harvey's	\$5,150.00	This obscure structure was originally an aggregate hopper, built to	Coordinate Placement with Cityof Duluth
		, Mausoleum"	·	provide material for a construction boom that never took place.	,
Chief Buffalo's Quarter	Interpretive Experience	EJI Memorial & Park Renovation	\$400,000.00	The EJI Memorial & park renovation will include the installation of the	Finalize Language Content with FDL Language
·				Memorial, Stone Monuments, and associated landscape elements.	Program
	Artwork	Kechewaishke	\$5,000.00	Three interpretive panels that tell the story of this artwork and provide	3 x interpretive panels bolted into concrete wall
		(Chief Buffalo) Murals & Signage	1 - /	background about the artists and different aspects of the work	spaces
	Freestanding Sign (14)	The Duluth Art Wall	\$5,150.00	This mosaic art piece celebrates the maritime history of Duluth and the	
			<i>40,100.00</i>	role that waterfront recreation plays in its quality of life.	
	Freestanding Sign (15)	Gichi-ode' Akiing (A Grand Heart	\$5,150.00	Designed by landscape architect Kent Worley and completed in 1990,	Panel content included in Appendix
	r recordinaring orgin (10)	Place)	φ 3 ,130.00	Lake Place created a link from downtown to the waterfront.	
	Interpretive Experience	The Crossroads	\$175 000 00	New Art Plaza and Open Space Improvements at this rail crossing	Budget for Interpretive Design / Artwork Elements
			φτ75,000.00	new Art haza and open space improvements at mistal crossing	to accompany the redesign of the walkways.
					to accompany menedesign of me walkways.

Project Roster

Experience District	Element	Name	Budget	Content
Fitgers Station	Interpretive Experience	Essentia Passage	\$175,000.00	New public plazas, crosswalks, branding iconography and wayfinding to improve visibility and safe access to the waterfront
	Freestanding Sign (16)	Duluth's Lost Outer Harbor	\$5,150.00	Before the Canal, Duluth's industrial waterfront faced the Lake.
	Freestanding Sign (17)	The Historic Fitger's Brewery	\$5,150.00	Duluth's first brewery was built in 1857, but in 1881 the owner built a larger brewery on this site and hired August Fitger, a graduate of one of Germany's finest brewing schools, as their brewmeister.
	Freestanding Sign (18)	The Duluth & Iron Range Railroad	\$5,150.00	As the iron ore industry developed in Minnesota, this line provided a direct connection to the rapidly growing Iron Range settlements.
Urban Wilds	Artwork	Brewery Creek Outlet	\$4,500.00	Stencil map of the watershed and creek alignment for Brewery Creek on wall
	Freestanding Sign (19)	Coastal Resiliency	\$5,150.00	The City of Duluth has committed to reconstruct and harden its shoreline to protect the Lakewalk and vital urban infrastructure.
	Interpretive Experience	Urban Wilds Re-Nature	\$45,000.00	Budget to establish North Shore Native Vegetation along Waterfront
City Gardens	Interpretive Experience	The Viking Stair	\$300,000.00	Reconstruction of the Boat Launch for the Viking Ship to Include overlook and stair down to the waterfront
	Interpretive Experience	Pollinator Meadow Walk	\$12,000.00	Bluff top pollinator meadow with walking trail along the edge of the revetment in Leif Erikson Park
	Interpretive Experience	Leif Erikson Statue & Entry Plaza Redesign	\$450,000.00	New plaza and orientation elements to connect visitors to Leif Erikson Park and the Duluth Rose Garden
	Artwork	Chester Creek Outlet	\$4,500.00	Stencil map of the watershed and creek alignment for Brewery Creek on wall.
North Shore	Freestanding Sign (20)	Endion Station	\$5,150.00	The original location of Endion Station was in the path of Interstate 35 but the building was preserved as a historic landmark.
	Interpretive Experience Interpretive Experience	North Shore Re-Nature South Street Access & Overlook	\$65,000.00 \$10,000.00	Budget to establish North Shore Native Vegetation along Waterfront Creation of wayfinding signage and public artwork to orient visitors
		Improvements		from London Road to the Waterfront.
Extended Lakewalk	Freestanding Sign (21)	The Endion Ledges	\$5,150.00	A Glimpse of Lake Superior's Firm Foundation
	Freestanding Sign (22)	Tischer Creek & Congdon Park	\$5,150.00	In 1905, Chester and Clara Congdon began construction of their celebrated Duluth estate, Glensheen, which was completed in 1908.
	Freestanding Sign (23)	The Lakeside & Lester Park Neighborhoods	\$5,150.00	This historic neighborhood emerged over decades, changing names multiple times as wealthy investors built a town.
	Freestanding Sign (24)	The Bridges of Lester Park	\$5,150.00	Recreation on the Lester River and the cascades of Amity Creek
	Freestanding Sign (25)	The Lester River Fish Hatchery	\$5,150.00	An archictectural relic from an ongoing effort to study and improve the fisheries of Lake Superior.
	Freestanding Sign (26)	The Largest Freshwater Lake in the World	\$5,150.00	Lake Superior is a natural wonder, Earth's largest freshwater lake and the heart of a threatened but resilient ecoregion

Implementation Guidance

Budget for Interpretive Design / Artwork Elements to accompany the redesign of the walkways.

Panel content included in Appendix

Finalize Language Content with Fitgers Inn Staff f

Finalize Language with Lake Superior Scenic Railroad Staff

Identify Artist to Refine Concept Art +Means & Methods

Panel content included in Appendix

Coordinate with City of Duluth Public Works

Design to be integrated into the master plan for Leif Erikson Park

Coordinate with community groups on pollinator

meadows and native plantings in this area.

Coordinate with the Lake Superior Rose Society to vision future redesign of Entry Plaza

Identify Artist to Refine Concept Art +Means & Methods

Finalize Language with Lake Superior Scenic

Railroad Staff and Endion Depot

Coordinate with City of Duluth Public Works

Coordinate with City of Duluth Public Works

Panel content included in Appendix Panel content included in Appendix

Panel content included in Appendix

Panel content included in Appendix Panel content included in Appendix

Panel content included in Appendix





References Key Sources & Resources

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- The Canadian Canoe Museum. https://canoemuseum.ca/

- Minnesota Historical Society. www.mnhs.org
- University of Wisconsin, Milwaukee
- Minnesota Environmental Partnership. https://www.mepartnership.org/
- Minnesota Digital Library, University of Minnesota. www.mndigital.org
- Kathryn A. Martin Library, University of Minnesota Duluth. lib.d.umn.edu

Assets **Interpretive Products**

The panel design assets developed during this interpretive process are provided to the city as a separate document appended to this report. These assets include construction details to help with the assembly of the interpretive signs, interpretive panel layouts, and reference materials.

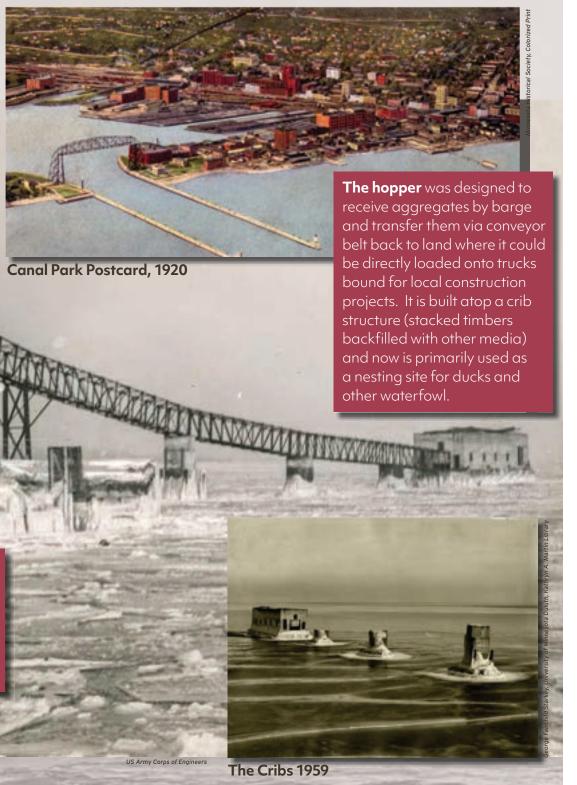
The panels are ordered to correspond to the location reference pages above.

These items will be available to the City in a digital format that will allow staff to edit the materials to match the changing context of the project as it is implemented.

The Cribs / "Uncle Harvey's Mausoleum"

This obscure structure was originally an aggregate hopper, built to provide material for a construction boom that never took place

Harvey Whitney, a Superior businessman built the structure speculatively in 1919 to provide sand and gravel for construction projects. He thought this could be used as fill material for wetlands, and the construction of a breakwater to create a new outer harbor for Duluth. When these plans did not take place and demand for the aggregate faltered, Whitney abandoned the structure in 1922.



The structure has been steadily collapsing over time. It's underwater support cribs have buckled in places causing it to list to one side. The columns that once held the conveyor aloft have one by one collapsed. The structure has been a destination for swimmers and urban explorers, but is dangerous and has been the site of numerous drowning deaths and accidents over the years.

The Whitney Brothers Gravel Business Structure, 1919

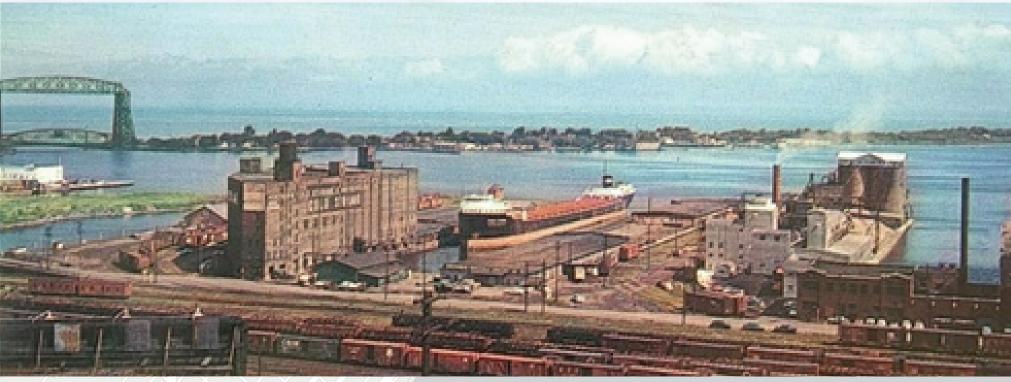




Adressing Pollution in the Inner Harbor

Part of a concerted effort to remedy legacy contamination to reduce health and environmental risks.

The harbor shoreline that you see today is much different than the historical waterfront. Gone are most coal and scrap yards, salt and cement processors, metal fabricators and ship builders. Gone is the practice of dumping waste directly into the harbor without treatment, thanks to the 1970's environmental laws. However, PAHs, PCBs, and heavy metals were contaminants left behind in the sediment, several feet deep in places.



Postcard of waterfront industry, circa 1960's near Slips 2 and 3

A legacy of contaminated

sediment can have negative impacts on human and environmental health. If remedies are not applied, fish and wildlife habitat and populations degrade, fish consumption advisories result, and restrictions are placed on dredging. Thanks to the combined efforts of local, state, federal and tribal partners, solutions that address these problems have been implemented to reduce the risk of contaminated sediment hotspots in the St. Louis River Area of Concern.



The St. Louis River Area of Concern was federally designated in 1987 because historic, local human activities caused habitat loss and legacy contamination. Multiple agencies have worked for decades to remediate pollution and legacy contaminants in Duluth's Inner Harbor. Expertise and funding provided by many partners is the foundation for each project's success.





