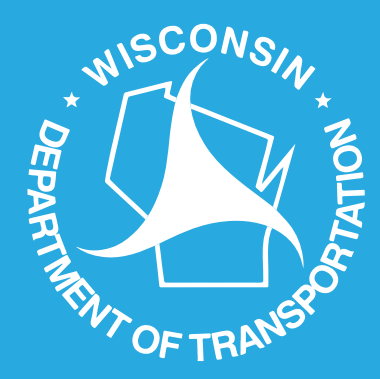
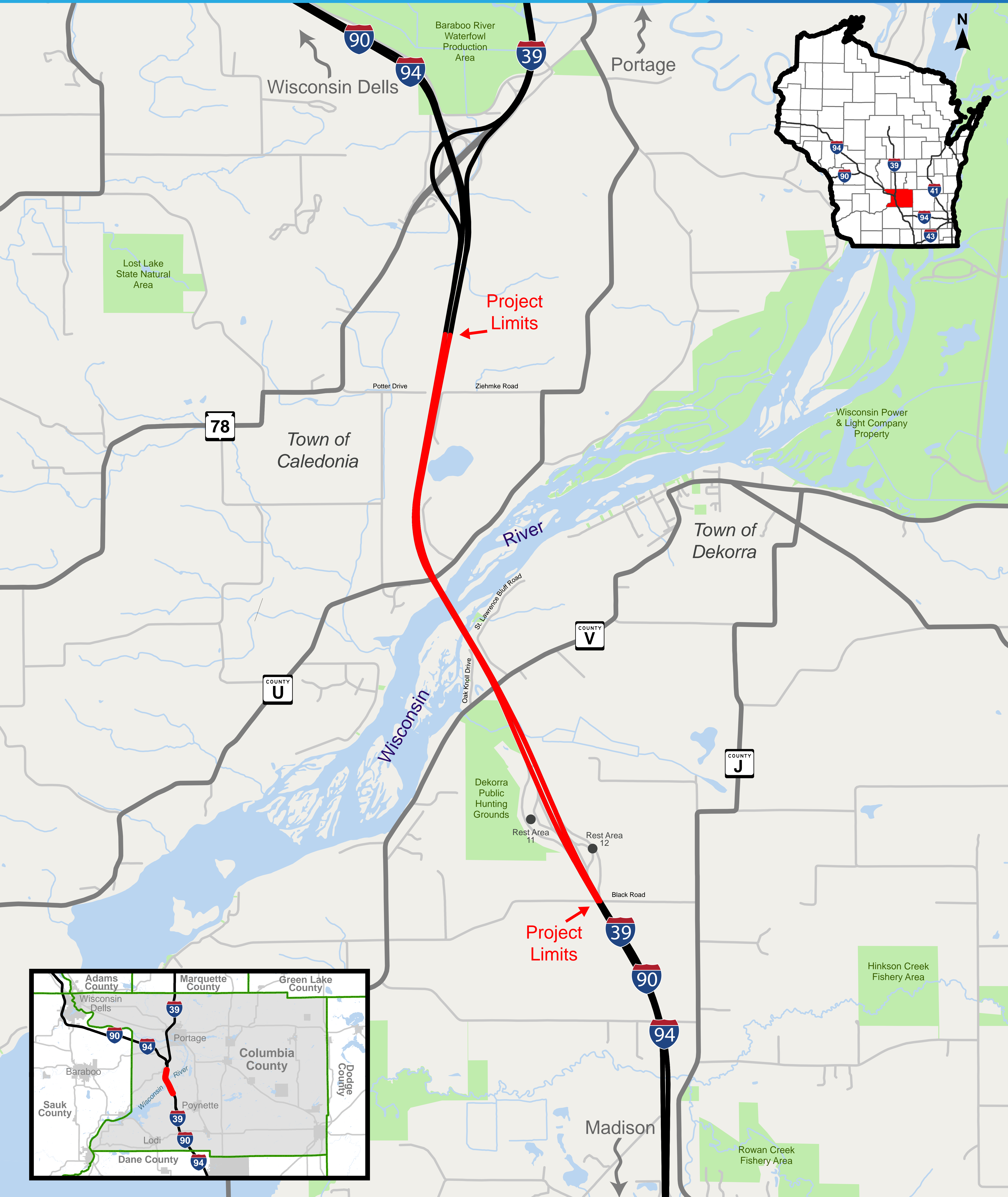
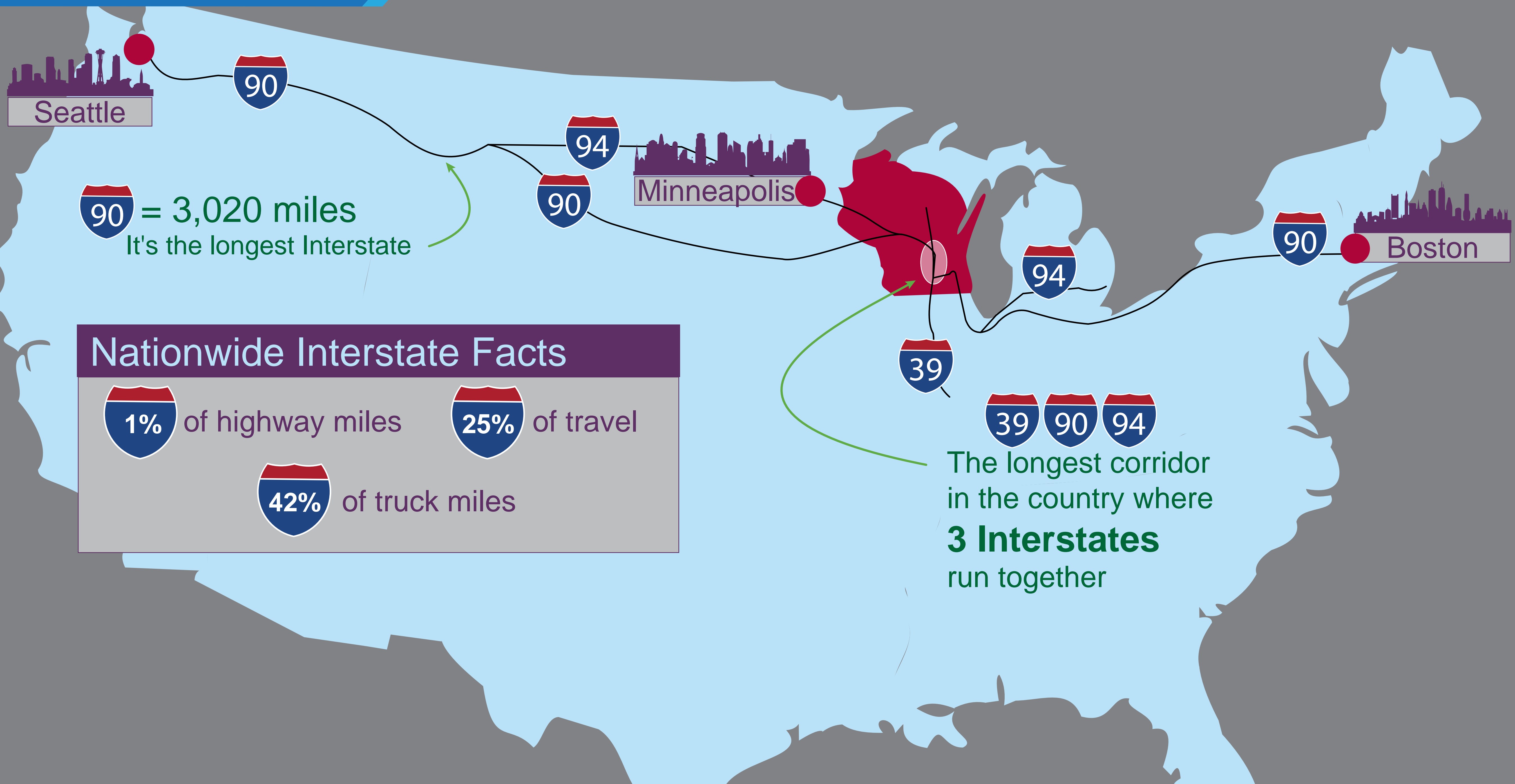


