



Preliminary Project Visualization - View from Walkfront Trail Looking Upstream

DRAFT August 5, 2013

WINONA BRIDGE PROJECT



Preliminary Project Visualization - View from Latch Island Shoreline Looking Downstream

DRAFT August 5, 2013

WINONA BRIDGE PROJECT



Highway 43 Winona Bridge Project Public Meeting August 12, 2013

Your Destination...Our Priority





Outline

- Introductions
- Winona Involvement
- Project Goals / Responses
- Project Background
 - Schedule
 - Scope
 - Cost
 - Environmental Assessment
 - New Bridge Type
 - Historical Review
 - ROW
- Next Steps
- Questions?





Introductions

Presenters:

MnDOT Project Manager: Terry Ward

MnDOT Historian/Archaeologist: Kristen Zschomler

We will take questions at the end.

Comment and question cards are available.
Historical Review one-pager handout.



Winona Involvement

- Original scope of project consisted of replacement or reconstruction of the existing bridge.



Winona Involvement

- Both temporary bridges (high and low profile) and ferry service options were reviewed as river crossing options during construction.



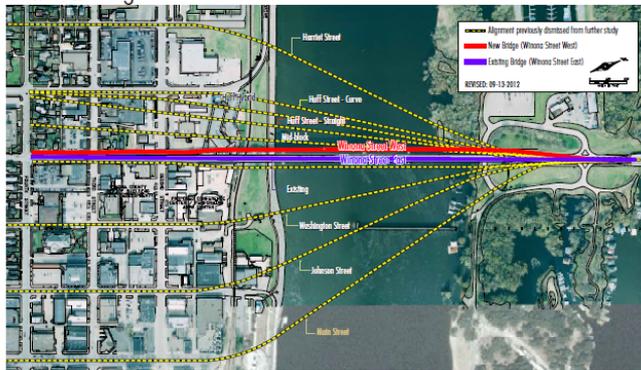
Winona Involvement

ALIGNMENT ALTERNATIVES CONSIDERED

Alignment Alternatives



Downtown Alignment Alternatives



09/25/2012

ALIGNMENT ALTERNATIVES DISMISSED FROM FURTHER STUDY

Pelzer Street Corridor and Prairie Island Road Corridor alignments dismissed due to:

- Impacts to the Upper Mississippi River National Wildlife Refuge
- Lack of connection between downtown and Latsch Island

Mankato Street alignment dismissed due to:

- Impacts to the Trempealeau National Wildlife Refuge
- Lack of connection between downtown and Latsch Island

Harriet Street alignment dismissed due to:

- High probability for impacts to historic properties and residences

Huff Street alignments dismissed due to:

- Impacts to neighborhood
- Contaminated property impact
- Potential effect to Huff-Lamberton historic property

Mid-Block alignment dismissed due to:

- Limited space for vehicles queueing which would impact traffic operations at adjacent intersections

East Winona Street alignment dismissed due to:

- Visual effect to downtown historic district
- Encroachment on Winona County Office Building site

Washington Street alignment dismissed due to:

- Severity of impacts to the historic County Courthouse
- Other impacts similar to Johnson Street

Johnson Street alignment dismissed due to:

- High probability for impacts to historic districts
- High potential for impacts to Levee Park
- Close spacing between buildings

Main Street alignment dismissed due to:

- Severity of impacts to downtown historic district





Winona Involvement

- June 2012: Winona city and community leaders officially call for new two-lane span. Gov. Mark Dayton and U.S. Rep. Tim Walz also voice support for new two-lane span, express frustration at project's pace. *Source: Winona Daily News, August 4, 2013*
- Result: Public meeting in September 2012 to announce project scope including the current recommended alignment and introduction of a new concrete segmental box girder bridge.



Winona Involvement

- More than 40 Technical Advisory Group, Public Advisory Group and public meetings involving Winona community members.
- Literally hundreds of MnDOT and city staff meetings.

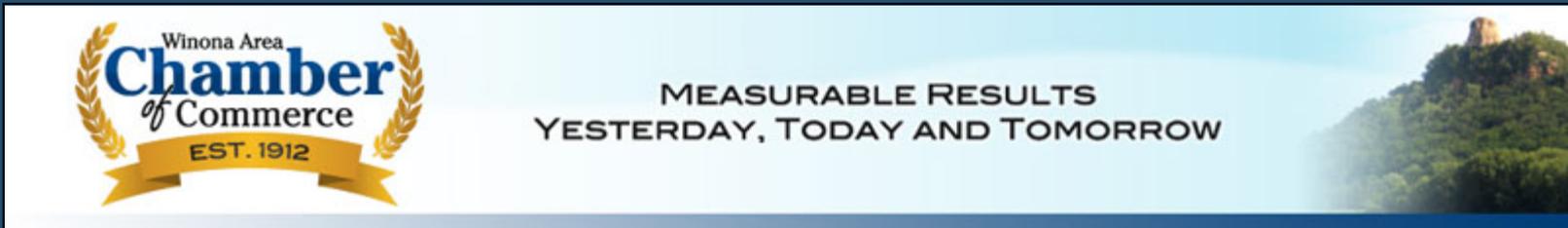




Winona Involvement

On Deck:

- Construction staging meeting with City of Winona staff and Winona Chamber Transportation Committee representatives.



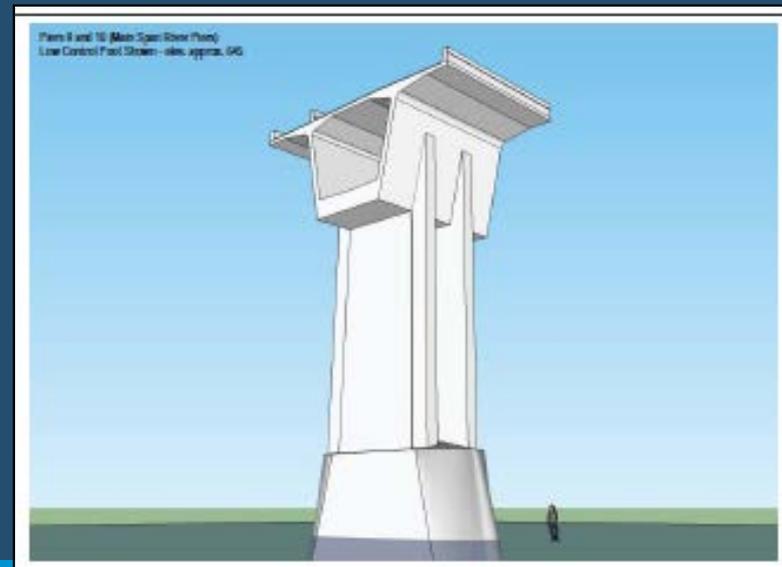
- Municipal Consent Public Hearing August 19th.



