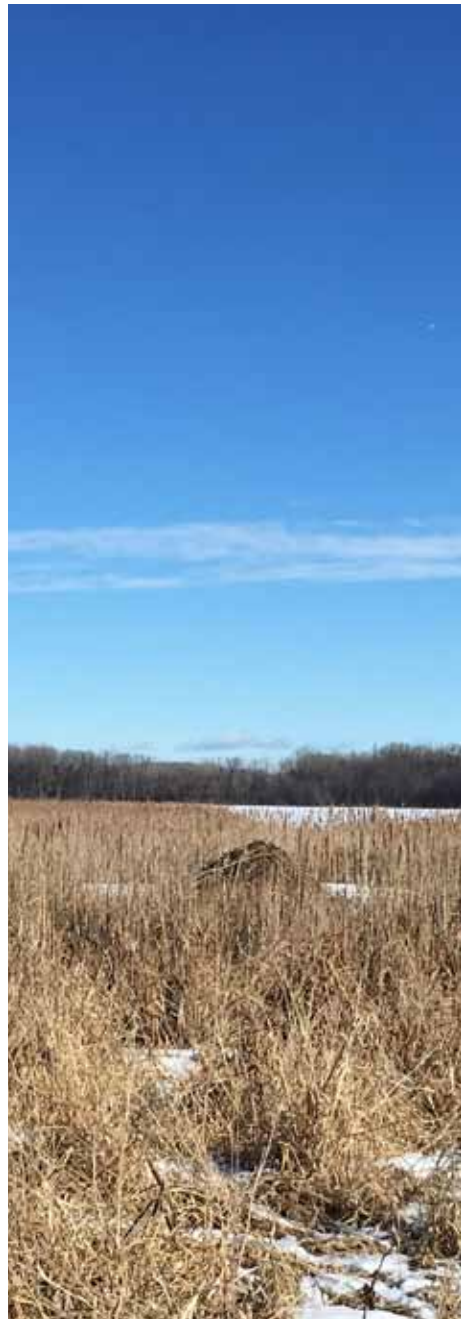


Mississippi River Environmental Learning Center and NPS Headquarters

Technical Study with Recommendations

CONFIDENTIAL Under Review



St. Paul, Minnesota

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Stakeholders / Participants

Technical study commissioned by Partners:

Saint Paul Parks and Recreation Great River Passage Initiative
National Park Service
Mississippi Park Connection
Friends of the Mississippi River
Capital Region Watershed District

Stakeholders:

Saint Paul Parks and Recreation:
 Great River Passage Initiative
 Natural Resources
 Recreation Services
National Park Service
Mississippi Park Connection
Friends of the Mississippi River
Capital Region Watershed District
Office of Congresswoman Betty McCullum
Saint Paul Mayor's Office

Advisors:

DNR
Xcel Energy
GSA
Watergate Marina
Saint Paul Park and Recreation Design and Construction
Saint Paul Planning and Economic Development
Wilderness Inquiry
River's Edge Academy

Stakeholder Meetings: 17 January, 23 February, 17 April 2017

Partner Meetings: 17 February, 20 March 2017



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1

Introduction

Introduction

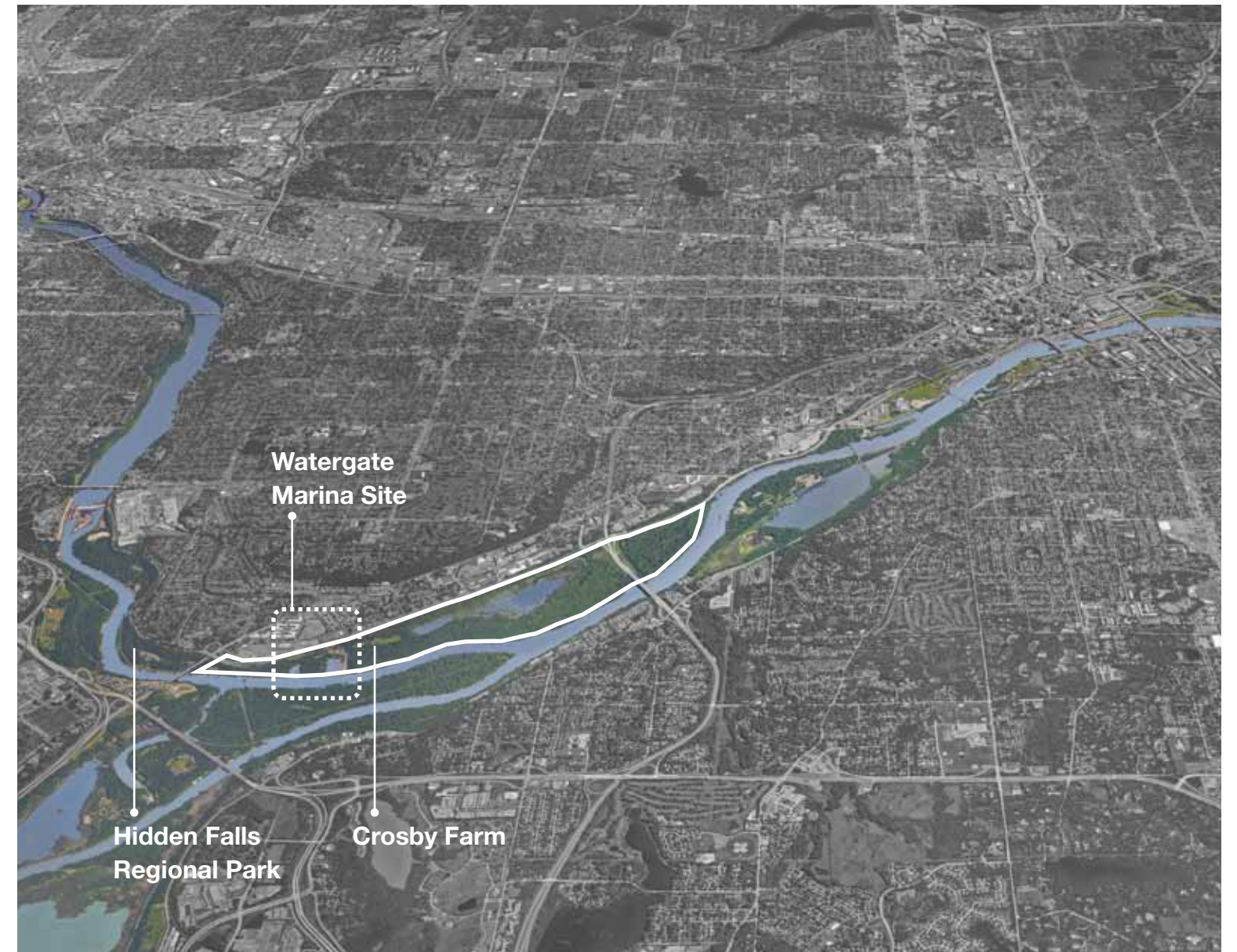
The Great River Passage Master Plan, approved by the Saint Paul City Council in 2013, included a proposal for an Environmental Learning Center at the Watergate Marina Site. The idea became a priority once it was recognized as a convergence of a strategic, historic location along the river with ecological significance, suitability for year round recreation and education, connection to larger trail systems and surrounding communities, and community and political support. Combined with this convergence was the unique opportunity to partner with the National Park Service who has been looking for a site to build a headquarters and locate their programs and events. Recognizing this important moment the five partners commissioned a technical study to evaluate the opportunity to create a combine Environmental Learning Center and National Park Service Headquarters at Watergate Marina.

The technical study evaluates:

- Programmatic needs for both uses and others
- Interior and exterior spatial requirements and opportunities
- Site analysis
- Regulatory and contractual processes and restrictions
- Design and phasing scenarios
- Leadership, ownership, partnership and fundraising considerations

The technical study is the next step in taking idea to reality and helps partners and stakeholders understand ‘what could be’ as well as what are the potential challenges that need to be negotiated.

The four-month technical study process was comprehensive, engaging stakeholders and advisors early and often to gather as much information as possible from the experts representing the various partners, landowners and jurisdictional bodies. The design team cycled through the iterative process, researching, analyzing and synthesizing information into thoughtful, forward thinking recommendations and considerations for the mixed-use river destination.

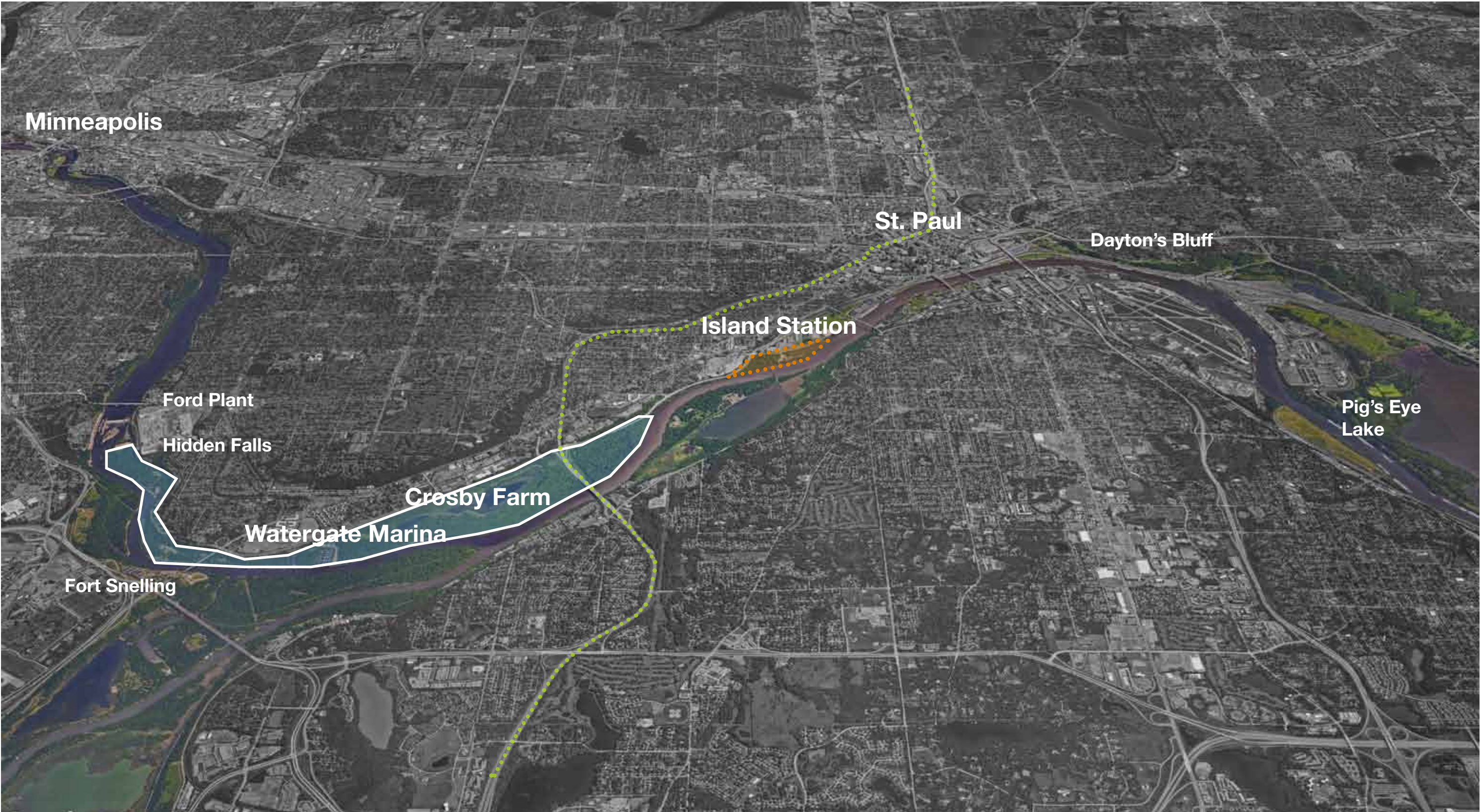


Watergate Marina Site

Site Analysis

2

Context Ford Steam Plant to Island Station



..... Watergate Marina Island Station

North ↑

Transportation Hidden Falls South, Watergate Marina, and Island Station



■ Riverview Corridor
■ 54 Bus Line
■ 46 Bus Line
■ 84 Bus Line
■ 134 Bus Line
■ Pedestrian Bridge
North