Project Location



I-39/90/94 Route Importance

National Importance



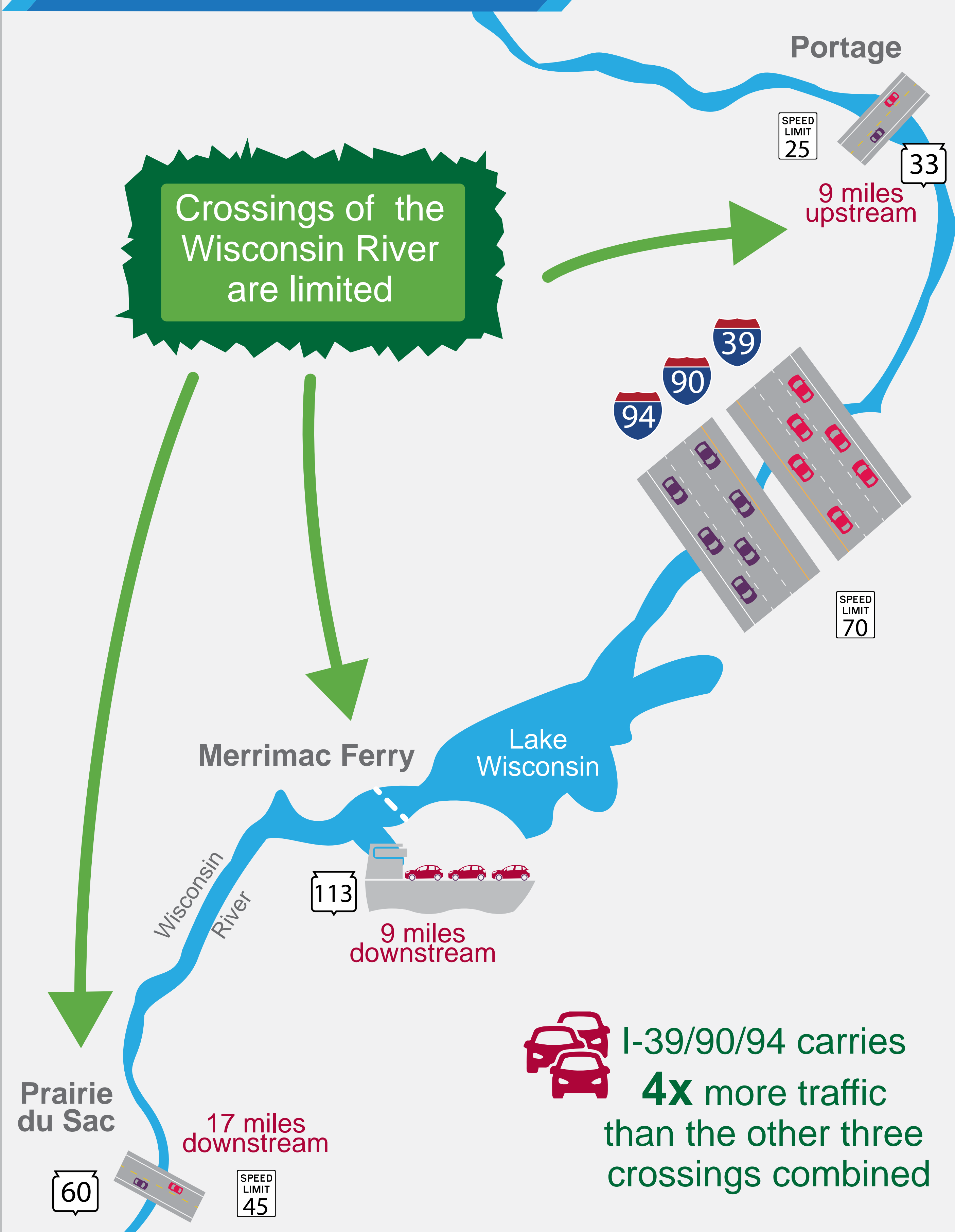
Regional Importance



In 2017, freight crossing the I-39/90/94 Wisconsin River bridge included...