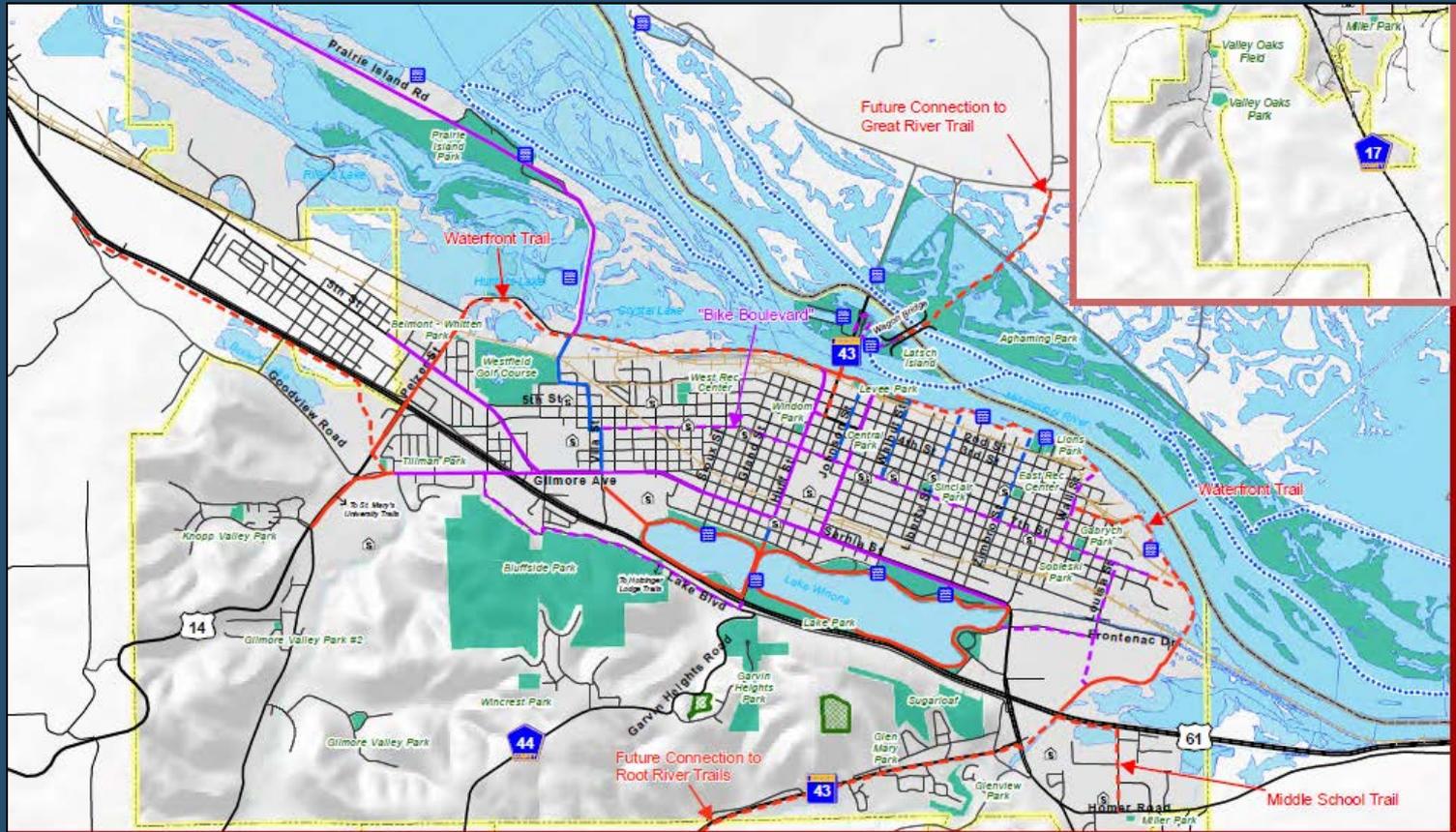
Winona Involvement

Visual Quality Committee:

- Approximately 17 Winona community volunteers.
- Plan to start in August.



Winona Involvement



CITY OF Winona

Map Location

Legend		Existing Trails		Proposed Trails	
	Water Access		Multi-Purpose Trail		Multi-Purpose Trail
	Park		Bicycle Lane / Shared Shoulder		Bicycle Lane / Shared Shoulder

Future Trails and Bikeways Plan

Figure 6





Project Goals

- Start construction on the new Mississippi River Bridge as expeditiously as possible.
- Move traffic to the new bridge as expeditiously as possible.
 - Minimize the likelihood of detours related to bridge maintenance work on the existing structure.
- Keep the river crossing open during construction.





Project Goals

- Meet the Chapter 152 funding cap of \$142 million (not including ROW).
- ROW estimated at additional \$12 - \$20 million.
- Overall total estimated cost \$154 - \$162 million.

No funding has been diverted from the project. Project funding is different from preliminary cost estimates.





Project Goals - Responses

- Selected project for first use of Construction Manager General Contractor (CMGC).
 - Qualifications Based Selection of Contracting Team.
- Moved up start of construction:
 - Previously: Construction starting in 2015.
 - Currently: July 2014 to March 2015.
- Assigned new Project Management Team.
- Our construction staging approach will not close the river crossing during construction.





Project Goals - Responses

Our team wants to work with you to meet our mutual project goals and successfully deliver the first CMGC project for MnDOT as a partner with the City of Winona and the Winona community.





Project Background - Schedule

Four scheduling tracks need to align to start construction:

- Municipal Consent – ROW Track.
- Environmental Assessment (EA) – Environmental Permits Track.
- Final Design Consultant Contracts Track.
- CMGC Contracts Track.





Project Background - Schedule

So far, all four scheduling tracks are on schedule for a July 2014 construction start.

**Very Aggressive and not a Guarantee.*





Project Background - Schedule

- Municipal Consent – August 19th Public Hearing.
- ROW offers begin 1-2 months after Municipal Consent (approx. 28 parcels).
- Environmental Assessment (EA) Public Hearing this fall.
 - Finding of No Significant Impact (FONSI) by end of year.
- Environmental Permits by July 1, 2014.





