PUBLIC INVOLVEMENT MEETING

CHIPPEWA COUNTY HIGHWAY K BRIDGE *over the YELLOW* RIVER

REHABILITATION OR REPLACEMENT

JULY 24, 2025

WisDOT Project ID 7862-03-71

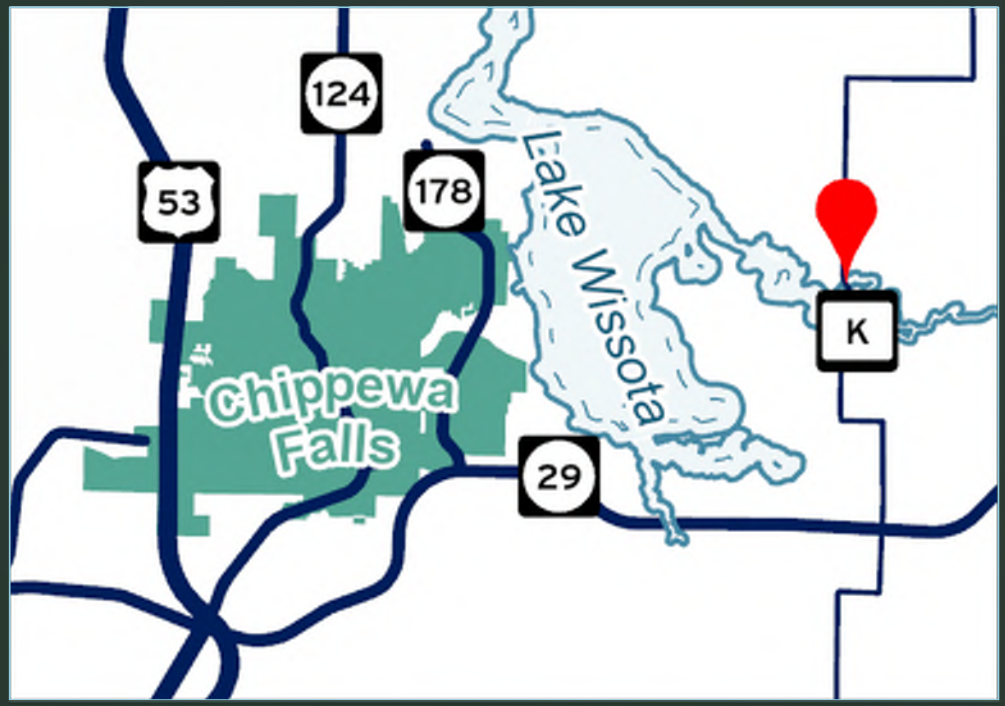
WELCOME

Fred Anderson, P.E., Chippewa County Project Manager

Matt Krippner, P.E., AECOM Project Manager

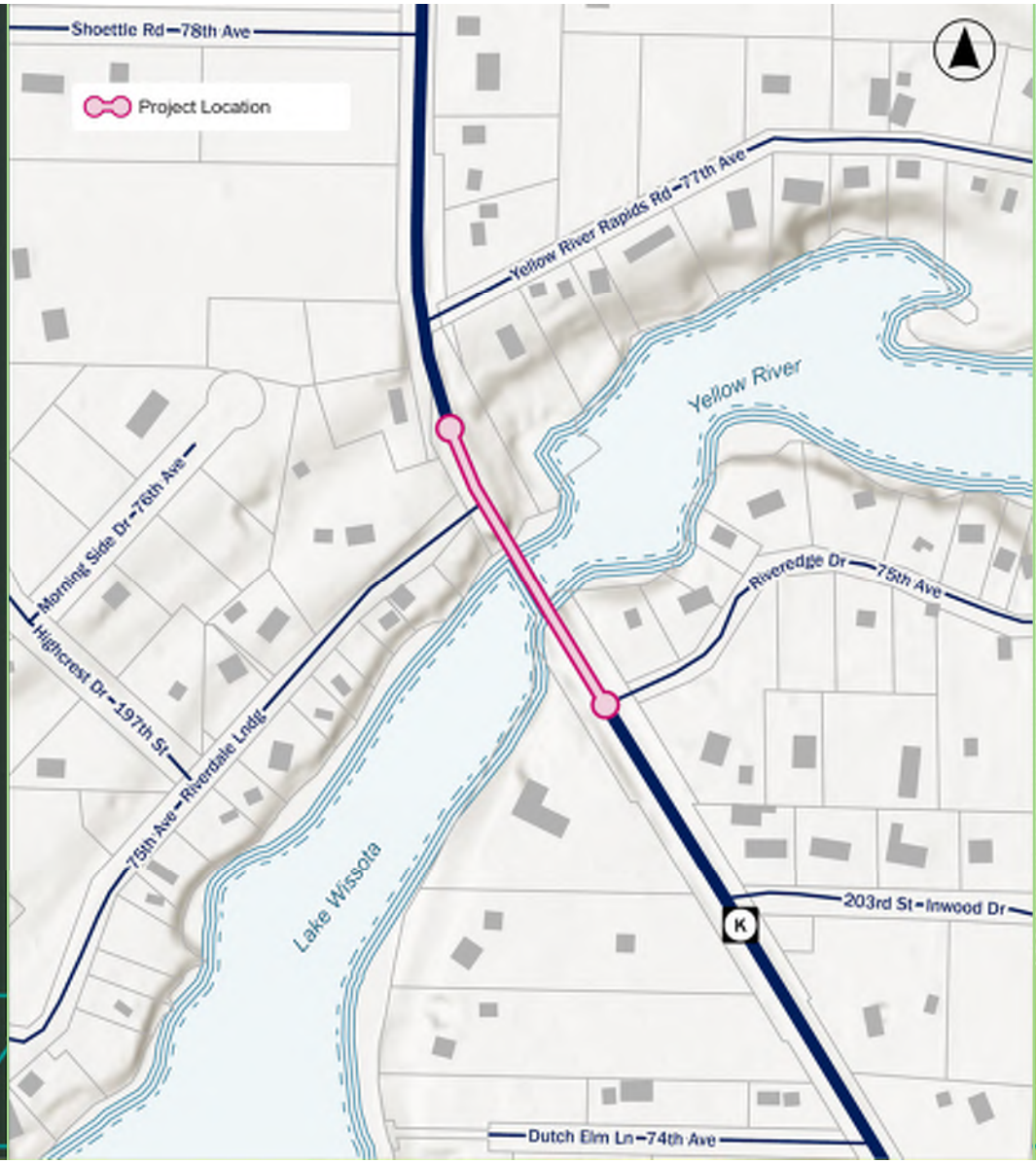
PROJECT OVERVIEW

- Project Overview
- Project Purpose and Need
- Alternatives Development & Evaluation Process
- Preferred Alternative
- Historic Bridge
- Final Design
- Construction
- Budget



Meeting Agenda

- Project Overview
- Project Purpose and Need
- Alternatives Development & Evaluation Process
- Preferred Alternative
- Historic Bridge
- Mitigation Activities
- Next Steps



BRIDGE FACTS

- The County K bridge over the Yellow River was built in 1942. It's 83 years old.
- On an average day, about 1,340 vehicles cross the bridge, and nearly 134 of those vehicles are trucks.
- 2024/25 bridge inspection revealed advanced concrete and steel deterioration.
- The bridge's vertical clearance is limited to 13 feet-8 inches. Some trucks and farm equipment are too tall for the bridge, and it has been struck repeatedly over the years. Standard minimum clearance is 14 feet.
- The bridge has two travel lanes, one in each direction, with no shoulder or space for bicycles, pedestrians or snowmobiles.

PURPOSE & NEED

The **purpose** of the project is to provide a reliable, long-term crossing of the Yellow River for all users in the vicinity of the Towns of Anson and Lafayette.

The **needs** for this project is due to structure deterioration and functional deficiencies including low vertical clearance and limited roadway width on the bridge.

