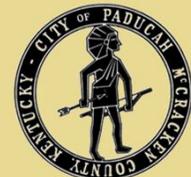


Paducah Waterfront Development Project (Phase I)

KYTC Six Year Plan Project No. 01-122

ENVIRONMENTAL ASSESSMENT

May 30, 2012



Why Are We Here?

- The National Environmental Policy Act (NEPA) of 1969 established a mandate for Federal agencies to consider impacts to the ecological, social, and cultural environments.
- Project is being funded through state and federal grants:
 - Kentucky Department of Fish & Wildlife Resources
 - Federal Highway Administration (administered through the Kentucky Transportation Cabinet)
 - US Fish & Wildlife Service
 - US Department of Housing and Urban Development

Why Are We Here? (cont.)

- As part of the requirements under NEPA regulations, an “assessment” of the impacts to the environment is documented either in an Environmental Assessment (EA) or an Environmental Impact Statement (EIS)
- The EA must, at a minimum, address:
 - Purpose and Need
 - Alternatives Analysis (Location & Design)
 - Environmental Impacts
 - Planning and Public Involvement
- Present the EA document and receive public comment

Background

- City of Paducah identified a need for a comprehensive plan to enhance its existing riverfront facilities
- JJR prepared a Riverfront Redevelopment Plan and the Plan was adopted by the City in April, 2007
- The Plan includes a comprehensive approach to planning, development, implementation and enhancement concepts along the riverfront
- The **Boat Launch** and **Marina/Transient Dock** projects were identified and funded as Phase I of the Plan.

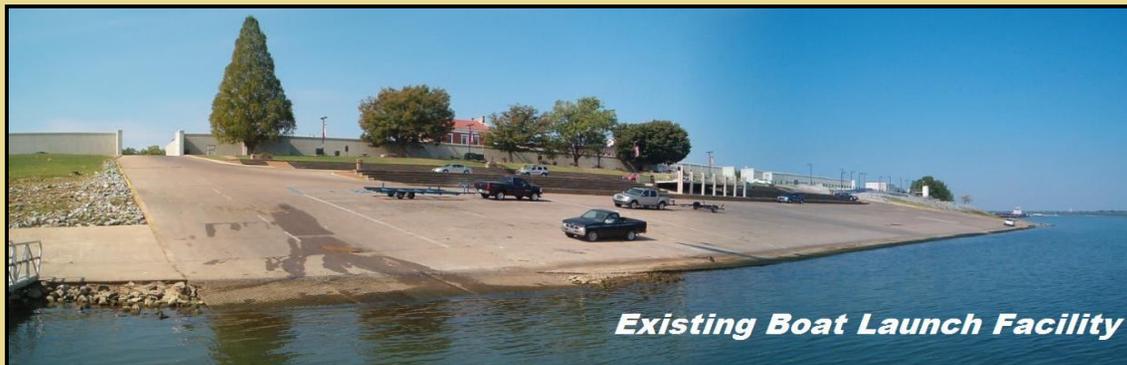
Purpose & Need

Purpose

- Boat Launch: Relocate the existing boat ramp facility from Broadway Street
- Marina/Transient Dock: Provide accommodations for transient boaters and local recreational boat owners

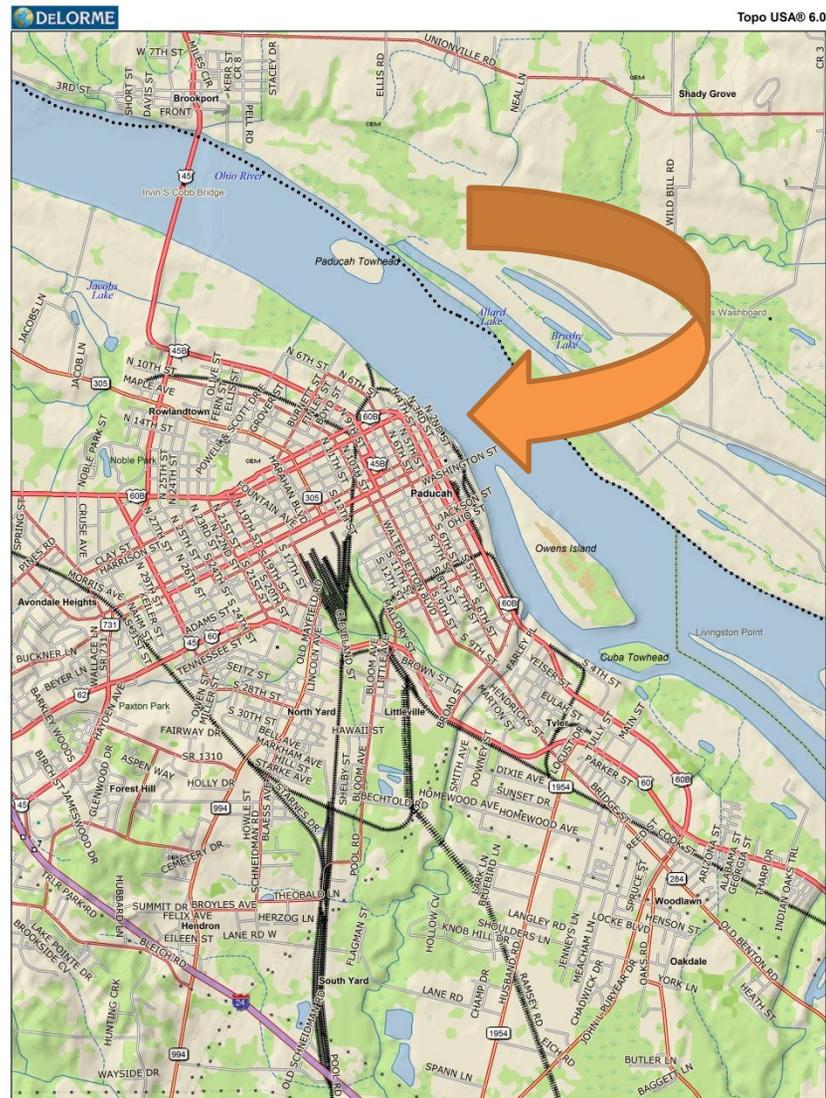
Need

- Boat Launch: Reduce congestion and vehicle parking associated with recreational fishing activities at the end of Broadway Street
- Marina/Transient Dock: Provide loading/unloading facilities for transient boats and a protected marina with associated facilities



Existing Boat Launch Facility

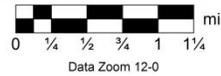
Paducah Waterfront Development Project (Phase I) KYTC Six Year Plan Project No. 01-122