- \$2.6 billion of chicken products
- \$2.8 billion of paper and wood products
- \$116 billion of total freight
- \$3.5 billion of cheese and dairy products
- \$290 million of grain

Local Importance



Purpose and Need

≡ Purpose Statement

The purpose of the I-39/90/94 Wisconsin River Bridge Project is to address the needs of the aging I-39/90/94 structures and maintain vehicular traffic across the Wisconsin River in the towns of Dekorra and Caledonia located in Columbia County.

≡ Primary Need

 Wisconsin River Bridge Condition

≡ Secondary Needs

 Traffic Demands

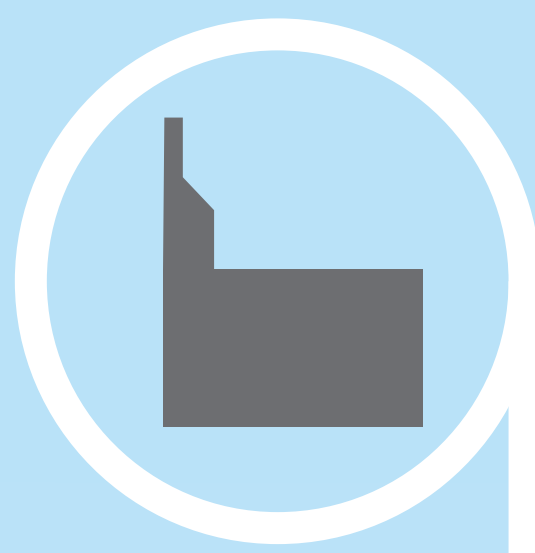
 Roadway Geometrics



Primary Need of the Project

Wisconsin River Bridge Condition is Deteriorating

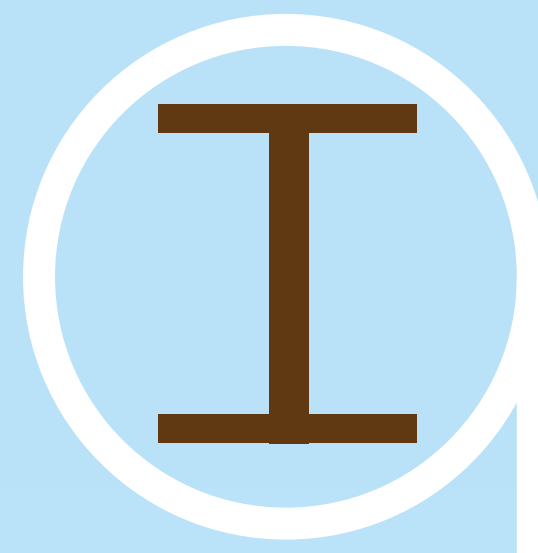
The bridge is inspected every two years to assess the condition of each bridge element. Inspectors assign multiple condition ratings to each bridge element. A portion of the following bridge elements were given a rating of poor or severe. While these deficiencies currently do not deem the bridge unsafe, deterioration will continue to occur if not addressed.



Concrete Deck

Poor condition:

- Cracks in the concrete
- Pieces of concrete chipping off
- Rusting of the reinforcing steel



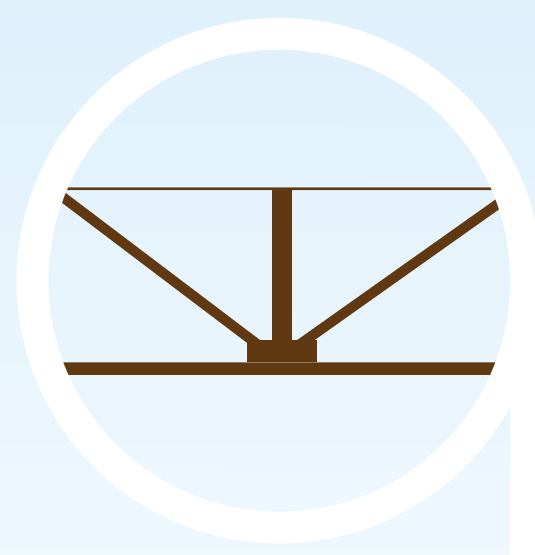
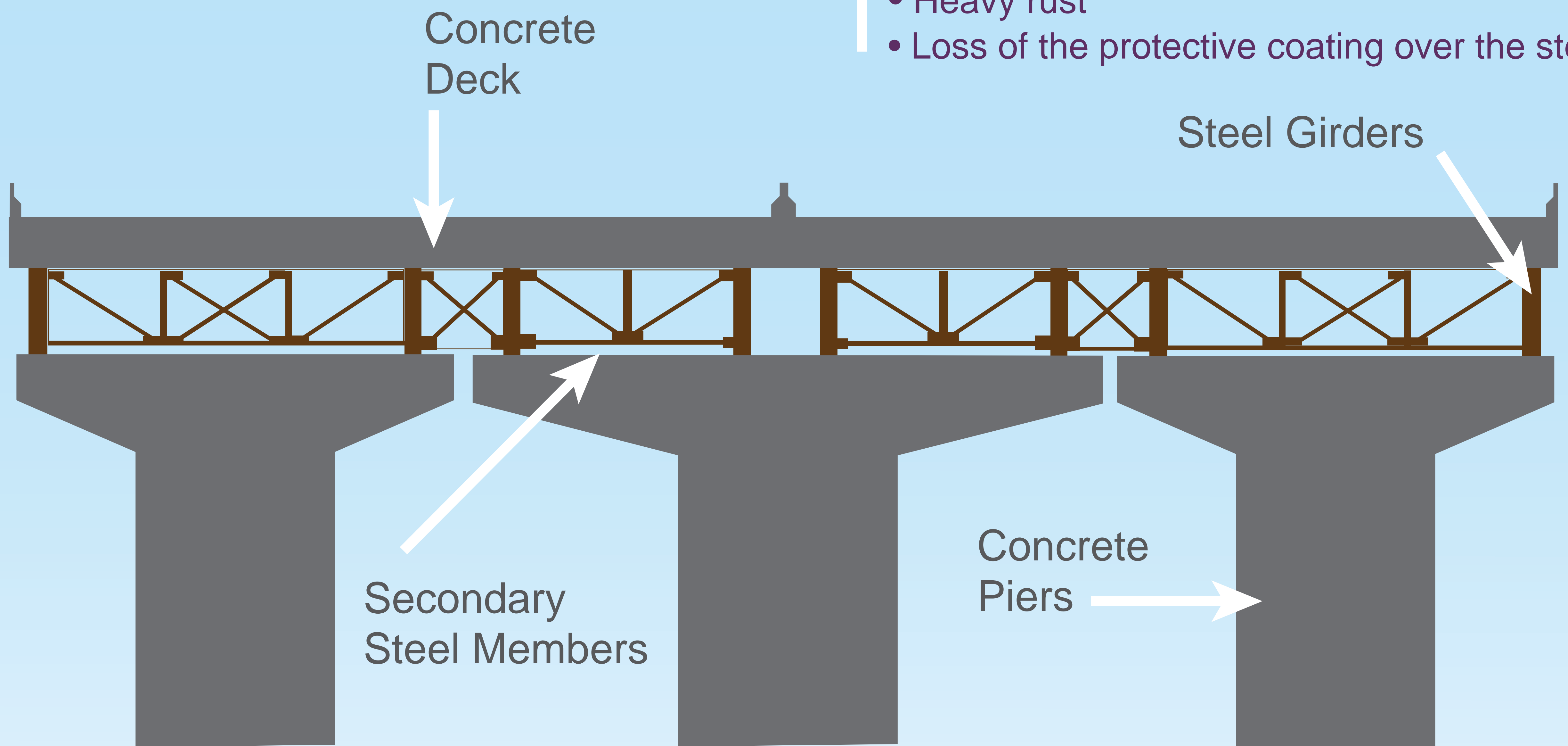
Steel Girders