Connections



Views River Bluff Trails

North

Access and Sight Lines

Site Visibility

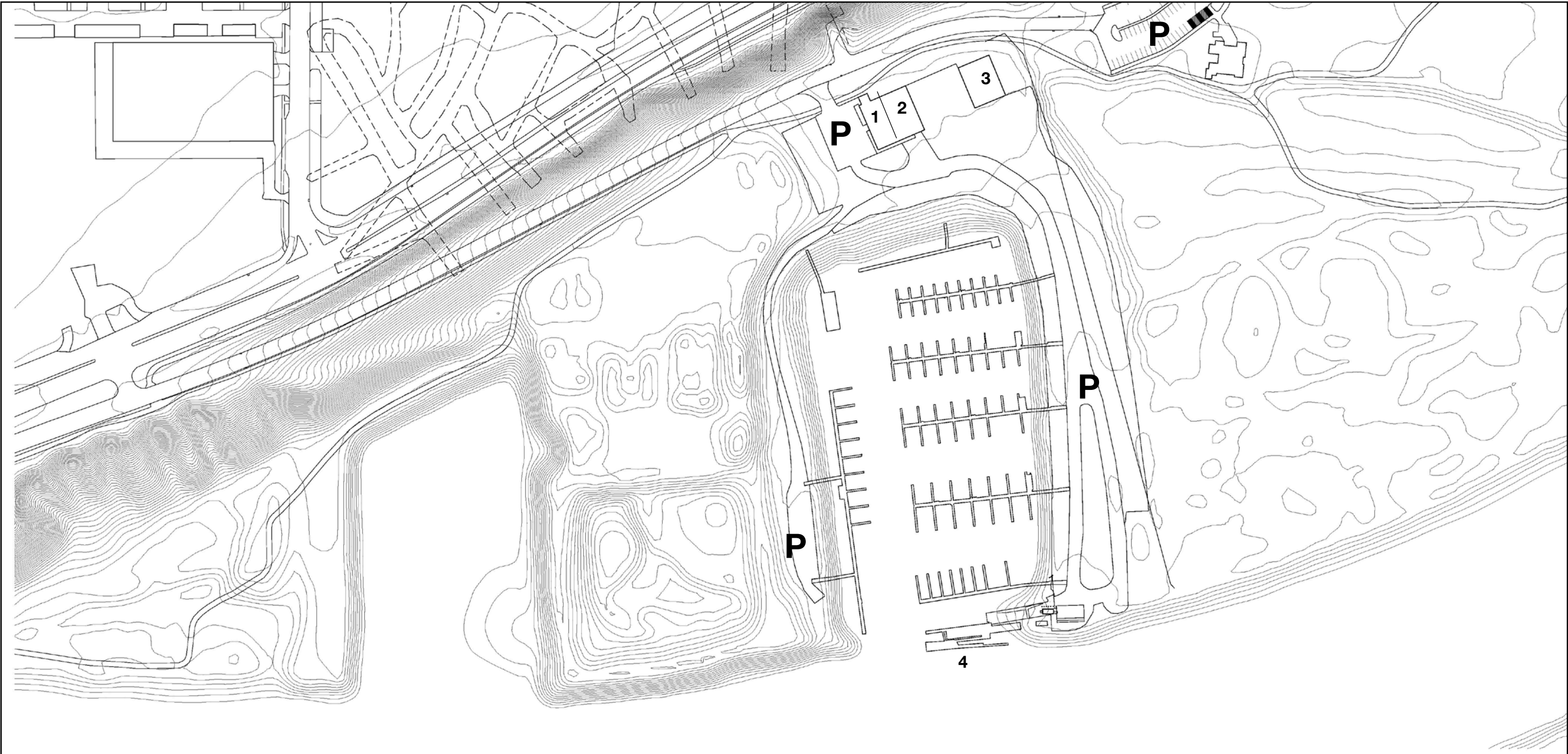


Views River Bluff Trails P Parking

North

Existing Marina

Site Plan



1 Marina Main Office 2 Tenant Repair Space 3 Storage 4 Fuel Station P Parking North 

Existing Marina

Photographs

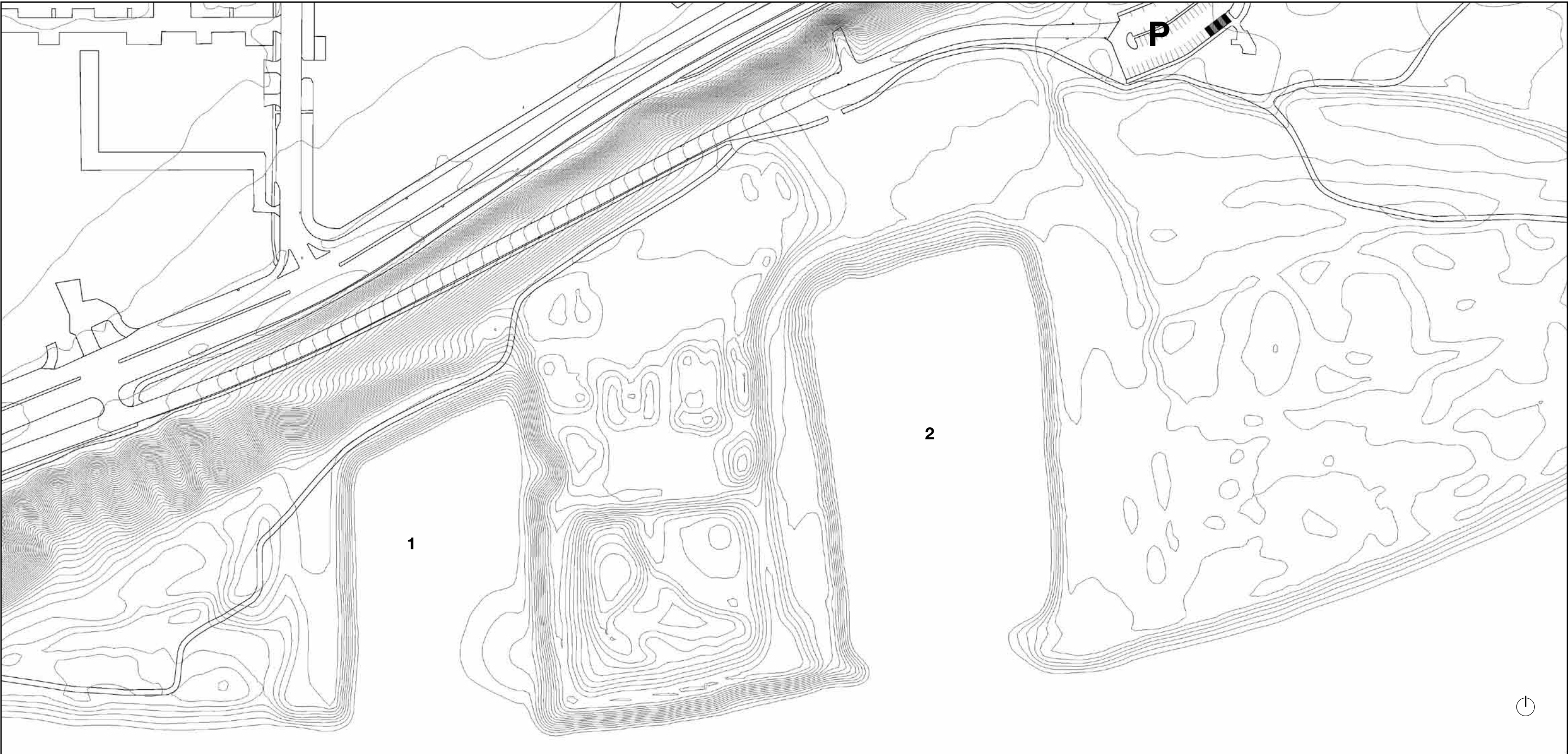


Programming
Design Analysis + Recommendations

3

Recommendation: Remove the Marina

Incompatible Uses

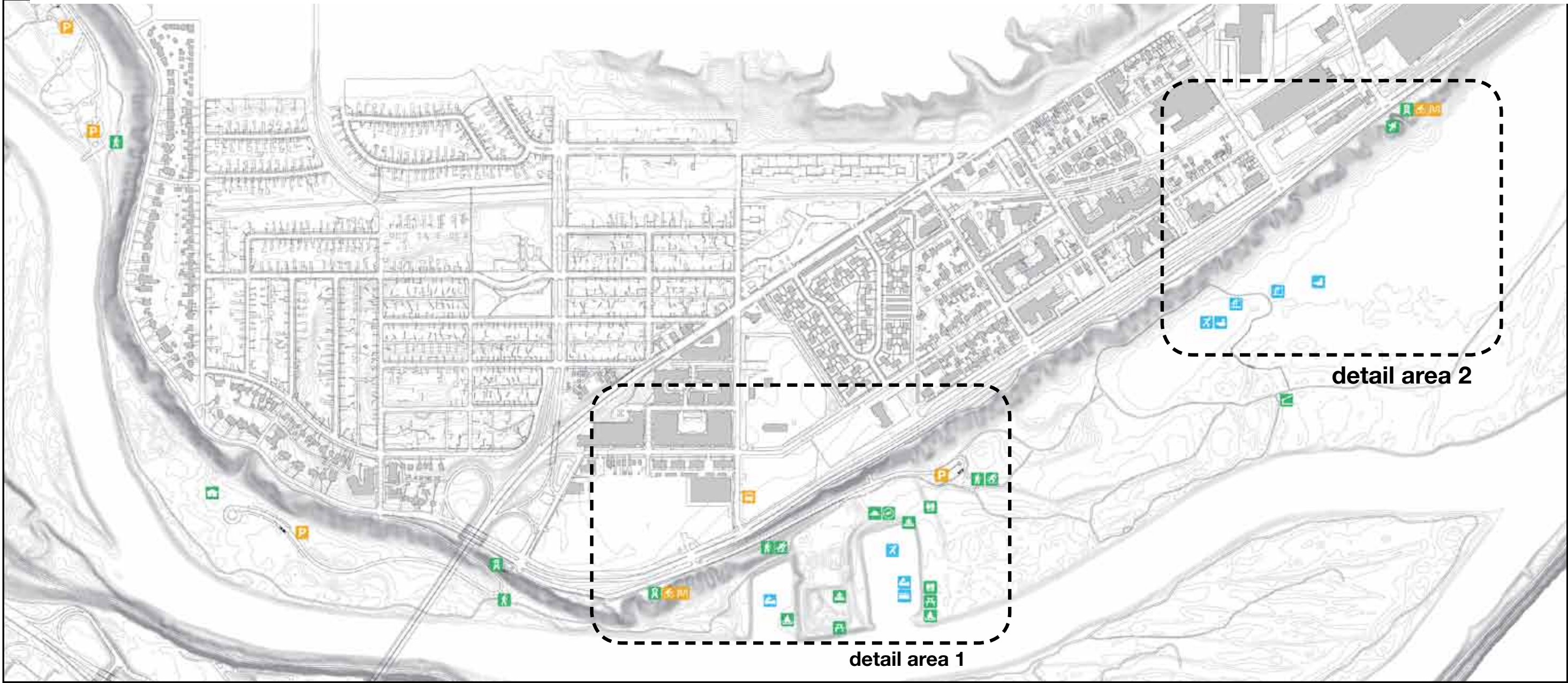


1 Upper Harbor **2** Lower Harbor **P** Parking

Site Plan without Marina

SITE ACTIVATORS

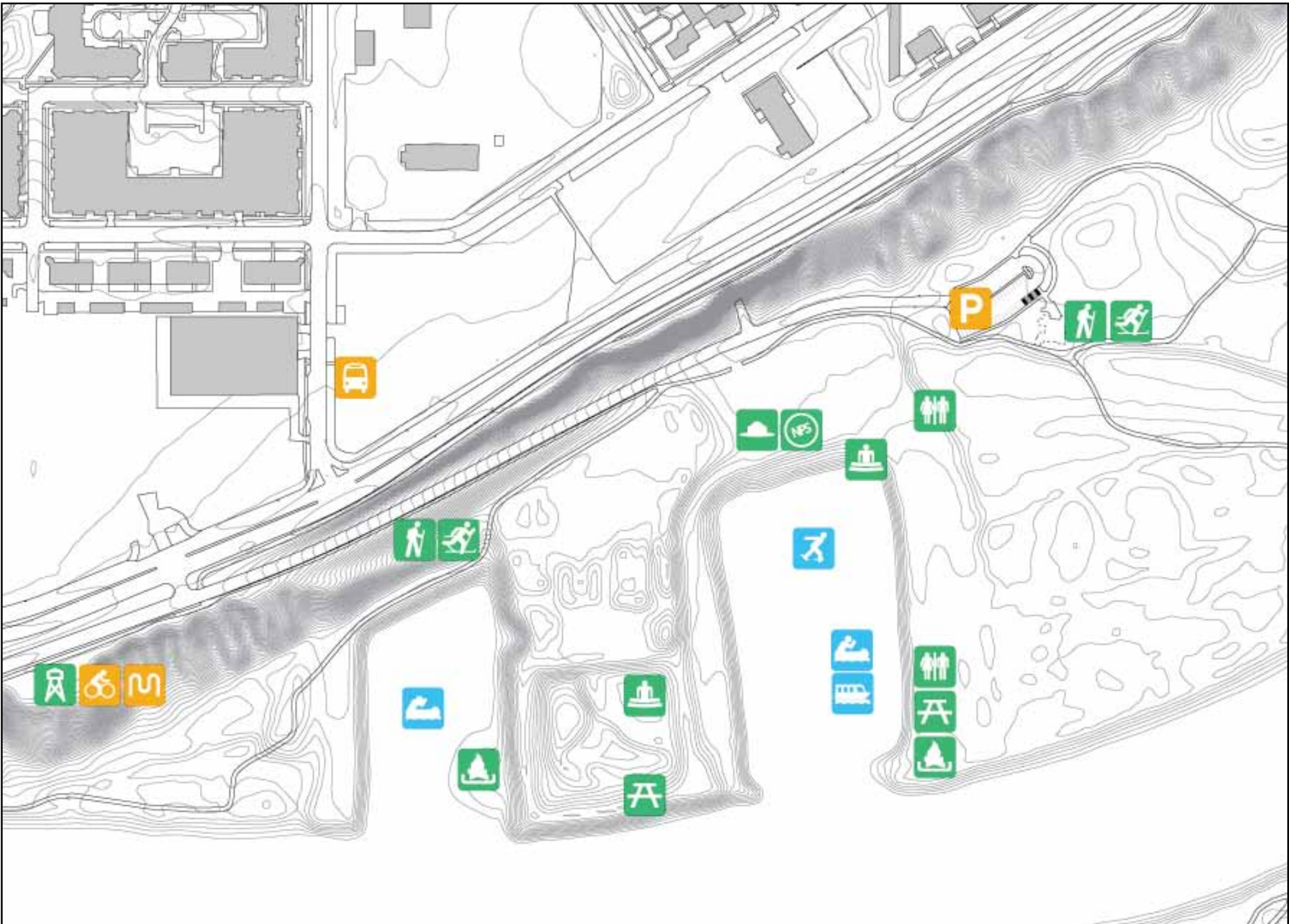
Transportation	Information and Services	Park Buildings & Site	Recreation	Camping and Picnicking	Nature and Wildlife
 Bicycle trail	 National Park Service	 Picnic shelter	 Hiking	 Campfire	 Waterfowl
 Bike rack	 Ranger Desk	 Cabin	 Technical rock climbing	 Crosscountry ski trail	
 Bus stop/Shuttle stop	 Amphitheater	 Lookout tower	 Fishing pier	 Ice skating	
 Parking	 Restrooms		 Canoe Access	 Picnic tables	



Connectivity: Mixed Use Activation

