



# BRADSTREET'S LANDING

MASTERPLAN REPORT

JULY 2018



SMITHGROUP JJR



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# ACKNOWLEDGMENTS

Thank you to the City of Rocky River for inviting SmithGroupJJR into your community. It was our pleasure working with stakeholders and residents to create a masterplan document for Bradstreet's Landing. The park is a significant place with a unique story to tell. Our vision is one where Bradstreet's Landing leverages that history to create a flourishing future.

## DISCLAIMER:

This report was prepared by SmithGroupJJR under award NA16NOS4190094 from the National Oceanic and Atmospheric Administration, U.S. Department of Commerce through the Ohio Department of Natural Resources, Office of Coastal Management. The statements, findings, conclusions, and recommendations are those of the author and do not necessarily reflect the views of the National Oceanic and Atmospheric Administration, Department of Commerce, Ohio Department of Natural Resources, or the Office of Coastal Management.

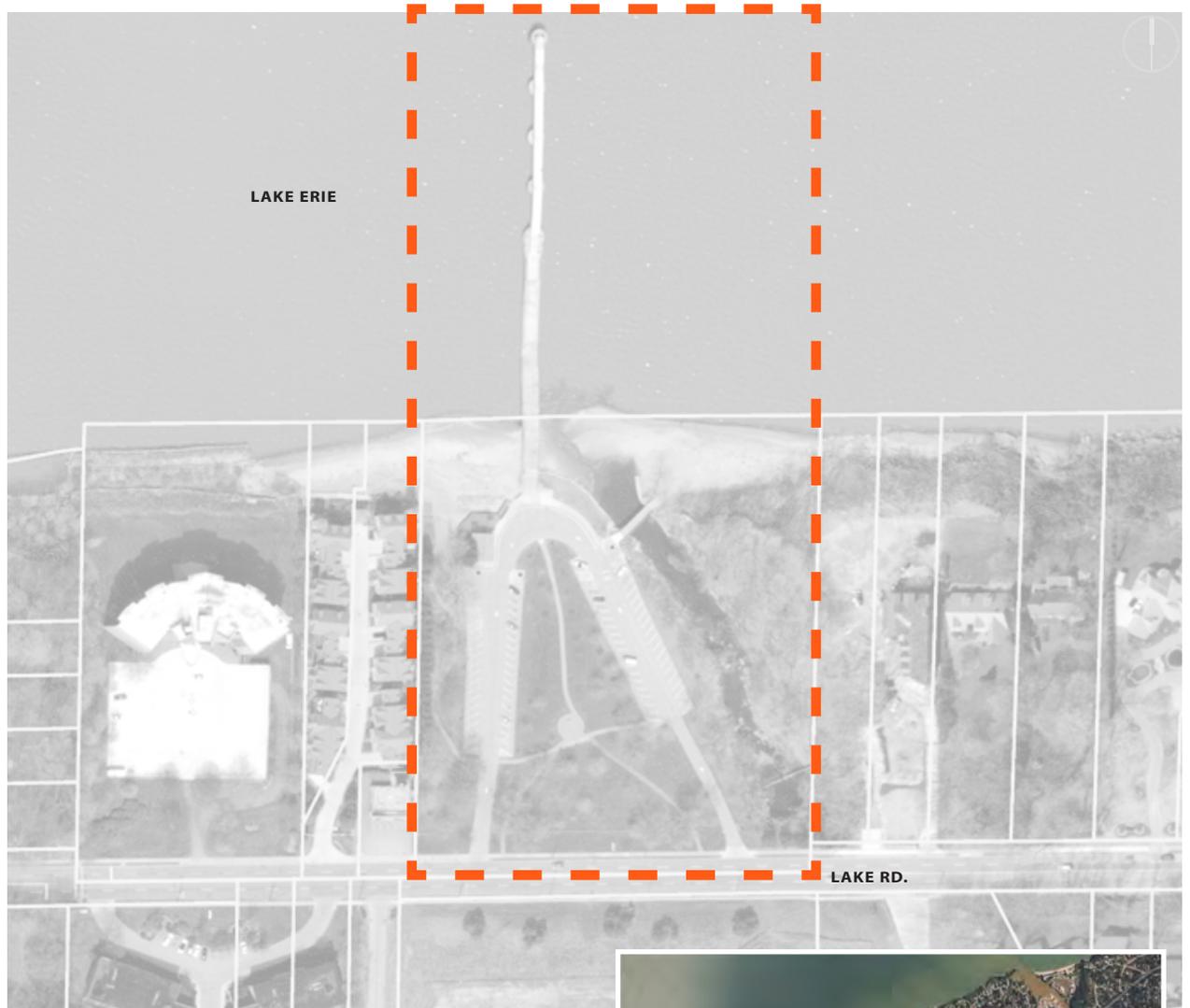


# PROJECT INTRODUCTION

On a dark October evening in 1764, British Colonel Bradstreet led a fleet of 1500 men, 60 boats, and 9 canoes to the location now known as Bradstreet's Landing. Bradstreet's entire fleet was surprised by an unexpected wind and wave event within Lake Erie. The result was a catastrophic loss of boats, supplies, and morale which severely impeded Bradstreet's expedition en route to Fort Niagara.

Today, the park, which occupies the storied site, memorializes the event through its name and a small plaque located in the center of the park. However, as a community asset, the park's value extends beyond story and into the everyday lives of the Rocky River community. Although much-loved, the park's aging conditions require attention and have resulted in a city-led initiative to restore and improve the facilities.

After rigorous inspection, analysis, and community engagement, a vision for the park's future has culminated in the masterplan recommendations on the following pages.



*Site Boundary and Context in the Rocky River Community*



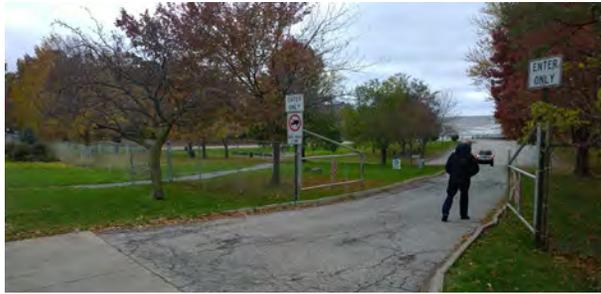
# SITE CONTEXT

## EXISTING CONDITIONS

Bradstreet's Landing is a 5.6 acre park located in the northwest corner of the Rocky River community along the south shore of Lake Erie. Important features of the park include a 565-foot long pier extending into Lake Erie, Spencer Creek, a pedestrian bridge, open lawn, a park restroom facility, beaches, and water-access. Other amenities include picnic tables, grills, open lawn, mature trees, and historical plaque.

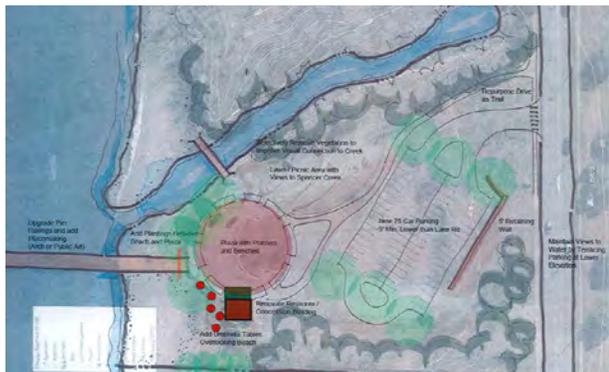
Neighboring properties include private townhomes and deli to the west, municipal wastewater plant and service garage to the south, and private residence to the east.

The park's publicly-accessible area accommodates approximately 22 feet of grade change from its south frontage along Lake Road down to Lake Erie at the north. However, the wooded bluff just east of Spencer Creek rises an additional 35 feet within the park's boundary.



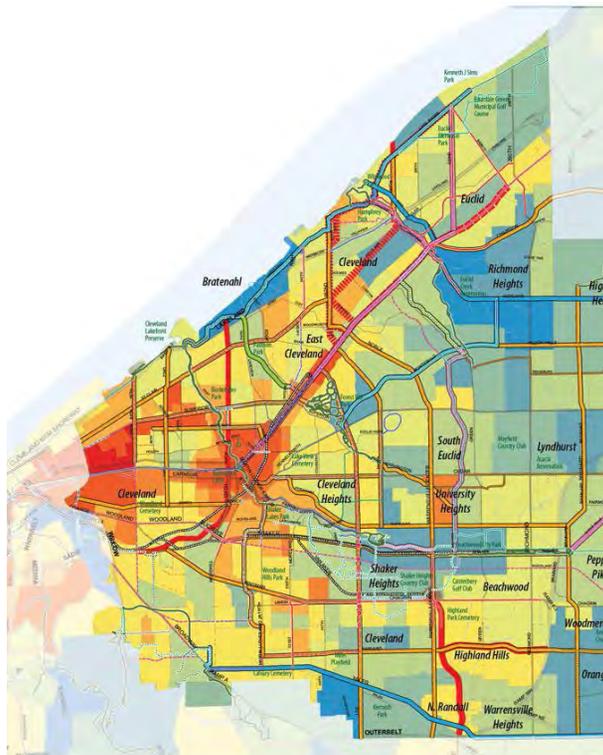
## 2016 METROPARKS PLAN

The 2016 concepts for Bradstreet's Landing made foundational recommendations on both a neighborhood and site-specific scale. Ideas conceived as part of these concepts include a walking trail connection linking Bradstreet's Landing with Elmwood Park through the city's water treatment facility property. Other notable concept-level recommendations include a potential reduction of parking stalls, new pedestrian bridge, stream-side wetlands, pier railing replacement, restroom renovation, new plaza, and open views.