Pollution in Slip C, 1968

linnesota Pollution Control Agenc

Seaway Port Authority Garfield Slip C

> Heardin Island

Duluth Seaway Port Authority Garfield Slip D / Clure Public

Remediated Slips in Duluth's Harbor

Capping Contaminants in Slip 3, 2018 Remedial caps made of clean sand and armoring stone were constructed over the top of contaminated sediments in these slips. The caps protect living organisms from exposure to the legacy contamination.

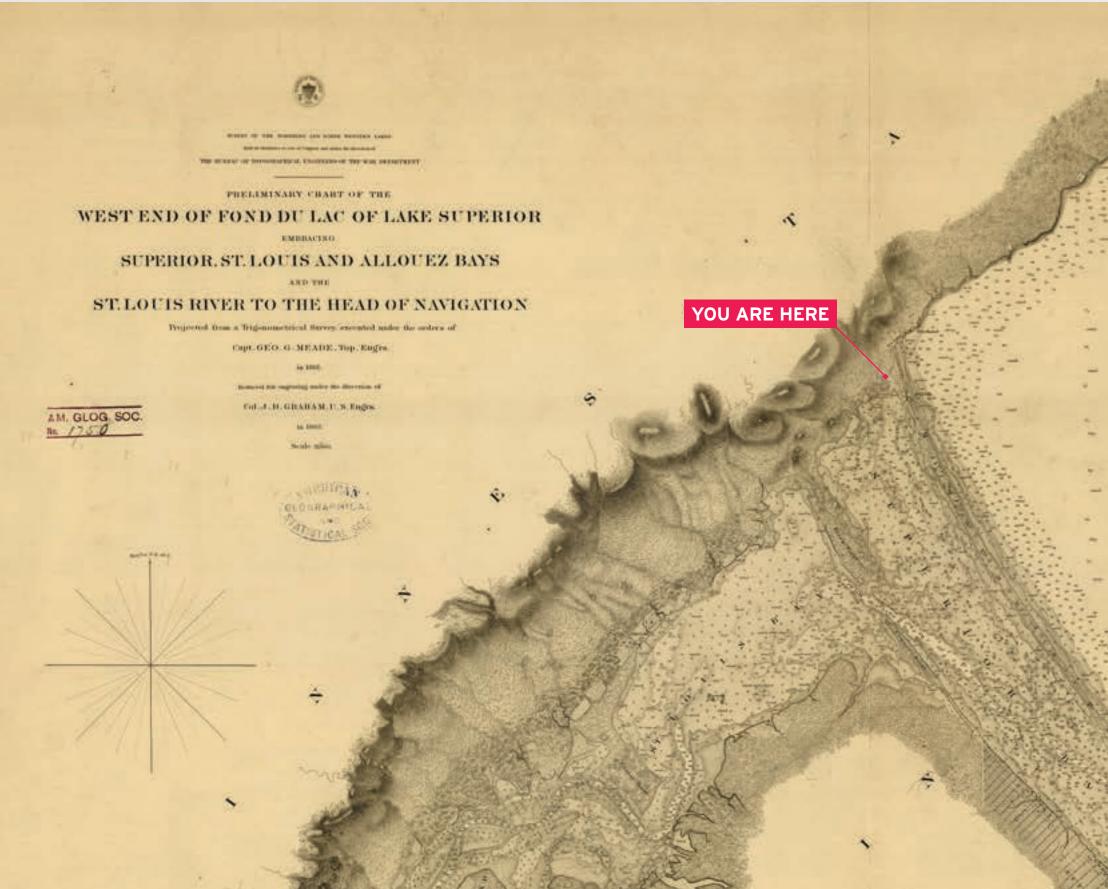
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Minnesota Pollution Control Agency

The Historic Estuary

Navigation Map of the St. Louis River Estuary, 1863

0



4

This map depicts the bathymetry of the St Louis River Estuary in 1863, prior to major industrial engineering and shows the location of tributaries and backwaters. The Duluth Ship Canal was excavated in 1871, and in 1896 the United States Congress appropriated \$3 million dollars to dredge twenty foot deep shipping lanes between Duluth and Superior to modernize the harbor for deeper hulled vessels.

STREET, STREET

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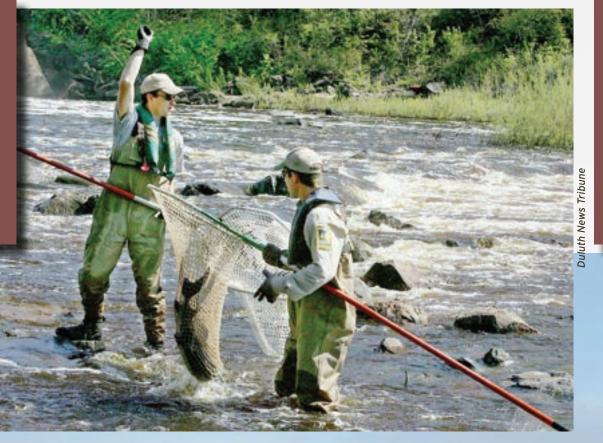
Cleaning Up the St. Louis River Estuary

The Western Lake Superior Sanitary District (WLSSD) was created in 1971 to treat wastewater and pollution in the Saint Louis River.

Historically, the neighborhoods and communities along the estuary used the St. Louis River as a means to dispose of wastewater and industrial pollution, often discharging it directly into the river untreated. This resulted in noxious odors, depleted oxygen, and large fish kills.



By 1929, the Minnesota State Board of Health concluded that the condition of the River made it unsuitable for fishing, swimming, and recreational boating.



The Clean Water Act, passed in 1972 allowed lawmakers to appropriate funds to build and improve wastewater treatment infrastructure across the country. One hundred million dollars was provided to build the WLSSD wastewater and treatment facilities.



The WLSSD Treatment Plant began operating in 1978, consolidating 17 inadequately treated wastewater discharges into one point that met state and federal discharge standards. Water quality in the St. Louis River rapidly improved. By the early 1980s, an increasing number of citizens returned to the river for fishing and recreation. Efforts are underway within the St. Louis River Area of Concern to address the legacy of toxic materials in sediments. With each remedy applied, the water quality is improved.

3

The St. Louis River Area **Concern** is an EPA of designation that has allowed state, local, and federal partners to direct extensive resources to the river cleanup and remediation activities. The miraculous recovery of the river over the last 30 years is a testament to this effort.

Western Lake Superior Sanitary District Treatment Facility

Neia-shi & Wubishingweka

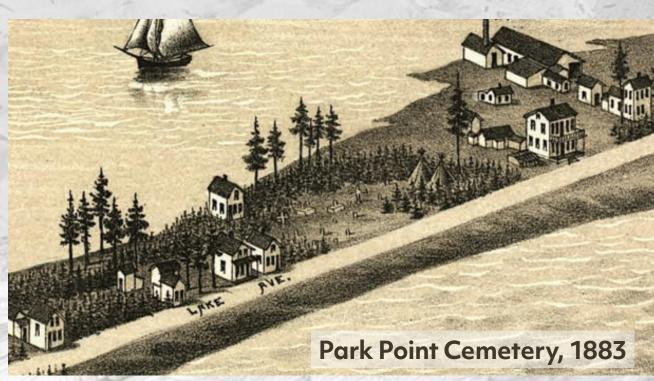
The Eternal Significance of Minnesota Point & Rice's Point



This long sandbar at the end of Lake Superior at the mouth of the St Louis River Estuary is formed by sand deposits from waves and long-shore currents deposited atop the estuary sediments. This landscape has been a settlement and crossroads for centuries, and remains a sacred landscape for the Ojibwe people. This landscape has since been heavily reconstructed to accommodate shipping, urban development and coastal armoring.

There was quite a settlement of Indians on Minnesota Point at that time, also two Indian burial grounds...

We nearly always had Indians for neighbors and they were always very good and kind to us... I often had rides in their birch bark canoes, and whenever they returned from the wild rice fields they gave to us bountifully....



At the time of European Settlement, Minnesota Point was an important summer encampment for the Ojibwe people and the Dakota before them. Some of the earliest trading posts were located where Canal Park currently sits. The Indians used to encamp early in the summer; their arrival was accomplished without the least noise or sound; one would awake to find the wigwams erected, the fires glowing and the beach lined with birch bark canoes, and they would as silently slip away about the time the wild rice ripened.

- Reminiscences of Mrs. Ann E. Thomas in the 1870's

Illustration by Henry Wellge, 1883, Library of Congress

The Native American burial grounds along Minnesota Point and Rice's Point have been subject to numerous disturbances over the years, as a result of storms, engineering projects, as well as excavation to move human remains and grave robbery. One such burial ground once existed in what is now Franklin Square on Park Point. In 1883, the bodies interred here were removed and re-interred elsewhere. The protection and recognition of these sacred landscapes is an ongoing effort by Minnesota's indigenous peoples.

Wiigwaasi-jiimaan

The birch bark canoe of the Native American Peoples

The Birch Bark Canoe

was a technological innovation perfect for navigating the inland waterways of the Great Lakes region. Light enough to be easily carried on portages and able to navigate both deep and shallow water, these vessels were hand crafted from materials from the region's forests and could be easily repaired if damaged.

Its frame is built from cedar or spruce wood. Sheets of carefully harvested birch bark are soaked in hot water and fit upon the frame, with the white outer bark inside the canoe, and its tan inner bark forming the outer hull. These panels are lashed to the frame using watap, the long slender roots of the white spruce and then sealed with a pitch made from pine sap and charcoal. A handmade canoe is a deeply personal item, reflecting the skill, value, and iconography of



An Ojibwe Birch bark Canoe, 1910

Minnesota Historical Center

Canoes are a key part of traditional Ojibwe life. Used

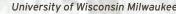
not only for transportation, but also for the gathering of food. In the summer months, the Ojibwe harvest Manoomin (wild rice) by collecting it in the hull of their canoes, and in the spring use it as a vessel for spearfishing walleye.

In Ojibwe culture, the prow is associated with the future and the stern with the past, placing the pilot at the confluence of both and serving as a vessel to carry their cultural spirit into the future.

This Canoe was built by Mino-Giizhig (Wayne Valliere), a Native birch bark canoe builder and member of the Lac du Flambeau Band. They work as an Ojibwe culture and language teacher and actively work to pass on the complex knowledge needed to continue

its builder and their culture.

this vital cultural legacy.



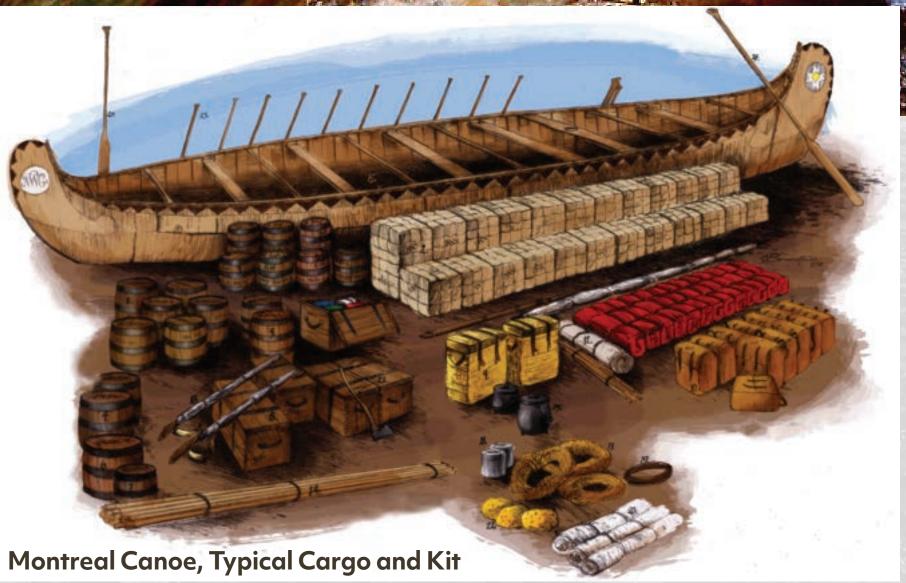
The Montreal Canoe

This canoe was the principal cargo vessel of the fur trade era.