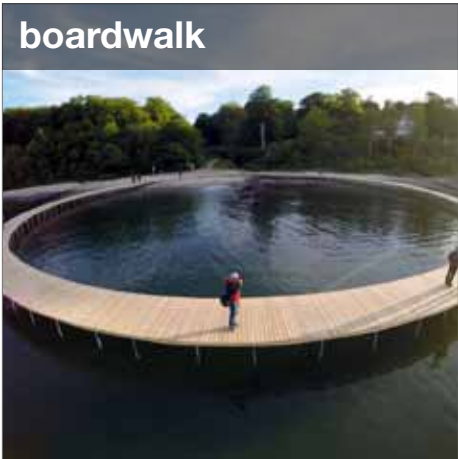
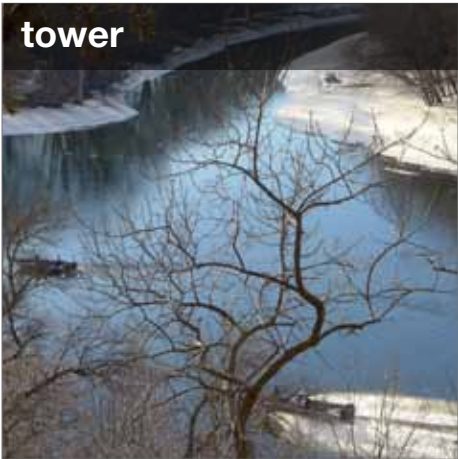
Detail area 1

Multi-modal access: boats, cars, bikes, trails



Connectivity: Mixed Use Activation

Detail area 2



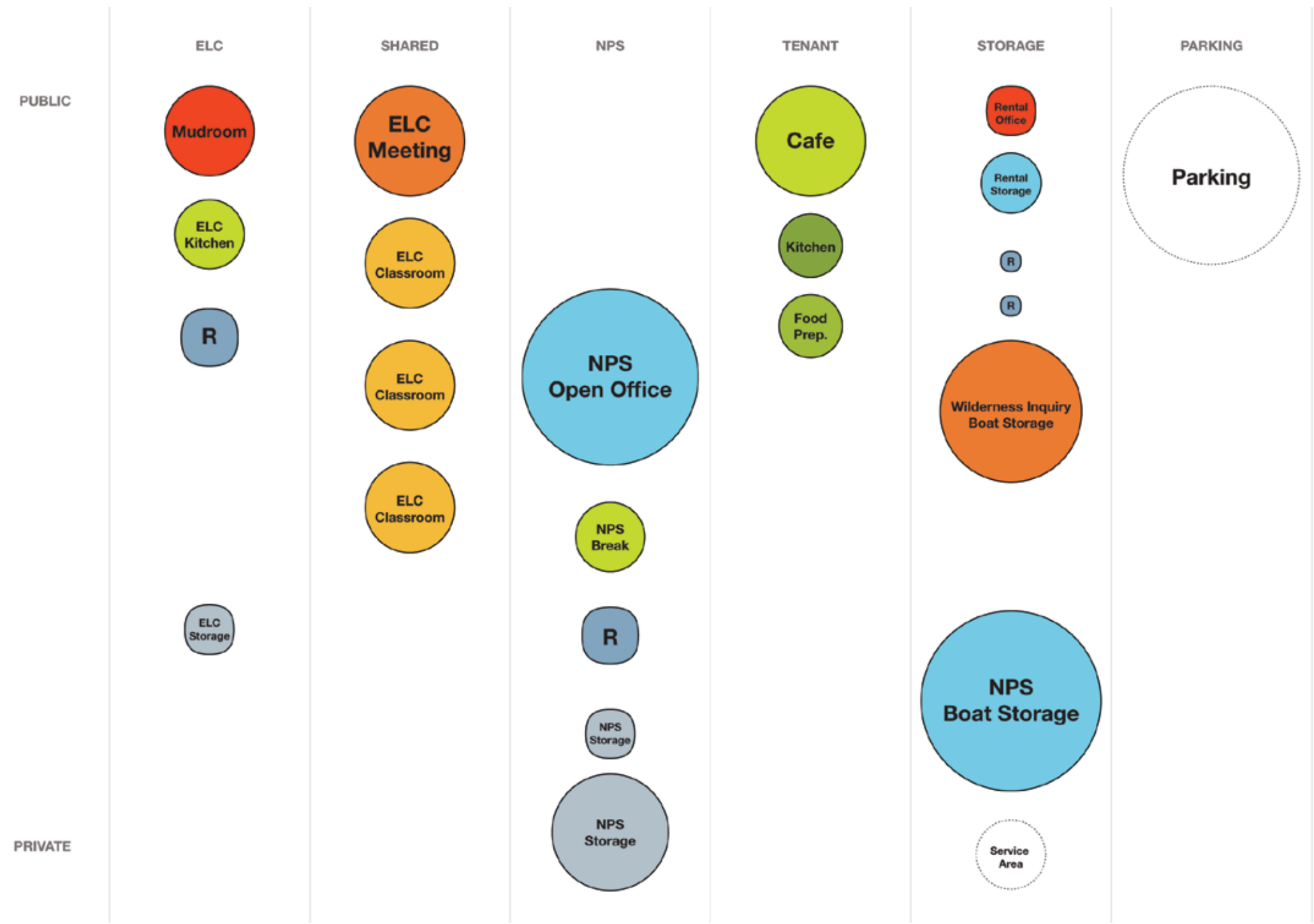
Programming

	DEPARTMENT	ROOM NAME	Occup. (O)	sf/O	AREA	Length	Width	Height
	ELC	Mudroom	-	-	1,000	32	32	10
	ELC	Classroom 1	30-49	15	900	30	30	10
	ELC	Classroom 2	30-49	15	900	30	30	10
	ELC	Classroom 3	30-49	15	900	30	30	10
	ELC	Meeting Room	18	15	600	24	24	10
	ELC	Storage	-	-	400	20	20	10
	ELC	Restrooms			600	24	24	10
	ELC	Kitchen	-	-	400	20	20	10
					ELC	NET sf	GROSS	
					S F	5,700	7,410	
	NPS	Office	51	76	3,876	62	62	10
	NPS	Office Storage	-	-	1,700	41	41	10
	NPS	Break Room	-	-	400	20	20	10
	NPS	Server	-	-	300	17	17	10
	NPS	Restrooms	-	-	600	24	24	10
					NPS	NET sf	GROSS	
					S F	6,876	8,939	
	NPS	Boat Storage	-	-	5,100	71	71	25
	Wilderness	Boat Maint.	-	-	600	24	24	10
	Shared	Rental Storage	-	-	300	17	17	10
	Shared	Rental Office	-	-	450	21	21	10
	Shared	Restroom	-	-	50	7	7	10
					Storage	NET sf	GROSS	
					S F	6,500	7,475	