Poor condition:

- Rust
- Thinning of the girders as the steel rusts and flakes off

Severe condition:

- Heavy rust
- Loss of the protective coating over the steel



Secondary Steel Members

Poor condition:

- Heavy rust
- Warping at the connections
- Deterioration of the steel
- Loss of protective coating over the steel



Concrete Piers

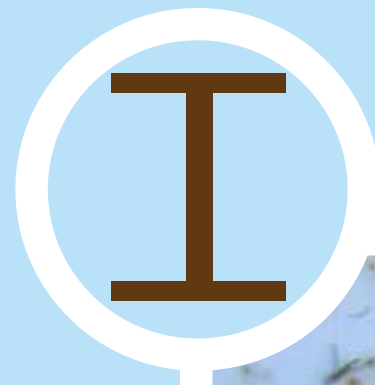
Poor condition:

- Cracks in the concrete
- Pieces of concrete chipping off
- Exposed reinforcing steel

Primary Need of the Project

Example Bridge Deficiencies

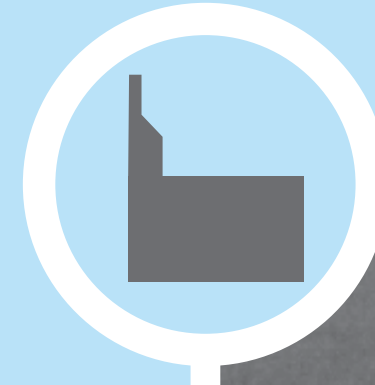
The pictures below show examples of current deficiencies. While these deficiencies currently do not deem the bridge unsafe, deterioration will continue to occur if not addressed.



Severe condition



Loss of protective coating over steel elements and connections.



Poor condition



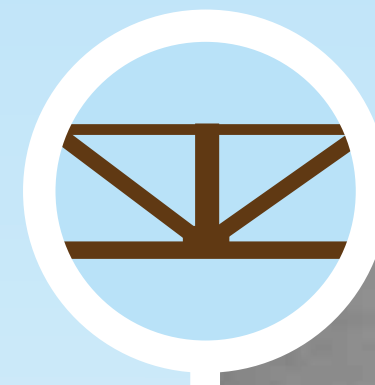
Cracking of the asphalt overlay causes deterioration of the bridge deck.



Poor condition



Concrete on the bottom of the bridge deck is cracking and chipping off, exposing the reinforcing steel.



Poor condition



Pack rust has formed between steel elements causing bulging and distortion, leading to added stress and cracking in the concrete deck.

History of Repairs

The Wisconsin River Bridge has been repaired seven times since it was constructed in 1961. The past repairs have served as solutions to preserve and extend the service life of the bridge. However, even with the past repair work, deficiencies remain with the existing bridge due to the nature of how bridge elements deteriorate over time.