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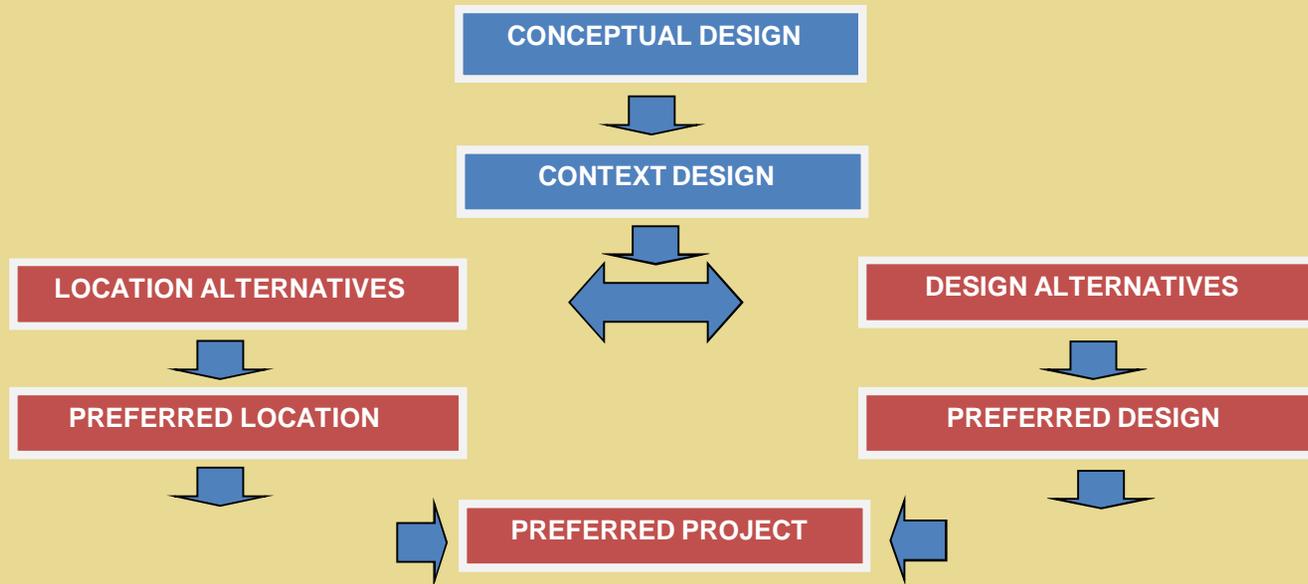


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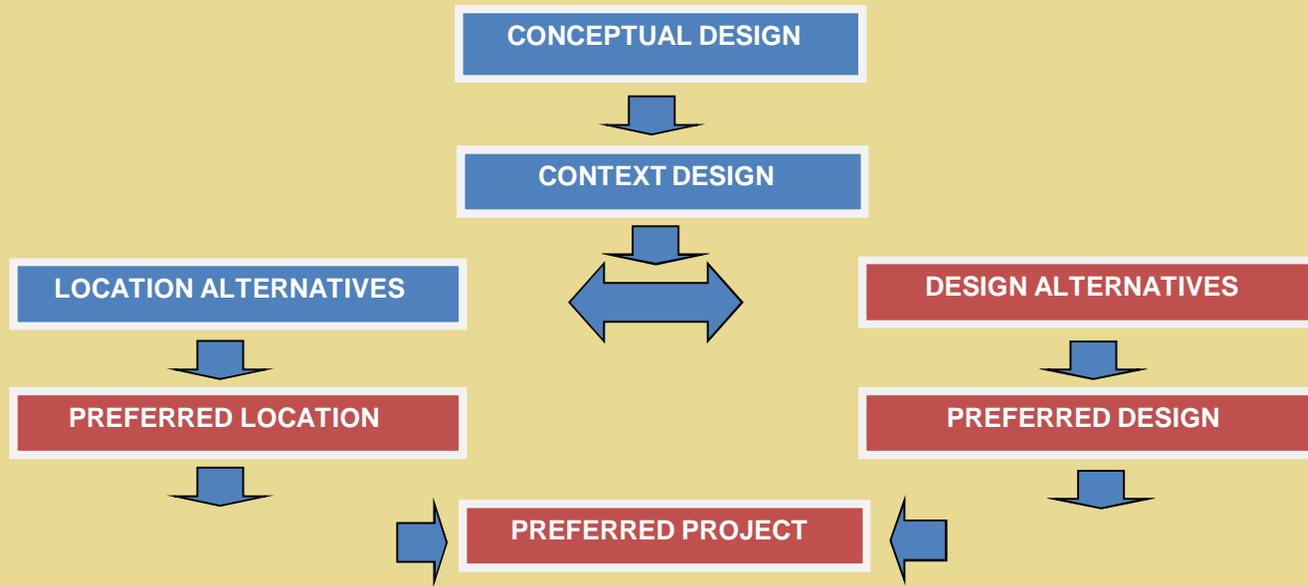
Paducah Waterfront Development Project (Phase I)
KYTC Six Year Plan Project No. 01-122

Location & Design Alternatives



Paducah Waterfront Development Project (Phase I)
KYTC Six Year Plan Project No. 01-122

Location & Design Alternatives



Location Alternatives

- Location alternatives were considered and eliminated utilizing a hierarchy of constraints.
 - Distance from downtown
 - Publicly (city/county) owned properties
 - Level of existing development on the properties in question
 - Level of probable impact to cultural, social and environmental resources.
- Sites were selected to minimize development cost and environmental impact, while **maintaining close proximity to downtown Paducah.**

Location Alternatives - Boat Launch

- Location Alternative #1
 - SE and contiguous to the Midwest Gas Terminal Barge access off of North 6th St/Campbell St intersection; city/county owned.
 - Rejected- Inadequate room for ingress, egress, parking & inappropriate zoning
- Location Alternative #2
 - Undeveloped property 0.6 miles downstream of Alternative #1 on city-owned property and downstream of the Paducah City Water intakes
 - Rejected- Combined sewer outfall for wastewater treatment plant in vicinity
- Location Alternative #3
 - Undeveloped property 400 feet upstream of Alternative #2 and city-owned
 - Considered the “consensus location” for the boat launch facility