	DEPARTMENT	ROOM NAME	Occup. (O)	sf/O	AREA	Length	Width	Height
	Tenant	Kitchen	-	-	250	16	16	10
	Tenant	Preparation	-	-	250	16	16	10
	Tenant	Café	50	20	1000	32	32	10
	Tenant	Partners	-	-	-			10
					Café	NET sf	GROSS	
					S F	1,500	1,950	
	Site	Amphitheater	-	-	500	22	22	10
	Site	Shelter/ Restroom	-	-	1,000	32	32	10
	Site	Bike Station	-	-	300	17	17	10
	Site	Pet Refreshment	-	-	150	12	12	10
					Site	NET sf	GROSS	
					S F	1,800	2,070	
	Existing	Café	-	-	2700	30	90	10
	Existing	Boat Maint.	-	-	4800	60	80	10
	Existing	Boat Maint.	-	-	5400	60	90	10
	Existing	Fuel Station	-	-	420	30	14	10
					Exist.	NET sf	GROSS	
					S F	12,900	0	
					TOTAL	22,376	27,844	

* Total excludes Existing

Program Relationships



Principles: Creating a Campus

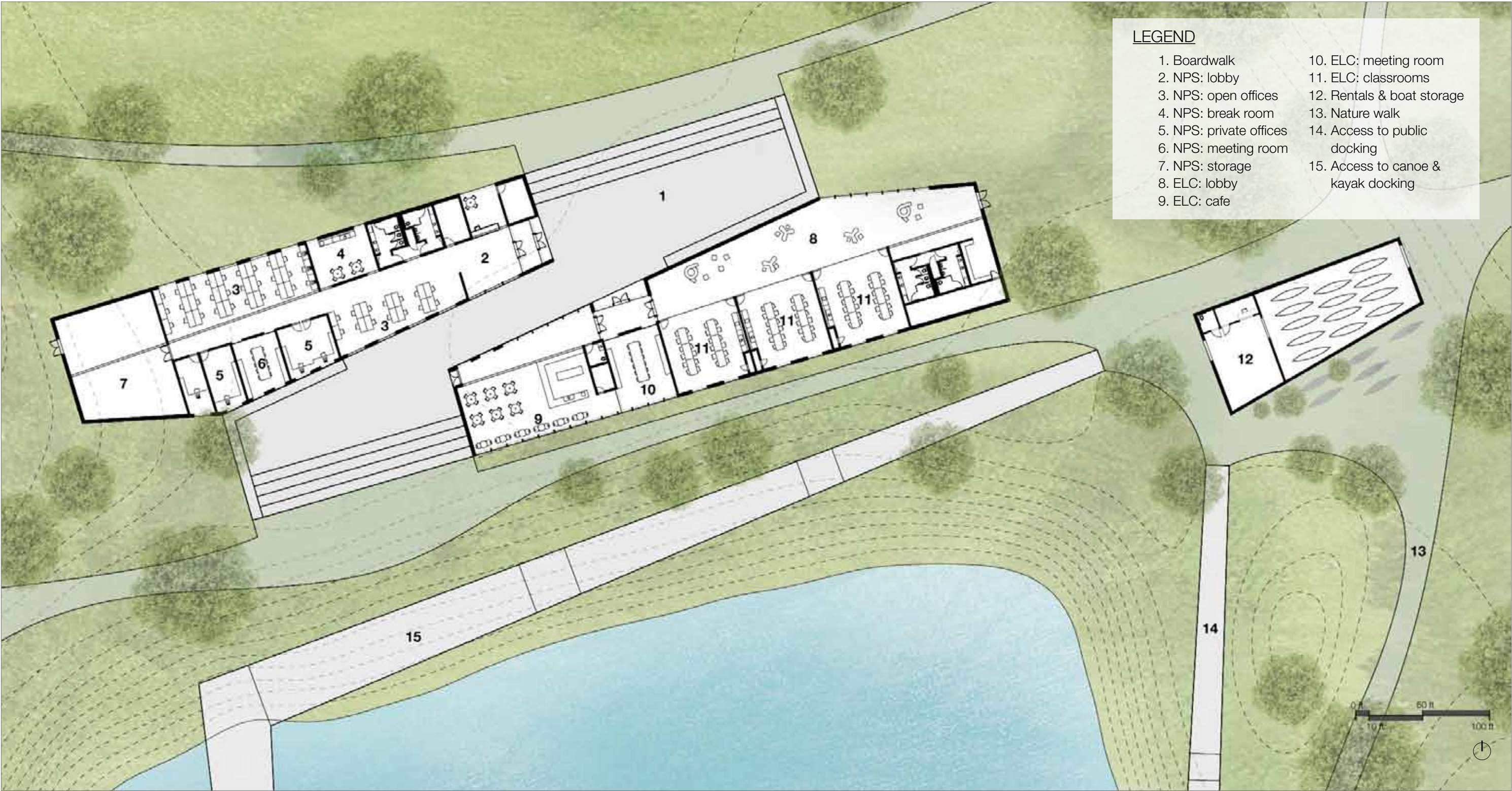


• Linked Uses

• Phased Facilities for ELC, NPS, & Boat Storage

• Flexibility and modest scale

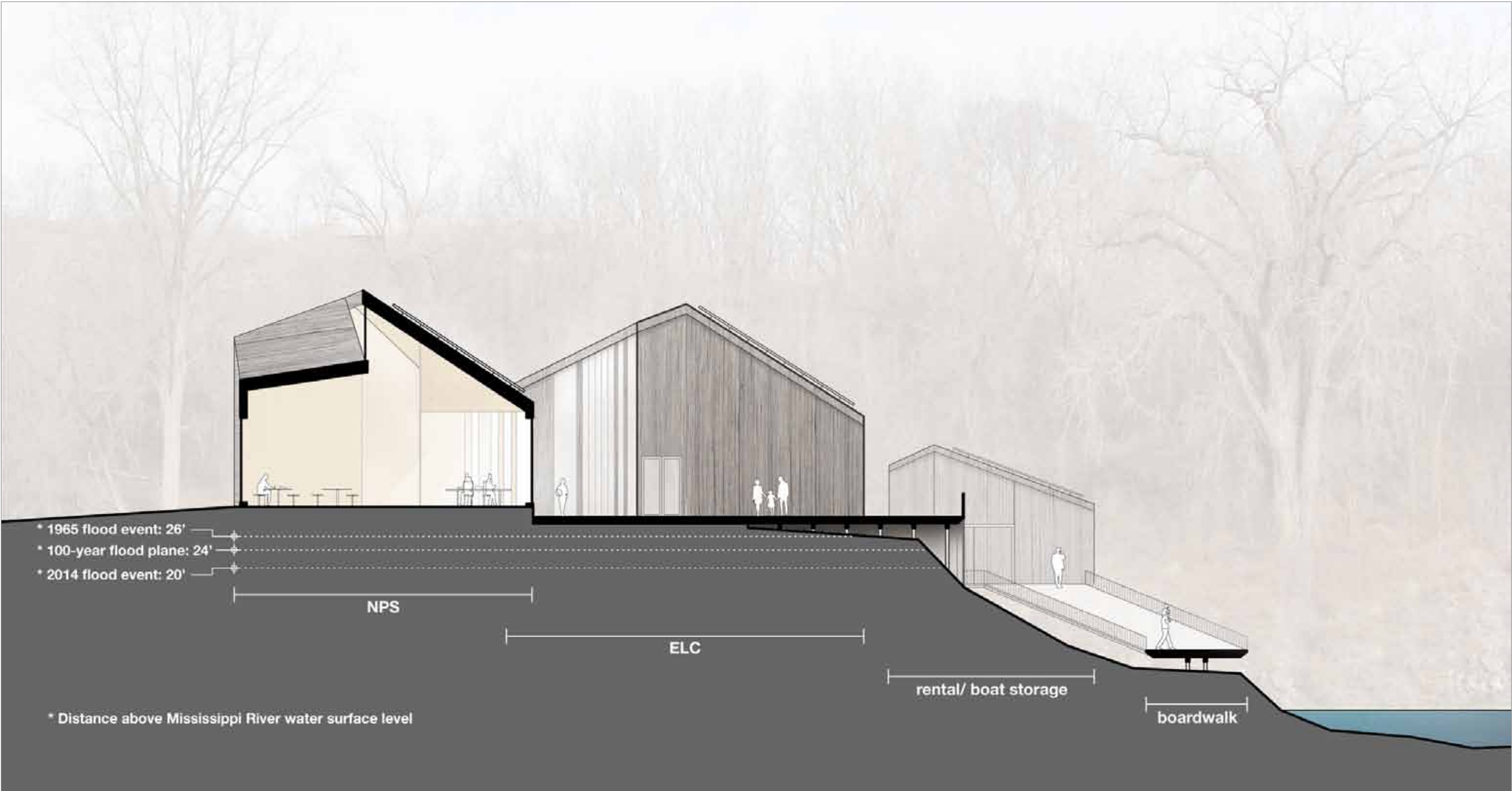
Principles: Enhancing Connections



• Partnerships among stakeholders & tenants

• Creating Connection through shared use

Principles: Light on the Land



• Elevating Above Flood Levels

• Creating Access

Principles: Visibility from the bluff & Mixed-use Activation



- Creating a safe harbor

- Site and program visibility

- Encouraging use

Principles: Forward Thinking



- Renewable energy

- Resilience

- Day lighting and natural materials

Principles: Site Based Programming



- Bringing community to the river

- Creating spatial connectivity

- Transparency

Principles: Site Based Programming



- Shared use & compatible partners

- Visibility of river ecologies

Principles: Creating a Safe, Mixed-Use Harbor



- Safe & contained spaces for beginning kayakers
- Boardwalk site connectivity & access
- Maintaining safe motorized boat access