Project Background - Schedule

Construction Schedule (based on staying on tracks as planned)

- Phase I: July 2014 – March 2015
 - New bridge river piers
- Phase II: March 2015
 - Remainder of new bridge and roadway
- Phase III: Fall 2016 (traffic on new bridge)
 - Rehab and reconstruct existing bridge and remaining roadway

Complete construction Fall 2019 / Spring 2020



Project Background - Scope



Project Background - Scope



View 5A - View Upstream from River

DRAFT - work in progress



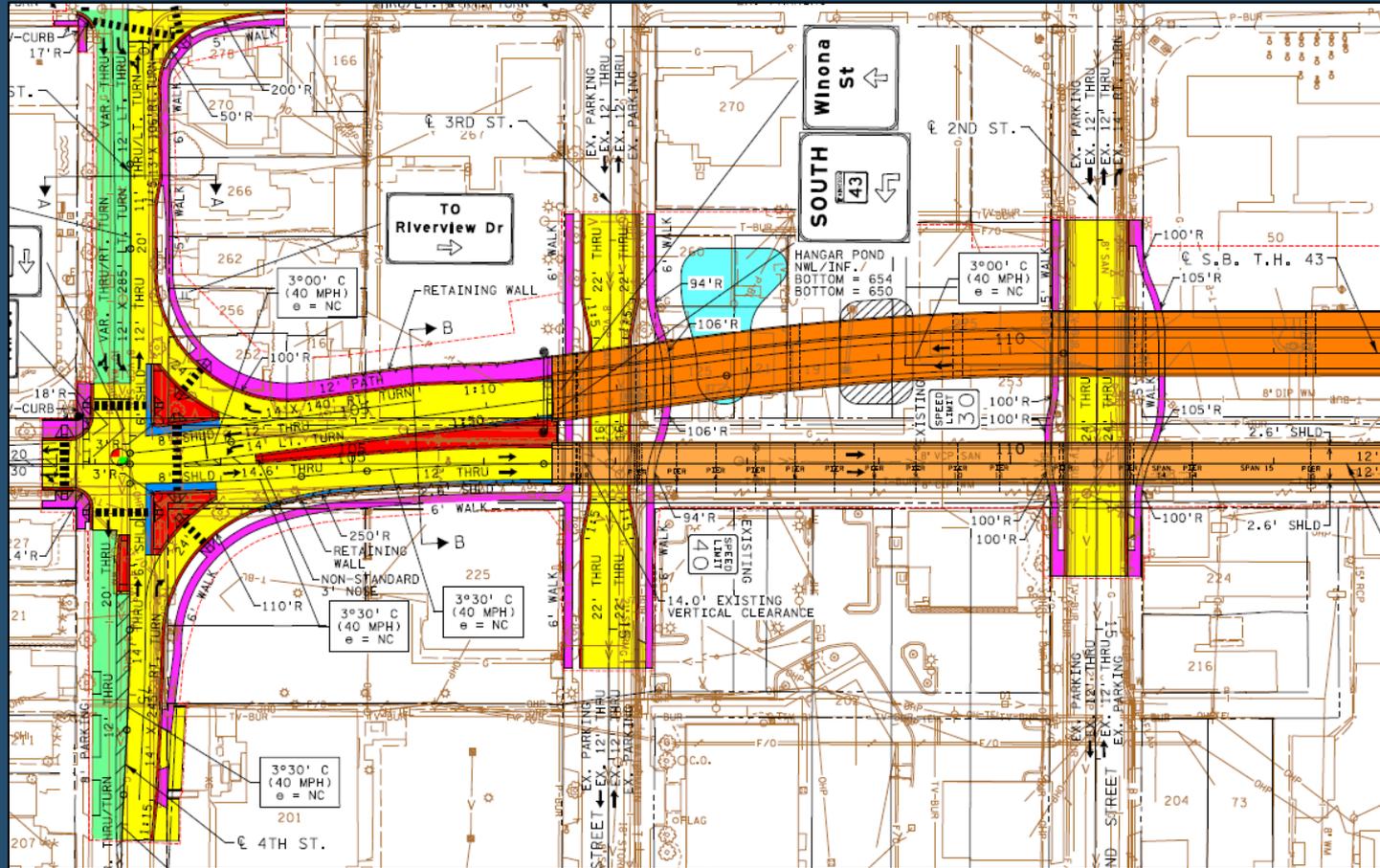


Project Background - Scope



Project Background - Scope

Preliminary Design





Project Background - Cost

- Based on our current scope and risk profile.
 - Existing bridge costs: \$56-\$63 million
 - New bridge: \$52-\$59 million
 - Roadway costs: \$7-\$9 million
- Total estimated construction cost: \$115-\$131 million.
- Total funding (not including ROW): \$142 million.
 - Difference is project development and delivery costs
- We were able to add a new bridge to project within funding limitations.





Environmental Assessment (EA)

- EA Public Hearing coming this fall
- National Environmental Policy Act (NEPA) Process
- Opportunity for public and agency formal comment
- Requires Finding of No Significant Impact (FONSI) from FHWA



Environmental Assessment (EA)