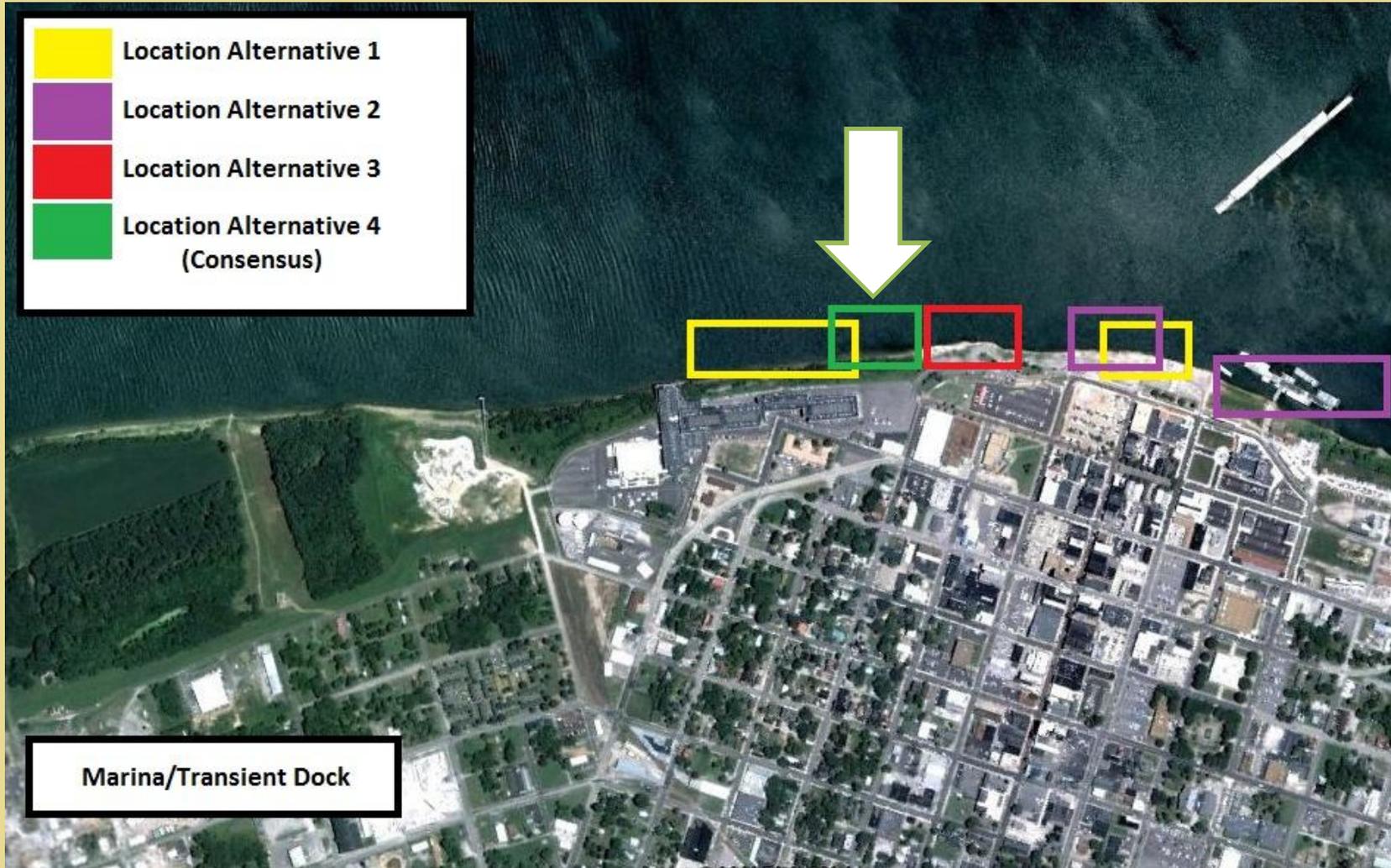
Paducah Waterfront Development Project (Phase I)
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Location Alternatives - Marina/Transient Dock

- Location Alternative #1
 - Marina- Executive Inn property and city/county-owned; Transient Dock- end of Broadway St. and city-owned.
 - Rejected-Marina 0.7 miles from “downtown” and separate
- Location Alternative #2
 - Marina- Both Crouse and city-owned property north of the Carson Four Rivers Center; Transient Dock- end of Broadway St. and city-owned.
 - Rejected-Marina may impede navigation/development and separate
- Location Alternative #3
 - Facilities combined on river between MLK Dr. and Jefferson St.
 - Rejected-Impacts to freshwater mussels
- Location Alternative #4
 - Shifted 500 feet downstream of Alternative #3 to lessen mussel impact
 - Considered “consensus location” for the marina/transient dock

Paducah Waterfront Development Project (Phase I)
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Existing Facilities at Preferred Location

Boat Launch

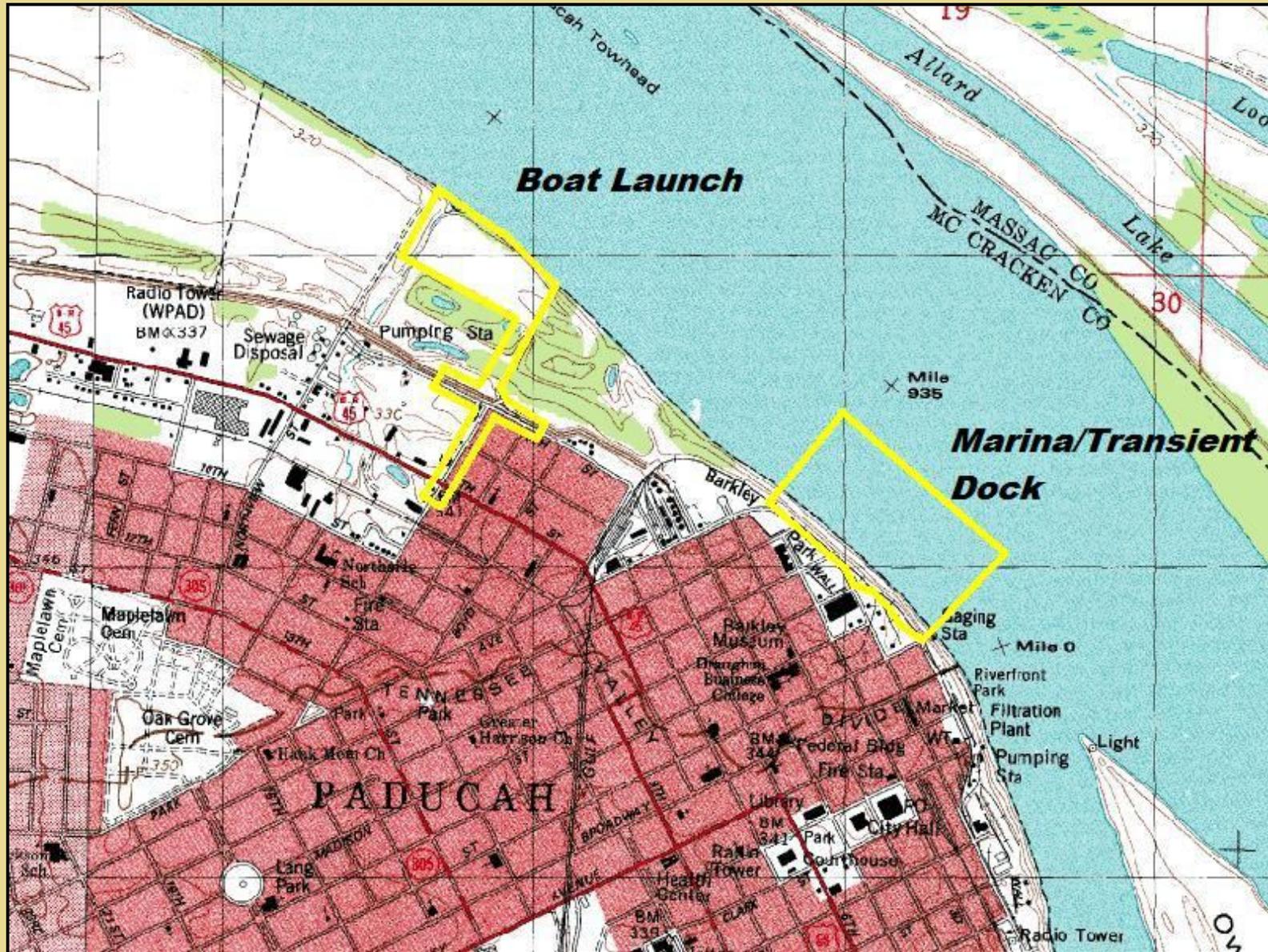
- Existing undeveloped agricultural field and woodland between the levee and Ohio River near 6th and Burnett Street.
- Existing Burnett Street between 8th and 6th Streets.