Principles: Creating a Safe, Mixed-Use Harbor



Upper Harbor



Implementation

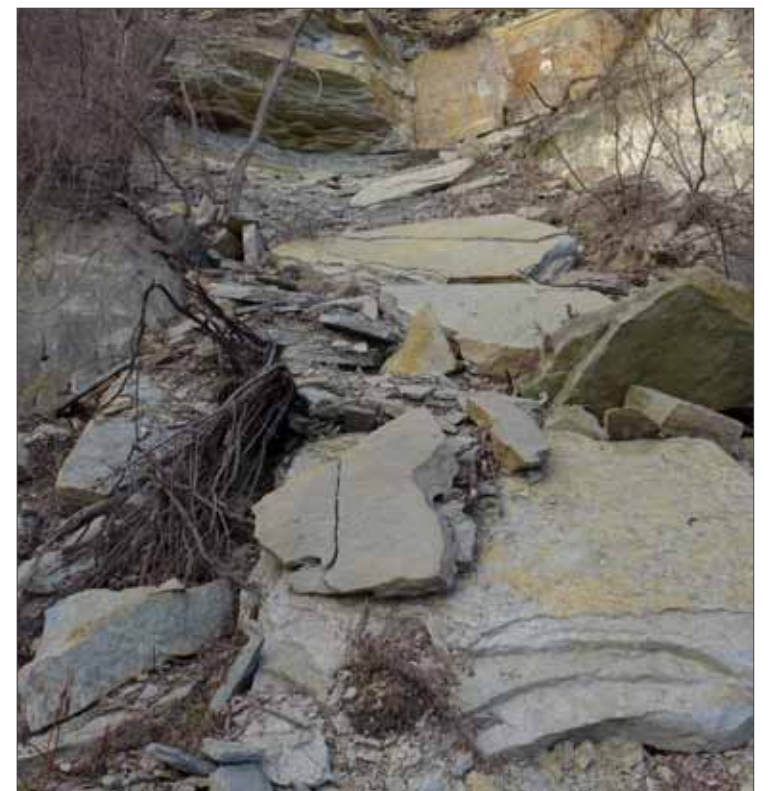
4

Considerations

Following the submission of the recommendations will need to be a 6-9 month transition period where recommendations and considerations are reviewed and the process of negotiation begins to determine if and how the proposed project will proceed. Partners and stakeholders will need to meet internally and collectively to determine leadership, ownership and partnership roles and responsibilities relative to design, construction, management and operations, and programing, as well as phasing, fundraising and revenue generation strategies.

The terms to be negotiated are interconnected and need to be addressed as part of a comprehensive, integrated strategy and supporting agreements.

- **Identity** – Branding the endeavor as a mixed-use, river focused, center of year-round activity.
- **Leadership** – A leadership in collaboration model may be appropriate. Depending on what organizations are ultimately partners, leadership can be based on ownership, technical expertise and capacity, and can vary from role to role. Process for decision-making must be established and formalized in an agreement.
- **Ownership** – Ownership is tied to leadership, and clear title and responsibility must be established for land, buildings, infrastructure, maintenance and operations.
- **Partnership** – Roles and responsibilities clearly defined in agreement and can include decision-making, tenancy, fundraising, programming, revenue generate etc.
- **Phasing** – Dependent on fundraising, relocation processes and time-tables, regulatory processes and other variables TBD.
- **Fundraising** – Clear expectations/mission defined for construction, maintenance, operations and programming fundraising. Roles and responsibilities defined for both public and private fundraising and supportive communications.
- **Programming** – Feasibility study to determine leadership, river focused curriculum, programming and education opportunities, business plan.
- **Regulatory** – Engage early-on the various regulatory bodies to understand the requirements and time tables.
- **Engagement** – Create a plan to engage the community, civic leadership and potential funders early and often. NOTE: the Watergate Marina site is within a larger Native American sacred site and a process of engagement with the Native American community must be established immediately.



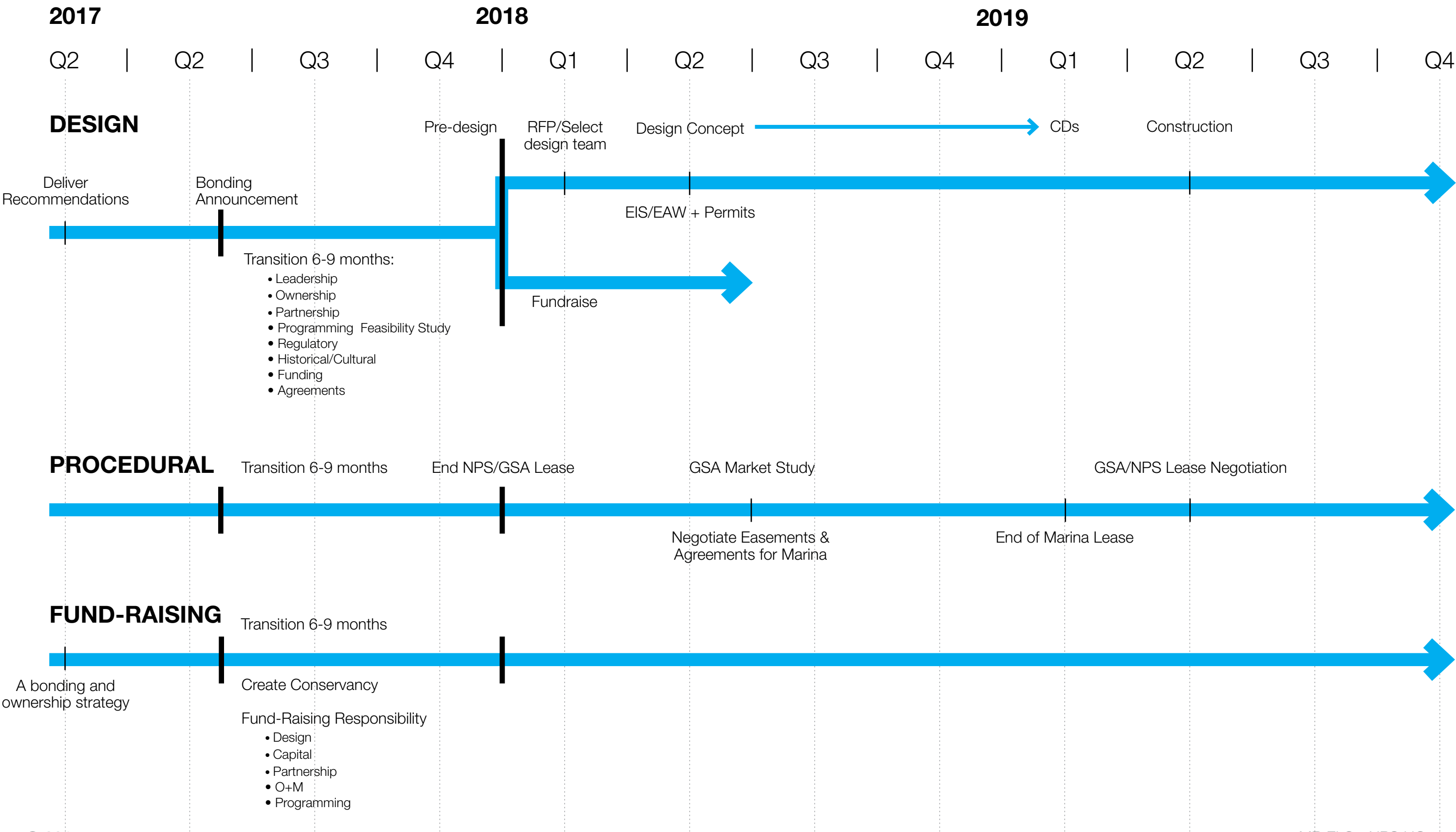
Considerations

- **Revenue Generation/Business Plan** – Clear expectations for revenue generation must be defined and breadth of opportunities explored as part of creating a River Center business plan for capital and long term maintenance, operations and programming funding. Building on existing partnerships, and shaping new partnerships, will comprise part of this important step.
- **Revenue Generation Opportunities** – With location of a combined Environmental Learning Center and National Park Service Headquarters at Watergate Marina, stakeholders have an opportunity to incorporate revenue generating activity to support the facility and its programs. The stakeholders group will coordinate the identification of potential partners or vendors.