STRUCTURAL DEFICIENCIES: NBI Condition Ratings

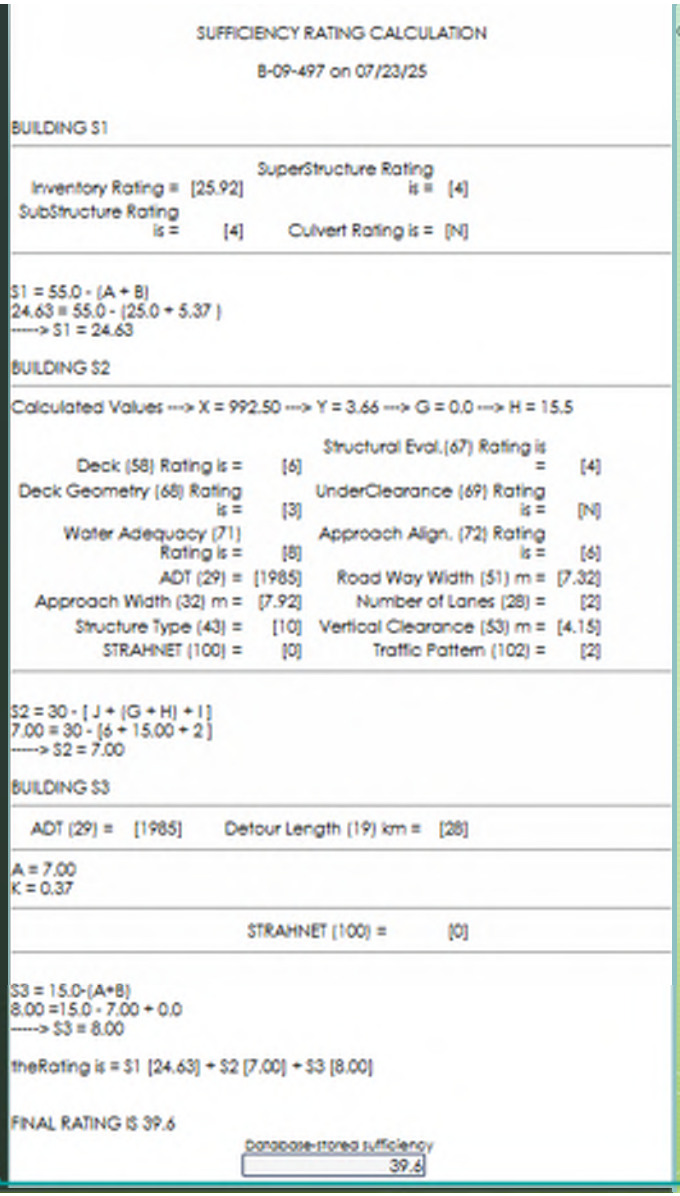
- The National Bridge Inventory (NBI) **condition rating for the substructure and superstructure from 2025 was determined to be 4 (poor), making the bridge structurally deficient**, and the deck was determined to be 6 (satisfactory).

- *NBI Condition Rating is a method used and accepted by the Federal Highway Administration (FHWA) in evaluating highway bridge data and is calculated from several factors to obtain a numeric value. The NBI is a database, compiled by the FHWA, with information on all bridges and tunnels in the United States that have roads passing above or below. NBI is a numerical rating that ranges from 0 to 9, where 9 represents a primary bridge component in excellent condition and 5 represents a minimum rating for a primary bridge component in fair condition.*

STRUCTURAL DEFICIENCIES:
Sufficiency Rating

The bridge's sufficiency rating is 39.6 of 100, indicating that the structure's degradation is advanced enough to qualify it for Federal replacement funding.

Federal Highway Administration (FHWA) has an established sufficiency rating formula to provide a method of evaluating highway bridge data by calculating four separate factors to obtain a numeric value which is indicative of a bridge sufficiency to remain in service. The result of this method is a percentage in which 100 percent would represent an entirely sufficient bridge and zero percent would represent an entirely insufficient or deficient bridge. The sufficiency rating is also used as a benchmark for determining funding eligibility in accordance with the Wisconsin Administrative Code Chapter Trans 213. A bridge that has a sufficiency rating of 80 or less is eligible for rehabilitation funding. Furthermore, if the sufficiency rating falls below 50, the bridge may be eligible for replacement funding.