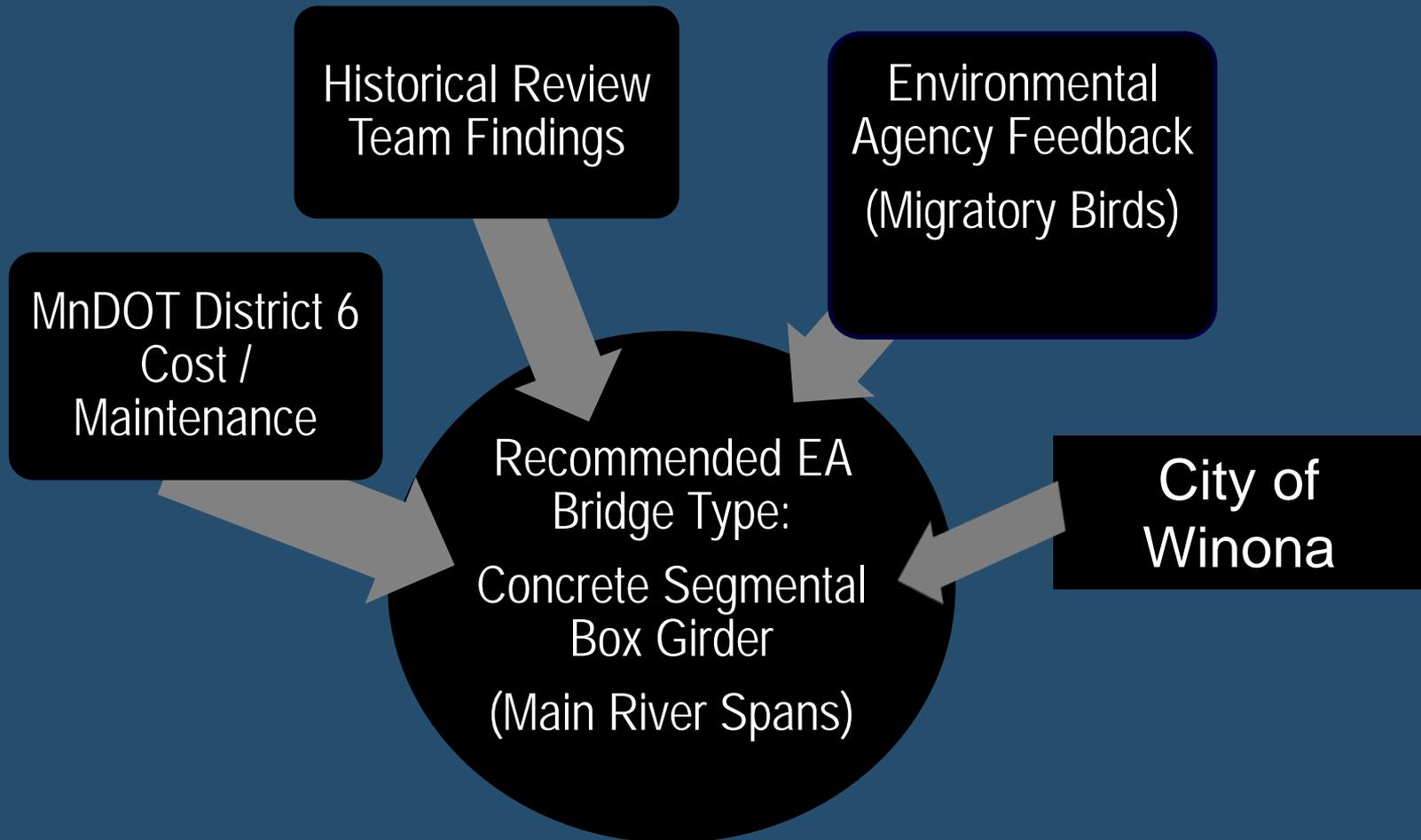
ENVIRONMENTAL ASSESSMENT TOPICS

- Traffic changes including truck movements
- Fish, wildlife, and ecologically sensitive resources
- Cultural resources, particularly historic properties and districts near downtown, and the bridge itself
- Land use impacts
- Contaminated properties
- Noise
- Air quality
- Social effects such as changes to community facilities and to low-income and minority communities
- Visual quality
- Water quality
- Bicycle and pedestrian facilities
- Parks
- Cumulative impacts



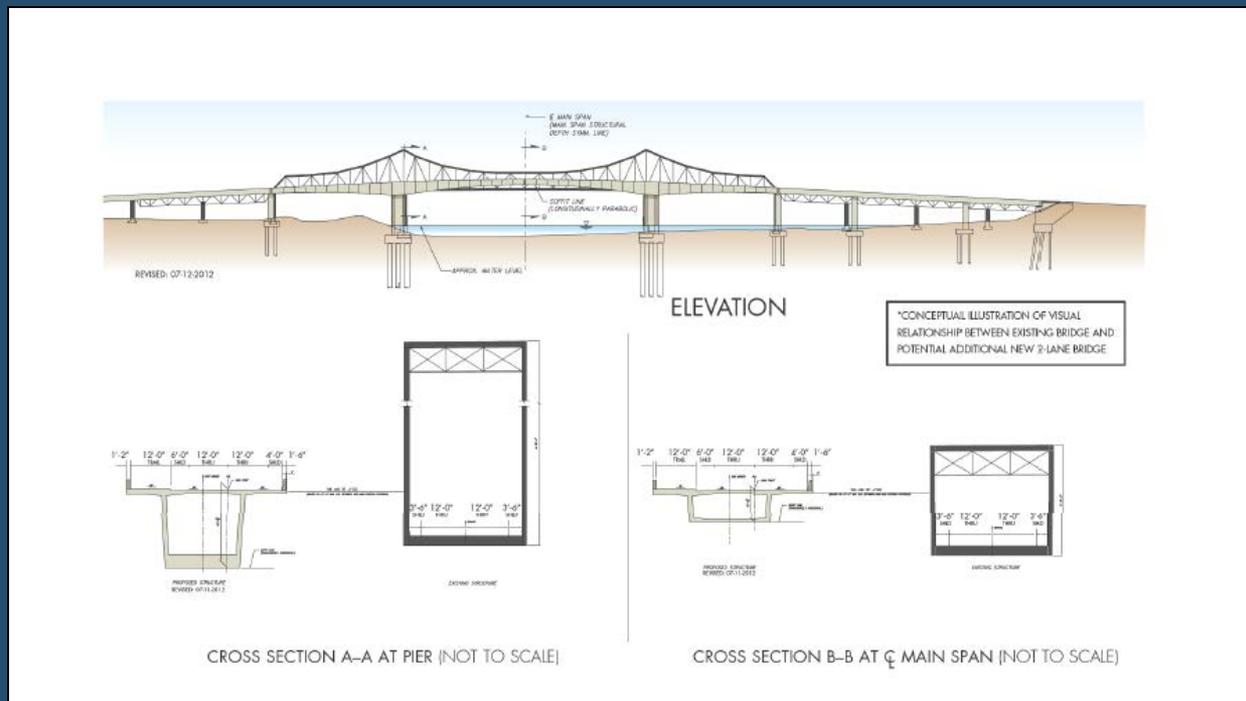


Environmental Assessment (EA) – New Bridge

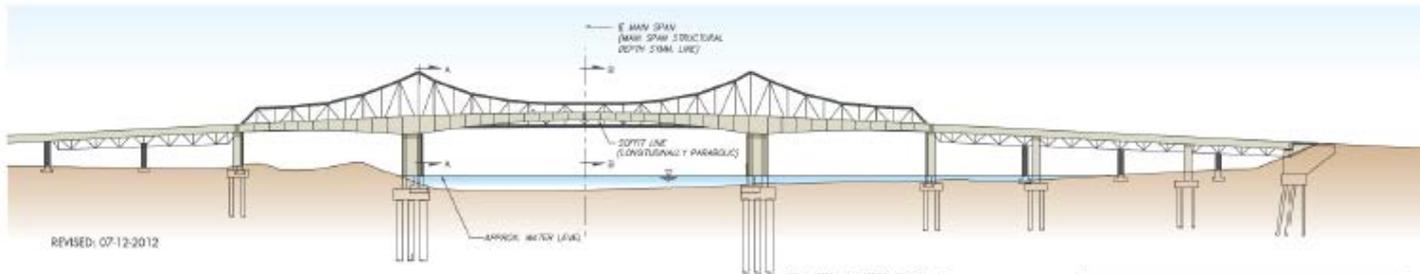


Environmental Assessment (EA)