24 Month Timelines

ELC/NPS Headquarters

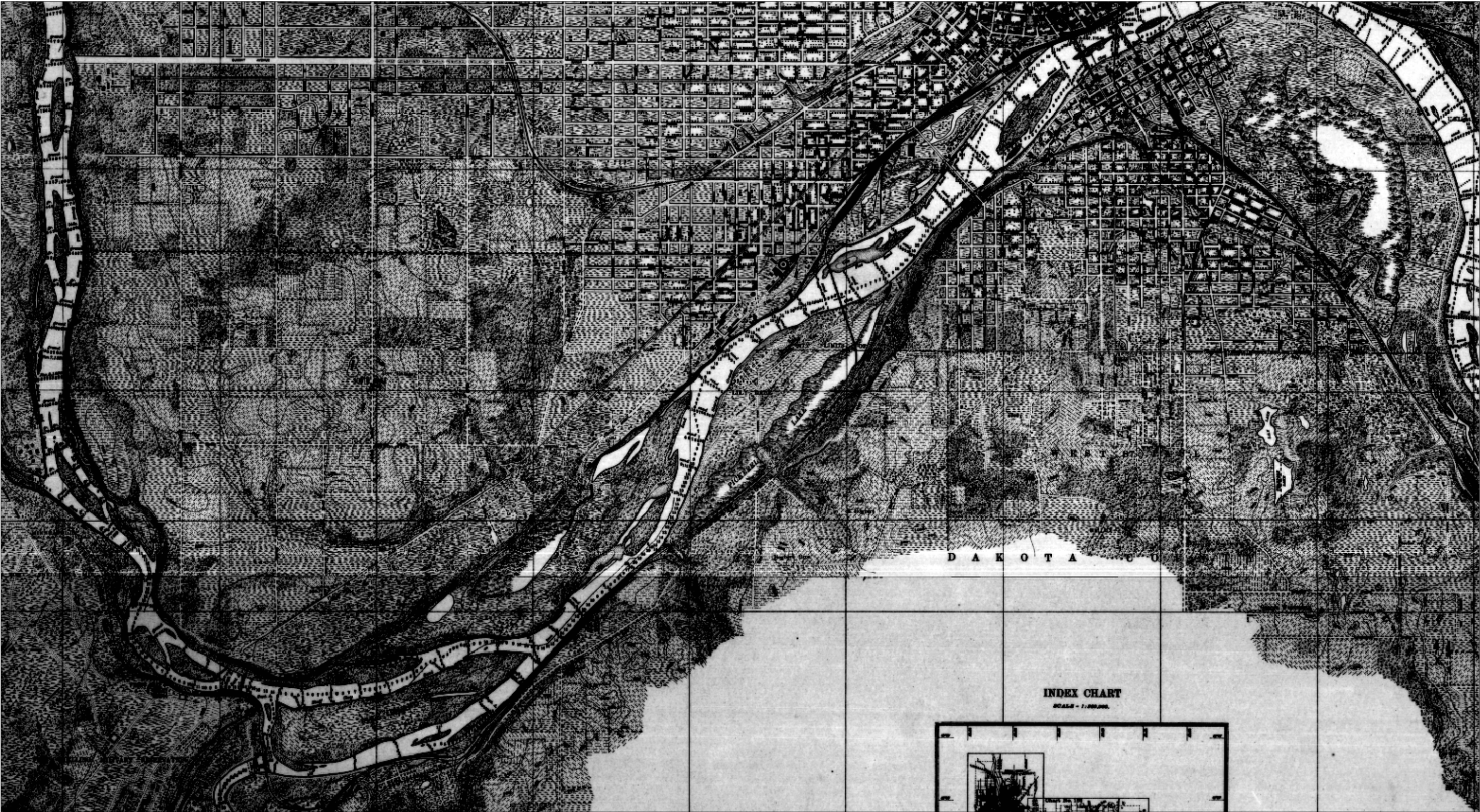


Appendix

5

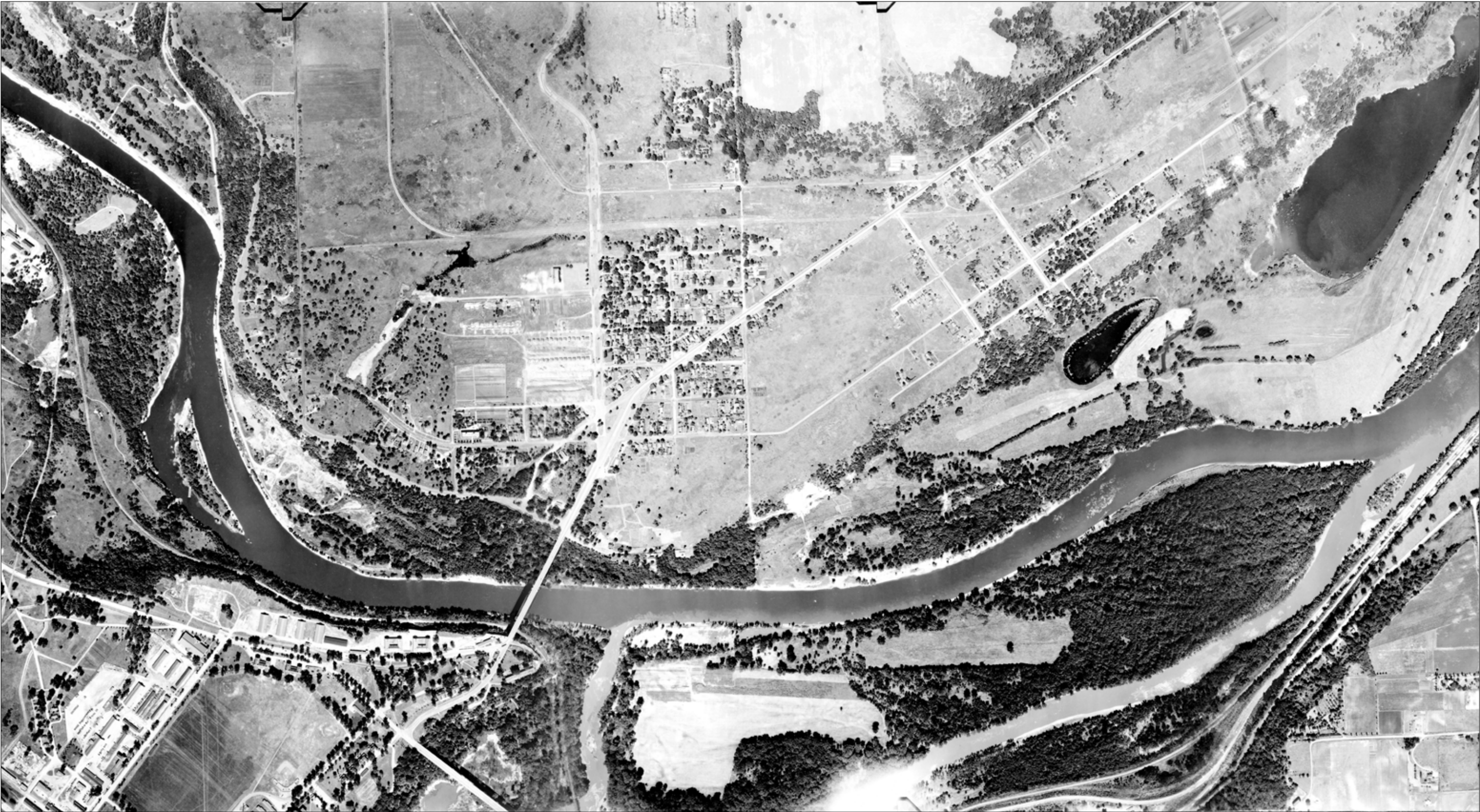
A. Historic Maps

Historic Maps 1890's Mississippi River Commission Map



North

Historic Maps 1950's Minnesota Historical Aerial Photo - Before Harbors



North 

Historic Maps 1970's Minnesota Historical Aerial Photo - After Harbors

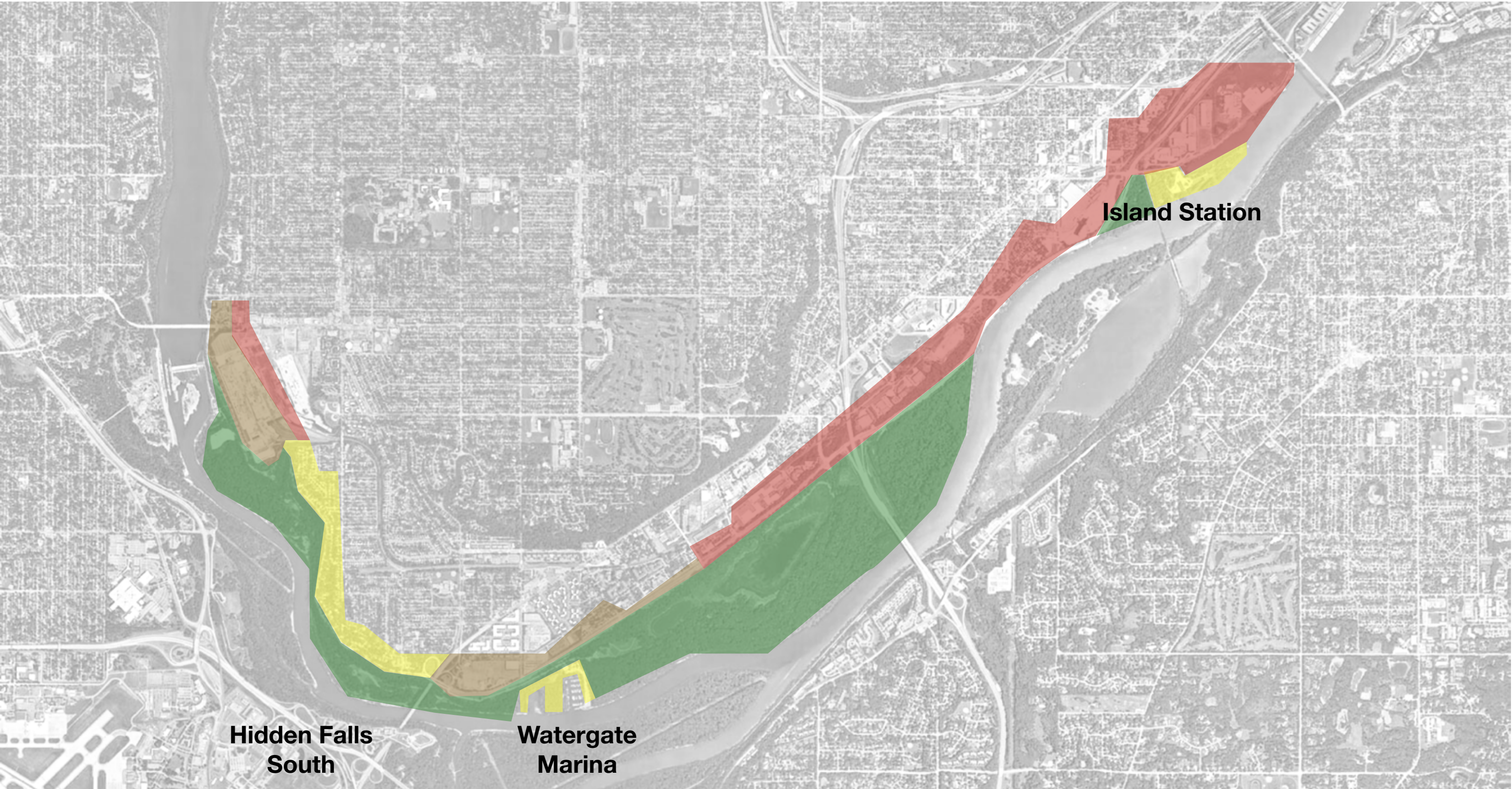


North 

B. Watergate Marina

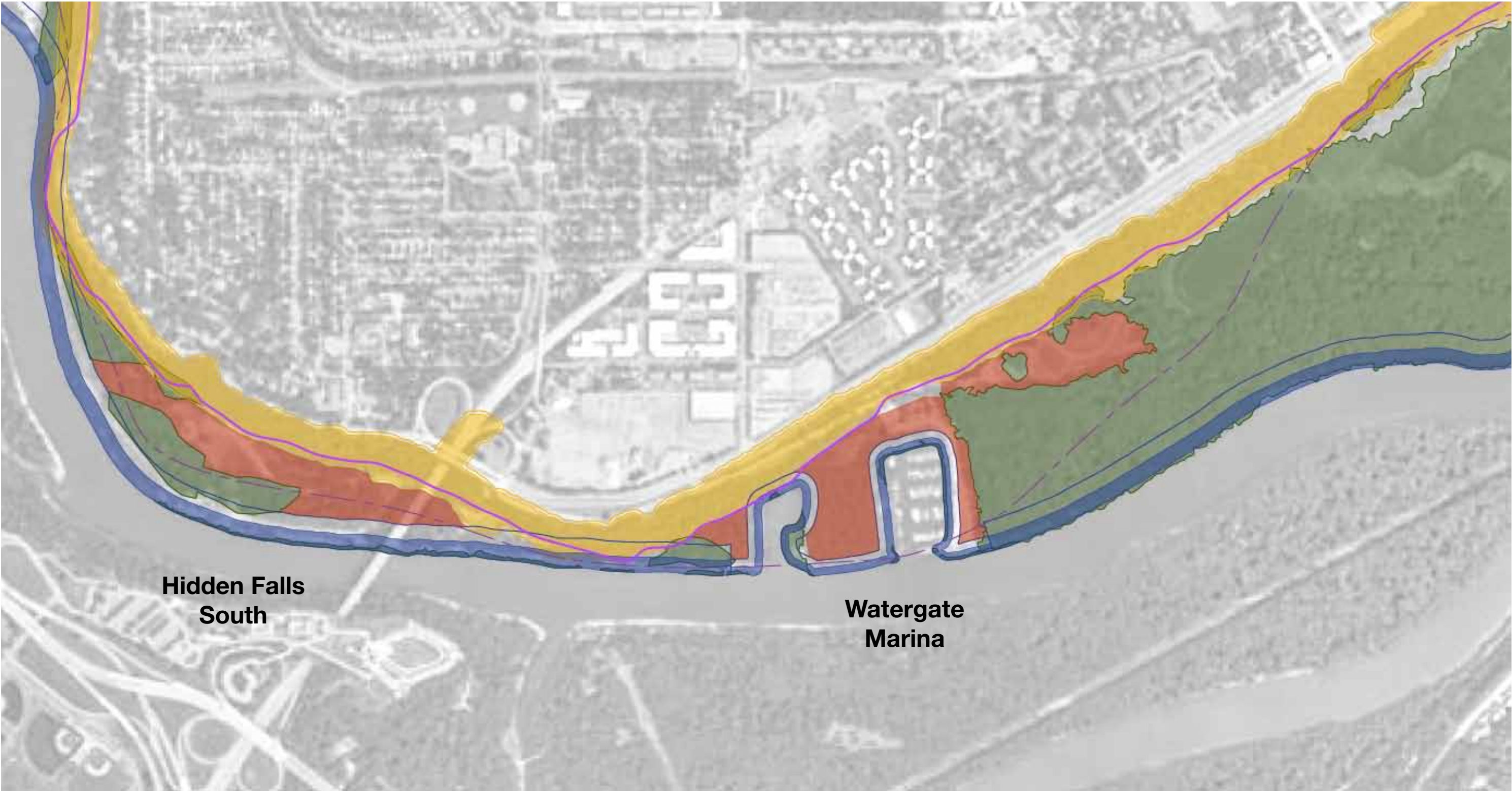
Site Restrictions

Mississippi River Corridor Critical Area



CA-ROS: Rural & Open Space CA-RN: River Neighborhood CA-RTC: River Towns & Crossings CA-SR: Separated from River CA-UM: Urban Mixed CA-UC: Urban Core