Bart Starr
Packers quarterback

1961
Bridge is built

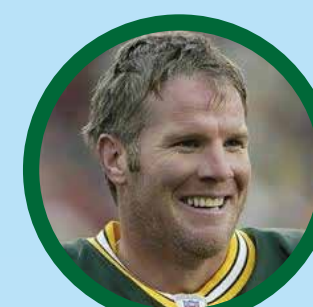


1975
Girder repair

1981
Girder repair

Brett Favre
Packers quarterback

1984
New deck
widen
bridge



1993
Deck
repair

1995
Girder
repair



Aaron Rodgers
Packers quarterback

2012
Girder repair
deck repair
pier repair

2002
Girder
repair



1960

1970

1980

1990

2000

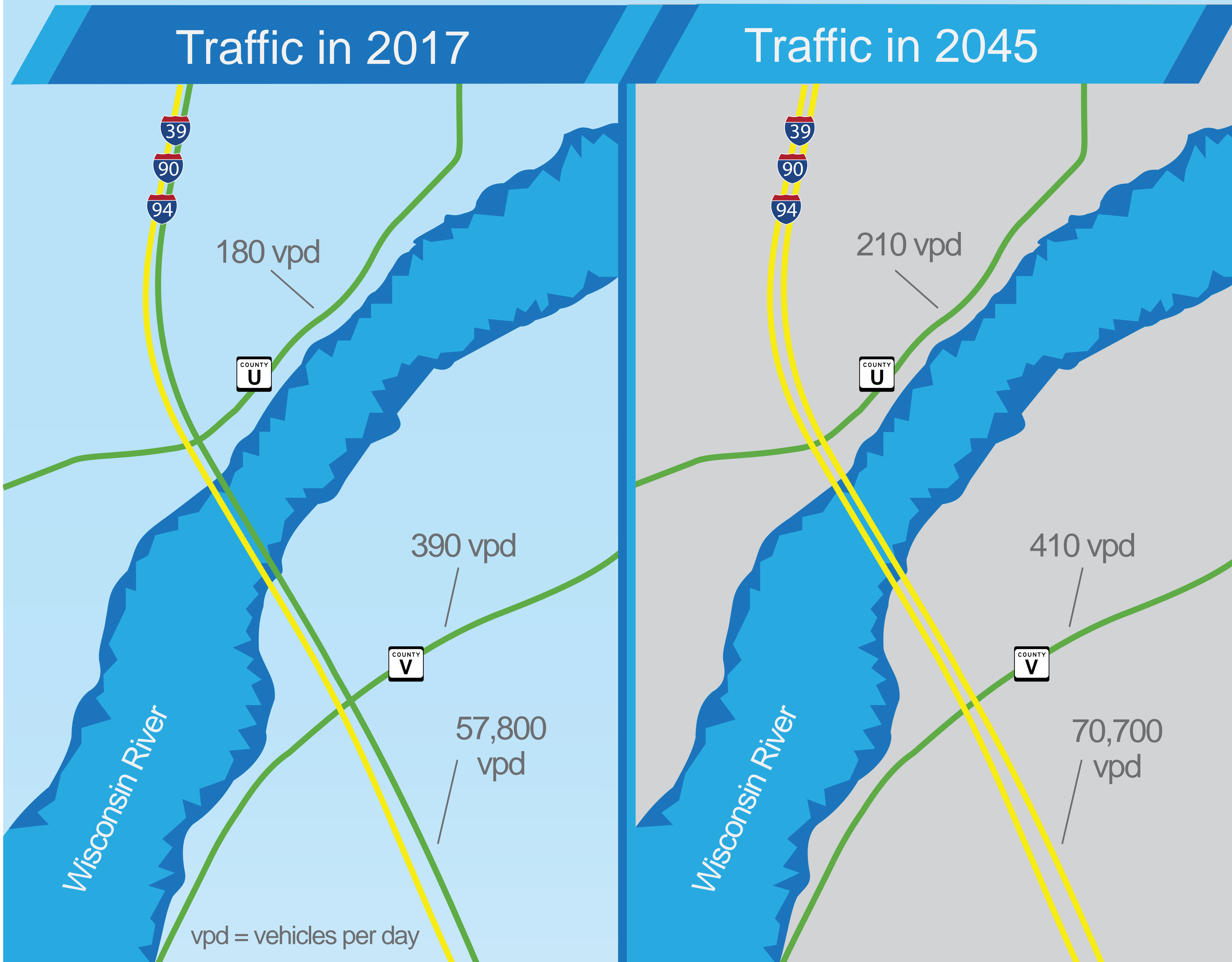
2010

2020



Secondary Needs of the Project

Traffic Demands



Level of Service: ■ C or better (Minimal congestion), ■ D (Moderate congestion), ■ E, ■ F (Severe congestion)

Traffic analysis was completed using the most recent traffic counts from 2017 and for the design year 2045 (20 years after construction).

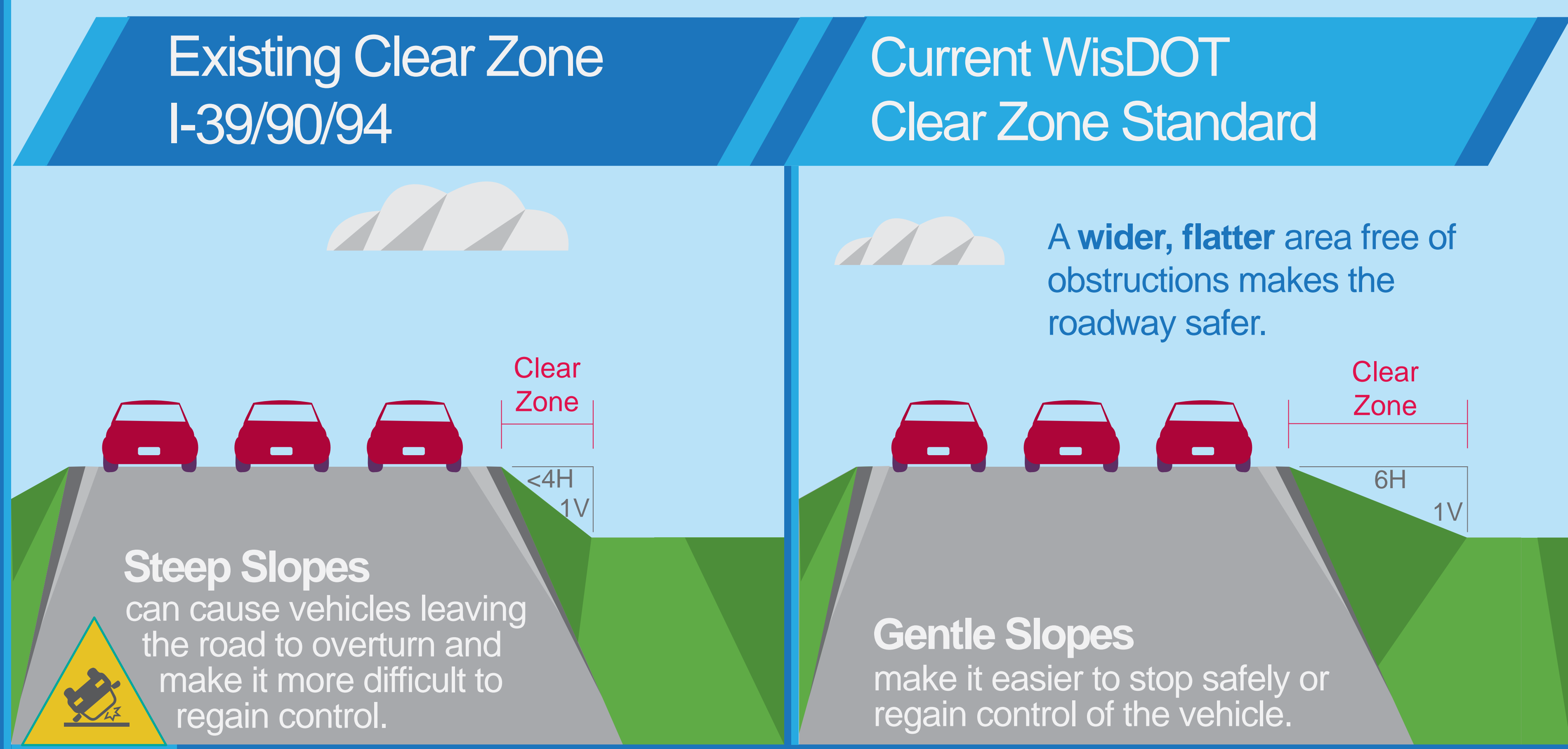
Traffic volumes increase in the summer due to tourist travel