## THE EAST GREENWAY PLAN

This 2015 Greenway plan examined existing and potential greenway connections across eastern Cuyahoga County and in communities adjacent to Rocky River in order to better connect residents to jobs, recreation, services, commercial centers, and natural resources through enhanced multi-modal facilities. The plan helped identify where individual trails can link together to close gaps in community connectivity, provide safe alternative means of transportation, decrease the need for motorized travel, and improve the quality of life for residents and businesses. The City, along with various other area municipalities, continue working with Cuyahoga County and Cleveland MetroParks to support creating trails and connections to promote non-motorized travel.



## 2017 ROCKY RIVER MASTERPLAN

The Rocky River Masterplan, completed by County Planning, provided strong support for improving Bradstreet's Landing. Specifically, the Community Vision Report identified Bradstreet's Landing as a critical piece of the community's framework because of its public beach and lake access. Furthermore, the plan's community survey represented a strong desire for the city to focus on improvements to lakefront parks and connections between them because private property composes most of Rocky River's lakefront.

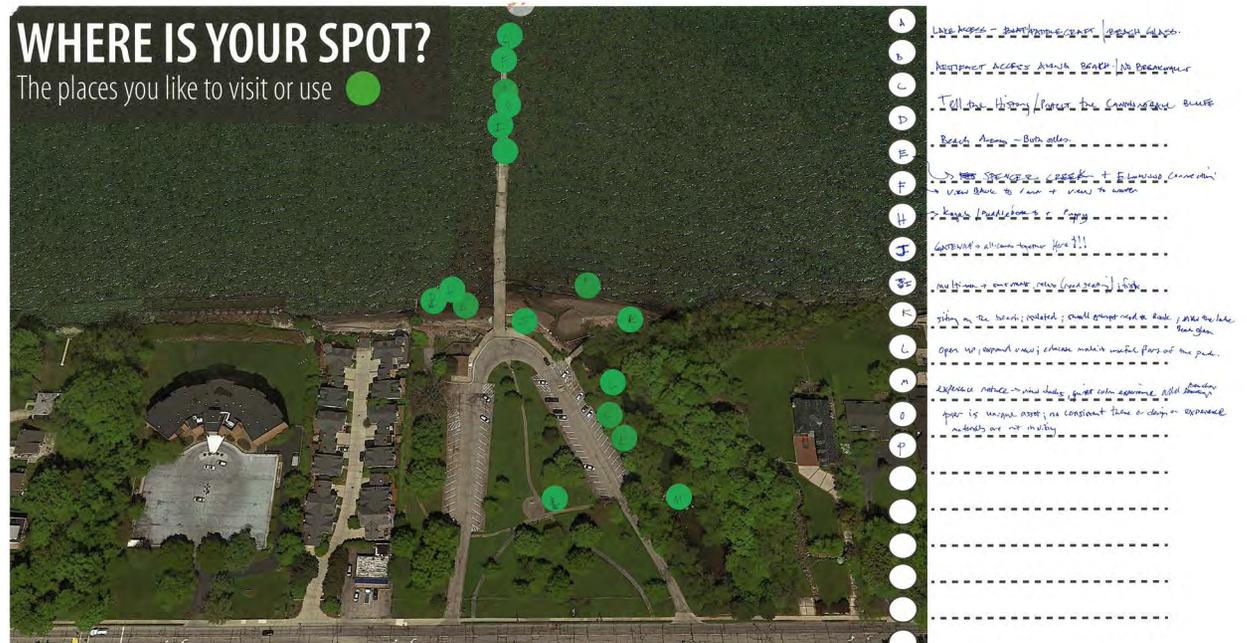


## PUBLIC OUTREACH STAKEHOLDERS MEETINGS

As part of the planning and design process, stakeholder interviews were organized to evaluate current park facilities and identify additional improvements and recreational opportunities desired by the community. Stakeholder groups included members from various community and volunteer organizations, city leadership and department heads, special-interest park groups, and adjacent residents and owners. The participants were asked to identify their favorite “spot” within the park, identify the element or feature most important to improve, and list amenities and recreational opportunities of interest that do not currently exist within Bradstreet’s Landing.

## COMMUNITY SURVEY

A web-based survey was hosted on the City’s website to gauge the public’s perception of the current state of Bradstreet’s Landing. Through a series of eight questions, residents were asked to assess the current conditions and identify what amenities they would like to see in the future. Questions focused on design considerations as well as eliciting responses to allocation of future investments. Results were collected over a two-month period where the community responded unanimously that the pier is the most significant park amenity as well as in most need of repair.



**“THE INITIAL DESIGN ALTERNATIVES SHARE MANY OF THE SAME FEATURES OR PROGRAMMATIC ELEMENTS. WHICH OF THE FOLLOWING PROPOSED ELEMENTS ARE MOST IMPORTANT TO IMPLEMENT?” CHOOSE YOUR TOP 3.**

Boardwalk over Spencer Creek to access beach	69.2%
Updated restroom facility	69.2%
Terraced beach access with seating	53.8%
Scenic woodland trail	38.5%
Regional trail connections	23.1%
Accessible paddlecraft launches (ie. kayaks, canoe, paddleboard)	15.4%
Great lawn space	15.4%
Shelter on pier	15.4%

## PUBLIC OUTREACH

### WHAT COULD BE BETTER?

The areas that need some improvement



shoreline  
 maximize lighting  
 cleaner multi  
 functions beach food part  
 citizens attract drive seniors  
 multiple city green circular good  
 possess enjoy generational  
 service integrated proposed



A public meeting took place on November 30, 2017 where three initial park concepts were presented to the community.





West Face of Pier



East Face of Pier Near Shoreline

## PIER EVALUATION

The pier is composed of three sections: The lower level near-shore walkway, the lower level to upper level ramp, and the upper level elevated walkway. The entire lower walkway has surpassed its life expectancy. This section has been structurally compromised due to undermining in several locations resulting in large voids that leave portions of the walking surface unsupported from below. It is recommended to demolish and replace the entire lower walkway pier due the severity of this damage. In addition, the ramp from lower to upper sections does not meet ADA criteria for slopes and should be reconstructed as well. Furthermore, the railing systems are non-compliant and consideration to replacing them should be given. The upper level elevated walkway has only minor degradation and is considered to be in very good condition. For more information and results of the pier evaluation, see the November 2017 technical report prepared for the City.

- 1 Missing tie-rods (lateral supports)
- 2 Non-compliant and maintenance-intensive fence removal
- 3 Significant concrete deterioration and undermining
- 4 Fractured steel panels
- 5 Deep void space behind steel panels

## PEDESTRIAN BRIDGE EVALUATION

The east abutment has been compromised due to significant scouring and undermining. Abutment rotation was observed and replacement or modification is likely to be required in relatively short order. Furthermore, the timber railing and decking should be replaced and the steel cross-braces to the main steel girder should be improved. The east concrete ramp is too steep to be ADA accessible. Replacing and relocating the bridge to allow for stream enhancements should be considered as the cost to address identified concerns are significant. For more information and results of the bridge evaluation, see the November 2017 technical report prepared for the City.



*Pedestrian Bridge West Abutment*

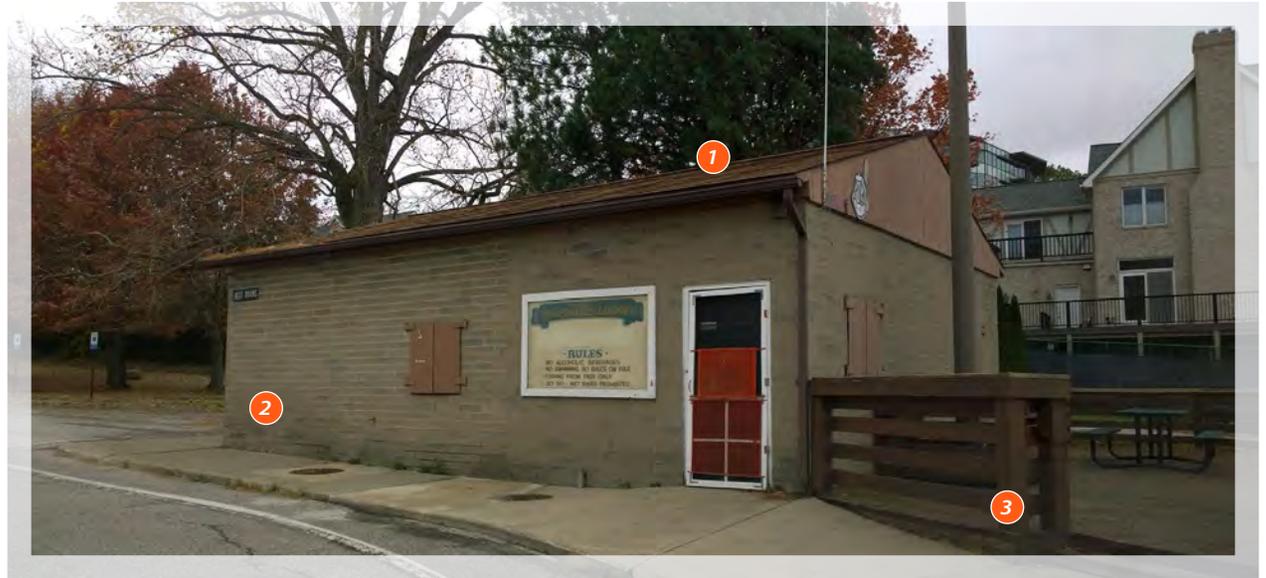
- 1 Active erosion
- 2 Inadequate erosion control and bank stabilization
- 3 Abutment rotation
- 4 Weak welds
- 5 Abutment undermining
- 6 Poor deck attachment detail