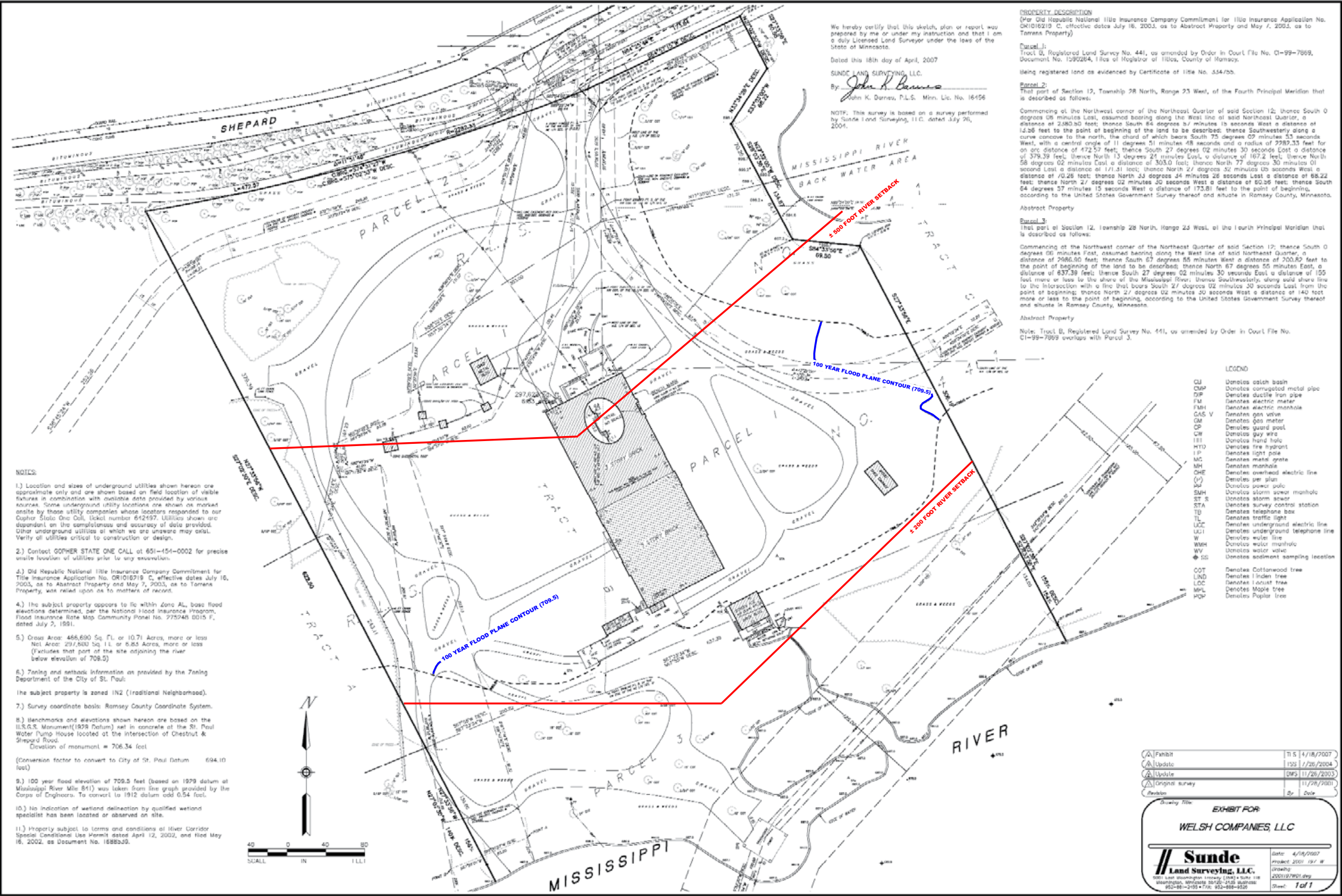
Site Restrictions Hidden Falls South and Watergate Marina



River Impact Zone River Setback Wetlands Floodway Floodplain (100 year) Bluff Impact Zone Bluff Setback Buildable Area (without variance) North

C. Island Station

Island Station Survey, 2007



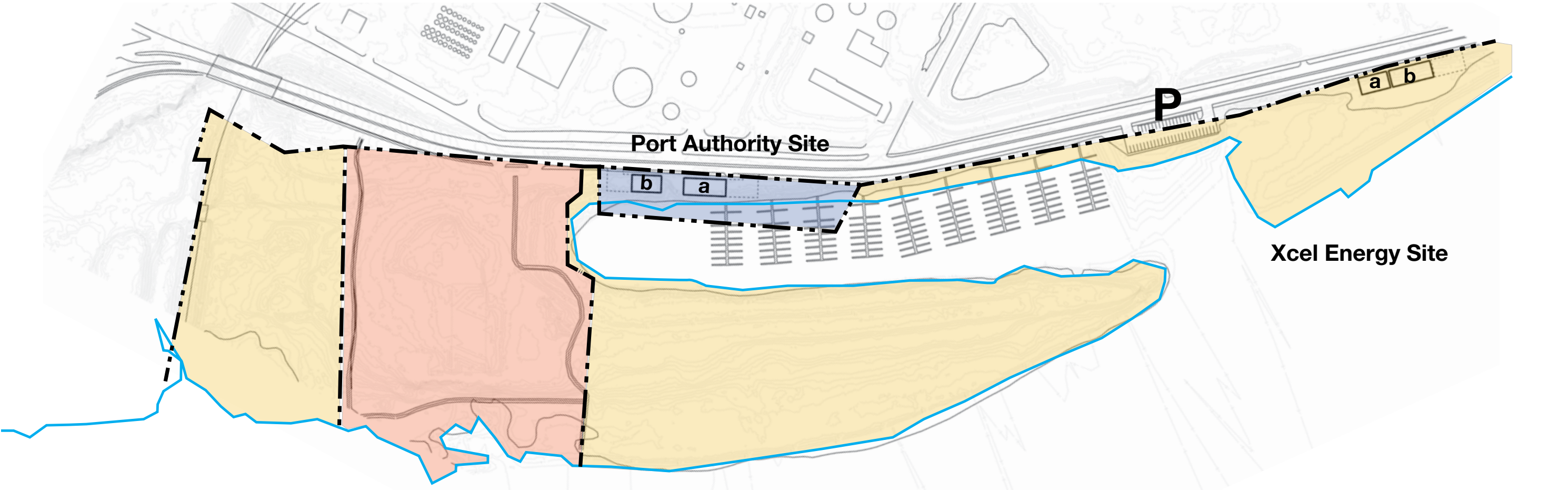
Island Station Welsh Companies' Proposed 2009 Development on Island Station



Mississippi River Development Site
Welsh Companies, 2009
Drawing by RSP Architects

North

Island Station Potential Sites to relocate existing program areas from Watergate Marina



Watergate Marina
Existing Program
Areas

a Marina Main Office

b Tenant Repair Space

Port Authority Xcel Energy St. Paul River Walk LLC **P** Parking Watergate Marina Program Areas River Edge Property Boundary

North ↑

D. Precedent Studies

Programming Mtg. 1:

Gale Woods Farm Precedent

Minnetrista, Minnesota

Overview: “a unique educational opportunity where visitors of all ages gain an understanding of agriculture, food production and land stewardship.”

Activities: Archery, Art Education, Biking, Boating, Camping, Disc Golf, Dog Trails, Educational Farming, Fishing, Gardens, Geocaching, Golfing, Hiking, Horseback riding, History Exploration, Mountain Biking, Nature Education, Paddling, Picnic Areas, Play Areas, Swimming, Cross-country Skiing, Downhill Skiing, Skjoring, Sledding, Snowshoeing,



Farm Education

Hands on Education

Introduction to Animals

Recreation

Programming Mtg. 1:

Schuylkill Center for Environmental Education

Schuylkill River, Philadelphia, Pennsylvania

Overview: The Schuylkill Center is an urban environmental education center that reaches all age groups through classes, experience, and art.

Activities: Nature preschool, environmental art, land stewardship, wildlife clinic, environmental education symposiums, “River Days”. Art gallery, Native Plant Nursery, Wildlife Rehabilitation Clinic.



Nature Play

Hands on Education

Community Events

Making

Local Art

Programming Mtg. 1:

Marine Environmental Education Center in Malmo by Nord

Malmö, Sweden

Overview: “The proposal merges indoor and outdoor spaces under a single, large roof to create an engaging learning landscape centered around marine life.” - AD

Activities: Floating laboratories on small removable pontoons, teaching signs on the seabed and underwater sea binoculars. Display of building’s water handling, energy consumption and ventilation functions. Interaction with marine life, engaging learning landscape, play as learning, and global warming education.