SUFFICIENCY RATING CALCULATION

B-09-497 on 07/23/25

BUILDING S1

Inventory Rating =	[25.92]	SuperStructure Rating is =	[4]
SubStructure Rating is =	[4]	Culvert Rating is =	[N]

S1 = 55.0 - (A + B)
24.63 = 55.0 - (25.0 + 5.37)
-----> S1 = 24.63

BUILDING S2

Calculated Values ---> X = 992.50 ---> Y = 3.66 ---> G = 0.0 ---> H = 15.5

Deck (58) Rating is =	[6]	Structural Eval.(67) Rating is =	[4]
Deck Geometry (68) Rating is =	[3]	UnderClearance (69) Rating is =	[N]
Water Adequacy (71) Rating is =	[8]	Approach Align. (72) Rating is =	[6]
ADT (29) =	[1985]	Road Way Width (51) m =	[7.32]
Approach Width (32) m =	[7.92]	Number of Lanes (28) =	[2]
Structure Type (43) =	[10]	Vertical Clearance (53) m =	[4.15]
STRAHNET (100) =	[0]	Traffic Pattern (102) =	[2]

S2 = 30 - [J + (G + H) + I]
7.00 = 30 - [6 + 15.00 + 2]
-----> S2 = 7.00

BUILDING S3

ADT (29) =	[1985]	Detour Length (19) km =	[28]

A = 7.00
K = 0.37

STRAHNET (100) = [0]

S3 = 15.0-(A+B)
8.00 =15.0 - 7.00 + 0.0
-----> S3 = 8.00

theRating is = S1 [24.63] + S2 [7.00] + S3 [8.00]

FINAL RATING IS 39.6

Database-stored sufficiency
39.6

STRUCTURAL DEFICIENCIES:
Load Posting

The bridge has a **40 Ton Load Posting.**

(Bridge load posting means restricting vehicle weight when engineering analysis of a bridge, known as a load rating, indicates that it cannot carry standard, legal loads.)

SPECIAL CONSIDERATIONS

- Farm Equipment
- Trucking
- Pedestrians & Cyclists
- Snowmobilers
- River Recreation
  - Boating
  - Paddling
  - Fishing

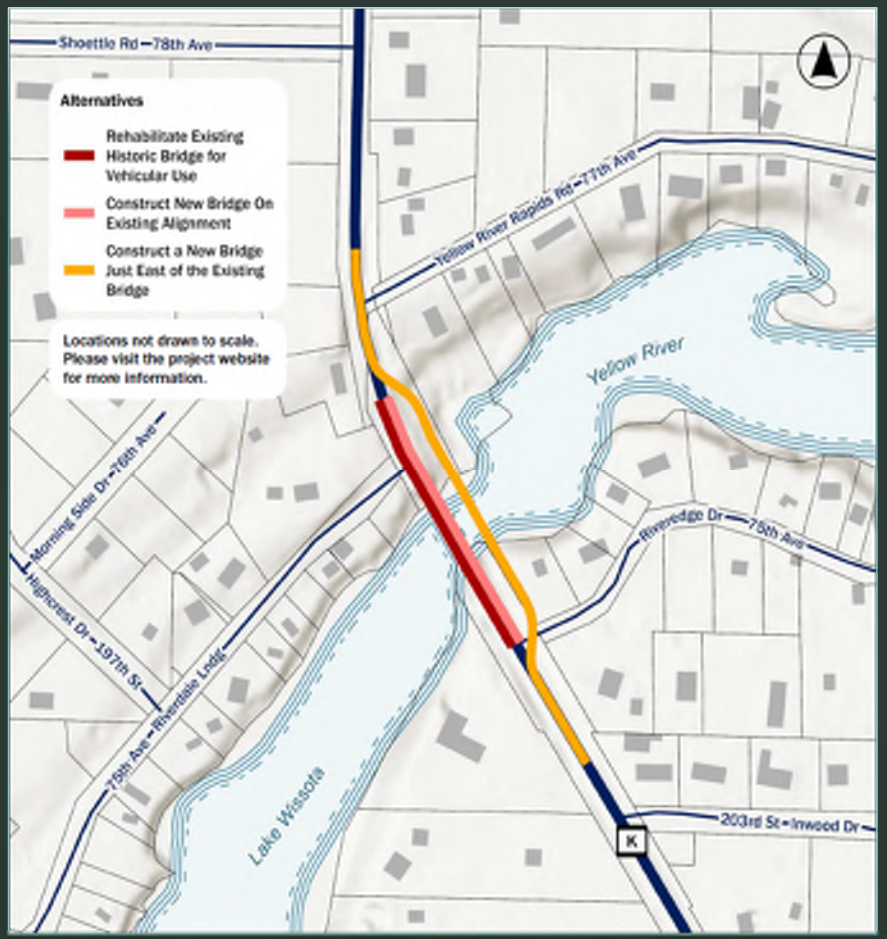
CONCEPTUAL ALTERNATIVES

Five conceptual alternatives were developed: Rehabilitation, New Bridges at a Variety of Locations.