*Pedestrian Bridge Substructure Viewing East*

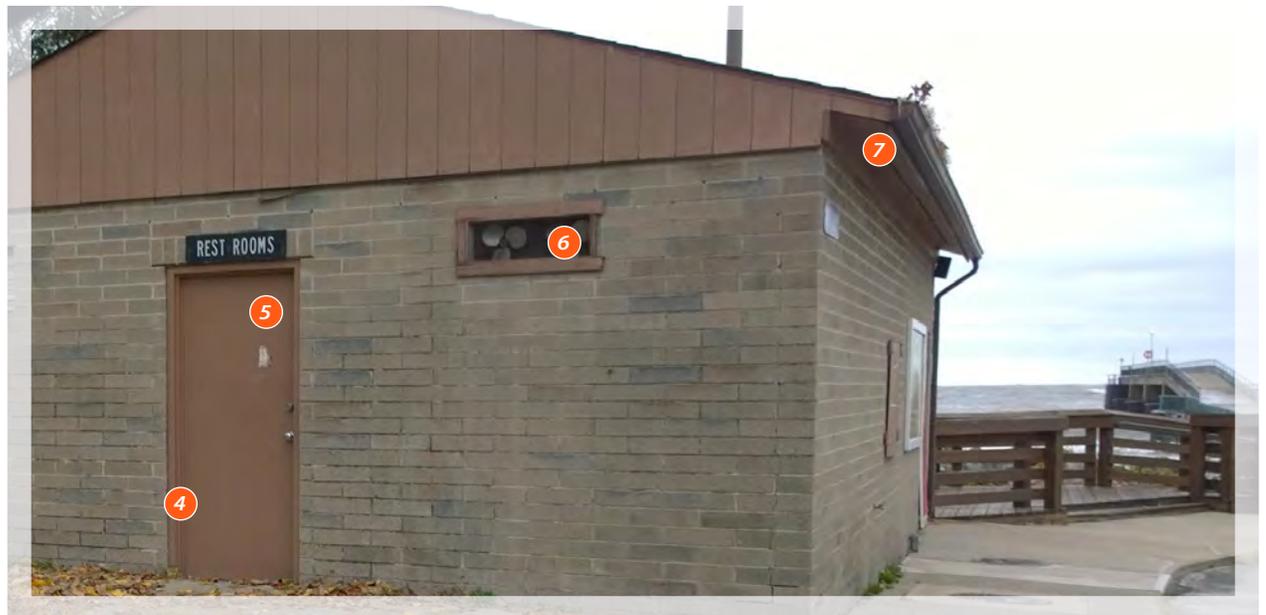
## RESTROOM EVALUATION

Overall, the beach pavilion lacks inviting character and exhibits many code and compliance issues both internally and externally. With the exception of a few components, the facility is in relatively poor condition. The interior was modified to house a bait/ ice cream shop. However, none of the equipment or finishings can be salvaged. Casework and communications equipment must also be replaced. Several severe settlement cracks are evident on the exterior and unplugged holes will lead to moisture infiltration. The restrooms are code compliant, but the facilities, fans, and roof need to be replaced. Although possible, remodeling the existing facility is not recommended due to the relatively high cost associated with doing so. For more information and results of the restroom facility evaluation, see the Existing Conditions Analysis report prepared for the City on November 15, 2017.

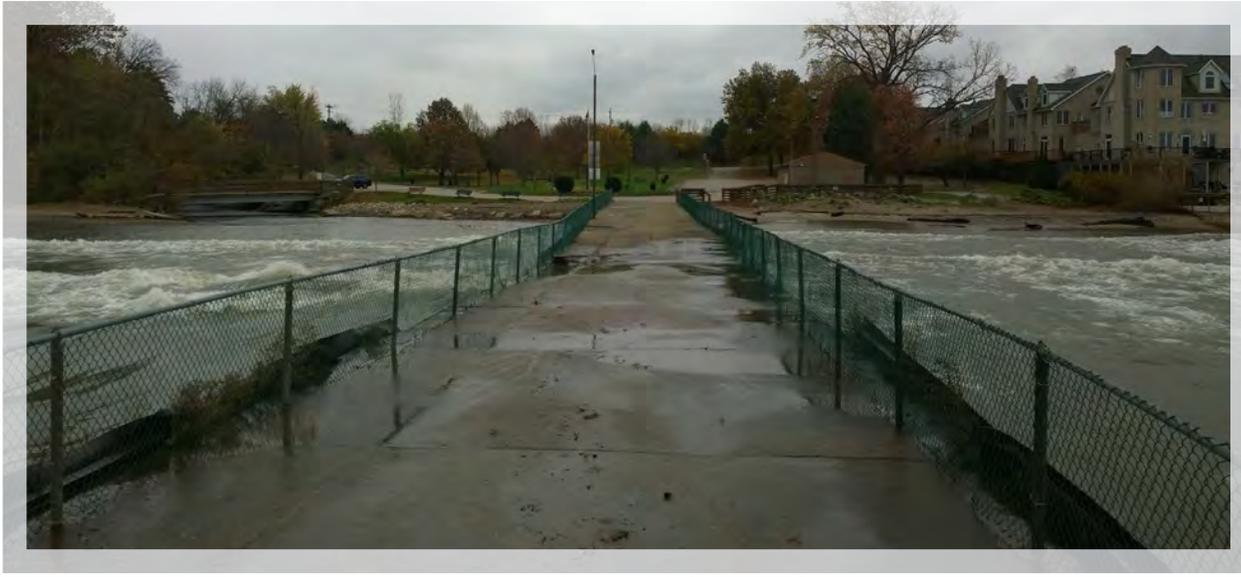


Existing Beach Pavilion East Facade

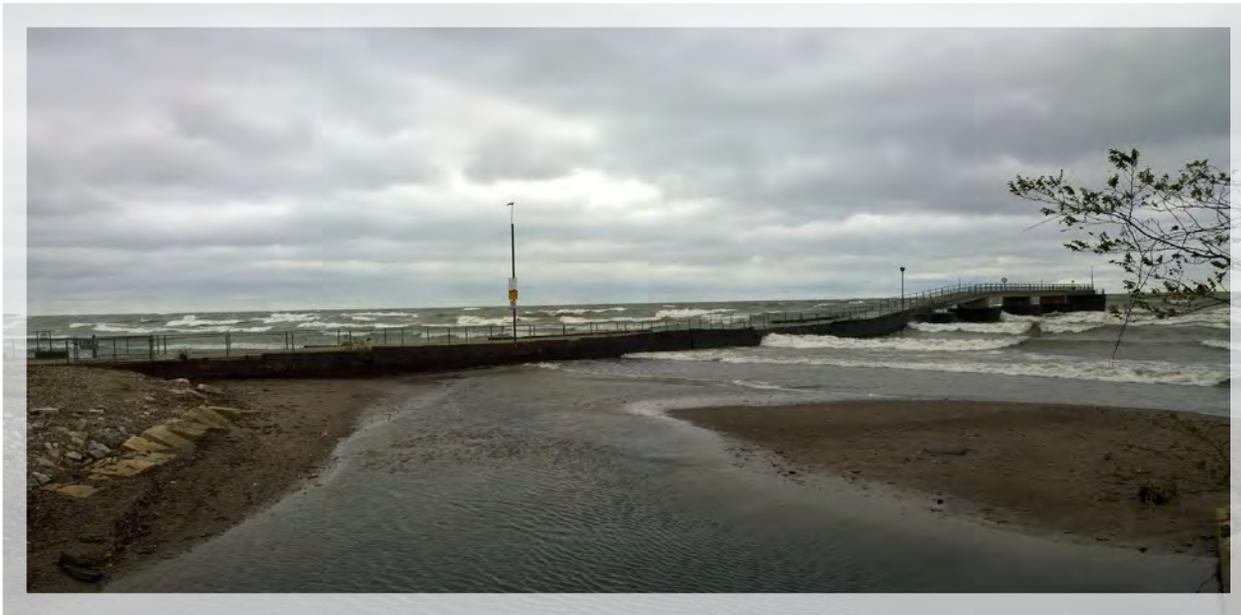
- 1 Roof needs to be replaced
- 2 Several crack lines continuous from grade to top of wall
- 3 Deck needs maintenance to further usable life
- 4 Doors and hardware are not accessibility compliant
- 5 Interior code issues
- 6 Exhaust is marginally adequate and unsightly
- 7 Soffits and fascia are rotted in many areas



Existing Beach Pavilion South Facade



*Waves Overtopping Existing Pier*



*Wave Run-Up Against Existing Pier*

## OVERTOPPING ANALYSIS

Wind, water depths, and wave conditions along the project area shoreline were analyzed. The analysis characterized the frequency and amount of wave overtopping that occurs on the pier. Ice rubbing and push-up onto the pier was also analyzed.

Pier closures due to overtopping occur only a handful of times throughout the year. While this condition restricts some use of the pier, railings along the pier require continuous maintenance and annual removal to minimize damage from ice.

Due to the poor condition of the lower near-shore segments of the pier, it is recommended that replacement pier be raised approximately 2-3 feet. Raising this area will reduce instances of overtopping, simplify and improve ADA accessibility, and reduce the need to annually remove and frequently replace segments of the railing system.