Also known as the Canot

d'Maitre, it was based on the Native American birch bark design, but upscaled to improve cargo capacity and resistance. It was a symbol of pride for the Voyageurs who used it for both transportation and shelter during their fur trading expeditions.

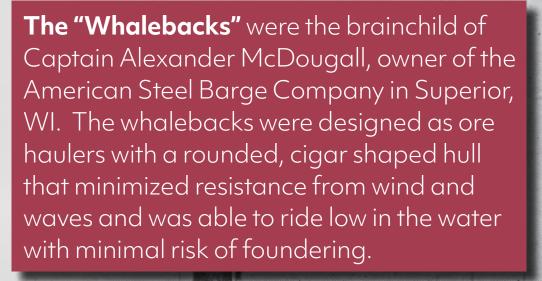
Shooting the Rapids, Francis Anne Hopkins, 1879 **The canoes** typically held between 8 and 16 people, were 35-40 feet long and could carry up to 8,300 lbs when fully loaded. hese canoes could travel around 1250 miles over a six week period, and were capable of being portaged across the land when necessary.



On portages, each Voyageur would be responsible for carrying 180lb loads, plus their own kit for 1/2 mile carries, followed by a rest (pose), upon which they would return to repeat the process, until all of the cargo and the canoe had been successfully carried to the end of the portage.

The SS Meteor & The Thomas Wilson

The Last Surviving "Whaleback" Ore Hauler & A Local Shipwreck





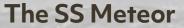
The Wreck of the Thomas Wilson

The Thomas Wilson, another "whaleback" ore carrier created by the Superior Shipwright Alexander McDougall, tragically sank less than three quarters of a mile from the Duluth Entry in 1902. Laden with iron ore, the ship was damaged in a collision with another vessel and sank in minutes, taking nine of its twenty crew members to the bottom with it.

The Thomas Wilson, 1892

The SS Meteor is the last surviving Whaleback ship, and the longest serving. Originally launched in 1896 as the Frank Rockefeller, it served as an ore hauler until 1927 when it was renamed the South Park, and converted to haul sand for a dredging company. During World War II it was renamed the SS Meteor and converted to be an oil tanker, and carried cargoes of crude oil, gasoline, and jet fuel until 1969 when it ran aground near Marquette, Michigan. The ship was then converted to a museum ship and returned to Superior in 1971 and remains open to the public for tours.





Superior Public Museums

The USS Menemsha

Built in Duluth, this vessel served as a cargo hauler, weather ship, patrol craft, convoy escort, and rescue ship from 1918 - 1951.

Originally the Lake

Orange, this vessel was built at the McDougall Duluth Shipbuilding Company in Duluth's Riverside Neighborhood in 1918. First commissioned as a Great Lakes Cargo Hauler, in 1942 it was renamed the Menemsha and converted to a weather ship to serve in the US Navy and later the Coast Guard. **During World War II**, the Menemsha was assigned to the North Atlantic Weather Patrol. It braved the storm tossed North Atlantic Ocean and the perils of German U-Boats to gather valuable weather data and rescue the survivors of torpedoed ships.

On August 11, 1943 the Menemsha's lookout spotted a surfaced U-Boat, U-760. She

closed to attack, shelling the U-Boat with gunfire, but failed to hit the enemy ship. Fearing ambush from another vessel, the Menemsha broke off the attack. On October 1943, the Menemsha was transferred to the Coast Guard, where she was rebuilt to be a gunnery training ship. After a long and valuable service, she was scrapped in 1951.



Duluth's Industrial Inner Harbor

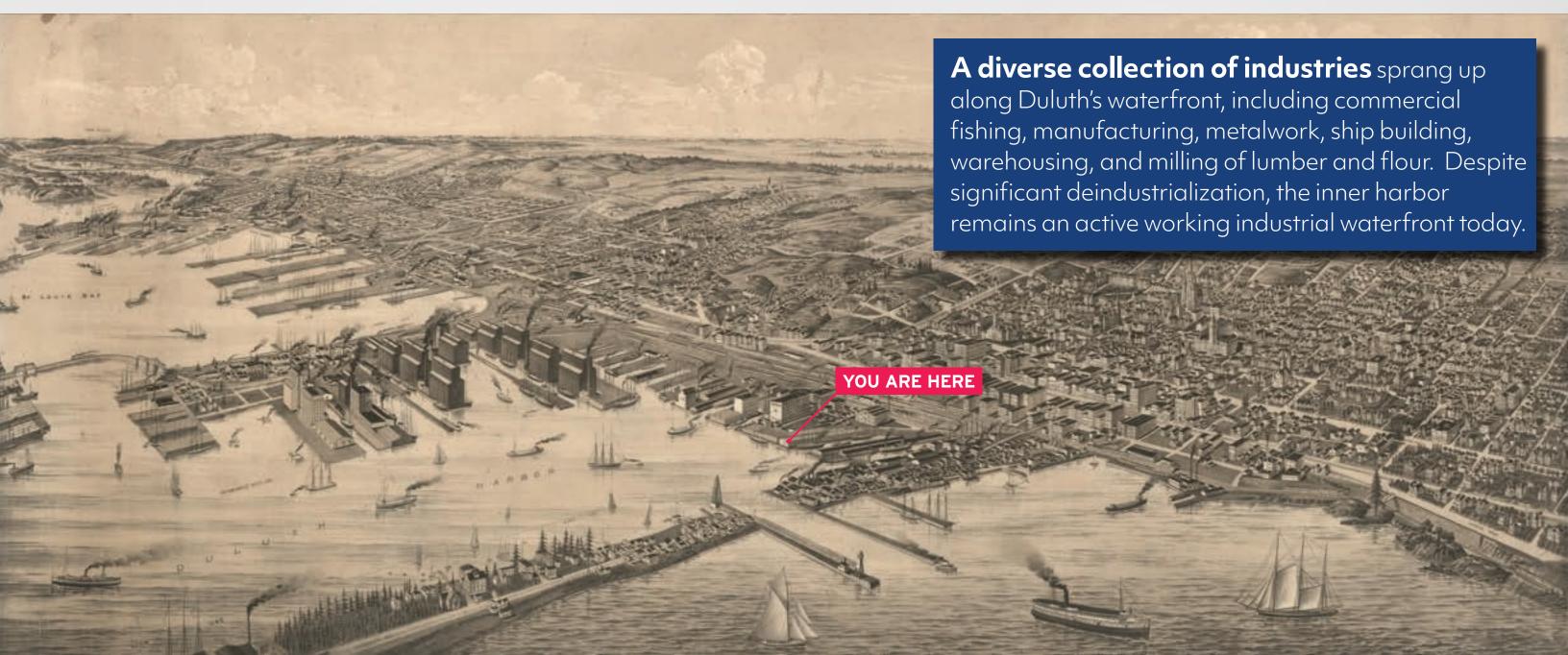
The Canal to the Inner Harbor provided a haven for industry & shipping, dramatically transforming the harbor in the late 1800's.

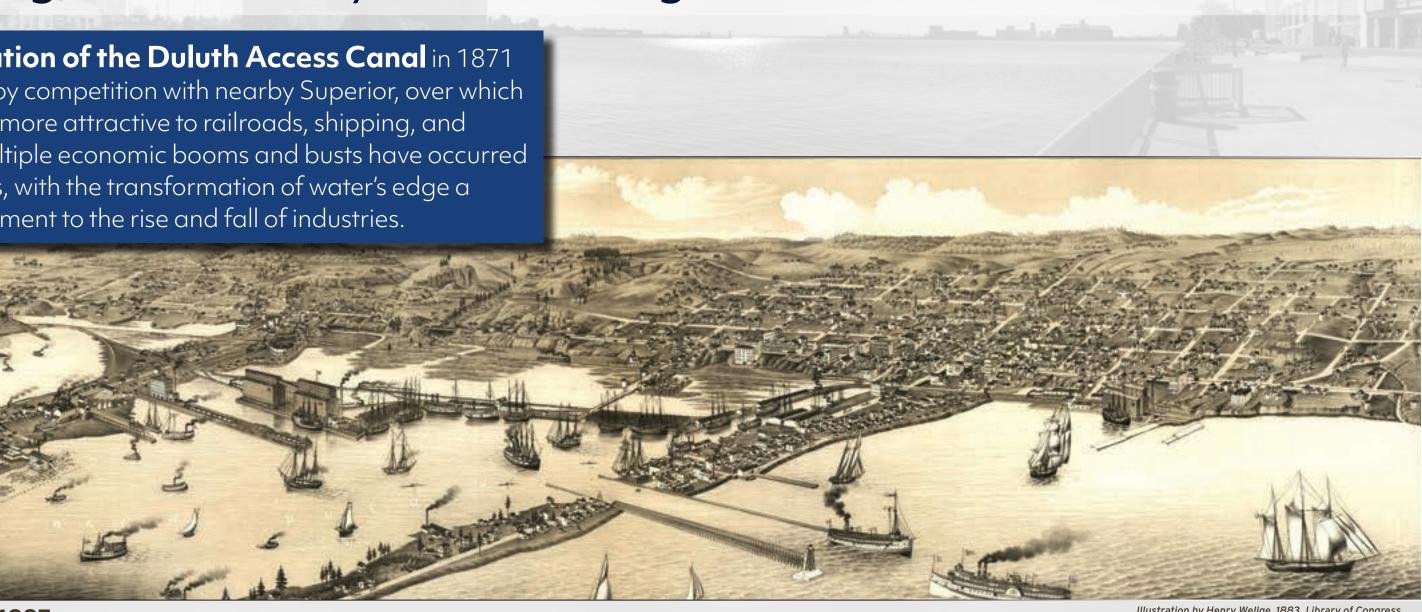
The excavation of the Duluth Access Canal in 1871 was inspired by competition with nearby Superior, over which city would be more attractive to railroads, shipping, and investors. Multiple economic booms and busts have occurred over the years, with the transformation of water's edge a physical testament to the rise and fall of industries.

View of Duluth, 1883

Illustration by Henry Wellge, 1883, Library of Congress

along Duluth's waterfront, including commercial fishing, manufacturing, metalwork, ship building, significant deindustrialization, the inner harbor





View of Duluth, 1893

Illustration by Henry Wellge, 1893, Library of Congress

North America's Furthest-Inland Seaport

The opening of the St. Lawrence Seaway 1959 connected Duluth and the Great Lakes to the marketplaces of the world.

ELEVATION

LAKE ERIE

LAKE ONTARIO

Great Lakes - St Lawrence River Elevation Profile

ELEVATION 573

LAKES MICHIGAN-HURON

Moving the raw materials of everyday life, ships sailing to and from the Port of Duluth traverse the Great Lakes and the St. Lawrence Seaway en route to the Atlantic Ocean and beyond.

ELEVATION 601

LAKE SUPERIOR

The Port has been driving the

Great Lakes freighters can move one ton of cargo more than 600 miles on a single gallon of fuel, and some freighters can carry as much as 70,000 tons of cargo. That makes waterborne shipping the most environmentally efficient method of moving bulk cargoes. By optimizing to transport cargo as far as possible on water, these vessels reduce carbon emissions and landside congestion.