Concrete segmental box girder for the main river span is recommended for new bridge type in the EA

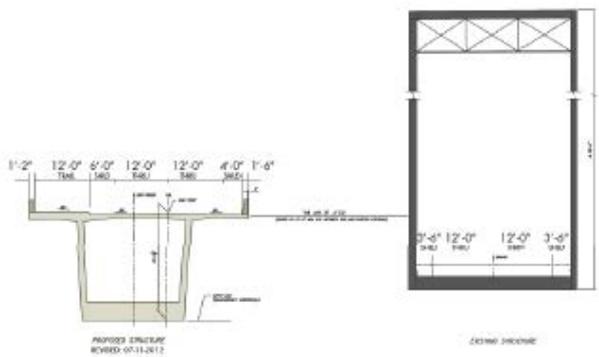


Concrete Segmental Box Girder

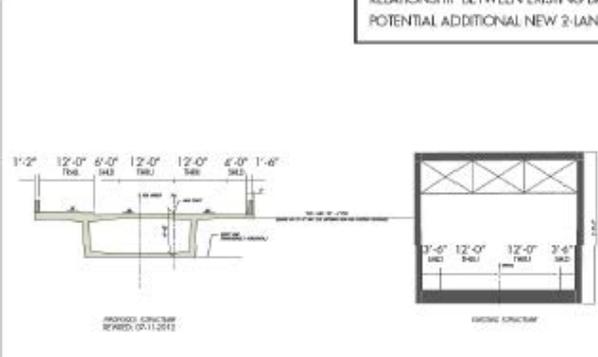


ELEVATION

*CONCEPTUAL ILLUSTRATION OF VISUAL RELATIONSHIP BETWEEN EXISTING BRIDGE AND POTENTIAL ADDITIONAL NEW 2-LANE BRIDGE



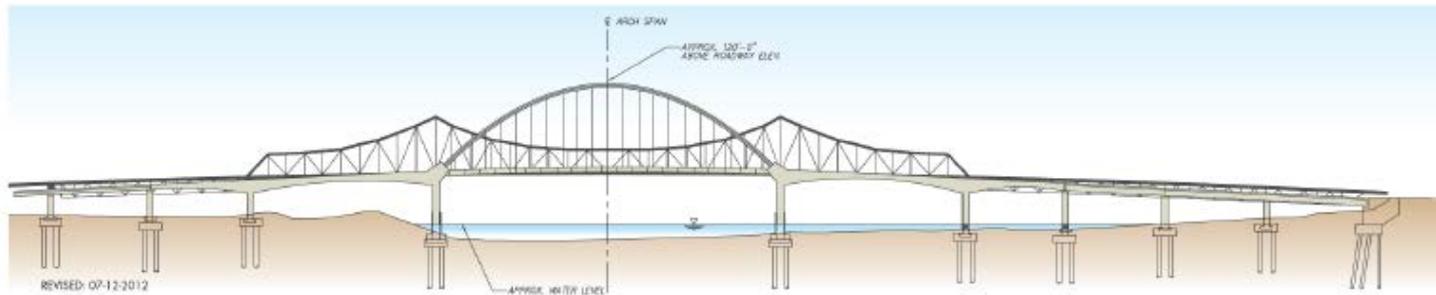
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CROSS SECTION B-B AT \bar{C} MAIN SPAN [NOT TO SCALE]



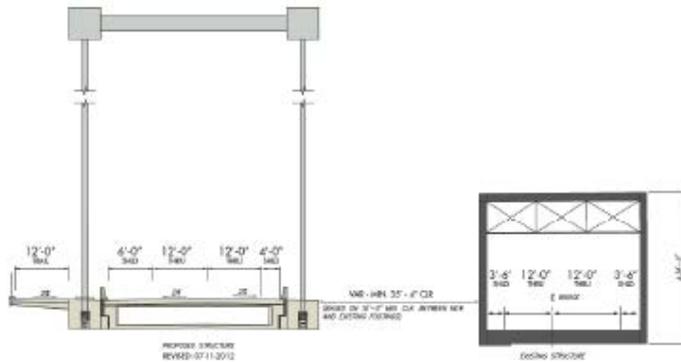
Tied Arch



REVISED: 07-12-2012

ELEVATION

NOTE: PROFILE GRADE NOT SHOWN TO SCALE AT ABUTMENT - WILL MATCH EXISTING GRADE.

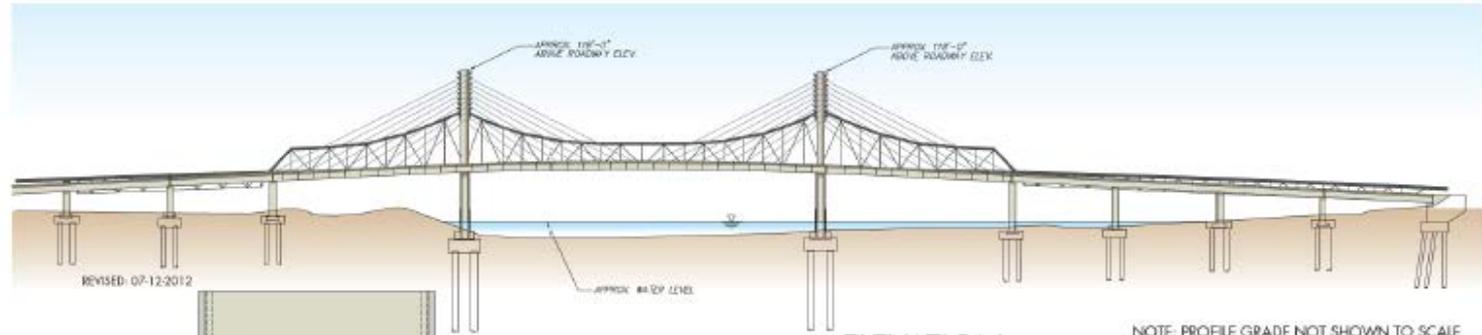


*CONCEPTUAL ILLUSTRATION OF VISUAL RELATIONSHIP BETWEEN EXISTING BRIDGE AND POTENTIAL ADDITIONAL NEW 2-LANE BRIDGE

CROSS SECTION AT ζ ARCH SPAN (NOT TO SCALE)