Existing Pedestrian Circulation Patterns

## EXISTING CIRCULATION & PARKING

Park entry and exit both occur from Lake Road at separate driveways. Currently, the internal vehicular traffic circulates in a one way direction, and there are a total of 78 parking stalls with a drop-off at the head of pier. The drop-off frequently serves as short-term parking which negatively impacts pedestrian access to the pier and clutters views of the lake.

Pedestrian and bike access is limited. No bike lanes exist on Lake Road and trails/walks within the park are disconnected from regional linkages, although future connectivity is proposed by other city plans. Several internal walkways extend through the central greenspace between parking areas and link to the memorial. Pedestrian paths promote a pass-through experience rather than gathering or recreation.

Vehicular circulation ringing the edge of the open space allows the visitor to park their car and walk about the central lawn without conflict, but to access the beach, pier, and boardwalk require inevitable vehicular-path crossings.

- 1 Pedestrian - vehicular conflict
- 2 Severed pedestrian connections
- 3 Limited regional connections
- 4 Restricted flexibility in program or use

## SPENCER CREEK EVALUATION

Spencer Creek shows symptoms typical of neglected urban waterways throughout the nation. Over the years, upstream land use changes, such as the replacement of vegetated surfaces with impervious surfaces and conversion of surface drainage to piped conveyance, have increased the rate, velocity, and shear force of flows through the channel. The result is artificial channel widening and undermining of the adjacent streambanks. This is evident by fallen trees, excessive debris, and exposed pipe outfalls within the stream corridor. During periods of low flow, the artificially widened stream geometry results in shallow, sluggish flow causing sedimentation of the lake bed and reduced water quality. Extensive amounts of rubble concrete are located in the central stream channel and existing stormwater outfalls and utility pipes can be seen along the shoreline.

While the existing stream is in a deteriorated condition, fish do use the channel. Opportunities to improve the ecological value of this resource certainly exist.

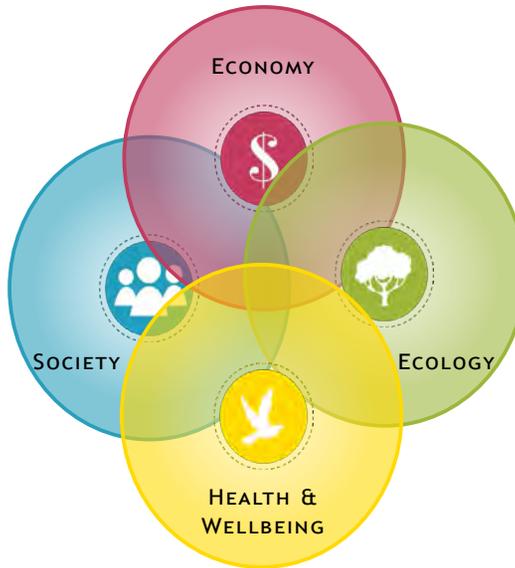
- 1 Exposed outfall pipes
- 2 Active channel bank erosion
- 3 Accumulation of vegetative and rocky debris
- 4 Overgrown woodland
- 5 Low flow rate



# GOALS AND CONDITIONS

## DEFINING SUCCESS

During the public concept alternative meeting, discussion was framed by the four “pillars” of sustainability, with the theory that the most holistic projects successfully address all of these aspects. The overall project site was broken into three distinct zones and the themes that emerged in those four respective categories for each zone are described below.



*The Four Pillars of Sustainability*

### ECOLOGY

Sustaining the ability of the landscape to perform ecological functions such as building soil, recharging and cleaning water, cycling nutrients, and enabling biological systems to remain diverse and productive.

### ECONOMY

Encouraging reinvestment in the community and providing cost effective solutions that preserve or wisely use scarce resources.

### SOCIETY

Providing equitable access to natural resources for the benefit of all community residents and preserving cultural connections between people and place.

### HEALTH & WELLBEING

Inspiring a deeper, spiritual connection with nature and place.

## DEFINING GOALS

### BY GEOGRAPHY:

- THE LAKEFRONT
- THE CREEK
- THE PARK



*Overall Site with Geographic Zones*

## DEFINING GOALS: THE LAKEFRONT



The Lakefront Zone



- Clean, preserve, and enhance the beaches and maintain an uninterrupted land-water interface.
- Stabilize areas of active erosion.



- Respect the relationship with adjacent homeowners.
- Preserve opportunities to view the lake during all seasons and weather conditions.



- Celebrate and enhance the pier gateway.
- Provide beach and pier access that supports a diverse range of activities and use by all ages and ability levels.



- Construct long-lasting improvements that require minimal ongoing maintenance.
- Leverage limited local resources to expedite restoration of the pier and pedestrian bridge.

## DEFINING GOALS: THE CREEK



The Spencer Creek Zone



- Improve habitat and expand ecological diversity and function.
- Increase water quality within the creek.



- Offer opportunities for quiet contemplation and commune with nature.



- Expand views and access to the creek.
- Link the creek and park with Elmwood Park and nearby trail networks.



- Develop partnerships and continue investments that help advance Spencer Creek restoration efforts.

## DEFINING GOALS: THE PARK



*The Upland Park Zone*



- Increase ecological diversity.
  - Infiltrate stormwater runoff and filter for sediment and toxin removal.
- .....



- Respect the relationship with adjacent homeowners.
  - Reinforce the park's identity through storytelling and historic interpretation.
  - Enhance the aesthetics and create a unified experience (theme) with other park improvements.
- .....



- Create destinations for individual use and diverse group sizes alike.
  - Improve park safety through improved circulation, lighting, and access control.
- .....



- Construct long-lasting improvements that require minimal ongoing maintenance.
- Improve the park's curb-appeal to retain and attract investment in the surrounding community.

# MASTERPLAN VISION

## CONCEPT DEVELOPMENT



### THE FLEET

The Fleet is inspired by the unique story of Bradstreet's disaster and uses the physical design of the park as a narrative. Park elements, including a restroom facility, boardwalks, seat walls, sidewalks, and plantings, are arranged to abstract the imagery of a fleet of boats and twist the orientation of the park to better integrate the creek, upland, and lakefront.

#### Design Strategies:

- Use building as a gateway to pier.
- Showcase the Bradstreet's Landing story.
- Connect Spencer Creek to other parks spaces through trails and boardwalks.
- Integrate beach into one cohesive experience.
- Connect the east hillside with a trail loop.



### THE WAVE

The Wave explores the unique story of Bradstreet's disaster and the dynamic nature of Lake Erie. The Wave takes many of the park's current elements and reorganizes them into an improved lakefront experience while also engaging Spencer creek. A sweeping lakefront boardwalk offers a dramatic experience of the lake while a curved wall envelopes a central lawn, tells the story of the park's history, and honors other local elements of heritage.

#### Design Strategies:

- Showcase the Bradstreet's Landing story.
- Shift the building and more active areas away from western edge of site.
- Reorient site elements to engage Spencer Creek.
- Provide additional fishing and educational opportunities along creek.



### THE TRIBUTARY

The Tributary celebrates the connection of water found at Bradstreet's Landing. It tells a story of hydrology and sustainability. Notably, a sweeping stormwater swale intercepts runoff infiltrating and cleansing water before entering the stream and lake. Parking is shifted to the southern half of the park and allows the pedestrian-focused lawn and plaza spaces to push forward towards the lake.

#### Design Strategies:

- Pull back parking to allow expanded greenspace at lakefront.
- Shift building and active areas away from western edge of site.
- Restore existing pedestrian bridge.
- Clean water from upland runoff.
- Connect Spencer Creek corridor and east beach through continuous boardwalk trail loop.

## INITIAL ALTERNATIVES & FEEDBACK

Public feedback was positive across all three concepts. However, the strongest interest coalesced around the Wave and the Fleet concepts.

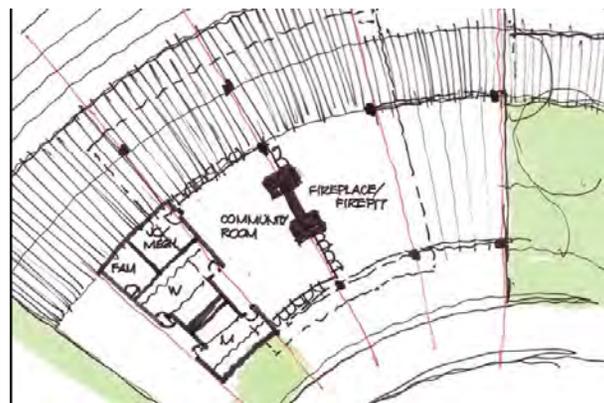
A sample of public critique included the following comments:

- Keep the central corridor open. Site the building and parking on the west side of the park.
- Make sure improvements to the pier don't change the size of the beaches.
- Clean-up the area but leave the east beach more natural.
- Consider paddlecraft and beach-grooming equipment access.
- Improve the ability to sit and watch the dynamic qualities of the water, beach and lake at the mouth of the creek.
- Keep the circular drive and overlook function near the water.
- Open up the view to the water from street.

Thus, the guiding concept of **The Wave + The Fleet = Bradstreet's Landing** master plan developed. The concept carries particular relevance to the story of the site and its interpretation within the park features.