Common cargoes include iron ore, coal, limestone, grain and cement – but the list of cargoes moving through this port stretches almost as long as Lake Superior herself. Recent improvements to the Clure Public Marine Terminal have modernized the facility to rapidly handle containerized goods

regional economy since the 1870s, generating \$1.4 billion in business revenues annually and supporting nearly 8,000 jobs. A total cargo value exceeding \$2 billion sails through Duluth's ship canal each year, or approximately \$7 million per day of the navigation season.



David Schauer

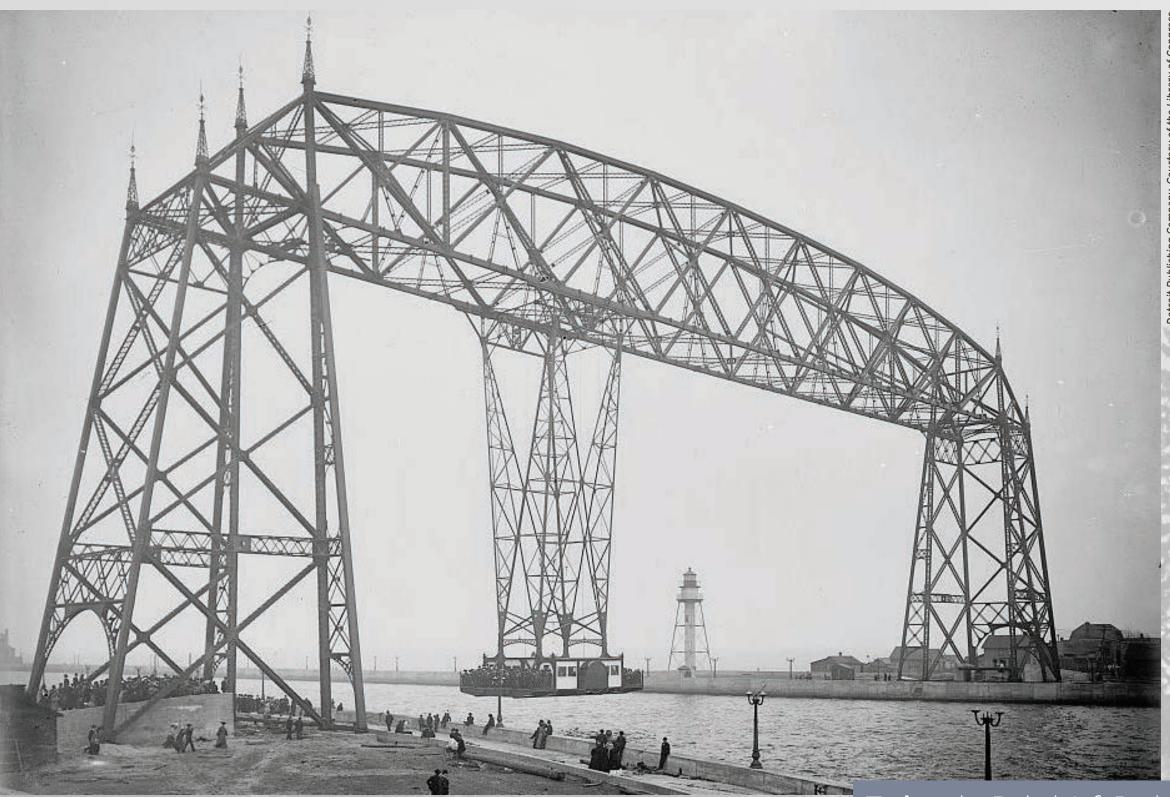
The Duluth Aerial Lift Bridge

The Duluth Aerial Lift Bridge is an iconic and beloved landmark of the Waterfront and a unique marvel of engineering.

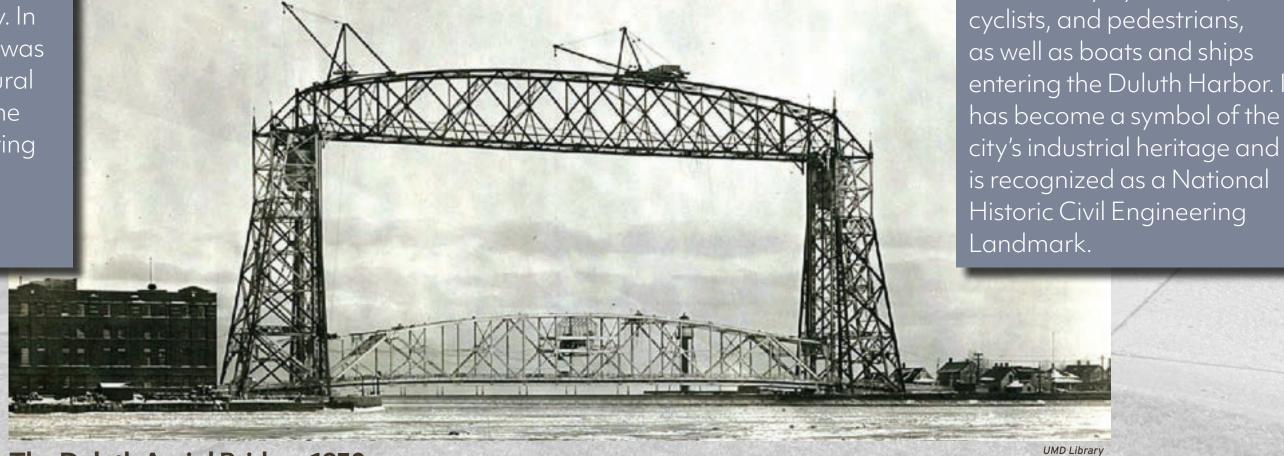
The Duluth Ship Canal, built in 1871, improved shipping access to the harbor, but cut off access to the Park Point Neighborhood. This led the City to build an improved crossing that would still allow tall ships to pass beneath.

The bridge, designed by Thomas McGilvray, the Duluth City Architect, and engineer Claude Allen Porter Turner was completed in 1905. It was a steel suspension bridge with a horizontal tramway that carried a gondola from one side to the other.

Over the years, the Duluth Lift Bridge has undergone several renovations and upgrades to improve its functionality and safety. In 1929-1930, the bridge was modified to add structural supports and replace the tramway with an elevating roadway platform that allows passage for automobiles.



The Duluth Aerial Bridge, 1905



Today, the Duluth Lift Bridge is used daily by vehicles, cyclists, and pedestrians, as well as boats and ships entering the Duluth Harbor. It

The Duluth Aerial Bridge, 1930

The 1905 "Mataafa Storm"

Vessels navigating Lake Superior on November 28, 1905, found themselves battling hurricane force winds.

The Mataafa appeared out of the squall in mid afternoon, steaming hard for the Duluth Ship Canal and the safe harbor beyond it. As the Mataafa approached the canal, currents and wind gusts forced the vessel against the north pier, carried it briefly back into the lake, and then slammed it broadside against the pierhead. Waves then carried the Mataafa roughly 150 yards from shore where she split in two and settled on the lake bottom.

Desperate sailors in the fore and aft cabins, both still above water, signaled for help. Duluth's U.S. Life Savers crew stood helplessly on shore, the storm too strong to launch their lifeboats.



That night thousands of Duluthians lined the shore, standing vigil as the storm pounded the wounded ship. When the Life Savers finally reached the Mataafa the next morning they found fifteen sailors alive in the fore cabin. Unfortunately, nine crewmen trapped in the aft cabin either drowned or froze to death.

Duluth's U.S. Lifesaver's Crew Struggling to Rescue the Mataafa

The Mataafa split and sank to the lake bottom

Lake Superior Maritime Collection

Friends of the Lakewalk

The Cribs / "Uncle Harvey's Mausoleum"

This obscure structure was originally an aggregate hopper, built to provide material for a construction boom that never took place

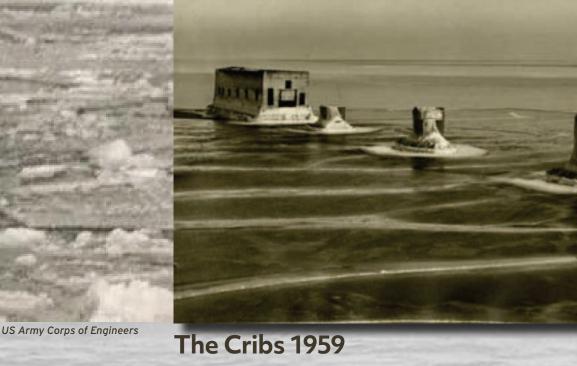
Harvey Whitney, a Superior businessman, built the structure speculatively in 1919 to provide sand and gravel for construction projects. He thought this could be used as fill material for wetlands, and the construction of a breakwater to create a new outer harbor for Duluth. When these plans did not take place and demand for the aggregate faltered, Whitney abandoned the structure in 1922.



The hopper was designed to receive aggregates by barge and transfer them via conveyor belt back to land where it could be directly loaded onto trucks bound for local construction projects. It is built atop a crib structure (stacked timbers backfilled with other media) and now is primarily used as a nesting site for ducks and other waterfowl.

The structure has been steadily collapsing over time. It's underwater support cribs have buckled in places causing it to list to one side. The columns that once held the conveyor aloft have one by one collapsed. The structure has been a destination for swimmers and urban explorers, but is dangerous and has been the site of numerous drowning deaths and accidents over the years.

The Whitney Brothers Gravel Business Structure, 1919



The Duluth Art Wall

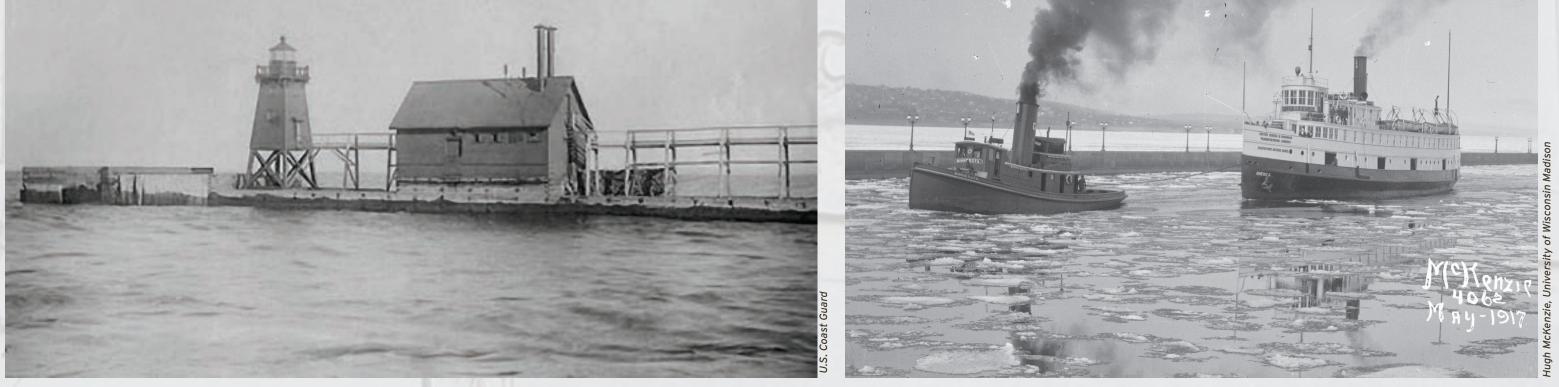
This mosaic art piece celebrates the maritime history of Duluth and the role that waterfront recreation plays in its quality of life.

In the 1870s, the opening of the Duluth Ship Canal and arrival of the railroad allowed Duluth to begin shipping grain to the east. The growing timber, brownstone, and coal industries increased the city's maritime traffic during the 1880s. In the next decade as vessels began shipping iron ore, Duluth became a major wholesale center, and commercial fishing expanded dramatically. In 1907 the Duluth-Superior Harbor—the world's largest inland seaport - briefly surpassed New York Harbor in tonnage, becoming the nation's largest port, a heydey for Duluth's Industrial history.