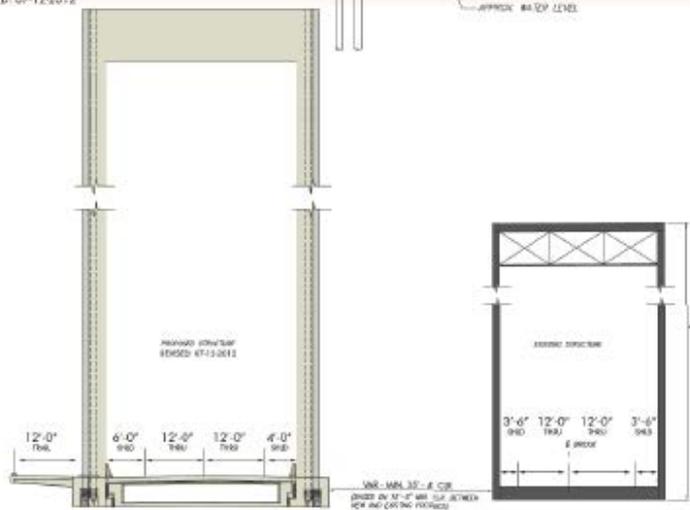
Cable Stayed



ELEVATION

NOTE: PROFILE GRADE NOT SHOWN TO SCALE AT ABUTMENT - WILL MATCH EXISTING GRADE.

*CONCEPTUAL ILLUSTRATION OF VISUAL RELATIONSHIP BETWEEN EXISTING BRIDGE AND POTENTIAL ADDITIONAL NEW 2-LANE BRIDGE



CROSS SECTION AT CABLE STAY PYLON (NOT TO SCALE)





New Bridge Type

- Cost: Tied Arch - \$14-\$15 million more
 - Funding not in current project budget
- Cost: Cable Stayed – Even more money than tied arch
- Start of construction





Concrete Segmental Box Girder





Tied Arch





Cable Stayed



Comparisons



Concrete Segmental Box Girder



Tied Arch





Cable Stayed



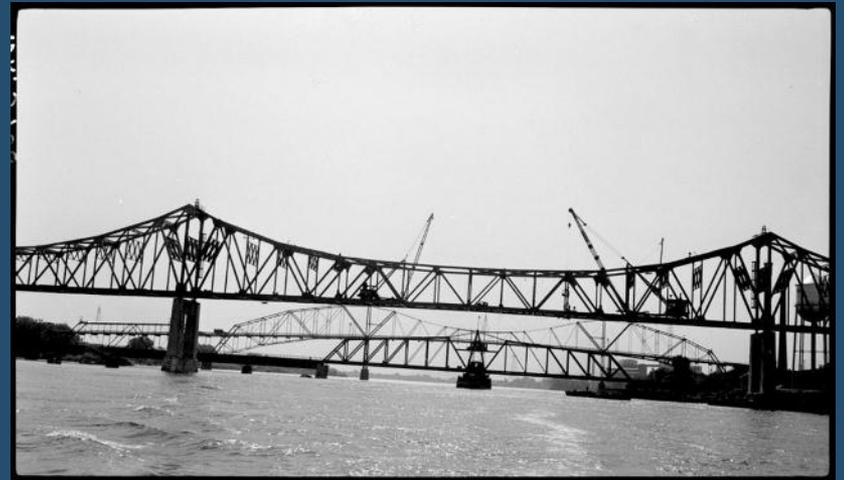
Comparisons





Section 106 Process Historical Review

Kristen Zschomler, MnDOT





OVERVIEW

- **Section 106 Process**
- **Partners- agencies & organizations**
- **Cultural resource components**
 - » **Archaeology**
 - » **Architecture**
 - » **Historic Bridge**
 - » **New Bridge**





Section 106 Partners

- **Federal Highway Administration (FHWA)**
 - **MnDOT Cultural Resources Unit (CRU)**
- **Other Federal agencies**
- **MnDOT**
 - **District 6, Bridge Office, Environmental Stewardship**
- **State Historic Preservation Office (SHPO)**
- **City of Winona**
- **Public**





Section 106 Process

- **Section 106 requires federal agencies to take into account the effects of their undertakings on historic properties.**
- **Federal funding invokes Section 106 of the National Historic Preservation Act.**
- **FHWA is the lead federal agency responsible for compliance with Section 106.**





Section 106 Process

- **As allowed in the Section 106 regulations, FHWA delegates review authority to professionally qualified staff in MnDOT's CRU**
- **CRU makes all Section 106 determinations and findings on behalf of FHWA**
- **FHWA can exercise final authority and overrule at any point**





Section 106 Process

Are historic properties present in project area?

- **Archaeological survey**
- **Architectural survey**

If yes, then effects (direct or indirect) to those properties are determined

- **No Adverse**
- **Adverse**





Section 106 Process - Archaeology

- **Surveyed proposed construction limits**
- **No sites that meet the National Register criteria were identified**
- **Few parcels remain to survey when right-of-way acquired**



Section 106 Process - Architectural

- **Surveyed all pre-1960 properties.**
- **Identified 34 properties listed on or eligible for the National Register.**

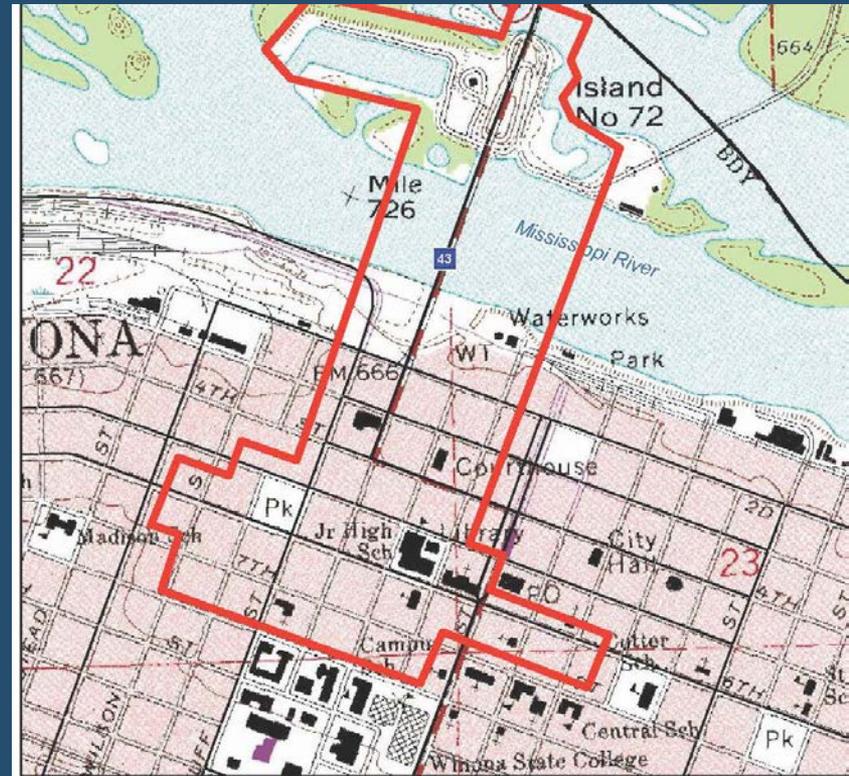


Figure 1
Winona TH 43 Bridge Study
Architectural History Evaluation
S.P. 8503-46 2011