Marina/Transient Dock

- Existing Schultz Park and riverbank between the floodwall and Ohio River westward from the end of Jefferson Street.



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Paducah Waterfront Development Project (Phase I) KYTC Six Year Plan Project No. 01-122



Paducah Waterfront Development Project (Phase I)
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Proposed Facilities (Conceptual Design)

Boat Launch

- 5-lane boat ramp w/courtesy dock
- 100± parking spaces
- Reconstruction of Burnett Street from 6th to 8th Street
- Access road up and over floodwall to ramp facility



Marina/Transient Dock

- Floating dock system
- 150-slip marina
- Refueling facilities
- Store/office building
- Schultz Park enhancements
- Parking enhancements

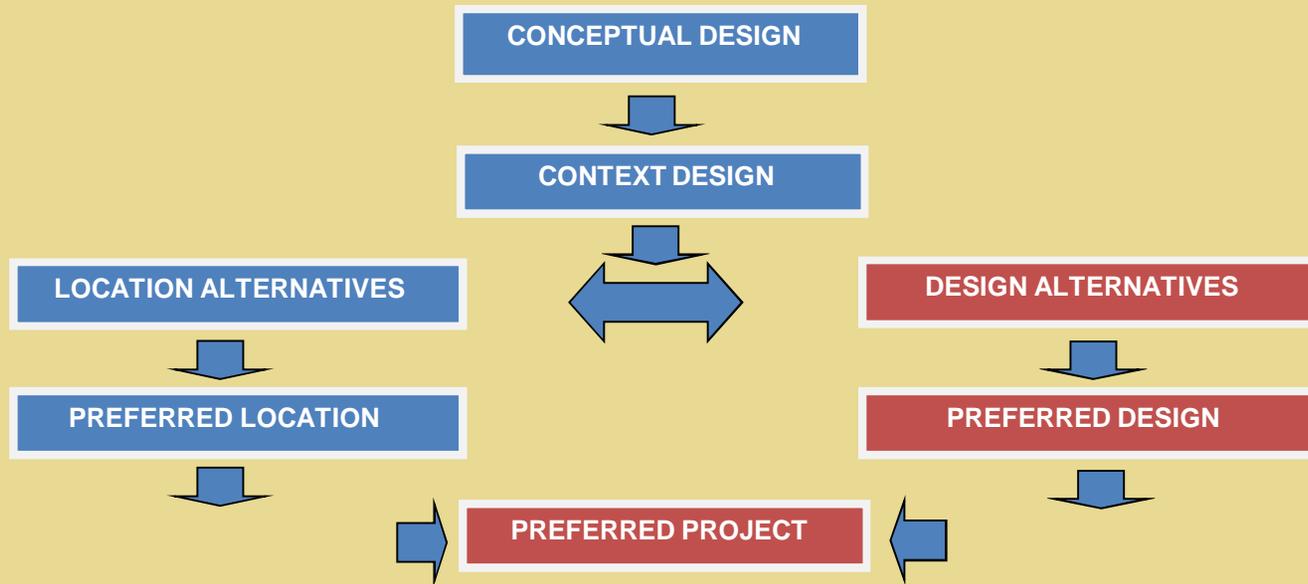


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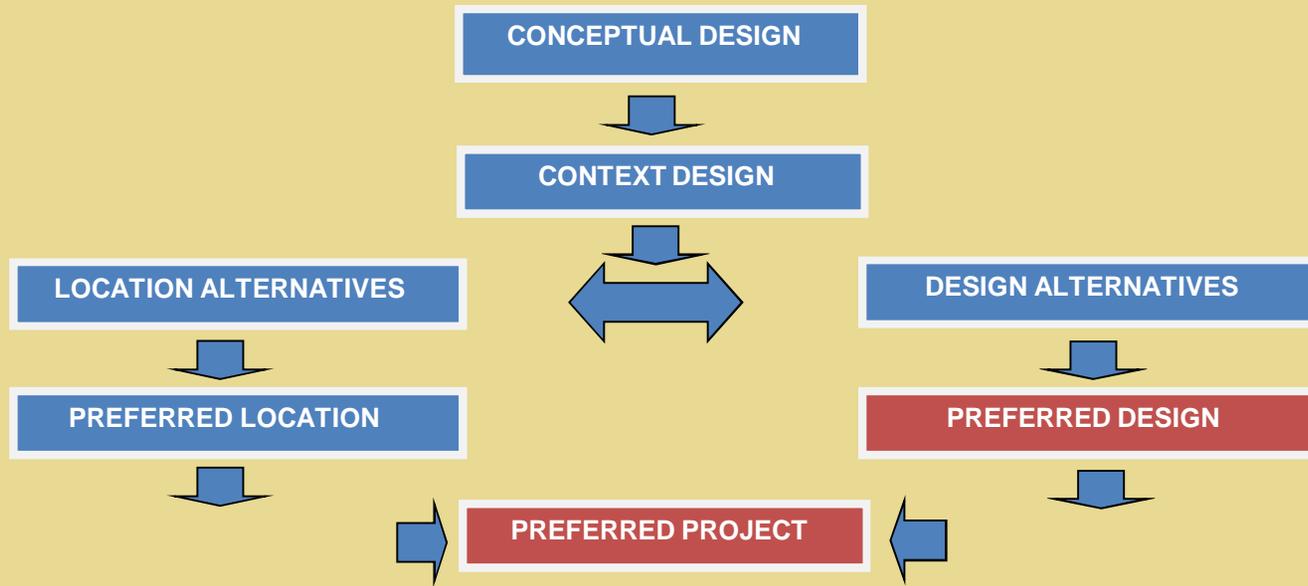
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Location & Design Alternatives