Two were dismissed:

- New bridge on 210th Street – severe private property and wetland impacts
- New bridge immediately west of existing bridge – utility impacts

Three alternatives were recommended to advance to Detailed Study: Rehabilitation, New Bridge to the East, New Bridge at the Current Location.



DETAILED ALTERNATIVES EVALUATION

These alternatives were developed to a point that their measurable impacts could be compared.

The factors considered for analysis include impacts to wetlands, floodplain, waterways, wildlife, and right-of-way, in addition to construction costs.

Evaluation Factor	Rehabilitate for Vehicular Use	New Bridge Adjacent - East	New Bridge on Existing Alignment
Permanent Wetland Fill (including in-stream)	NA	0.017 ac	0.017 ac
Temporary Wetland Fill (including in-stream)	NA	0.037 ac	0.037 ac
Permanent Property Acquisition	NA	0.731 ac	**0.034 ac**
Property Cost (Permanent)	NA	$256,100	**$14,700**
Temporary Property Use	NA	0.181 ac	**0.098 ac**
Relocations	NA	1 full	0
Construction Cost	$4.4M	$2.95M	**$2.86M**
Impacts to Historic Resources	**No impact**	**No impact**	Adverse impact
Conclusion	Not preferred	Not preferred	**Preferred Alternative**

Property cost estimate is based on 2024 assessed value of property as listed on the Chippewa County land information website and is used only to compare the alternatives. The value for Adjacent Alt includes full acquisition of one parcel (including improvements) and two partial acquisitions. Value for On Alignment Alt includes two partial acquisitions. Actual acquisition cost may differ.

PREFERRED ALTERNATIVE

Construct a New Bridge on the Existing Alignment

- Meets the project's purpose and need with the least environmental impacts (with the exception of requiring the demolition of an historic resource), making it both feasible and prudent.
- Lower capital cost compared to other alternatives.
- Alternatives that avoid adverse effects to the existing historic structure are either unable to adequately meet project purpose and need or generate significantly greater impacts and costs.

PREFERRED ALTERNATIVE

- Three-span concrete girder bridge.
- Two 12-foot travel lanes with four-foot shoulders on either side.
- Every effort will be made to avoid or minimize environmental impacts: area of bridge piers in the river, permanent and temporary property acquisition, stormwater runoff into river, bird nesting areas, disruptions during construction, recreation constraints.

EXAMPLE: Bridge Replacement

County Highway G Bridge over the Black River, Clark County

EXAMPLE: Cobban Bridge CTH TT Chippewa County

Primary Photographer(s): Nathan Holth

Bridge Documented: October 17, 2021

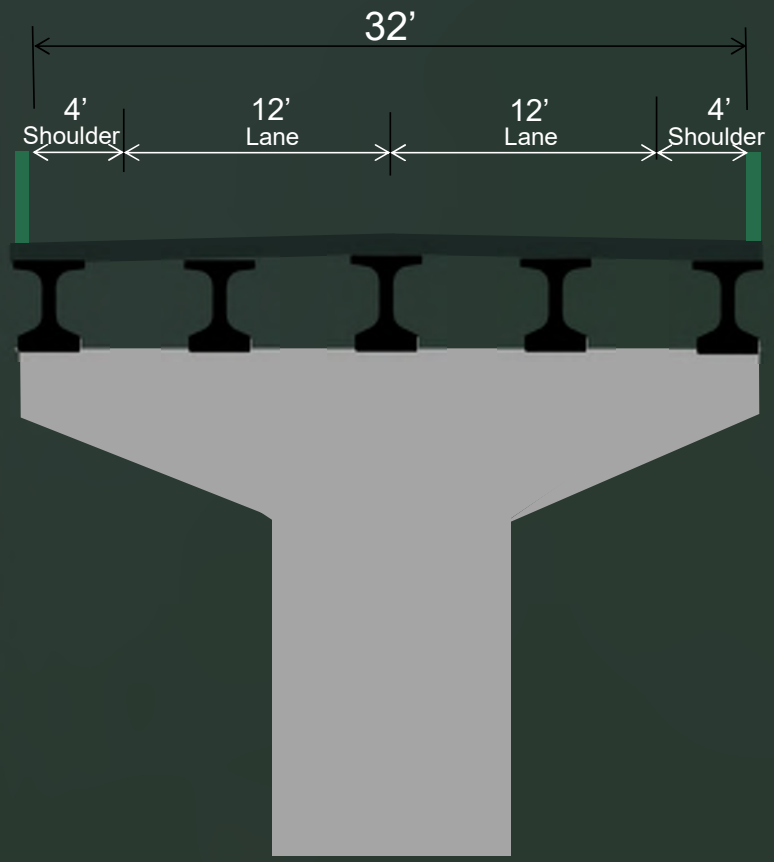
The Cobban Bridge: A Testament to Resilience, Ingenuity, and Community Spirit