Location Map and Architectural History APE ———

LR Landscape Research LLC





Section 106 Process – Historic Bridge

- **The Winona Bridge is historic because of its engineering.**

Character-Defining Features

Bridge 5900, completed in 1942, has been determined to be eligible for the National Register of Historic Places under Criterion A-Transportation, as a major river crossing important to Winona's economy, and under Criterion C-Bridge Design and Engineering, as the State's only surviving example of a cantilever thru-truss design used for long spans and built prior to 1946. Character-defining features are physical elements that represent a property's historical significance.

Feature 1. Steel, riveted, cantilever thru-truss, design and construction



Feature 2. Deck-truss design and construction for approach spans



Feature 3. Architectural stylistic





Section 106 Process – Historic Bridge

- **Rehabilitation study was completed to determine if the bridge could be rehabilitated and reconstructed and still meet the transportation needs.**
 - **Collaborative effort between Bridge Engineers and Historians**



Section 106 Process – Historic Bridge

- **CRU determined, and SHPO concurred, proposed rehabilitation and reconstruction of the existing bridge had No Adverse Effect.**





Section 106 Process-Finding

- **MnDOT's recommended alternate**
 - **Rehabilitate and reconstruct existing bridge and build new parallel bridge**
 - **New segmental concrete box girder bridge also meets budget and migratory bird concerns.**





Section 106 Process – Finding

- **CRU's findings**
 - **Girder concept meets Standards**
 - **minimal profile in comparison/doesn't compete visually.**
 - **doesn't replicate historic elements.**
 - **maintains primary view of historic bridge from downtown.**
 - **Girder concept has no adverse effect.**
 - **SHPO concurred**





Section 106 Process – Finding

- **Project overall has No Adverse Effects to historic properties**
- **Programmatic Agreement will be entered into to ensure no adverse effects occur during the final design process**