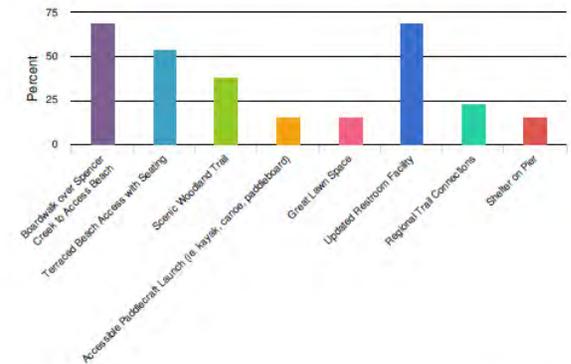


Draft of Preferred Alternative



Draft of Beach Pavilion Floor Plan

3. The initial design alternatives share many of the same features or programmatic elements. Which of the following proposed elements are most important to you to implement? (Pick 3)



Value	Percent	Responses
Boardwalk over Spencer Creek to Access Beach	69.2%	9
Terraced Beach Access with Seating	53.8%	7
Scenic Woodland Trail	38.5%	5
Accessible Paddlecraft Launch (ie. kayak, canoe, paddleboard)	15.4%	2
Great Lawn Space	15.4%	2
Updated Restroom Facility	69.2%	9
Regional Trail Connections	23.1%	3
Shelter on Pier	15.4%	2

Sample Survey Feedback



Beach Pavilion Study-Sketch



## PREFERRED PLAN

### The Wave + The Fleet = Bradstreet's Landing

Naturally, the unique story of Colonel Bradstreet's landing drove the masterplan concept. The site plan uses the physical design of the park as a narrative.

The following pages provide imagery of the preferred plan and describe the various elements of the plan.





*Bird's Eye View Looking Southeast*



*Bird's Eye view Looking Northeast*



*View from Entry Driveway*



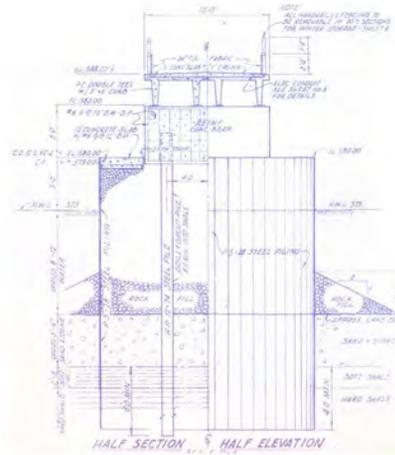
*View of Lakefront at West Beach*



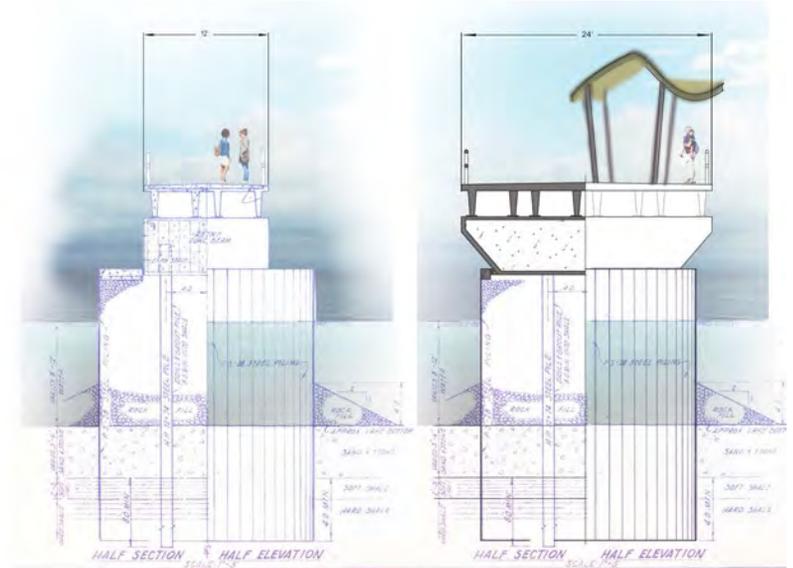
Example Seating Along Sloped Pier



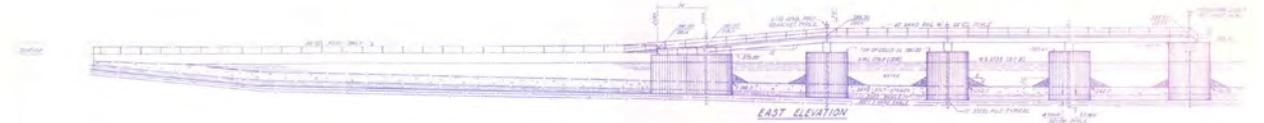
Example Open-Air Shelter on Pier



Existing Pier Design- Section from 1981 Plans



Potential Pier Sections for Near-shore Replacement



Existing Pier Design-Elevation from 1981 Plans

## ELEMENT: THE PIER

- Replace, in its entirety, the lower level walkway pier section closest to shore with sheet pile cells similar to the design of the existing outer section pending detailed coastal analysis and with considerations designed to retain the beaches.
- Replace the ramped portion of the pier with a new ADA-compliant ramp. Slope the pier section closest to shore to raise the new pier section and reduce wave overtopping and damage to railings by ice. However, also keep the near-shore pier as low as possible to retain unobstructed views of horizon by neighbors.
- In addition to accessibility, consider patron seating, fishing access, low-level lighting, railing improvements, and sheltered refuge in the design of the pier replacement.
- Maintain and retain the existing elevated (outer) pier section.



Preferred Option for Rehabilitating the Pier and Transitioning Grade Change



Secondary Options for Rehabilitating the Pier and Transitioning Grade Change

## ELEMENT: THE BRIDGE

A new, fully ADA-accessible bridge spans the creek in roughly the same location as the existing bridge. However, its replacement is paired with new abutments, earthwork, and armoring to protect against wave action. Together with an adjoining boardwalk, the bridge becomes an organizing element of the lakefront and connects the pavilion, pier, and west beach to the more remote east beach through a single sinuous movement.



*Bird's Eye View Looking Southwest*

## ELEMENT: PARKING AND VEHICULAR CIRCULATION

The vehicular entry remains in the same location along Lake Road as is present in the existing conditions, however, the park exit driveway is eliminated in favor of a 2-way circulation pattern with a circular turn-around. The new vehicular circulation gives priority to the pedestrian while still providing ample parking and a graceful parkway experience out to the pier.

Vehicular parking is modestly reduced, a recommendations that parallels the 2016 MetroParks concepts. A total of 62 parking stalls are provided within the redesigned park, including 9 stalls designated as short-term special permit parking around the drop-off loop. An additional 20 parking stalls are planned for development across Lake Road on City-owned property to support infrequent large events and periods of high demand. Permeable paving is integrated within the parking bays and drop-off within the park to help clean stormwater runoff prior to entering the lake and creek.