Lane closures due to past bridge repairs created lengthy delays

23% of daily traffic (2017) is trucks

22% increase in traffic volumes by 2045

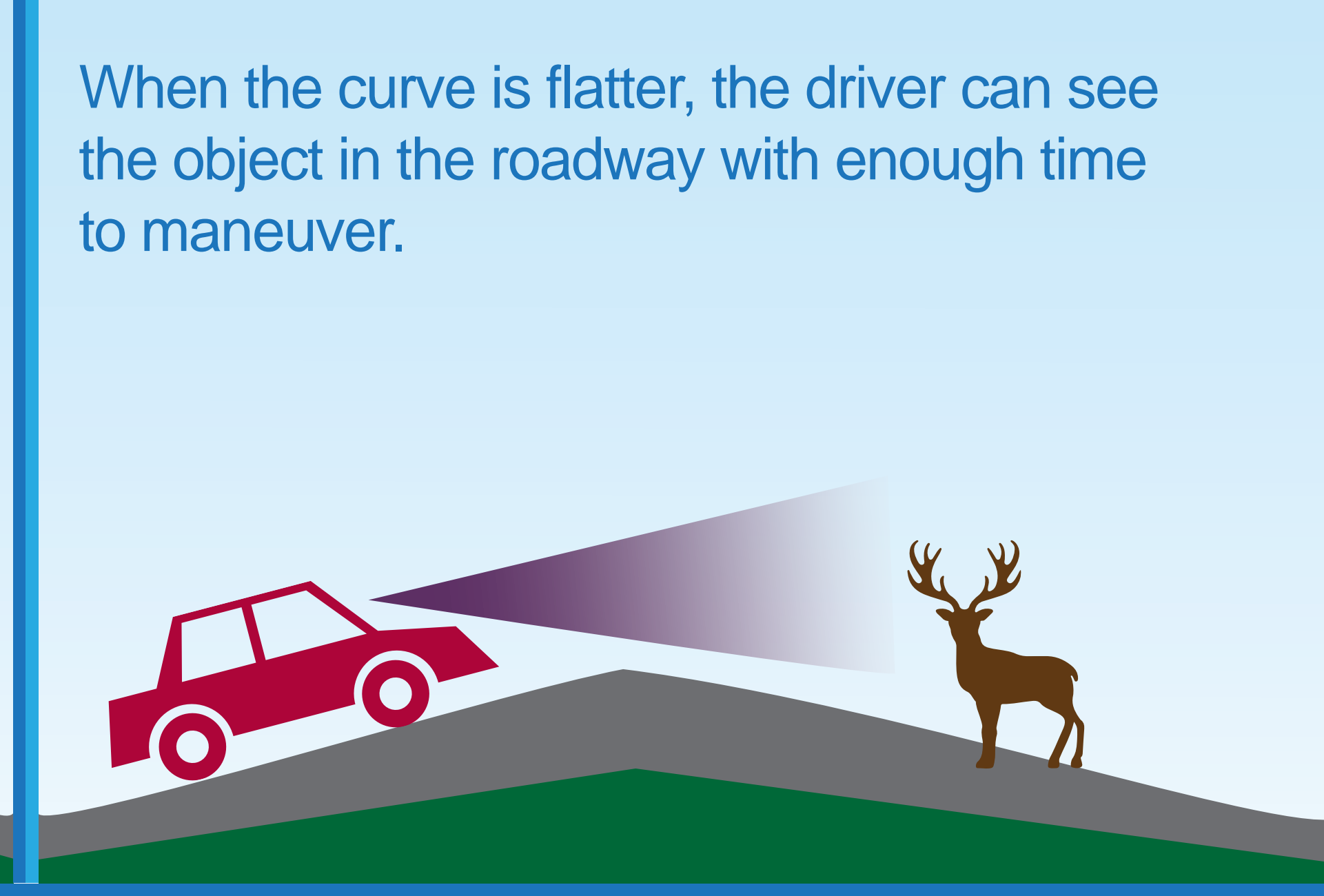
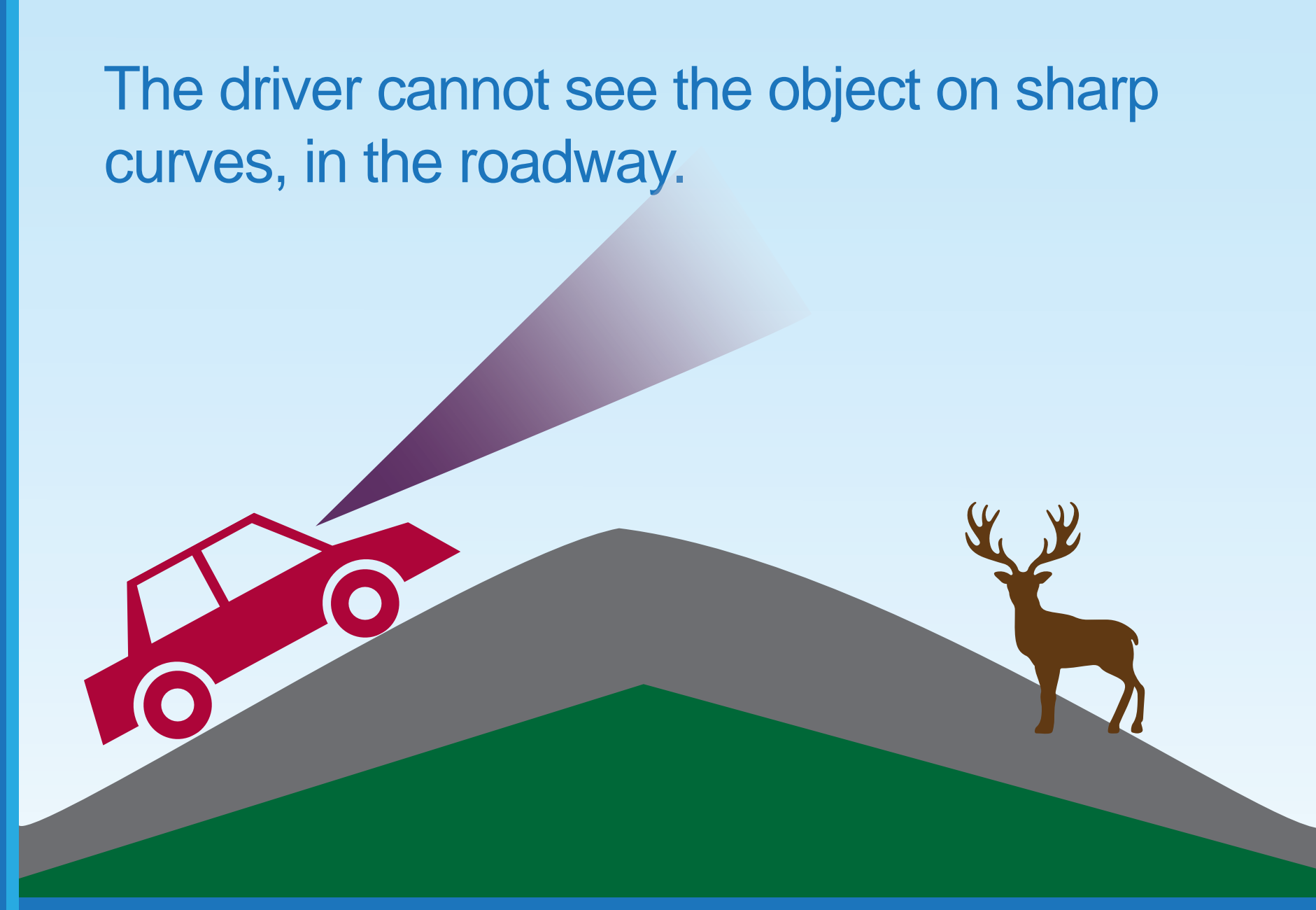
Roadway Geometrics