JULY 9, 2024

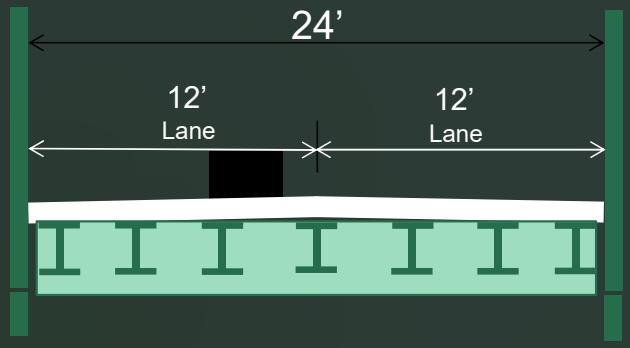
Posted By: Jason Isaacson

in Blog

PROPOSED ROADWAY LAYOUT

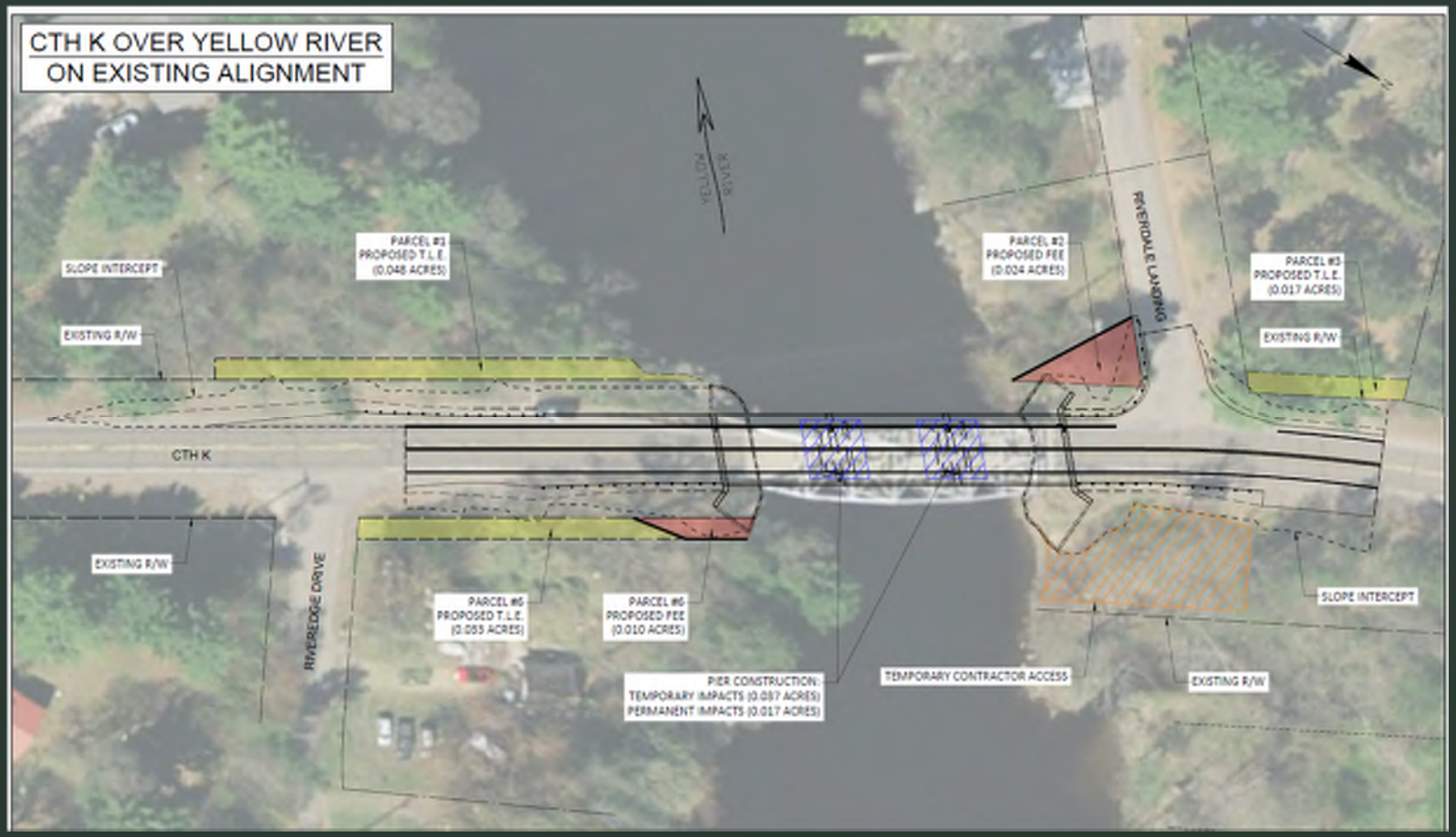


Proposed Bridge Typical Section



Existing Bridge Typical Section

PREFERRED ALTERNATIVE IMPACTS



HISTORIC BRIDGE

The County K Bridge is eligible for listing in the National Register of Historic Places due to its engineering significance. The preferred alternative would remove the historic bridge.

Ideas to mitigate the loss of the historic resource:

- HD Photo documentation
- Educational display or web content
- Move the bridge or salvage a piece for display
- Others?