*Example Permeable Pavers*



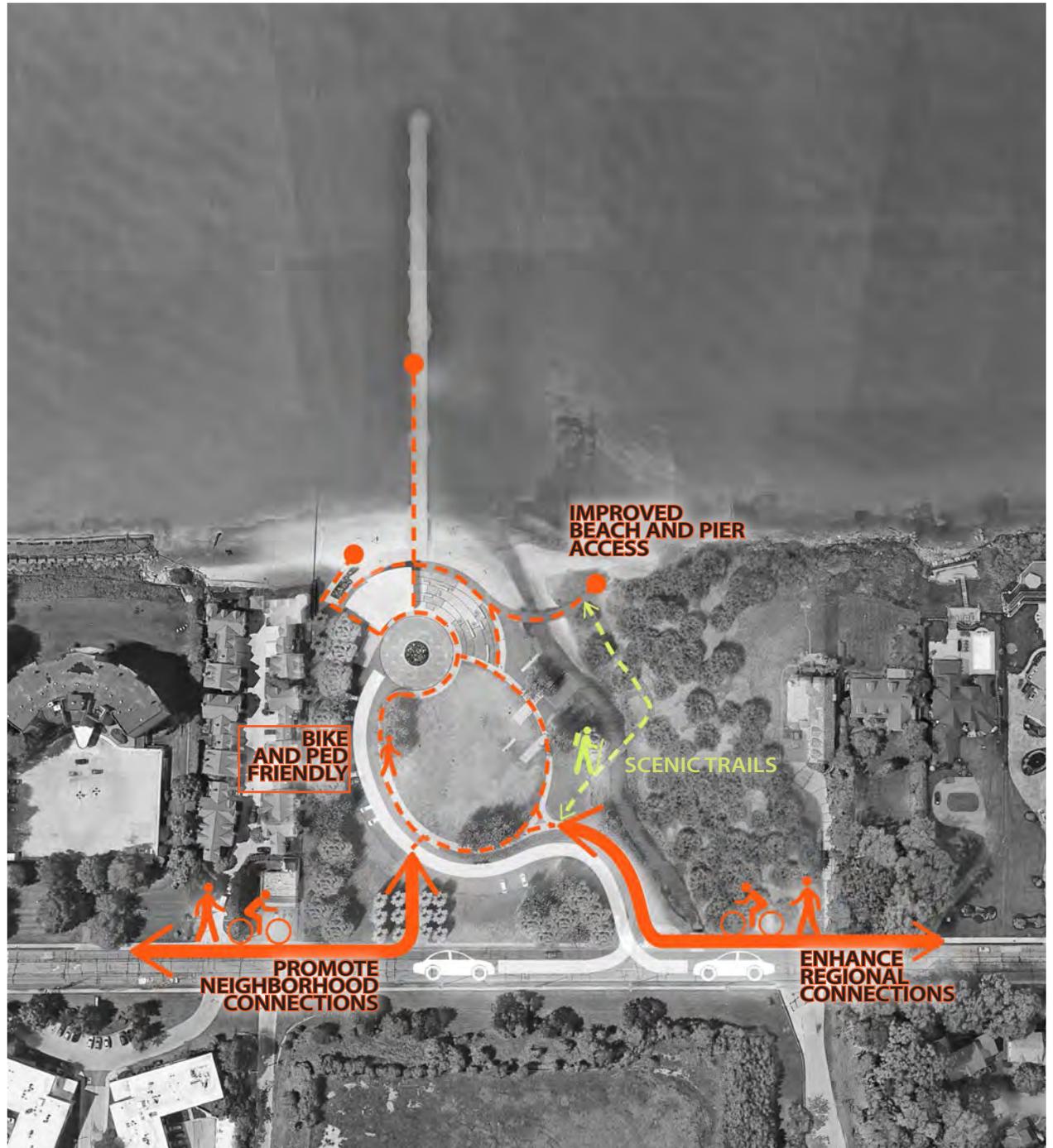
*Example Permeable Pavers, unilock.com*



*Example Permeable Paver Parking Lot*

## ELEMENT: TRAILS AND OPEN SPACE

Starting at the street, the park masterplan considers future connectivity to the surrounding community as proposed in the city-wide masterplan through bike lanes and trails. This enhances regional connections while also promoting neighborhood access to the park. Bradstreet's Landing welcomes the regional connection through a trail head entrance at the southeast corner of the site. At the southwest corner, a grove of ornamental trees, gateway signage, and small entry plaza on axis with the lake pier greets neighborhood patrons in a new dramatic pedestrian entry.



Proposed Circulation Diagram

## ELEMENT: TRAILS AND OPEN SPACE



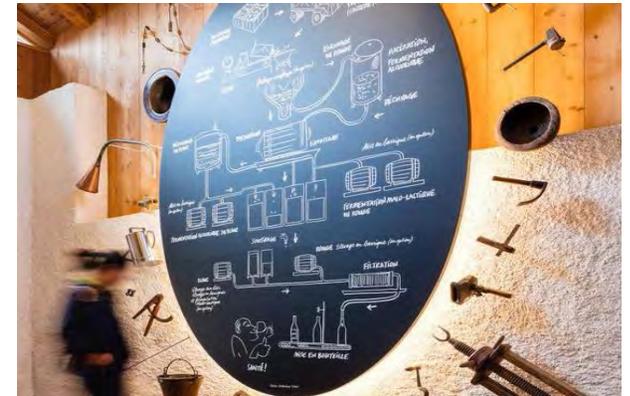
*View from New Pedestrian Entry Gateway.*

The configuration of the central green and surrounding walkways re-engages the river, reduces pedestrian conflict with automobiles, and creates a string of interesting experiences from the street and upland park areas to the beach and pier. The walks create a primary loop with secondary spurs to periphery nodes for small group gatherings, picnics, historic interpretation, and fishing. Furthermore, a scenic trail loops east along Spencer Creek to give park users a more naturalized, riparian experience where interpretation, education, fishing, and discovery can occur.

The central green becomes one singular, flexible space for many uses and direct access to the creek, lake and beaches. This configuration sharply contrasts what exists, where the central open lawn space is surrounded by vehicular traffic and disconnected from the recreational and ecological amenities. A low wall retaining the east edge of the lawn transitions elevation and becomes another opportunity for story-telling with imagery, text, and lighting.



*Precedent Story-Telling Feature-Wall at Alumni Park, Madison, WI*



*Precedent Historic Interpretation, holzerkobler.com*



*View of Interpretive and Spencer Creek Trails*



*Park pavilion anchors the end of the serpentine boardwalk at the crest of the beach.*

## ELEMENT: PARK PAVILION

The completely new pavilion structure is nestled at the edge of the beach in roughly the same location as the existing structure. Drawing cues from the popular activity of beach glass hunting, the pavilion architecture further connects people to the unique sense of place by adopting beach glass as a driving metaphor for the design. The concept manifests itself in a light and transparent structure composed of local and recycled materials, natural color palette and extensive glass.

Pragmatically, the transparency of a beach structure is critical for maintaining open sight lines from Lake Road to the pier, lake, and horizon. The glassy transparency and use of retractable glass walls also promotes a strong indoor-outdoor connection between the facility and its natural surroundings. An outdoor fireplace adds warmth for those cool evenings along the lake and creates a natural gathering area for daily use and community events.



*Park pavilion creates a strong indoor-outdoor connection linking the community to the beach in a multi-seasonal facility.*

# ELEMENT: PARK PAVILION



Proposed Floor plan and Space-Allocation Chart

## FACILITY SPACE PROGRAM SUMMARY BRADSTREET LANDING BEACHHOUSE

### GROSS SQUARE FOOT ESTIMATE

#### MAIN PAVILION

PROGRAM COMPONENT / SPACE TYPE	PROPOSED AREA (GSF)	COMMENTS
<b>GENERAL PROGRAM</b>	<b>1432</b>	
1 GENERAL PROGRAM ROOM	1227	ALL SEASON MULTI-USE ROOM WITH OPERABLE GLASS WALL
2 KITCHENETTE & STORAGE	205	FOOD & EQUIPMENT ALLOWANCE: \$50,000
<b>COMMON SPACE</b>	<b>330</b>	
3 PUBLIC SPACE - INTERIOR	330	
4 OUTDOOR LIVING ROOM		OUTDOOR COVERED SEATING WITH SCULPTURAL FIRE TABLE ALLOWANCE: \$75,000
5 COMMON OUTDOOR SPACE		TO INCLUDE OUTDOOR LOCKERS
<b>SUPPORT</b>	<b>699</b>	
6 RESTROOMS	451	OUTDOOR ENTRANCE MEN/WOMEN (2 FIXTURES, 2 LAVS) 2 INDOOR FAMILY
7 JANITOR'S CLOSET & STORAGE	103	MOP SINK, DRY STORAGE FOR SUPPLIES
8 MECHANICAL/UTILITIES	145	M,P,FP,E SYSTEMS
<b>SUB-TOTAL (GSF)</b>	<b>2461</b>	



Precedent Study: Rosewood Beach Pavilion by Woodhouse Tinucci Architects, woodtinarch.com



Precedent Study: Rosewood Beach Pavilion by Woodhouse Tinucci Architects, woodtinarch.com



Example Seating Terraces Along Lake Front, Madison, WI

## ELEMENT: PARK PAVILION

Hunting for beach glass is one of the much-loved activities at Bradstreet's Landing. This activity is expressed through interior displays of local beach glass collections. The collections could be programmed as a form of participatory art, giving local residents and visitors alike the ability to display beach glass found along Bradstreet's Landing shoreline with tags memorializing individual names and dates. Although the display process would require some oversight by the City or citizen-volunteers, the reward is a local sense of ownership in the park that carries individuals and their found treasures into a timeless public collection unique to the community.



*Park pavilion transparency to maintain views within and through the facility.*



*Example Beach Glass Collection, [topglassart.com](http://topglassart.com)*



*Example Display Wall, [lydiakasumi.com](http://lydiakasumi.com)*

## ELEMENT: PARK PAVILION

One decision deferred to future design development was whether the park facility should span the pier axis and serve as a framed gateway or remain offset and removed from the axis. During the second public input meeting it was decided to keep both options on the table for future study.

Benefits of the larger canopy Option A:

- Increased shade and protection from the elements in an “outdoor room”.
- Potential for iconic roof form.
- Integrated pier access-control with structure.

Benefits of the abbreviated canopy Option B:

- Clear, unobstructed view of pier along axis from Lake Road.
- Less visual obstruction of horizon.
- Simplified construction.



*Option A - An extended roof canopy over the fire pit creates a protected space adjacent to plaza.*



*Option B - A building canopy pulled back allows for an open plaza experience and uninterrupted transition from park to pier.*

## ELEMENT: SPENCER CREEK

Implementing stream improvements will improve the ecological function of Spencer Creek while expanding its role as a recreational, and aesthetic amenity. The City should consider the following improvements, both within the watershed and the stream corridor itself:

1. Expand stormwater management practices such as biofiltration, stormwater detention, enhanced street sweeping, and related measures both within the park and the upstream watershed to capture pollutants and reduce stormwater runoff rates and volumes. Practices implemented in the park could serve as a model for other areas.
2. Continue implementation of practices to improve inflow water quality from the City's wastewater treatment system. These practices will further enhance investments in stream restoration and support greater ecological diversity and function.
3. Implement measures within the stream corridor to correct existing streambank erosion and restore the stream to a more naturalized condition. Measures to consider include:

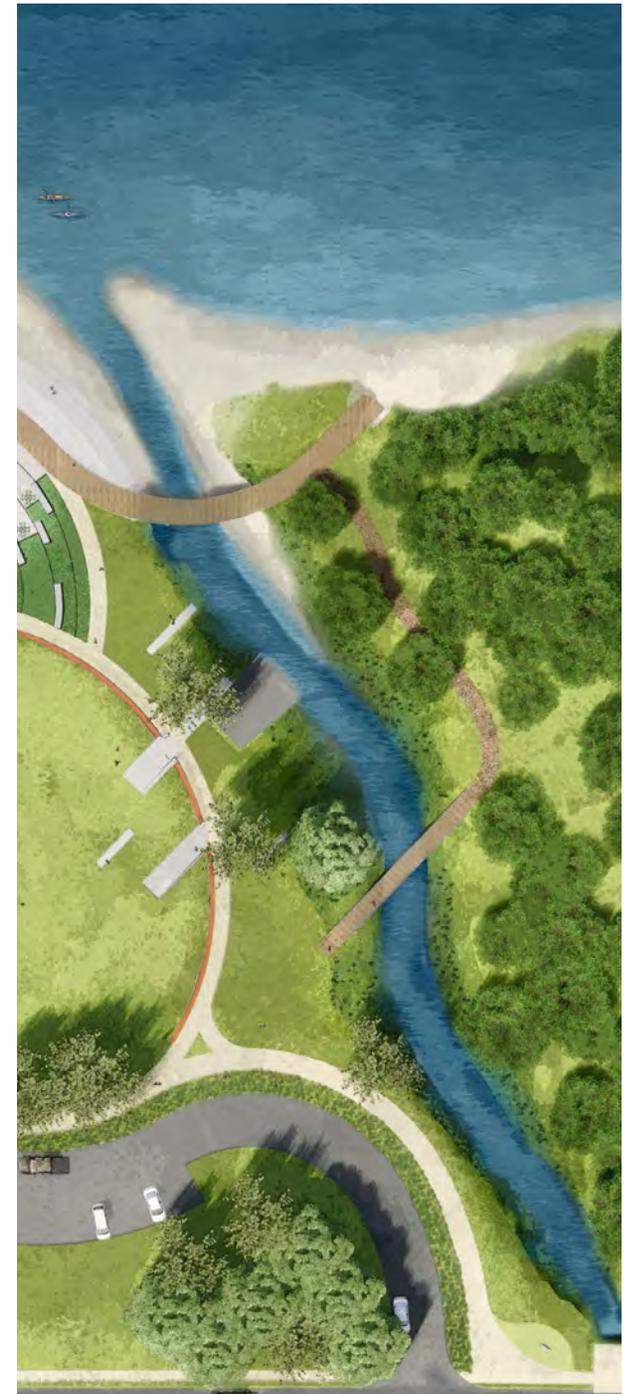
- a. Through a combination of excavation and fill placement (with consideration of regulatory constraints), create a more "naturalized" cross section consisting of a smaller channel designed to convey base flows (up to approximately an annual expected storm flow rate) with a floodplain terrace elevated above the base flow channel. The staged base flow/floodplain terrace would allow storm flows to spread out over a larger area relieving the erosive forces on the banks while confining base flows to a smaller channel to minimize sedimentation and promote flushing.
- b. Stabilize stream banks using a combination of natural stabilization techniques typical of stream restoration practices including stone where necessary to provide structural resilience as well as ecological and aquatic enhancements.
- c. To the extent practical given the linear nature of the corridor, introduce some sinuosity to the base flow channel to increase flow length and introduce a more aesthetic, naturalized stream geometry.
- d. Within the floodplain terrace, provide native riparian plantings to capture, filter, and treat stormwater runoff from impervious surfaces in the park. The riparian corridor could also include a boardwalk, trail, and access points for fishing.



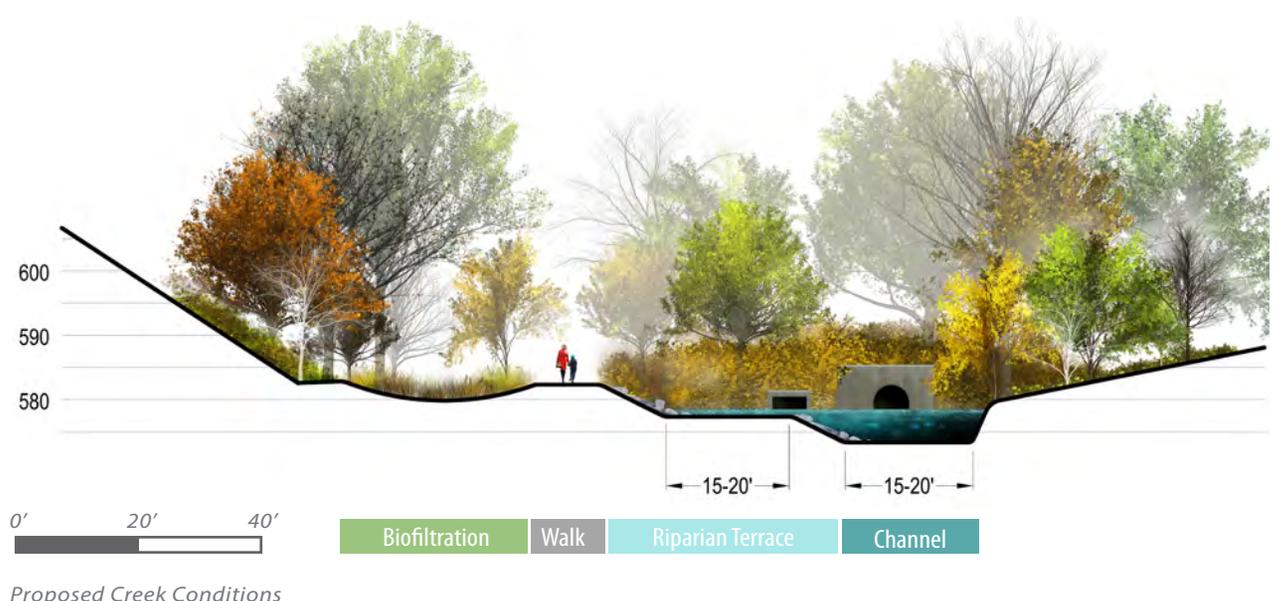
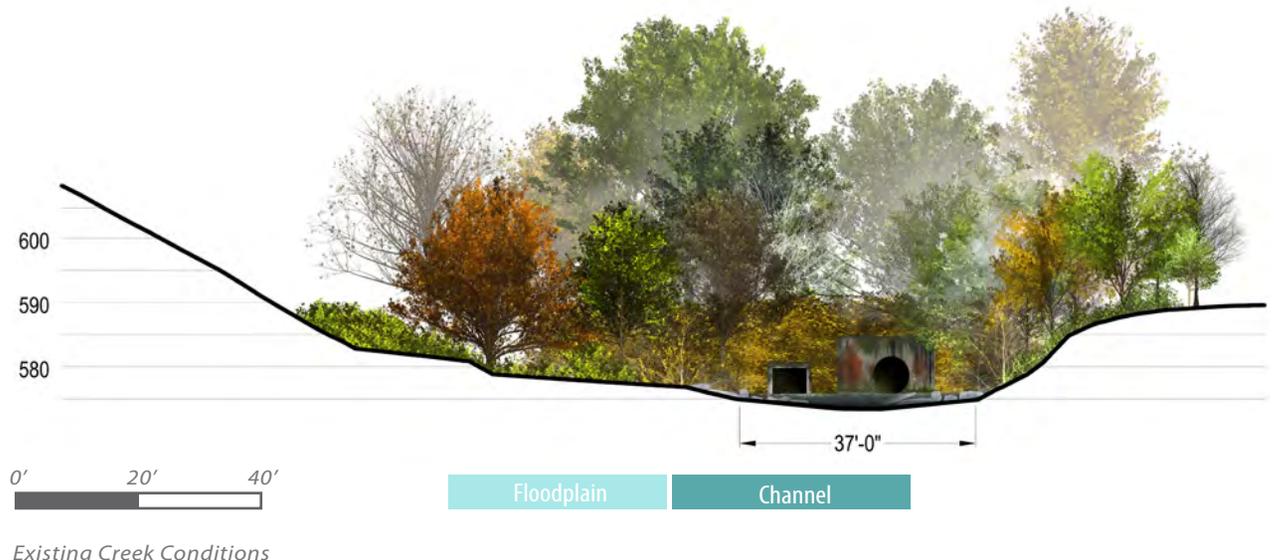
Example Boardwalk, OMGEVING Landscape Architecture



Example Bioswale at Carthage College, Kenosha, WI



Plan Enlargement of Spencer Creek



# PROJECT IMPLEMENTATION

## COST

The masterplan is a long-term vision for improvement and enhancement of Bradstreet's Landing. It is a plan that will be implemented in phases over a period of years as funding is identified and secured. Some elements, such as the design, engineering and permitting of complex projects, will take significant time and therefore may be important to begin in the near-term.

To assist in implementing the plan recommendations and to provide general, level-of-magnitude projections for public investments, SmithGroupJJR has developed a concept-level opinion of probable construction costs for the various project elements by area.

All costs included below are based on 2018 fiscal year dollars and can be anticipated to increase in response to inflation. A 3 to 5 percent annual escalation factor is recommended beyond 2019. A 20 percent contingency, common at this level of planning and conceptual budgeting, is included as part of each cost to account for project cost variability. Detailed design, engineering, and project permitting typically range from 5 to 15 percent of the total construction cost and are in addition to the costs outlined in the following section.

To help organize this section, the masterplan has been broken into three subareas: The Lakefront, the Creek, and the Park.

All of these projections are based on concept level design and incorporate a necessary level of conservatism due to the lack of detailed design development at this phase of project planning. Also noteworthy is the likelihood for costs to increase if the masterplan is divided into incremental implementation phases. As projects advance and project details emerge, the projections will need to be refined to reflect a better understanding of project requirements and parameters.