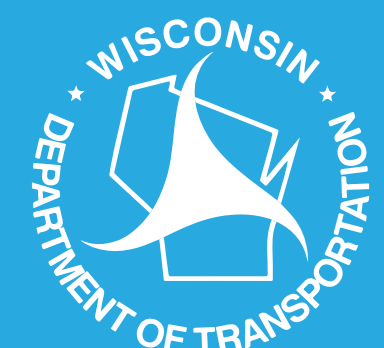
48% of crashes within the project termini were run-off-the-road crashes between 2013 and 2017

A 5-year crash analysis was completed using the most recent crash data (2013-2017).

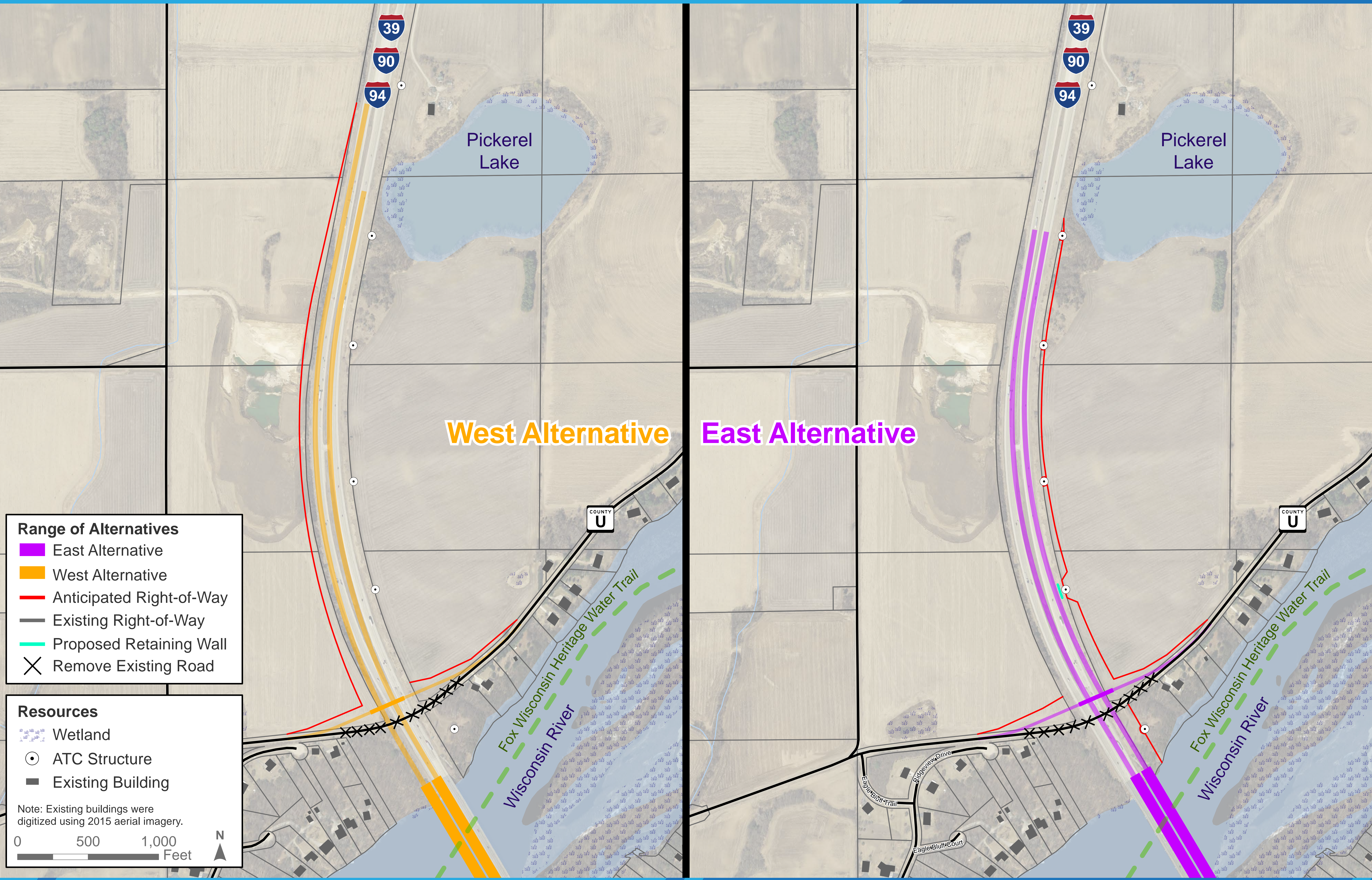
Decision Sight Distance
Decision sight distance is needed for a driver to:
(1) detect a condition in a roadway and recognize its threat
(2) select and complete appropriate avoidance maneuver