Section 106 Process – Finding





Concrete Segmental Box





Tied Arch





Cable Stayed



Comparisons





Concrete Segmental Box



Tied Arch

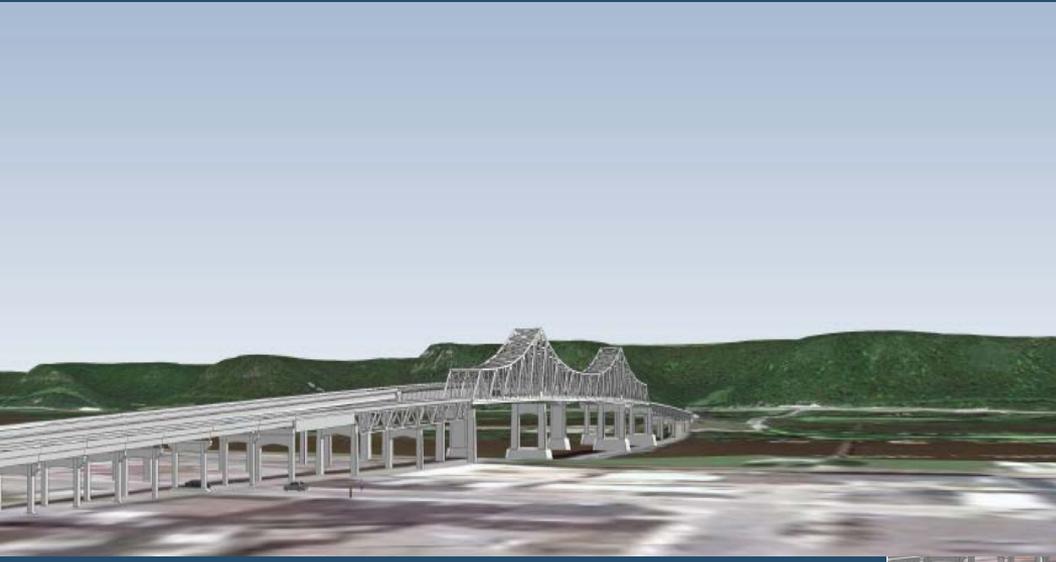




Cable Stayed



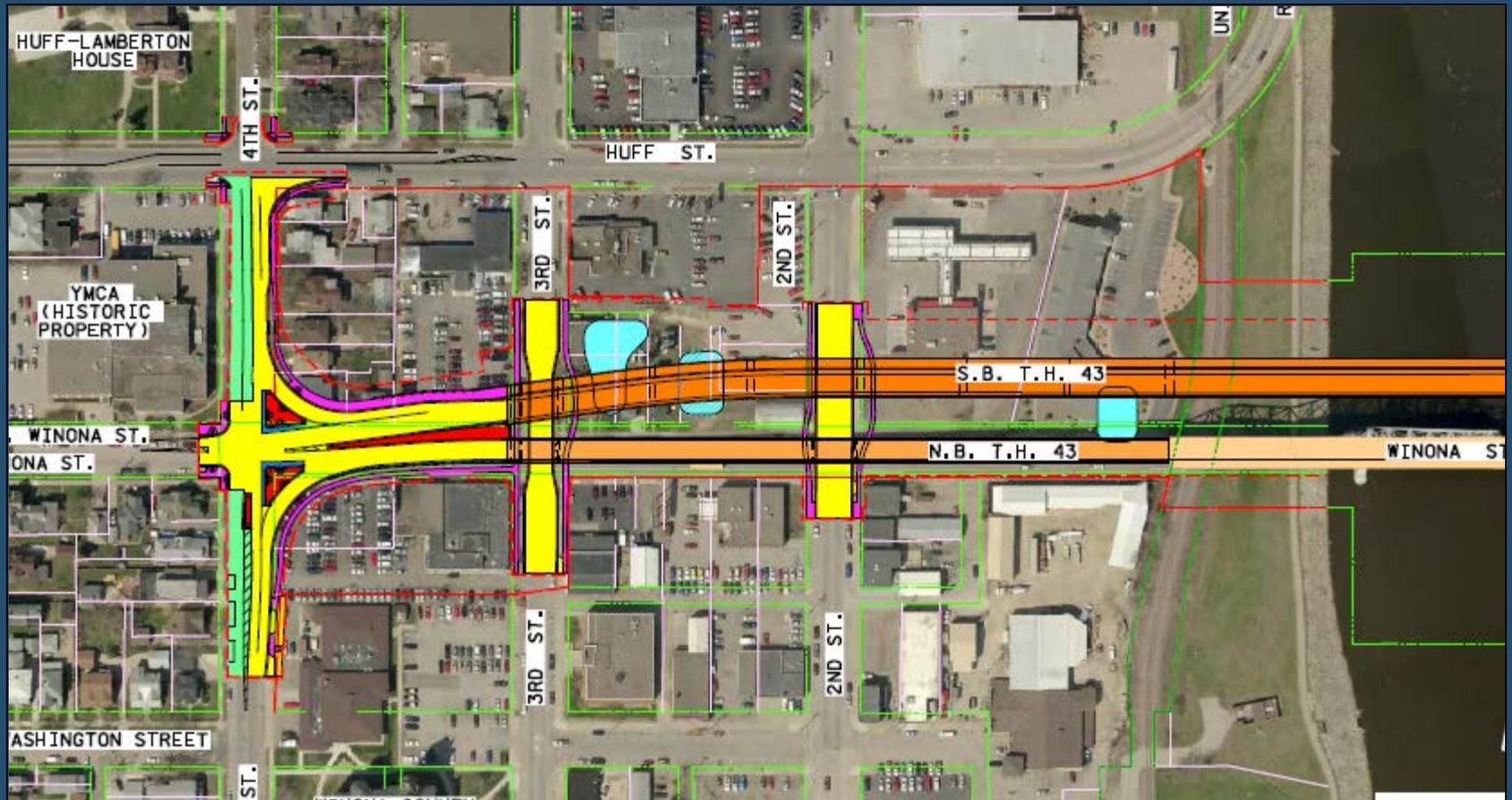
Comparisons



New Bridge Type – Cass Street Bridges

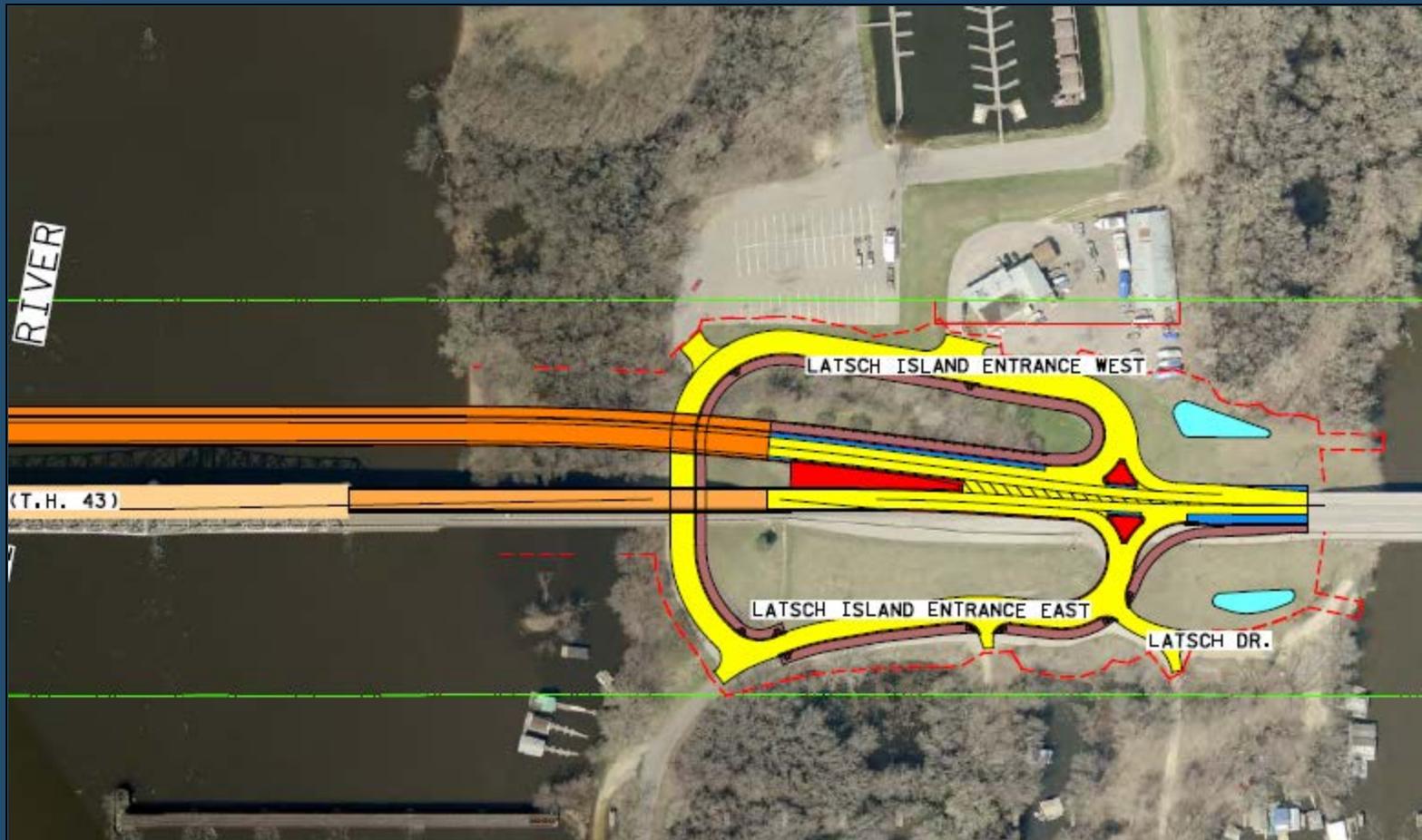


Project Background – ROW





Project Background – ROW



Similar Projects – St. Anthony Falls (35W)





Next Steps

- **Municipal Consent: Public Hearing August 19th**
- **Environmental Assessment: Fall 2013**
- **FONSI: End of the year**
- **Construction Start: July 2014 – March 2015**





Questions?

MnDOT Project Website:

www.mndot.gov/d6/projects/winonabridge/index.html





Similar Projects - Missouri



A rendering of what the Highway 40 (Interstate 64) crossing at the Missouri River will look like from the St. Louis County side after the Daniel Boone Bridge project is completed. The span to be completed by late 2014 will carry eastbound traffic (on left side of drawing.) The span on the right side will carry westbound traffic (it now carries eastbound traffic.) by Walsh Alberici Joint Venture