The Duluth Boat Club, 1911

When Gichi-ode' Akiing (originally Lake Place) was built in 1990, it created a land bridge across the interstate but left a large blank wall facing the water. Duluthians Mark Marino and Sandra Ettestad suggested covering the wall with a mosaic tile mural celebrating the city's maritime history and the recreational opportunities afforded by Lake Superior and the St. Louis River. **The 580 foot long mosaic** recreates over fifty photographs selected from the Lake Superior Maritime Collection archives. A team of eight worked for two months placing 1.2 million 3/4" inch square ceramic tiles made of seven different shades of blue onto 6,960 12" x 12" panels to create the final piece.



Duluth South Pier Front Lighthouse, 1893

The Minnesota pulling the SS America, 1917

Gichi-ode' Akiing Park

Designed by landscape architect Kent Worley and completed in 1990, Lake Place created a link from downtown to the waterfront.

When officials first proposed extending Interstate 35 through eastern Duluth, plans included placing the highway on piers several hundred feet out over Lake Superior. Thanks to concerned Duluthians, public access to the lake was preserved with a new plan incorporating a system of tunnels. Landscaping to reduce the highway's visibility resulted in the creation of four public green spaces including Gichi-ode Akiing Park, originally named Lake Place.



Sister City Sculptures (from left) Green Bear, The Stone, and Water & Friendship

Brian Rauvola, HBR Studios

The Park became a sculpture garden featuring pieces from Duluth's Sister Cities around the globe. The sculptures include 1992's Green Bear by Leo Lankinen and Valter Soini, a gift from Petrozavodsk, Russia; The Stone, created in 1993 by Kenneth Johansson and commissioned by Växjö, Sweden; and Koji Horito's Water and Friendship, a 1994 gift from Ohara-Isumi City, Japan. The Arising, by Almut Heer and Carla Stetson.





To heal the community, in 2019 Duluth's Indigenous Commission changed the park's name to Gichi-ode Akiing, Ojibwe for "a grand heart place." In 1854 the land that covers much of today's downtown was reserved for the family of Ojibwe elder and statesman Kechewaishe, aka Bizhiki or Chief Buffalo. But following his death, his son-in-law, trader Benjamin Armstrong, sold the land to European Americans. Artists have used the plaza and stairways as a canvas for temporary and permanent artwork honoring Kechewaishe and celebrating Anishinaabe culture.





Kechewaishe (Chief Buffalo) Mural

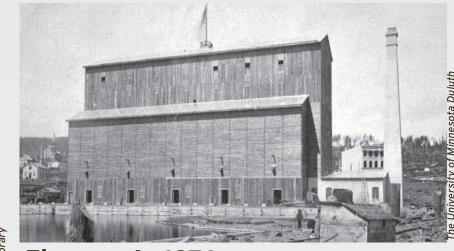
Brian Rauvola, HBR Studios

Duluth's Lost Outer Harbor

Before the Canal, Duluth's industrial waterfront faced the Lake.

Superior Entry, the only natural inlet from Lake Superior to St. Louis Bay, lies between Minnesota and Wisconsin Points seven miles south of where the town of Duluth was established in 1856. Before the Duluth Ship Canal was dug in 1871, the town developed an outer harbor to receive commercial shipping traffic, initially just a warehouse and dock near this spot. Duluth received little commercial traffic until 1869, when Jay Cooke's Lake Superior & Mississippi Railroad (LS&MRR) began construction in Duluth and the opening of the Canal thereafter.

LAKE AVE.





LS&MRR Freight Depot, 1869

U.C.

Elevator

Breakwater

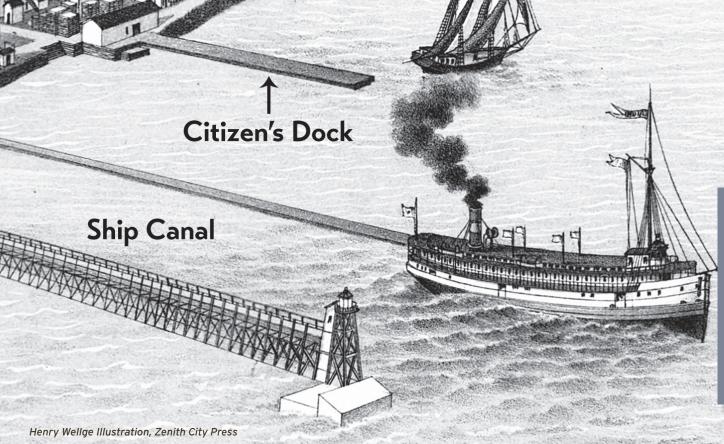
E. SUPERIOR ST

Duluth's Outer Harbor, 1870

Meanwhile, Duluth's first mayor Joshua Culver financed the construction of Citizen's Dock, a municipal wharf for commercial and passenger vessels that extended into the lake off of Minnesota Point. **Cooke** built a freight depot, warehouse, and dock along the lake between Third and Fourth Avenues East and also financed the construction of Elevator A, Duluth's first grain terminal. A breakwater was built to protect docked vessels from Lake Superior's often treacherous waters, jutting out into the lake from the foot of Fourth Avenue East, of which some remnants remain.

> LS&M RR Facilities

TE





The breakwater did not hold up against Lake Superior storms, making the outer harbor notoriously unsafe. After the canal was dug, Duluth developed an inner harbor along and between Minnesota and Rice's Points, safe from the lake's fury. The outer harbor remained in use until 1886, when fire destroyed its grain elevators. Soon thereafter, the railroad sold its facilities along the lake. By then little remained of the breakwater and Citizens Dock.

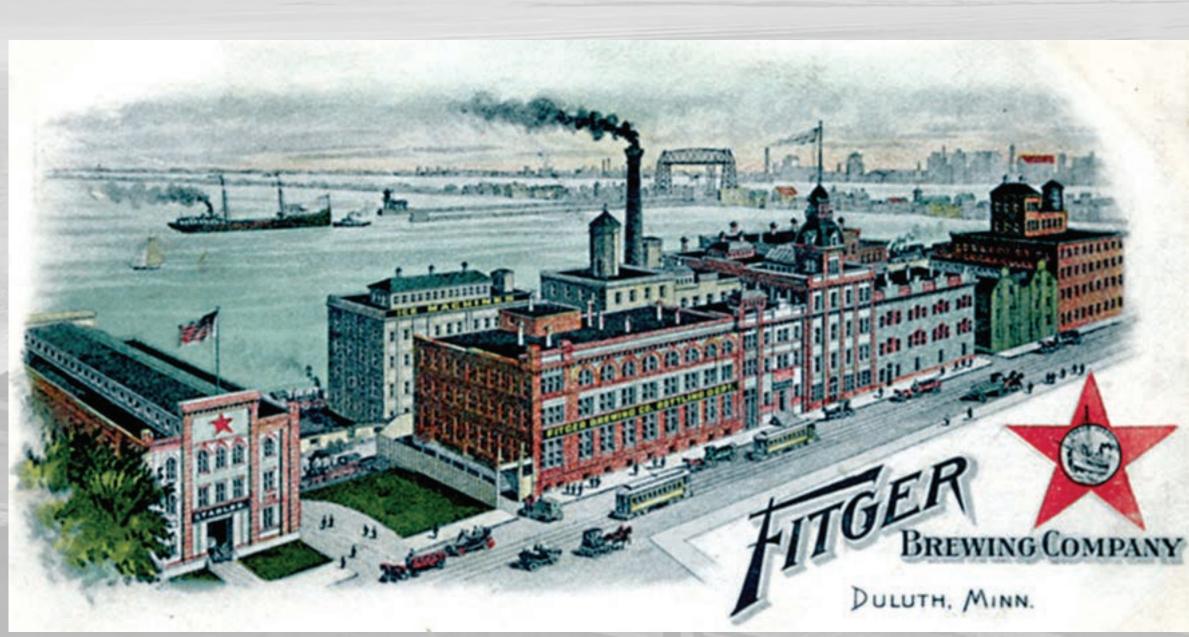
The Historic Fitger's Brewery

Duluth's first brewery was built in 1857, but in 1881 the owner built a larger brewery on this site and hired August Fitger, a graduate of one of Germany's finest brewing schools, as their brewmeister.

Fitger's Beer quickly became one of the most popular beers in Minnesota, innovating in the sale of bottled beers for export to a larger regional audience. The brewing complex was steadily expanded over the first decades of the 20th century, including a brewery saloon on site. The advent of Prohibition in 1920 upended the brewing business. Fitgers survived this period by transitioning to products such as soda pop and candy, but quickly transitioned back into brewing alcoholic beverages when Prohibition ended in 1933.



A. Fitger & Co's Brewery with horse drawn carts, 1881





Fitgers: A Brewery

Canned Beer, 1935

The Brewery boomed in the period of the 1930's and 1940's, diversifying its offerings to include champagne and canned beer. The Fitgers / Anneke families sold the brewery in 1944, but the brewery continued operating until 1972 when it closed its doors after 115 years in operation. The Fitgers Brewery Complex reopened in September 1984 with a 48 room hotel, three full service restaurants, and a retail center. In 1995, a group of Duluth business people bought the complex and have

improved it to have a spa,

luxury suites, a theater, and a

brewpub where beer is once

again brewed and sold on site.

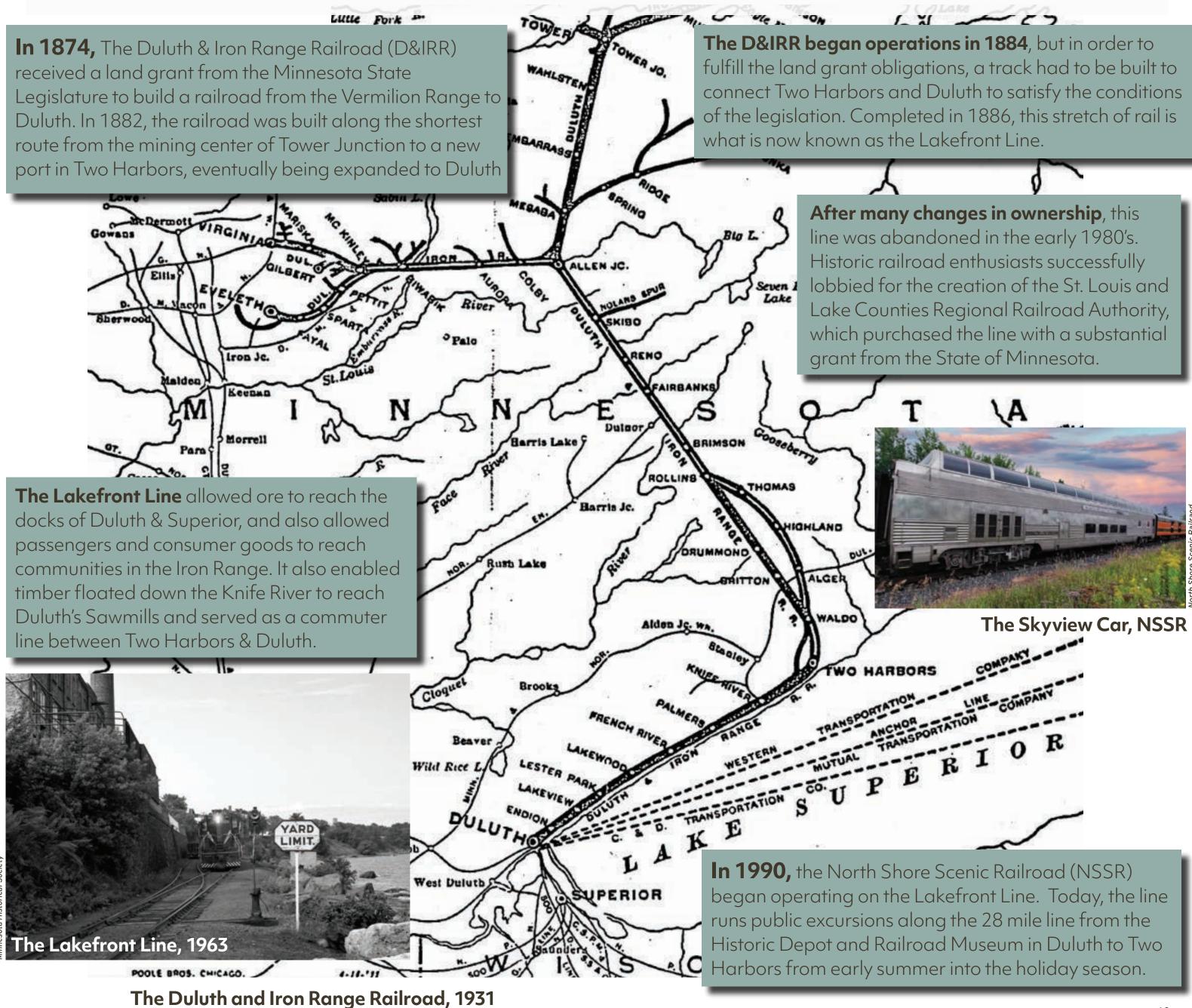
Postcard of Fitgers

Fitgers Brewing Company

17

The Duluth & Iron Range Railroad

As the iron ore industry developed in Minnesota, this line provided a direct connection to the rapidly growing Iron Range settlements.