<b>The Pier</b>	<b>\$2,394,226</b>
<b>Planning/Engineering, Permitting and Construction Administration</b>	
Site Investigations (site survey, geotechnical borings)	
Submerged Lands Lease	
Preliminary Design, Engineering & Permitting (401/404 & permit fees)	
Final Design & Engineering	
Bidding & Construction Administration Assistance	
Contractor Fees (bond/insurance & construction layout)	
<b>Site Preparation</b>	
Mobilization / Demobilization	
Erosion & Access Control (upland, in water, etc.)	
Demolition / Removal of Existing Structures & Excavation (pier, fencing, concrete, etc.)	
<b>Pier Improvements</b>	
Steel Sheet Pile Cell Structures (including cap, concrete supports, internal piles)	
Steel Sheet Pile Entrance Structure (including cap & supports)	
Pier Deck (double tee, topping slab)	
Railings (guardrail & fishing railing along perimeter of new pier section)	
Panel Breakwater (under pier to retain existing beach)	
Toe Stone (at steel structures & panel breakwater))	
Safety Ladders (at new steel cells)	
Utilities (basic lighting, electrical)	
Shoreline Pier Abutment	
Basic Signage (park, pier and safety information)	
<b>Upland Restoration</b>	
Pavement Restoration (at pier and associated with construction traffic)	
Pier Gate & Access Control (pedestrian control for storm closure & removable bollard to restrict vehicle access)	
Beach Sand Renourishment & Shoreline Protection (along stream and at beach due to construction disturbance)	
Site Furnishings (benches, trash/recycling)	
Landscape Restoration (entrance to pier, disturbed areas of park)	
<b>The Creek</b>	<b>\$1,646,688</b>
<b>Pedestrian Bridge</b>	
Bridge Abutments (piles, concrete abutment)	
Pedestrian Bridge & Railings (guardrail at bridge)	
<b>Stream Edge Stabilization &amp; Enhancement</b>	
Pavement Reconfiguration	
<b>Stepped Revetment &amp; Lakefront Promenade</b>	
Beach Sand Renourishment	
Site Furnishings (benches, trash/recycling)	
Landscape Restoration (disturbed areas of park)	
<b>The Park</b>	<b>\$3,011,370</b>
<b>The Pavilion</b>	
<b>Parking and Roadway</b>	
<b>Landscape &amp; Plaza</b>	
Entry Gateway, Central Lawn, West Screening Plantings, Furniture	
<b>Grand Total</b>	<b>\$7,052,284</b>

## REGULATORY AND PERMITTING PROCESS

Implementation of the masterplan for Bradstreet's Landing will require securing permits from federal, state and local agencies. The specific review and approval processes vary based on the element being permitting. In general, the project elements that engage the lake or stream are likely to require lengthy permit and environmental review timeframes. This includes water resource-related permits from the State of Ohio and US Army Corps of Engineers. Approval time frames for these type of elements can be as little as 3-4 months but are more likely to extend into the 6-9 month time frame or longer. Key water resource related permits associated with pier renovations, pedestrian bridge replacement, Spencer Creek improvement, and shoreline enhancements are highlighted below.

- Section 106 National Historic Preservation Act: The Ohio Historic Preservation Office is required to review the project as part of the Section 404 permit approval process. Desktop reviews of the existing site and nearby environs may suffice, however, the legacy of Bradstreet's Landing may influence this process.
- Clean Water Act Section 404/Section 10: The Clean Water Act requires an Individual Permit to allow for development of key water-related improvements. This process involves developing preliminary plans for proposed improvements, preparing permit application materials, a public review and comment period which includes commentary from other agencies including US Fish & Wildlife, and technical review of project details.
- Clean Water Act Section 401 Water Quality Certification: Section 401 of the Clean Water Act requires that a Water Quality Certificate be issued by Ohio EPA for any discharges of fill material into wetlands and other Waters of the United States. Section 401 reviews are typically done in conjunction with USACE Section 404 permitting processes.
- National Environmental Policy Act: An Environmental Assessment will be required as part of the National Environmental Policy Act (NEPA) review process for key water-related improvements. The NEPA process typically runs in tandem with the Section 404 process.
- State Submerged Lands Lease: The lease is a mechanism by which the State of Ohio authorizes the development or improvement of facilities impacting the lakebed of Lake Erie. Annual lease fees vary based on the type of improvement and are typically negligible for projects that focus on fishing and public access. Both the pier renovations and the replacement of the eastern pedestrian bridge abutment (at a minimum) will require a lease. Beginning the process of executing a lease agreement, particularly for the pier, can be advanced immediately assuming the future pier replacement remains within the same boundary. Leases are reviewed by the Ohio Department of Natural Resources and executed by the Governor. No lease exists for the current pier, and regardless of replacement or renovation (which is not seen as a viable alternative), one will be required by the State.
- Shore Structure Permit: This permit must be obtained before constructing any coastal structure such as the pier, shoreline structures, and the pedestrian bridge. The Ohio Department of Natural Resources reviews proposed improvements to confirm plans are developed based on sound coastal engineering design, are appropriate for the intended function, and effective and durable.

## NEXT STEPS

Community priorities and the availability of funding to support implementation of the masterplan vision drive what elements are built and when they are implemented. The specific phasing is less important and predictable than showing continued commitment to improving and enhancing the park and developing the incremental improvements that will ultimately result in achieving the full vision.

While the specific process for implementing the plan is flexible, there are a number of activities that can and should be advanced immediately. These near-term tasks are critical to jump-starting the process and will set the stage and develop momentum for continuous, incremental improvement of Bradstreet's Landing. The following actions are a series of near-term next steps that should be considered to help advance toward implementation.

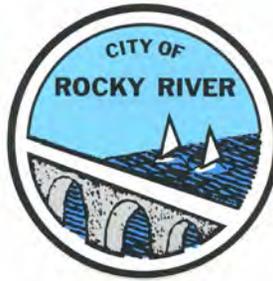
- **Community Endorsement & Support:** Broad community support is crucial to project implementation. As the details of the various implementation projects emerge, a wide range of individuals and organizations will need to be engaged to continue to refine the vision and overcome challenges that will certainly be faced during implementation. Additionally, this step is critical to helping communicate to funding agencies that the community is supportive and committed to advancing the project - a key component of any successful grant funding request.
- **City Endorsement & Support:** The City will need to show continued leadership and perseverance as the projects advance toward implementation. Adopting the plan as an official document will signify the City's commitment to achieving the plan.

- **Funding Investigation & Acquisition:** The effort to identify and secure grant funding from local, state and federal sources should be continuous and on-going. Grant opportunities range from those focused on promoting and enhancing public access to the lake to those geared toward environmental enhancement or development of recreational amenities. Many of these programs are awarded annually. Therefore, identifying the potential opportunities to fund specific project recommendations will be critical to achieving the ultimate vision.
- **Bradstreet's Pier & Bridge Renovation:** The pier is a local and regional asset. It is an iconic structure that for many, is part of their daily routine - an evening stroll, a morning run, a day spent fishing, or to view the sunset. Both the pier and pedestrian bridge are critical and both are in significant need or repair and/or replacement. Therefore, it is critical to advance design and permitting so once funds are in place for construction, the projects may proceed.

Collectively, these near-term tasks will reinforce the commitment of the community to improving and enhancing Bradstreet's Landing and build momentum that is key to achieving the masterplan vision. Additional detail related to these key near-term actions is summarized in the attached matrix.

	Near-Term Action	Tasks to Accomplish	Type	Responsible Entity
Plan Adoption	Community Endorsement & Support	1. Develop a brief public summary flyer describing the masterplan vision to simplify communication within the community and outside funders and elected officials.	Promotional	Mayor; City Staff
		2. Compile and post final graphics and associated summary report on the City's website for community reference. Provide ongoing updates in this same location to highlight progress		
		3. Hold events or create press releases that celebrate the successful, incremental implementation of projects as they advance. This may include celebrating key project milestones such as successfully navigating the permit review and approval process or a significant grant award.		
	City Endorsement & Support	1. Host meetings with City Committees to review the masterplan, build support and make positive recommendations for formal approval and adoption.	Administrative	Planning and Zoning Commission; City Council; Mayor, City Staff
2. Formally adopt the Bradstreet's Landing Master Plan via City Council.				
Administrative Activities	Funding Investigations & Acquisition	1. Review and identify target grant programs that may support implementation of the various masterplan elements. Develop a summary of milestone application dates and assign someone responsibility for overseeing application deadlines and the application development.	Administrative	Mayor; City Staff; SmithGroupJJR
		2. Proactively engage funding agency staff and local, state and federal politicians to share the masterplan vision, help brainstorm potential funding sources and gain advice to help craft successful funding requests.		
		3. Seek assistance from State of Ohio Capital Improvements Grant and Cuyahoga County Casino Funds to support implementation of initial catalytic projects critical to building momentum.		
Professional Consultant Services	Pier Renovation	1. Continue the dialog with regulatory agencies and resources to refine the project permitting strategy.	Administrative; Planning, Design and Engineering; Construction	City Staff; City Council; SmithGroupJJR
		2. Schematic Design for pier improvements including improved public access, railings, potential lighting and additional amenities.		
		3. Design Development for initial improvements and secure required project permits.		
		4. Final Design and Engineering for initial improvements and evaluate and determine project funding sources.		
		5. Project bidding and construction.		
	Pedestrian Bridge Replacement & Shoreline Renovations	1. Consider developing Schematic Design, Design Development, permits and environmental review documents for renovation of the pedestrian bridge and shoreline between the bridge and the pier in tandem with pier renovations. This approach will be most cost effective and reduce the overall timeframe required for future permitting and environmental review. State and federal water resource permits can require a lengthy amount of time process.		
		2. Develop the final plans and details and solicit bids from qualified contractors to construct the improvements once construction funding has been identified.		
		3. Create a phased design strategy for retaining the park's upland functionality (parking, recreation, circulation) during construction of the lakefront elements. Where possible, this design should lay the groundwork for the park's upland improvements according to the masterplan.		





**SMITHGROUPJJR**