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Location & Design Alternatives

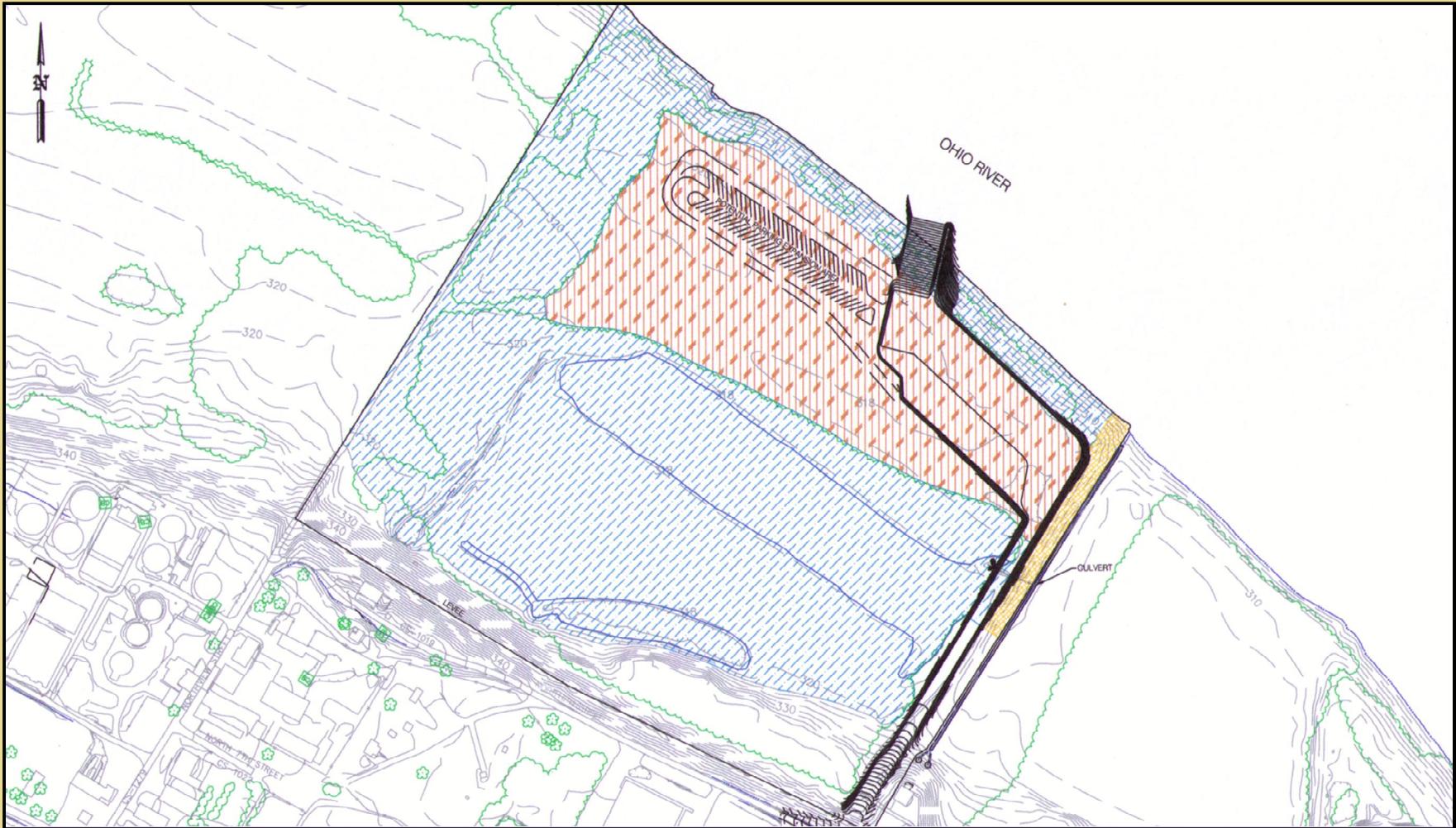


Design Alternatives - Boat Launch

- Two design alternatives were evaluated requiring fill in the river
- Alternative #1 includes:
 - Five (5) lane boat ramp w/courtesy dock
 - Paved parking and trailering area for 100 parking places
 - An access road to the site as an extension of Burnett Street and constructed in the location of an existing gravel/dirt access road along the eastern boundary of the site.
- Alternative #2 includes:
 - The amenities provided in Alternative #1 with the addition of 4.3 acres of future parking area.
 - Alternative #2 is the “consensus” design alternative

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Preferred Design Alternative (Consensus)- Boat Launch



Design Alternatives - Marina/Transient Dock

- Three design alternatives were evaluated:
 - Alternative #1 - Mass Fill to provide landform and shore protection
 - ✓ Concept #1
 - ✓ Concept #2
 - ✓ Concept #3
 - Alternative #2 - Sheet Pile Retaining Walls
 - Alternative #3 - Floating Barrier
- Each alternative would serve the purpose and need by:
 - Providing loading/unloading facilities for transient boats
 - Providing a marina with associated facilities that will allow transient and local recreational boaters to dock in a protected marina near downtown.
- Each of the alternatives would enhance Schultz Park.

Design Alternatives - Marina/Transient Dock

Alternative #2 - Sheet Pile Retaining Walls

- Mass fill material is placed within a vertical sheet pile wall.
- This alternative provides protection of the marina/transient dock from floating debris, ice, and barge impact.
- Access to the floating dock is provided by elevated walkway/gangway; however, the river's edge will not be accessible
- Land-based improvements to Shultz Park limited to reconstruction of parking and enhanced vegetation

Rejected because:

- Access to the river for non-boaters is limited
- Minimum enhancement to Shultz Park
- Few amenities
- High capital construction costs

Design Alternatives - Marina/Transient Dock

Alternative #3 - Floating Barrier

- Consists of a series of pre-cast concrete barges linked together to form one continuous, articulated floating dock string
- Attached to multiple piers constructed at intervals along the dock
- This alternative provides (1) protection of the marina/transient dock from floating debris, (2) wave attenuation, and (3) access to the dock/marina.
- Land-based improvements to Shultz Park limited to reconstruction of parking, slope protection, walkways, and enhanced vegetation

Rejected because:

- Piers would obstruct viewshed from the park and surrounding areas
- Significant maintenance obligation of floating guide rail system
- Unacceptable risk to public in the event of barge impact
- High capital construction costs