Minnesota Historical Society

Coastal Resiliency

The City of Duluth has committed to reconstruct and harden its shoreline to protect the Lakewalk and vital urban infrastructure.

In 2017 and 2018, a series of major storms did significant damage to the Lakewalk and Brighton Beach, necessitating their closure to the public. The storms caused an estimated \$30 million dollars in damage and were declared state and federal disasters.

The City has embarked on a multi-year process to rebuild the Lakewalk and harden the coastline against increasingly powerful storms. This effort is funded by a collection of local, state, and federal funds to protect the vital infrastructure that sits along Duluth's waterfront.



Damage to the Lakewalk, 2017

Bluffs and Paths along the shoreline have seen major erosion and bank failure in recent years. This requires the construction of new coastal revetments and resilient trails. Duluth is also utilizing this opportunity to improve community access to the waterfront, incorporate new parks programming, and to restore North Shore plant communities in areas disturbed by human use.

The large rocks brought in as rip-rap for shore protection are mainly made of the Duluth Gabbro (1.1 billion years old), and taconite from the Mesabi Iron Range (1.85 billion years old).

Reconstructed Lakewalk and Coastal Revetment, 2022

Endion Station

The original location of Endion Station was in the path of Interstate 35 but the building was preserved as a historic landmark.

Endion Station, was a passenger train depot in Duluth, built in 1899 as the first stop on the Lakefront Line to Two Harbors. Designed in the Romanesque style by noteworthy local architect I. Vernon Hill, Endion Station is one of the last of its kind. The structure once stood near this location, and was a major hub for commuters from the East End and freight traffic from the North Shore and the Iron Range. In the second half of the 20th Century, rail traffic on the Lakefront Line declined with passenger traffic ceasing in 1961, and the last freight traffic being discontinued in 1978.



Moving Endion Station, 1986

In 1980, the depot was purchased by a local architect who renovated it for use as an office. Due to the efforts of local rail historians, the Station was placed on the National Register of Historic Places in 1975.

In 1985 the Minnesota Department of Transportation acquired the Depot and planned to demolish it. Because of its status as a historic landmark, State and local officials decided instead to move the Depot to Corner of the Lake Park in 1986, where it still stands. In 2012 ,the City of Duluth sold the station, and it now is privately owned.

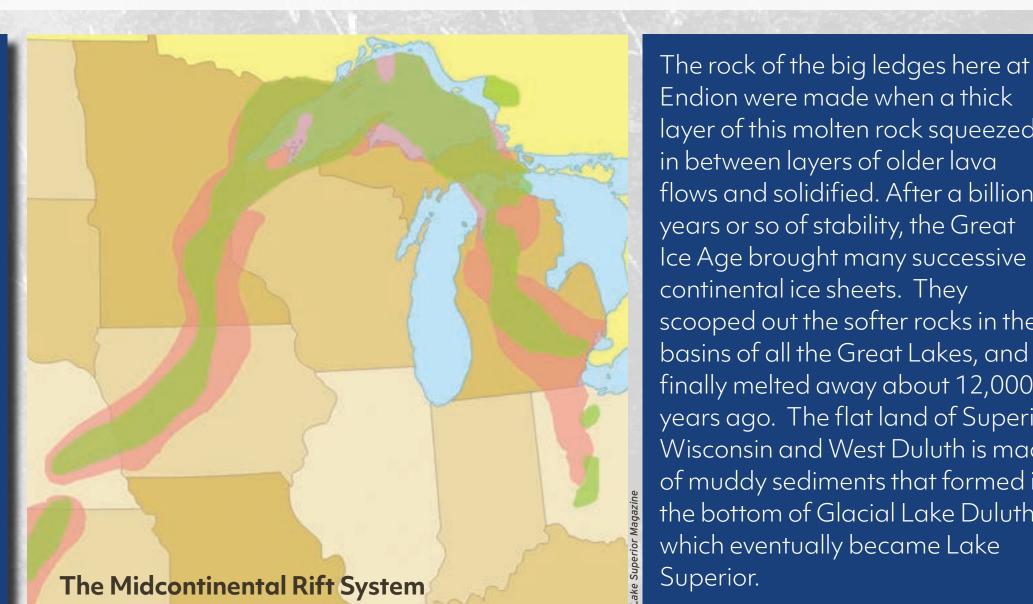


Endion Station with Log Train, 1910

The Endion Ledges

A Glimpse of Lake Superior's Firm Foundation

Duluth's history goes back to the deep geological story of the origin of its bedrock, and all the dramatic geological events that have shaped its hills and shoreline. The bedrock that underlies Duluth and the North Shore was formed about 1.1 billion years ago, when the continent began to split apart along what is now known as the Midcontinent Rift. This involved huge amounts of molten rock welling up from beneath Earth's crust and erupting as hundreds of lava flows, mostly the dark variety called basalt. This rock spread out in sheets to form a hard new layer of bedrock. The magenta and green areas show these plumes of hot rock rose and spread under this stiff older rock and dragged it apart, allowing molten rock to pass up to the Earth's surface.



Endion were made when a thick layer of this molten rock squeezed in between layers of older lava flows and solidified. After a billion years or so of stability, the Great Ice Age brought many successive continental ice sheets. They scooped out the softer rocks in the basins of all the Great Lakes, and finally melted away about 12,000 years ago. The flat land of Superior, Wisconsin and West Duluth is made of muddy sediments that formed in the bottom of Glacial Lake Duluth, which eventually became Lake Superior.



A basaltic fissure eruption, 1.1 billion years ago.

In 1847 the U.S. Government, planning for the potential ceding of this Ojibwe land in Minnesota Territory, launched the first scientific survey of this area's rocks and its mineral resources. Chosen to lead this effort were David Dale Owen (1807-1860) and Joseph G. Norwood (1807-1895), who had studied geology in Europe.



The Endion Ledges

They traveled on foot and by canoe. There were no maps, so they made their own primitive ones with a compass, sextant, and barometer. They often remarked about the wild beauty of the scenery, much of which is now fortunately protected in state parks. Their pioneering final report was published in 1852. The Treaty of LaPointe (1854) followed, and Minnesota statehood in 1858.

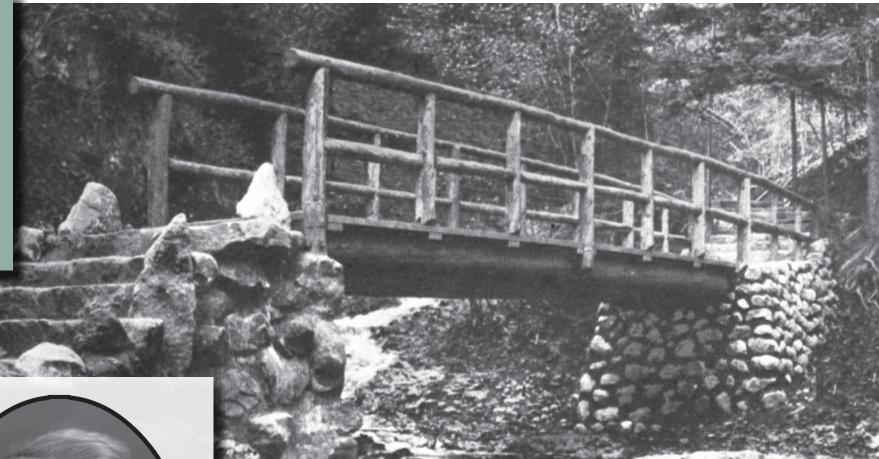
Tischer Creek & Congdon Park

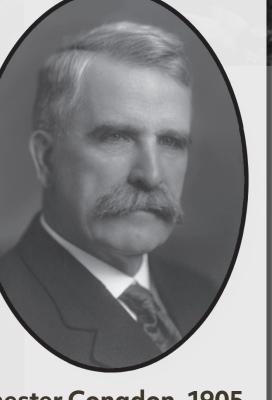
In 1905, Chester and Clara Congdon began construction of their celebrated Duluth estate, Glensheen, which was completed in 1908.

Their estate included many acres of wooded land along Tischer Creek, extending from the shore of Lake Superior up to Greysolon Road. The property had been homesteaded in the 1850s by Swiss immigrants Urs and Elizabeth Tischer, the stream's namesakes. The Tischers farmed their land and operated a popular boat landing at the creek's mouth. Briefly in 1880 the Tischer homestead served as a public beer garden on Sundays.



Stone Stairways along Tischer Creek, 1929



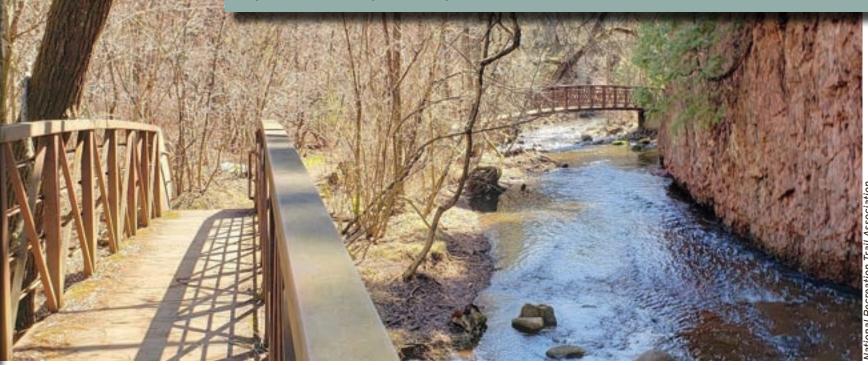


Chester Congdon, 1905

Bridge in Congdon Park, Date Unknown

The city accepted Congdon's offer and two years later named the new park in his honor. In 1909 Congdon hired landscape architect Charles W. Leavitt, the same man who had designed Glensheen's gardens and grounds (which included rustic paths along the creek) to prepare a landscape plan for the park. Within two years the city constructed an eight-foot wide bridle path and a footpath along the stream that included stairs, rustic bridges, and stepping stones. Congdon Park Drive opened along the park's western border in 1911. Glensheen Historic Estate is now owned by the University of Minnesota Duluth and is open to the public year-round for tours.