Learning landscape



Connection to landscape



Outdoor Education

Site Topography

Grace Farms by Sanaa

New Canaan, Connecticut



Following the landscape



Connection to landscape



Cafe

Site Topography

Norwegian National Tourist Route Stops

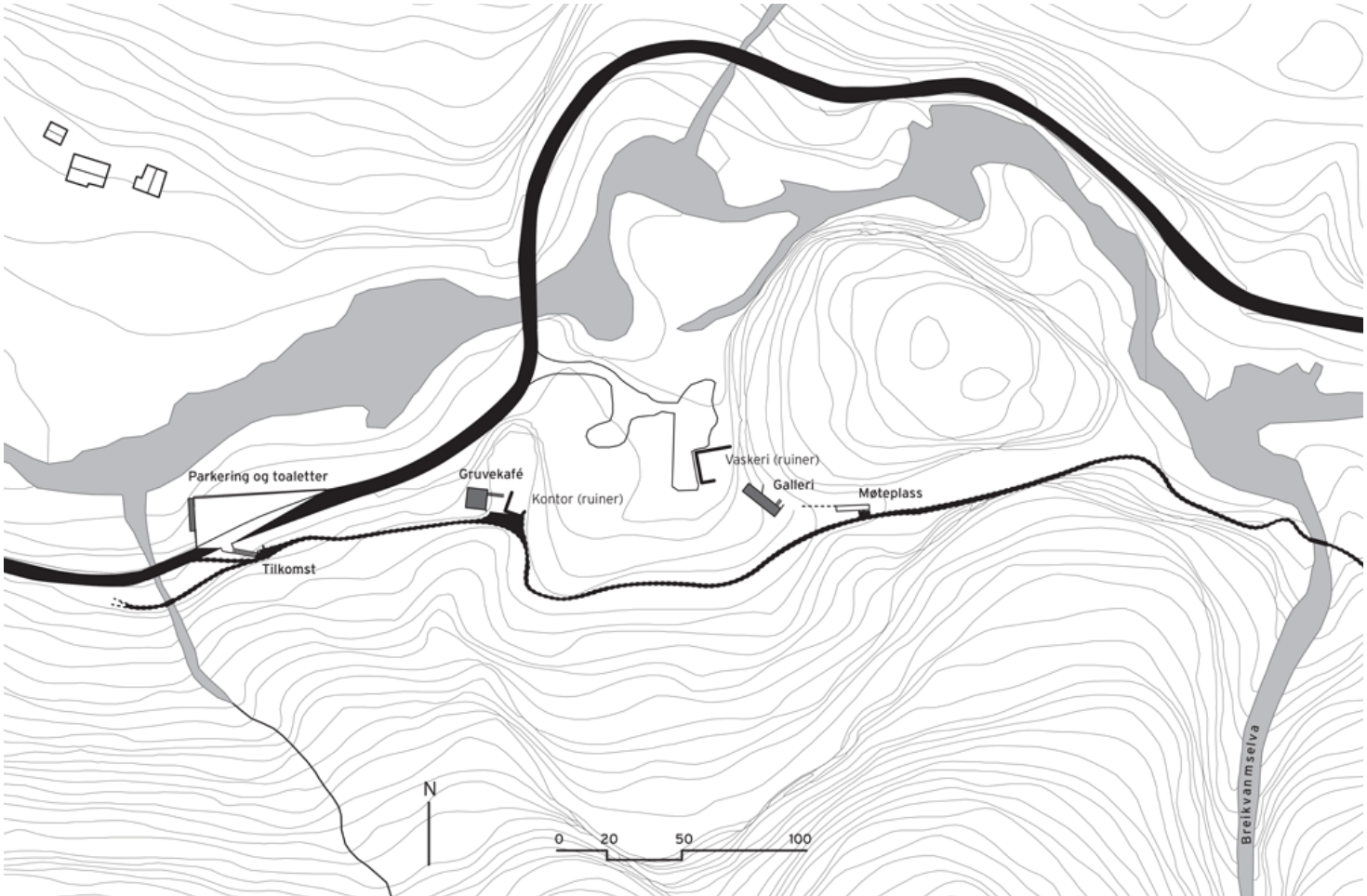
Sauda, Norway



Visitor center

Cafe

Public restrooms



Site plan

Overlook

Norwegian National Tourist Route Stops



Tourist route stop Stegastein Viewing Platform by Todd Saunders and Tommie Wilhelmsen



Overlook

Overlook

Norwegian National Tourist Route Stops



Tourist route stop, walkway and bench



Mining cave entrance

Waterfront / Floodplains

Scenic Hudson Land Trust: Hudson River Education Center and Kayak Pavilion by ARO

Beacon, New York



Arts and Environmental Education Center



Kayak Pavilion



Community Spaces and Classrooms

Waterfront / Floodplains

Haystack Mountain School of Crafts by Edward Larrabee Barnes Associates

Deer Isle, Maine



Campus



Outdoor gathering space



Light touch on the landscape

Waterfront / Floodplains

Brockholes Nature Reserve by Adam Khan

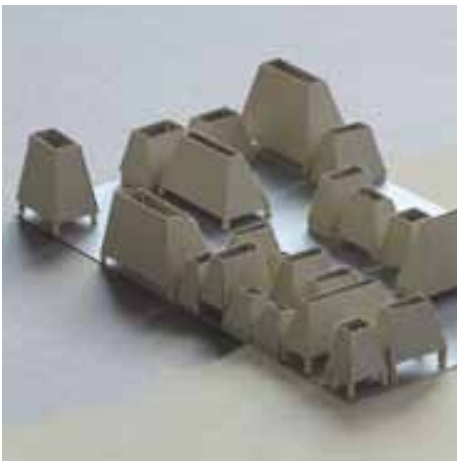
Preston, England



Floating in the wetlands



Dock entrance



Interior

Support Documents



Revenue Generation



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Marina Slip Research: Compiled March/April, 2017

General Market Overview Findings:

- Most Marinas’ slips are majority buy/rent; fewer transient slips (overnight, temporary)
- Marinas that are not near bridge construction or close to cities are highly trafficked by boaters during the boating season.
- Marinas within easy walking distance of city centers, local shops, restaurants, et cetera, generate significant revenue for those businesses.
- Many marinas offer discounts for local residents (10-15%).
- Most marinas along the section of river considered have 200-300 slips.
- Overnight, transient slips typically range from \$1.00-2.00 per foot per night.
- Seasonal rental rates vary drastically depending on boat size, marina location, membership fee and additional amenities (20ft~\$750-\$3,000; 50ft~\$3000-8,000)
- Slip prices also vary depending upon the location within a marina.
- All marinas contacted, indicated they are very busy during the boating season and slips are almost always full.
- The city-owned marinas reviewed, fund all marina expenses and area businesses do not formally contribute, although the businesses benefit from summer marina traffic. Generally, the marinas seem to have a good relationship with local business owners.
- The city-owned marinas, Red Wing and Lake City, generate a significant profit for the city. Location is a big factor, because both marinas are right in the city and provide access to local businesses, amenities and activities.

Pricing Comparison

Marina	“Transient” docking fee	Annual slip fee – 26’	Annual slip fee – 40’
Red Wing/Bay Point	\$1.20/foot	\$1,271	\$2,384
Red Wing/	\$15/night < 28 feet \$20/night > 28 feet	\$1,132	Only slips < 40’
Lake City	\$1.00-\$1.40/foot	\$1,650	\$2,900
Bayport Sunnyside (slip rental bundled with winter storage)	\$1.25/foot	\$3,300	\$5,200
St. Croix Marina	\$40/night < 29 feet \$60/night > 60 feet	Undetermined	Undetermined
Watergate Marina	Undetermined	\$1,758 (2015)	\$2,930 (2015)

Red Wing Marina (Owned by city, on Mississippi River)

Summary

- 284 slips total (2 locations)
- 128: right in town within walking distance (highly-sought after by boaters)
- 97% full (just the right amount: “As full as I want it to be”)
- ~3%: set aside for visitor docs (holidays, festivals, concerts, summer weekends-- fill most every weekend in summer)
- Transient boat slips: nightly rent only (\$1.20 per foot per night)
- Transient boaters can stay for as long as want (By the month if they want)
- City leases some docs to boat clubs that sell slips to members, but city doesn’t sell slips themselves (lease from city= max of 25 years)
- Anyone on river can lease slips, but discount for residents

Ownership/Management

- City owns entire marina + pays for all costs
- Nearby businesses do **not** directly fund marina
- City poll: average person spends \$300 per boat per weekend to be in Red Wing (including: food, liquor, eat in area); does not include boat, fuel and slip expenses
- Marina is a big generator of business in summer to businesses near water

Lake City Marina (Owned by city, on Mississippi River/Lake Pepin)

Summary

- Almost 100% full in summer; have a waiting list for 2017 season
- Transient slips full on weekends

Ownership/Management

- City owns entire marina + pays for all costs
- Nearby businesses do **not** directly fund marina
- Businesses, shops and restaurants are all within walking distance of marina; summer boat traffic generates a lot of business around the marina
- Marina generates significant profit for city; most of the money goes back into public city facilities (library, parks, ect.)
- New 10,000 square foot Administration Building
- Open 7 days a week, April thru October
- State-of-the-art floating docks 16'-50', tie-alongs to 90'
- Electrical service 30 amp, 125 volt; 50 amp, 125/240 volt
- Clean restrooms and shower facilities

Revenue Generation

- 91 octane regular gasoline
- Diesel available upon request
- 2 Pump out stations and portable toilet dump station
- Monitor VHF Channel 16
- 35 ton Marine Travelift
- Mast jib crane
- 2-lane launch ramp
- Average depth 8'
- Transient dockage
- After hours security
- Tennis courts
- Swim beach
- Just steps from shopping, food and entertainment
- Year around Security

Sunnyside Marina, Bayport (Association marina, on St. Croix River)

Summary

- Only overnight docking, no daily docking (min fee of \$35, over 28ft \$1.25 per foot-- 8 slips)
- Almost all marinas along St. Croix River are association marinas (owned by boaters)
- For newer marinas such as Bayport (1980s establishment), permits have requirements for proportion of slips for sailboats, for motor boats, etc., as a DNR strategy of broadening access to river. These newer marinas often have permits that require more overnight boat slips than previously in place.
- Nearly 100% occupied year-round
- They occasionally do month-to-month slip rent when there is less boat traffic, but prefer not to.
- Weekends are very busy throughout summer, not so much on weekdays
- Overnight slips are a way to show off marina and if patrons are local they may convert to seasonal renters
- Renting seasonally is preferred

Afton Marina & Yacht Club (Association marina, on St. Croix River)

Summary

- 184 slips total.
- Structured like a country club (buy a membership, get a slip)
- People who no longer use a slip they bought rent it out to others
- No daily slip rental, only seasonal.
- Slips are in demand - only 5 or 6 free right now.
- Slips less than 40’ are in highest demand
- The City of Afton owns 4 or 5 slips, and they only offer temporary docking (no overnight).

###

Revenue Generation



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High Level List of Prospective Revenue Relationships
April, 2017

Prospective collocation of the Environmental Learning Center and the National Park Service headquarters offers the benefit of attracting several audiences or customer types to the location. As a result, prospective revenue relationships are somewhat diverse in their seasonality and type of use and visitation of the site. Examples of partners may include:

Hospitality: The City has developed and maintains contractual relationships with seasonal and year round restaurants and cafes. Visitors to the facility would value availability of food on site, and it would likely extend the average duration of a visitor’s stay. The riverside location, views, and proximity to activity centers including Highland Park, the 494 corridor in Bloomington, and the MSP International Airport could also entail an attractive combination for potential food partners looking to serve a broader customer base.

Environmental Preschool: The consultant team and City staff have received feedback during this process that a preschool use could be a viable partner. Substantial green space and natural areas, river access, and a central location to neighborhoods in Saint Paul, Minneapolis and Bloomington could present an opportunity for a preschool on site.

School Districts: Saint Paul Parks and Recreation is engaged with metro school districts including but extending beyond Saint Paul Public Schools. Existing and new partnerships with school districts could include programming at the Environmental Learning Center, in tandem with the National Park Service.

Equipment Rental, Storage and Construction: With a collocated Environmental Learning Center and National Park Service headquarters, the Watergate Marina site offers users, space and direct river access to make it highly suited to boat rental, storage and construction.

###