Design Alternatives - Marina/Transient Dock

Alternative #1 - Mass Fill

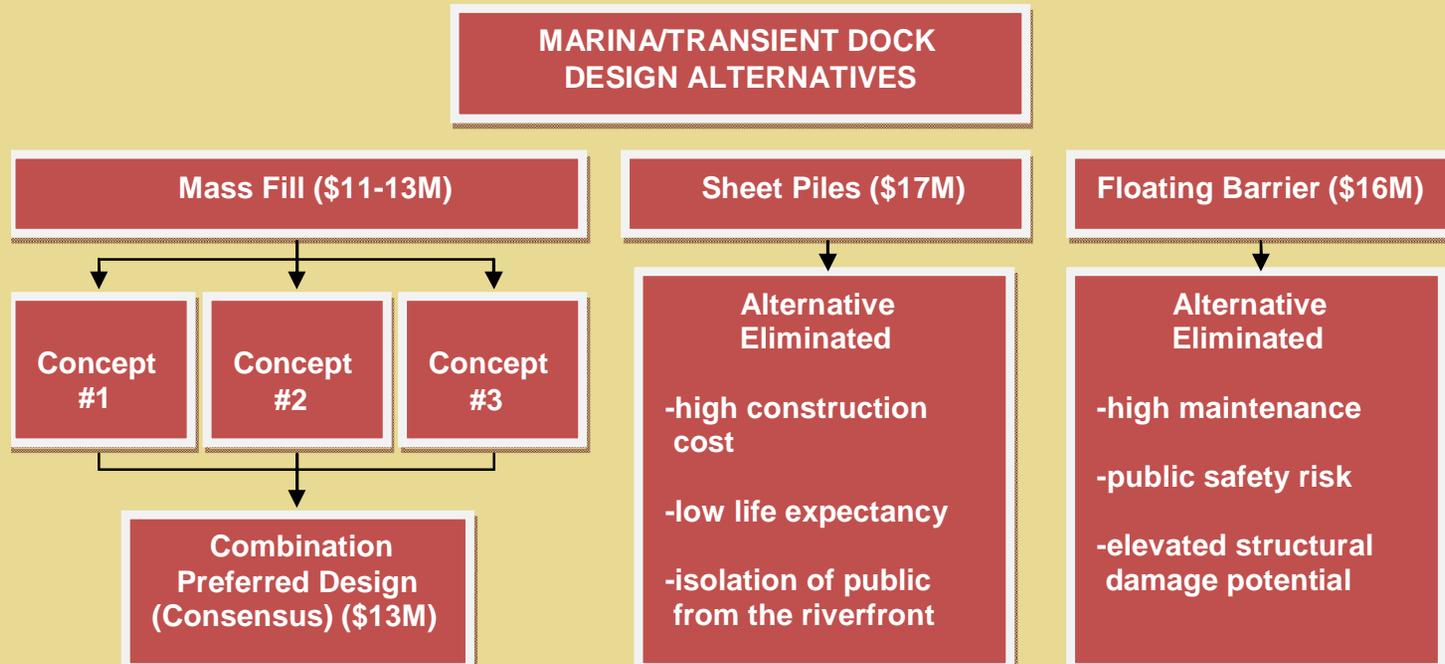
- Three concepts would enhance Shultz Park and would have landform and shore protection, roadways and paths, an overlook, a gangway/ramp system, a transient dock, a marina, and park amenities in common
- The landform provides protection of the marina/transient dock from floating debris, ice, and barge impact for all river stages
- Each concept is similar in design but varies in size and amenities
- Concept #1 - fewest amenities; 160,000 cubic yards of fill
- Concept #2 - added amenities; 220,000 cubic yards of fill
- Concept #3 - most amenities; 265,000 cubic yards of fill
- The “consensus” design alternative is Concept #3 with the addition of rock outcropping and vertical axis wind turbines.

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Marina/Transient Dock - Design Alternative #1

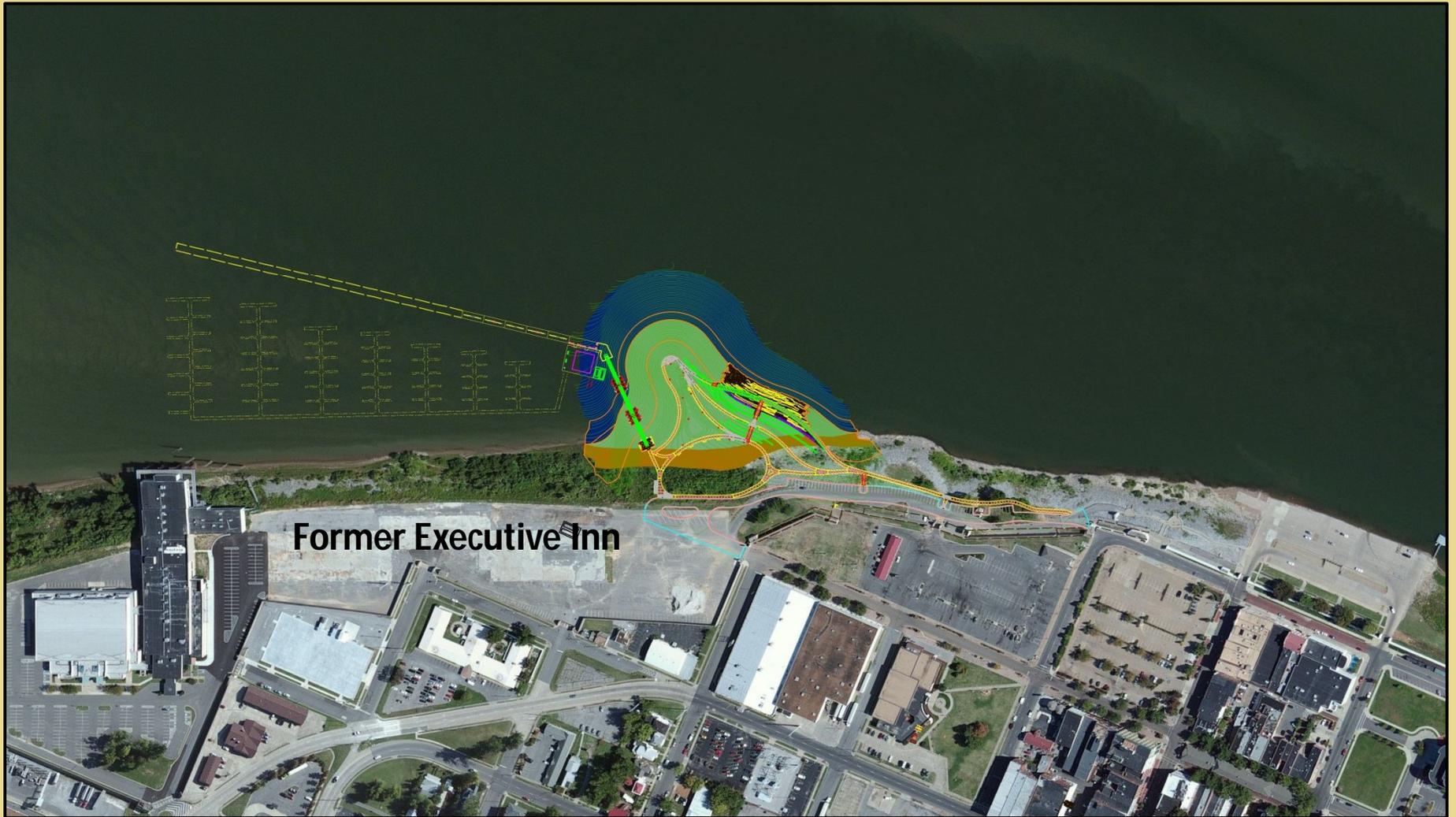
Amenities and/or Features	Concepts			
	Concept #1	Concept #2	Concept #3	Consensus
Observation Tower	X	X	----	----
Bioengineered Slope Protection	X	X	X	X
Park Overlook	X	X	X	X
Lawn/Sculpture Park	X	X	X	X
Interpretive Levee Trail	X	X	X	X
Marina	X	X	X	X
Transient Dock	X	X	X	X
Promenade/Pedestrian Link to Downtown	X	X	X	X
Terraced Seating		X	X	X
Terraced Lawn & Garden		X	X	X
Marina/Transient Dock Building			X	X
Steps to the Ohio River			X	----
Connectivity to Existing Amenities			X	X
Adaptive Use of Existing Landmarks			X	X
Rock Outcropping to the River				X
Vertical axis wind turbines				X