Chester Congdon proposed a public park along Tischer Creek between Greysolon and Vermilion Roads the same year work began on Glensheen. Congdon's East Duluth Land Company already owned much of the land, and he offered to donate it and also cover the cost of purchasing additional property for the park. Tischer Creek served as a sewer for several neighborhoods upstream from Vermilion Road, and its water was badly contaminated. Congdon wanted to use the creek's water for Glensheen's extensive gardens, and his offer was contingent on the city diverting the sewage.



The Lakeside & Lester Park Neighborhoods

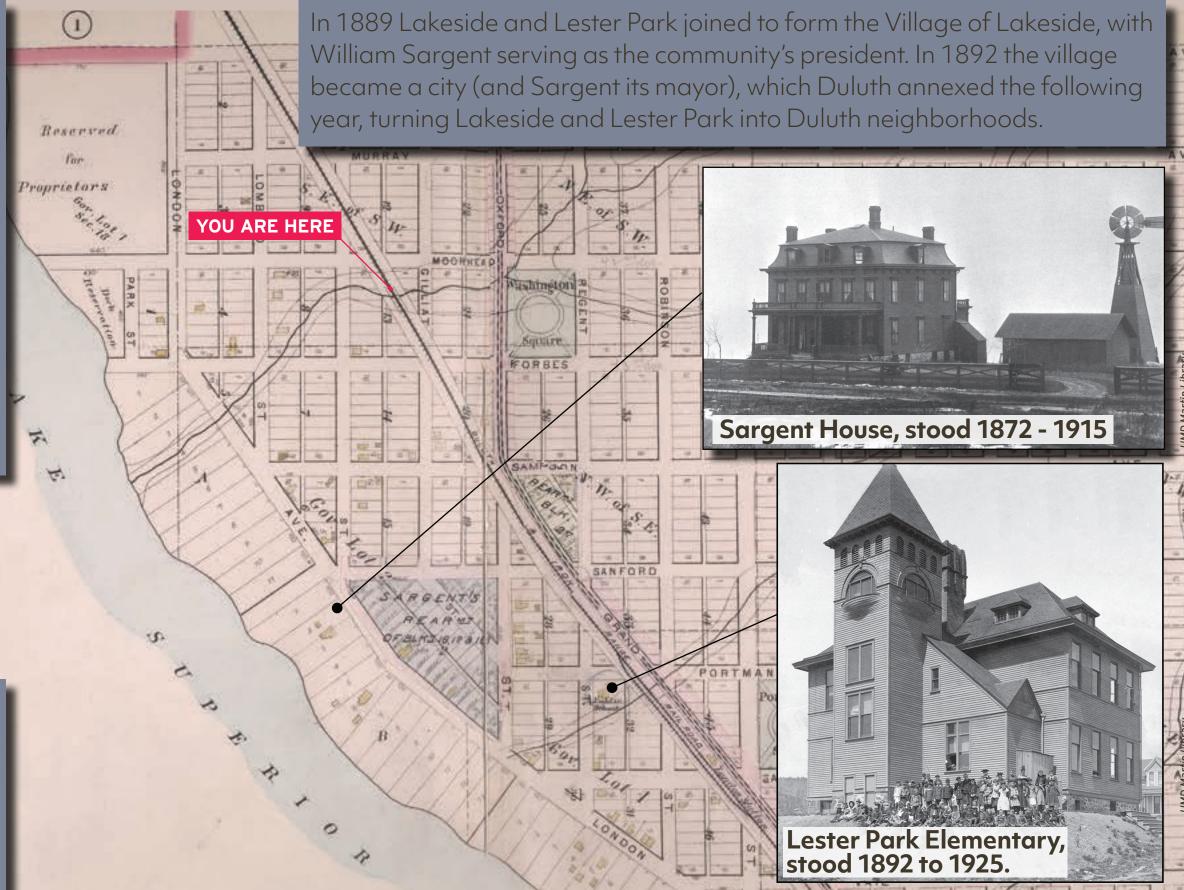
This historic neighborhood emerged over decades, changing names multiple times as wealthy investors built a town.

The roots of the Duluth's Lakeside and Lester Park neighborhoods reach back to 1856 when J. B. Bell platted a new town site. It sits between Fortieth and Forty-Third Avenues East from Lake Superior to today's McCulloch Street. He named it Belville after himself. The following year the Financial Panic of 1857 halted all growth in the region, and no one ever built a permanent home in Bellville.

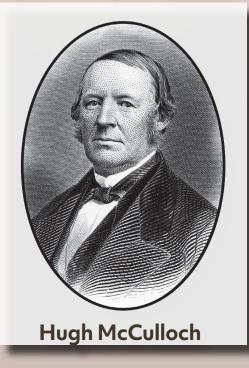


Atlas of the City of Duluth, 1890

In 1871 Hugh McCulloch purchased a parcel of land, including Bellville, between today's Fortieth and Fiftyfourth Avenues East from the lakeshore to today's Colorado Avenue. McCulloch was the U.S. treasury secretary from 1865 to 1869 and a business associate of Philadelphia financier Jay Cooke, who invested heavily in Duluth between 1869 and 1873. McCulloch named the streets and public squares of his town for English noblemen and landmarks as well as prominent members of Cooke's banks, Cooke's family, and himself. He called the community New London.



LAKESIDE



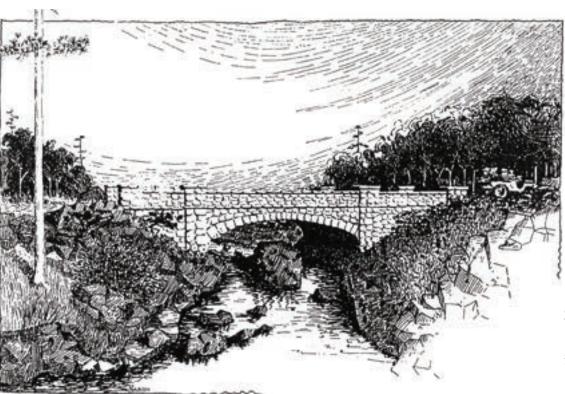
New London's first residents were General George B. and Mary Sargent, who built a home at Forty-fifth Avenue East and London Avenue (now London Road). Sargent, Cooke's agent in Duluth, purchased all of New London from McCulloch following the Financial Panic of 1873. George Sargent died in 1875. In 1886 the Sargent's son William and other prominent Duluthians formed the Lakeside Land Company, which purchased New London from Sargent's mother and began buying property between Fifty-fourth and Seventy-fifth Avenues East. Because the Lester River ran through the center of this new development, they named it Lester Park.

The Bridges of Lester Park

Recreation on the Lester River and the cascades of Amity Creek

The Lester River and Amity Creek converge upstream from where the Lester flows into Lake Superior. This convergence was a popular recreation destination long before the creation of Lester Park, attracting anglers, picnickers, and others to what one local newspaper called "an enchanted land of fairy-like beauty."

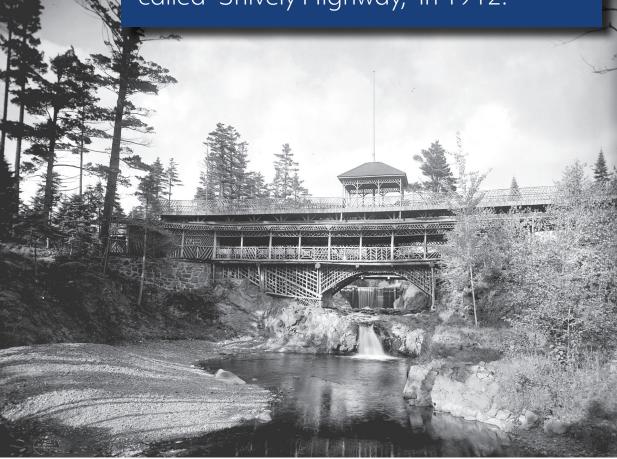




BOARD OF BARK COMMISSIONERS TYPICAL BRIDGE ON SNIVELY ROAD

Bridge Illustration for Seven Bridges Road, 1912

In 1897 John Busha and two of his sons built a rustic bridge over one of the Lester's waterfalls. Using logs from nearby cedar trees they harvested themselves, the Bushas assembled a two story footbridge featuring picnic facilities and adorned their work with Ojibwe carvings reflecting John Busha's maternal heritage. Unfortunately, by 1916 the bridge's upper deck had become unstable and was removed. The lower deck was disassembled in 1931. In the 1890s two carriage paths, Occidental and Oriental Boulevards, were constructed along the banks of Amity Creek within the park. The remnants of Oriental Boulevard are now a cross-country ski trail. Occidental Boulevard remains, merging with Seven Bridges Road, which crosses the creek seven times on stone bridges built in 1917 before reaching Skyline Parkway. The road was originally constructed in 1907 by Sam Snively, Duluth's mayor from 1921 to 1938, and featured ten wooden bridges that led to Snively's farm. Snively donated the road, first called "Snively Highway," in 1912.



Bridge over Amity Creek, 1908

Lester Park Rustic Bridge, 1899

The park was originally a twenty-acre triangle established in 1891 when the Village of Lakeside, including the neighborhoods of Lakeside and Lester Park, became a city. It was first named Stearns Park for Ozora P. Stearns, a district court judge and the president of the Lakeside Land Company, which developed the community. When Duluth annexed Lakeside in 1893, the company donated the park to the city. While city officials renamed it Lester River Park, everyone called it simply Lester Park. By 1936 it had grown to 46 acres.



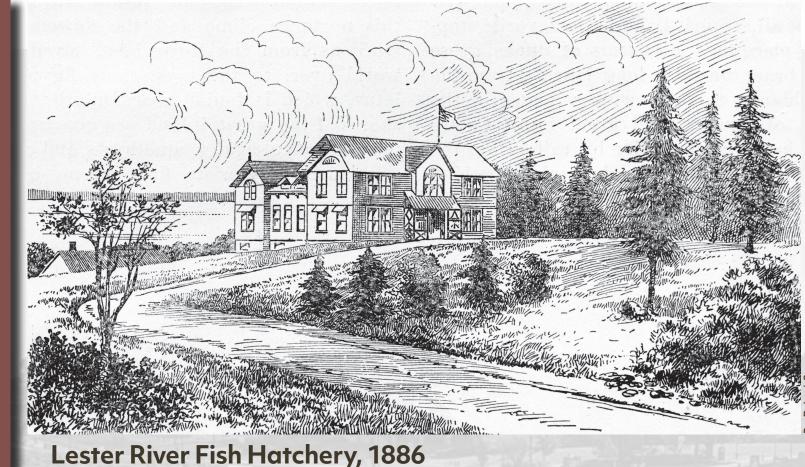
Lester Park Pavilions, 1900

The Lester River Fish Hatchery

An archictectural relic from an ongoing effort to study and improve the fisheries of Lake Superior.

Duluth's Lester Park Fish Hatchery was developed by its first superintendent, Dr. Robert Sweeney, a Philadelphia Quaker who first came to Minnesota in 1852. By the mid-1880s it was said that "no man in the state and probably the United States knew more about fish" than did Sweeney. At that same time, Minnesota lawmakers were backing an effort to create a federal fish hatchery on Lake Superior to help its growing commercial fishing industry.





Dr. Sweeney, then president of the Minnesota Fisheries Association, was asked to develop the hatchery at the Lester River's mouth. Newspapers soon touted the project as the "largest and the best" such facility "in the world." Sweeney himself designed the hatchery's central building. When first constructed, the complex contained not only the main hatchery, but also a pump house, a boat house, a carriage barn, and homes for both the facility's superintendent and supervisor and their families.