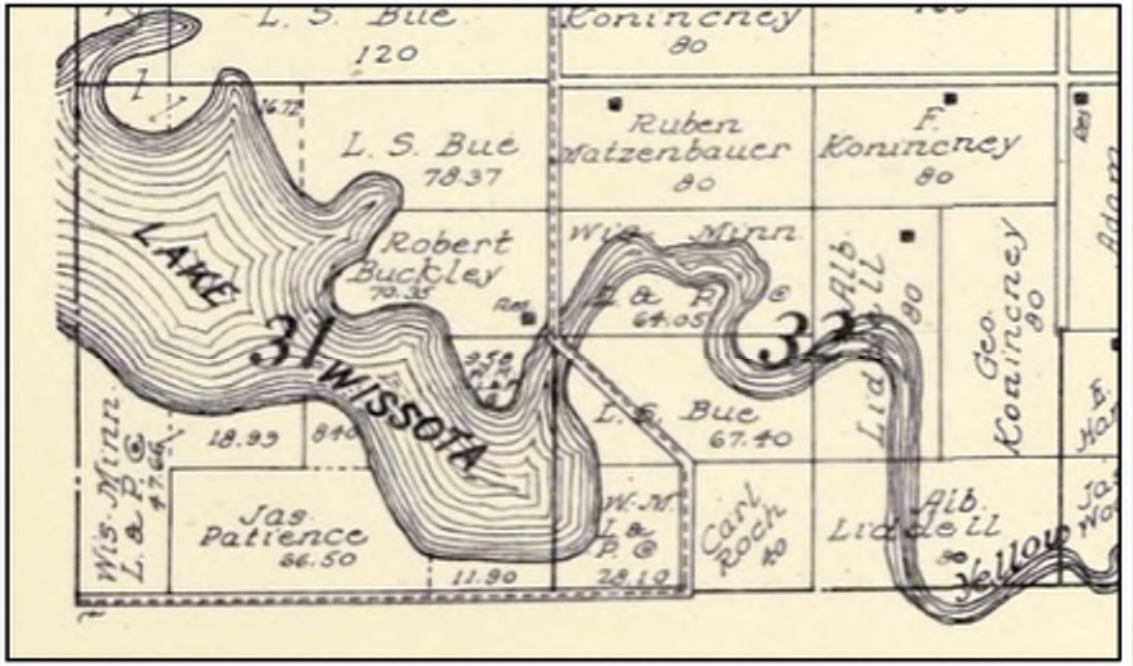


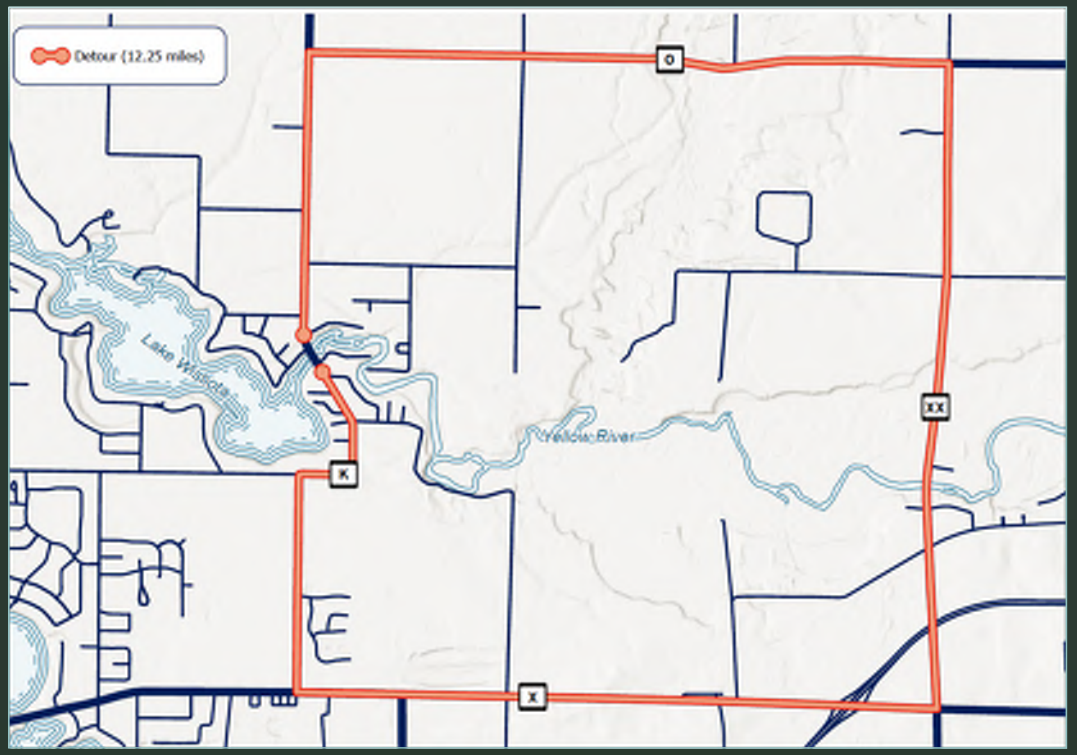
Figure 20. Standard Atlas of Chippewa County, Wisconsin, 1920, George A. Ogle

DESIGN OPTIONS UNDER CONSIDERATION

	Existing Bridge	Concrete Girder Bridge	Steel Girder Bridge	Prefabricated Truss Bridge
Piers in water	0	2	0	0
Backwater rise	0	0.57 ft	0	0
Boat navigation clearance	9.3 ft	9.3 ft	6.3 ft	9.1 ft
Bridge Cost	NA	$1.77 M	$1.69 M	$2.14 M
Construction considerations	NA	Two-year detour	One-year detour	One-year detour
Maintenance considerations	NA	Low maintenance	Subject to road salt corrosion	Subject to road salt corrosion. Requires more frequent and higher cost inspections

DURING CONSTRUCTION

- Construction schedule to start 2027 and will last two construction seasons.
- The bridge will be closed to all traffic for up to 18 months for a three-span concrete girder bridge.
- Detour route is about 12.25 miles.



BRIDGE CONSTRUCTION

- Estimated Construction Cost
  - $2.5M - $3M
- Funding
  - 20% local (County)
  - 80% WisDOT (Federal)

STAYING INVOLVED

- Visit the Chippewa County Highway Department website regularly for updates.
- Provide written comments using the comment forms.
- Have discussions with the staff here tonight.
- Tell us about the opportunities to improve transportation in Chippewa County with this project.

THANK YOU!

Your feedback is key to a successful project.

- Fred Anderson, P.E., Chippewa County Project Manager
  - fanderson@chippewacountywi.gov
- Matt Krippner, P.E., AECOM Project Manager
  - Matthew.Krippner@AECOM.com

Thank You!
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