Design Alternatives - Marina/Transient Dock



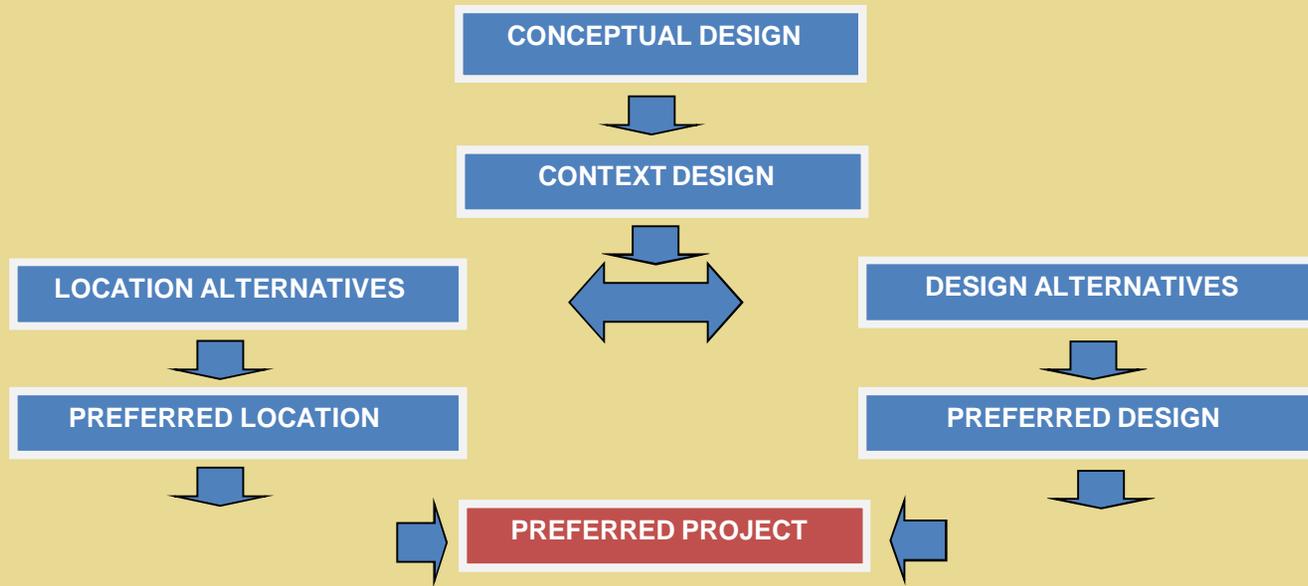
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Preferred Design (Consensus) - Marina/Transient Dock



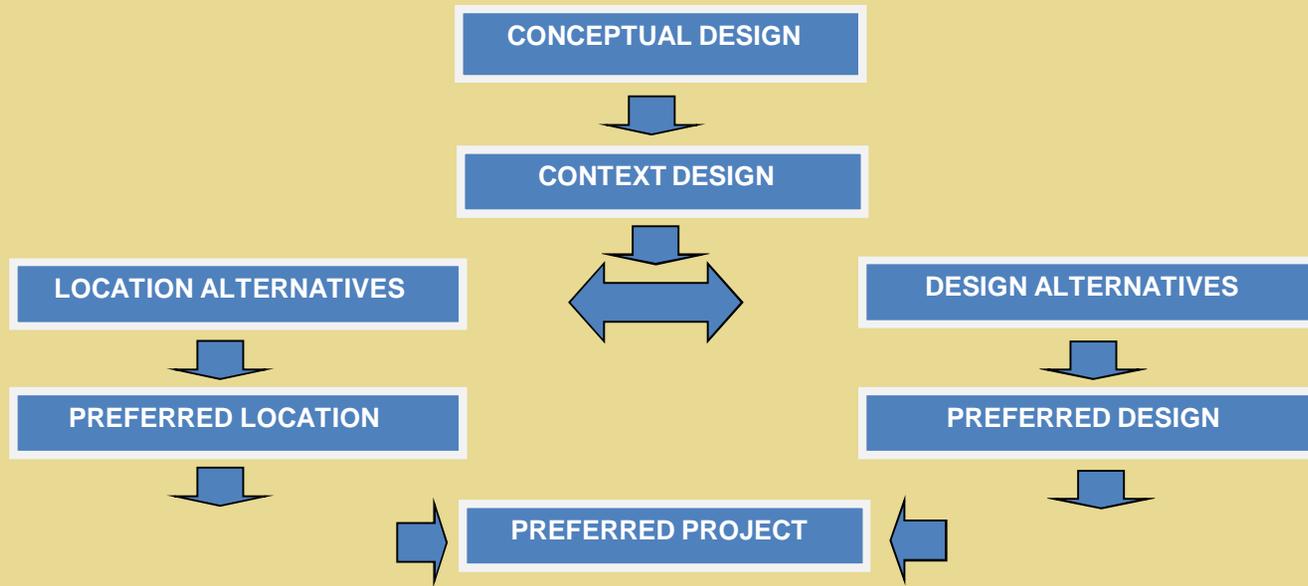
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Location & Design Alternatives