UMD Martin Li

Using eggs found in female fish caught by local fisherman—eventually up to 150 million of them annually—the hatchery raised whitefish and lake trout fingerlings. Most of the hatchery raised fish were released at the mouths of streams along Lake Superior's Minnesota North Shore and sometimes its Wisconsin South Shore. When the state-operated French River Hatchery opened just a few miles up the shore in 1918, the two laboratories worked together.

Lester River Fish Hatchery, 1890

By 1946 the Lester River's waters had become too warm for most fish, forcing the hatchery's closure. The University of Minnesota Duluth purchased the laboratory in 1947 and converted it into the school's Limnological (inland waters) Research Station, but it has sat mostly vacant and unused since the 1970s. It was placed on the National Register of Historic Places in 1978 and in 2012 UMD renovated the building. (The French River Hatchery closed in 2018.).

The Largest Freshwater Lake in the World

Lake Superior is a natural wonder, Earth's largest freshwater lake and the heart of a threatened but resilient ecoregion

Lake Superior is cold and clear. Its surface is sometimes calm and shrouded in fog, sometimes roughened by waves closer together and steeper than those of the ocean, sometimes battered by threatening storms. Its shores vary from rocky precipices to mammoth dunes and colorful sandstone to wide beaches and dark, verdant forests.

11,000 years ago the Lake Superior basin was filled with glacial meltwater to form Glacial Lake Duluth - 2,900 cubic miles of water, enough to flood all of North and South America a foot deep. If the lake were miraculously emptied it would take almost 200 years to re-fill.

Minnesota

St Louis River

Duluth

Glacial Lake More than 200 rivers flow into Superior, the largest being the St Louis River in Duluth and the Nipigon River in Ontario. Superior is the deepest of all the Great Lakes, with a maximum depth of 1,333 feet, more than 1/4 mile.

Nippigon River

Lake Superior has 2,730 miles of shoreline much of it still wild. 88% of the lake's watershed is forested. The long term protection of these wildlands is critical to protecting the integrity of this ecoregion from impending development.

Sault Ste Marie

Mackina

City

26

Ontario

Canada

Lake

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Marquette

Michigan

Lake Superior

Ashland

Wisconsin

Lake Superior has the largest surface of all freshwater bodies in the world - 31,280 square miles, equal in area to Massachussets, Conneticut, Rhode Island, Vermont, and New Hampshire combined. It stretches 350 miles from east to west and 160 miles north - south. Just 2.7% of the Earth's water is fresh water, most locked in polar ice caps or underground reserves. A fraction of one percent lies on Earth's surface: 10% of the world's accessible surface water, more than all the rest of the Great Lakes added together stands before you.

Thunder Bay

Extents of Last

Glaciation

~ 10,000 BCE

CHIEF BUFFALO MEMORIAL MURALS



SCAN THE CODE TO LEARN MORE. AB

These murals were designed and painted collaboratively by a team of artists led by Moira Villiard (Fond du Lac Band of Lake Superior Chippewa direct descendent), including Michelle Defoe (Red Cliff Band of Lake Superior Chippewa), Awanigiizhik Bruce (Turtle Mountain Band of Ojibwe), and Sylvia Houle (Turtle Mountain Band of Ojibwe), with assistance from over 500 community volunteers. The walls feature both historical and contemporary depictions of Indigenous people connected to our region, maps of both treaty territories and Chief Buffalo's famous journey, Ojibwe stories and folklore, and traditional florals. This project was honored in a ceremony in 2019 and continues to serve as a space for reflection and gathering for both Indigenous and non-Indigenous community members.

Chief Robert (Bob) Buffalo is the hereditary Chief of the Red Cliff Band of Lake Superior Chippewa and a direct descendant of Chief Buffalo. Alongside the Red Cliff Tribal Historic Preservation Office and other community knowledge holders, Bob led as a consultant on this project.

yanimadeit

From left: Sylvia Houle, Awanigiizhik Bruce, Michelle Defoe, and Moira Villiard.

ABOUTS





THE STORY

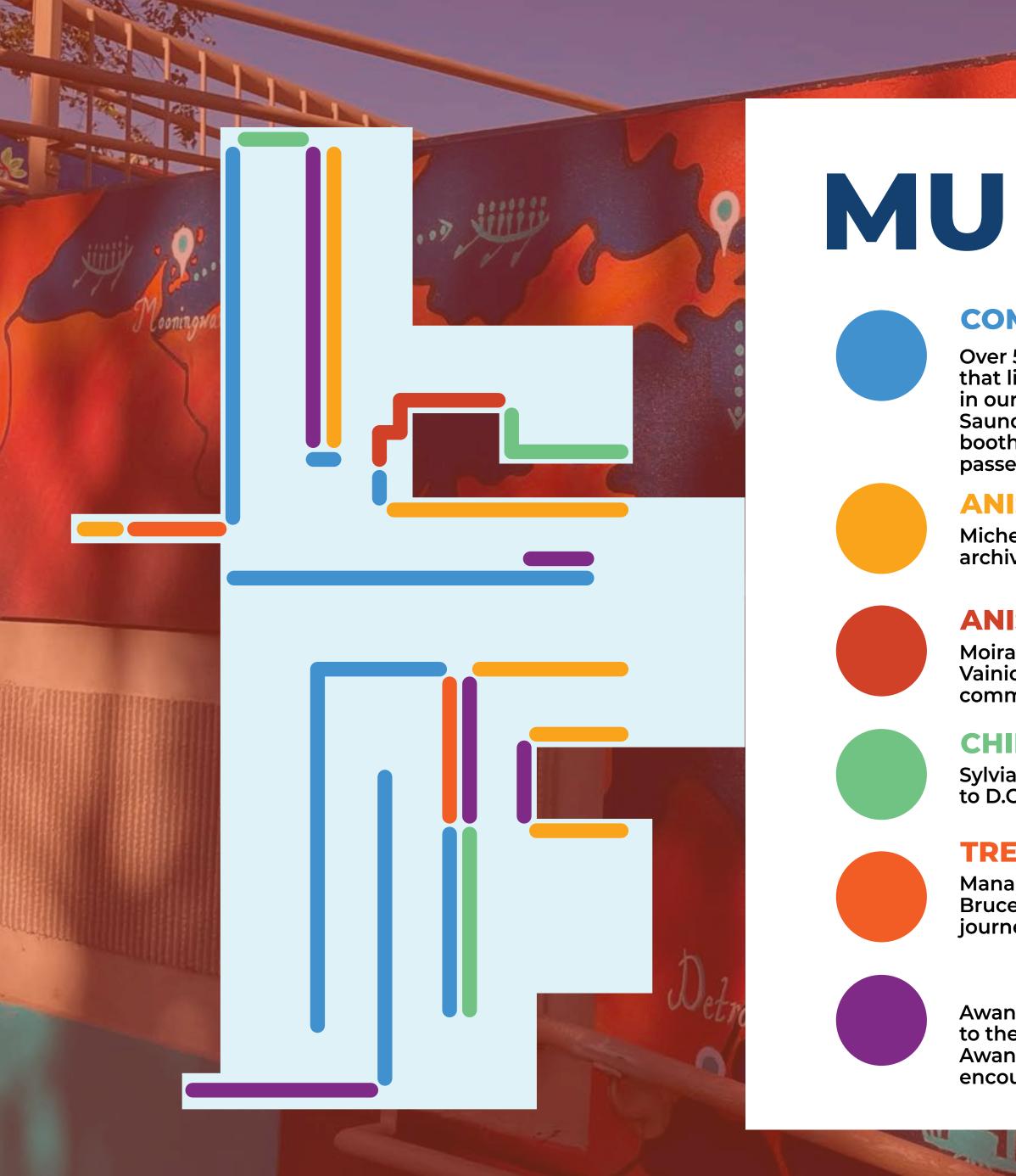
Chief Buffalo (circa 1759 – September 7, 1855), known as Bichiki (Bizhiki, Buffalo/Bison) and Gichi-waishke (Gichi-weshkiinh, literally Great Renewer but referencing the Woodland Buffalo/Bison), was a revered figure in the history of Ojibwe people in the western Lake Superior region. Born around 1759 at La Pointe on Madeline Island, he was a member of the Loon clan. He became a compassionate leader for his people in dealings with the British and American governments. In 1852, Buffalo and a party of others made a long journey to Washington, D.C. to protest Indian Removal policies that the United States was implementing; the Minnesota Territory at the time was particularly keen on enacting these policies. Specifically, the Minnesota Territory was responsible for the Sandy Lake Tragedy of 1850, which resulted in the intentional deaths of over 400 Ojibwe people. Buffalo's journey resulted in the signing of the 1854 Treaty of La Pointe (10 Stat. 1109), which created permanent homes in reservations throughout the region, and also established the guarantee of hunting, fishing, and gathering rights for Ojibwe people.

DIBAAJIMOWIN

Ogimaa Bizhikiban (gaa-bimaadizid 1759 - Waatebagaa-Giizis 7, 1855). Bizhiki gaye Gichi-weshkiinh izhinaakaazo. Apiitendaagozi a'aw Ogimaa Bizhikiban besho omaa Gichi-gamiing. Giiondaadizi imaa Mooningwanekaaning 1759. Maangwan odoodeman Giigizhewaadizi gaa-izhi-niigaanizid, megwaa go gii-gichi-ashodamaagegwayakondiwaad. Gii-izhaawag imaa Washington, D.C. ji-gibitinigewaad 'Indian Removal Policies' Bizhiikiban miinawaa odinawemaaganan. "Mikwendaagoziwag (Sandy Lake Tragedy)" gii-maji-inakamigak omaa Minnesota Territory-ing. Indawaaj giinibowaad ji-onji-awanidamaad awashime niiwaak Anishinaabeg. Giibabaamaadizi awe Ogimaa Bizhiki jiashodamaage-mazina'ige-ked 1854. Ogiiishkonaanan ishkoniganan mii dash ashodamaagewaad ji-giiyosewaad, noojigiigoonyiwewaad, asiginamowaad Anishinaabeg.



Translated by Awanigiizhik Bruce and Michelle Defoe with editing support from fluent Ojibwemowin speakers. Financial support for these signs was provided by the Northland Foundation through the Maada'ookiing Grassroots Grant, American Indian Community Housing Organization, and the Anishinaabe Fund and Henry & Sarah Wheeler Historical Awareness Fund of the Duluth Superior Area Community Foundation.



MURAL THEMES

COMMUNITY PAINTINGS

Over 500 community members came together over 3 years to design the fish that line the walls of the murals. They serve to honor the many aquatic relatives in our region. Red Cliff Boys & Girls Club of Gitchigami, Waylon Lanham, Laurel Saunders, and guests visiting the Fond du Lac Tribal & Community College booth at Art in Bayfront Park all contributed greatly to this walls, in addition to passersby and community volunteers.

ANISHINAABE FLORALS

Michelle Defoe drew inspiration for floral designs from moccasins in the archives of the Minnesota Historical Society.

ANISHINAABE TODAY

Moira Villiard referenced photos taken by Grand Portage Ojibwe descendant Ivy Vainio to create images that depict Indigenous people today and feature community members from the region interacting with the land.

CHIEF BUFFALO AND THE SANDY LAKE TRAGEDY

Sylvia Houle was tasked with illustrating components of Chief Buffalo's journey to D.C. as well as creating a commemorative wall for the Sandy Lake Tragedy.

TREATY MAP AND BUFFALO'S JOURNEY MAP

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Mana Bear Bolton and Conor Fairbanks were hired alongside Awanigiizhik Bruce to design walls that feature contemporary treaty lands as well as the journey of Chief Buffalo to Washington D.C.

Awanigiizhik in partnership with the other lead artists designed walls dedicated to the Ojibwe creation story, constellations, and supernatural beings. Awanigiizik also designed a spider wall to honor the many spiders we encountered in the park.