Paducah Waterfront Development Project (Phase I)
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Location & Design Alternatives



Environmental Impacts

- The National Environmental Policy Act (NEPA) of 1969 established a mandate for Federal agencies to consider impacts to the ecological, social, and cultural environments.
- Environmental Assessment (EA) documents the project purpose and need, location alternatives, design alternatives, and **environmental impacts associated with the proposed project.**



Environmental Impacts

- Technical studies conducted for both the boat launch and marina/transient dock sites include:
 - ✓ Floodplains, streams, wetlands
 - ✓ Threatened/endangered species
 - ✓ Archaeological sites
 - ✓ Historic sites/structures
 - ✓ Hazardous materials/wastes
- Additional impact analyses completed include:
 - ✓ Noise Impacts
 - ✓ Air Quality
 - ✓ Visual impacts
 - ✓ Farmland
 - ✓ Environmental Justice
 - ✓ Displacements/Relocations

Paducah Waterfront Development Project (Phase I)
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Environmental Impacts Summary

Impact Category	Impacts		
		Boat Launch	Marina/Transient Dock
Air Quality		None	None
Noise		None	None
Water Quality & Streams		0.5 acres (Mitigated)	6.2 acres
Floodplains		Yes	Yes
Wetlands		9.2 acres (Mitigated)	None
Wild & Scenic Rivers		None	None
Federal Threatened/Endangered Species		Mitigated	Mitigated
State Threatened/Endangered Species		Mitigated	Mitigated
Historic Structures or Districts		None	None
Archaeological Sites		None	None
Surface Water/Land Use		Ohio River	Ohio River
Community Impacts		None	None
Displacements & Relocations		None	None
Farmland		Minimal	None
Environmental Justice		None	None
Pedestrian & Bicycle Facilities		None	None
UST/Hazardous Materials		None	None
Visual Impacts		None	Minimal
Construction Activities		Minimal	Minimal
Section 4(f) and/or 6(f)		None	Schultz Park
Section 9 Bridge Permit		None	None
Federal Permits		Sections 404 & 10	Sections 404 & 10
State Permits		401, 402, Floodplain	401, 402, Floodplain

Environmental Commitments

- Removal of trees for the boat launch will be coordinated with the US Fish & Wildlife Service (USFWS) through execution of an Indiana Bat Conservation Memorandum of Agreement (MOA) prior to initiation of construction.
- Consultation with US Fish & Wildlife Service (USFWS) regarding potential impacts to freshwater mussel species at the boat launch and marina/transient dock will be completed prior to the approval of the Finding of No Significant Impact (FONSI).
- Kentucky State Nature Preserves Commission (KSNPC) will be consulted prior to disturbance of suitable habitat for the state protected Barn Owl.
- Mitigate for boat launch impacts to 9.2 acres of wetlands through 34.4 acres of forested wetland preservation, preservation of 3.4 acres of upland forest, and 7.3 acres of forested wetland restoration.

Environmental Commitments

- Local, State and Federal environmental permits (Section 10/404/401/402) will be obtained prior to construction.
- Construction noise impacts will be limited by working during normal business hours and noise-controlled equipment will be utilized.
- Contractors will be required to install, inspect, and maintain erosion prevention and sediment control (EPSC) best management practices during construction.
- Minimize airborne particles during construction through the use of water/chemicals for dust suppression, the covering of open-bodied trucks, and the prompt removal of earth or other material from paved streets.
- Conduct any open burning in accordance with local regulations.
- Consultation with the Kentucky Heritage Council on any visual impacts from the marina/transient dock pipe pile structures will be completed prior to the completion of the Finding of No Significant Impact (FONSI).



Environmental Statement

- “Environmental commitments have been made that will eliminate significant environmental impacts associated with the proposed boat launch and marina/transient dock projects. Therefore, if the environmental commitments are complied with, the 6th Street & Burnett Street Boat Launch and the Marina/Transient Dock will not significantly affect any social, ecological or cultural resources as defined under the National Environmental Policy Act (NEPA) of 1969.”

NEPA Process

- The EA must, at a minimum, address:
 - ✓ Purpose and Need
 - ✓ Alternatives Analysis (Location & Design)
 - ✓ Environmental Impacts

Planning and Public Involvement

- **Present the EA document and receive public comment**

Paducah Waterfront Development Project (Phase I)
KYTC Six Year Plan Project No. 01-122

Planning and Public Outreach to Date

- Meeting with US Corps of Engineers (January 2006)
- Project scoping meetings with City Staff, Executive Committee, Stakeholders and the public (March 2006)
- Bus tour of Chattanooga and Evansville riverfronts (March 2006)
- Public meeting to present riverfront opportunities (May 2006)
- Submission of Preliminary Riverfront Plan (June 2006)
- Meetings with riverfront property owners (July 2006)
- Meetings with regulatory and river industries (August 2006)
- Revised Preliminary Riverfront Plan (Sept 2006)
- Public informational display at Schultz Park (May 2008)
- Meetings with various regulatory agencies (2006-2012)
- Advertisement for Section 106 consulting parties (January 2010)
- Public Meeting to discuss Environmental Assessment (March 2010)
- Public Hearing (May 2012)

Paducah Waterfront Development Project (Phase I)
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Project Status

- Environmental Assessment (EA) has been prepared and approved by the KYTC and the FHWA (April 2012)
- Environmental permitting is ongoing
- Biological Opinion (BO) from US Fish & Wildlife Service on impacts to freshwater mussels at boat launch and marina/transient dock is ongoing
- Finding of No Significant Impact (FONSI) document development
- Project design is approximately 90% complete
- Construction anticipated to begin Summer 2013

Paducah Waterfront Development Project (Phase I)
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Project Funding

FHWA ISTEPA Grant	\$2.3 million	Ohio River Boat Launch
FHWA Grant (source pending)	\$4.3 million	Riverfront Phase I
HUD Grant	\$3.0 million	Riverfront Phase I
USFWS - BIG Grant	\$ 910,000	Riverfront Phase I
KDFWR Grant	\$ 175,000	Ohio River Boat Launch
<hr/>		
Total	\$10.685 million	
Estimated Total Project Cost	\$17.3 million	

Format for Comments

- Step to the podium
- Speak clearly into the microphone so all can hear
- Please provide name, address, and city of residence
- Comments will be limited to 3 minutes
- Environmental Assessment (EA) document available for review until June 14, 2012 at Public Works/Engineering
- Written comments accepted until June 14, 2012

Paducah Waterfront Development Project (Phase I)
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COMMENTS?