Three I-39/90/94 vertical curves in the project area do not meet decision sight distance standards

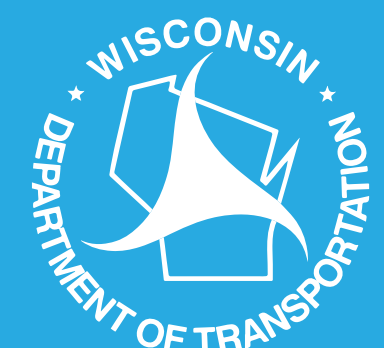


Range of Alternatives (North of Wisconsin River)



- Range of Alternatives**
- █ East Alternative
 - █ West Alternative
 - Anticipated Right-of-Way
 - Existing Right-of-Way
 - - - Proposed Retaining Wall
 - X Remove Existing Road

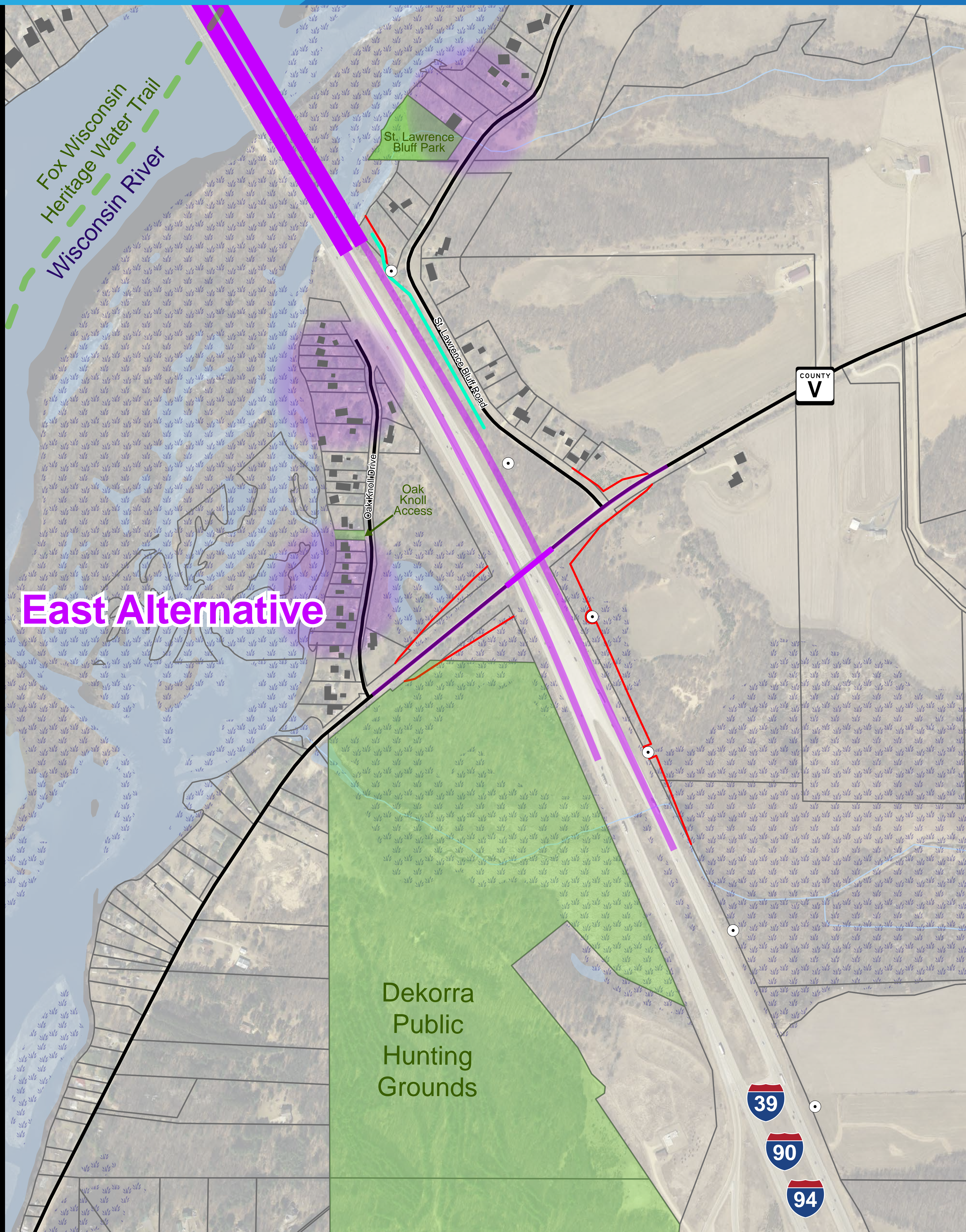
- Resources**
- ~ Wetland
 - ⊙ ATC Structure
 - Existing Building
- Note: Existing buildings were digitized using 2015 aerial imagery.
- 0 500 1,000 Feet
- N



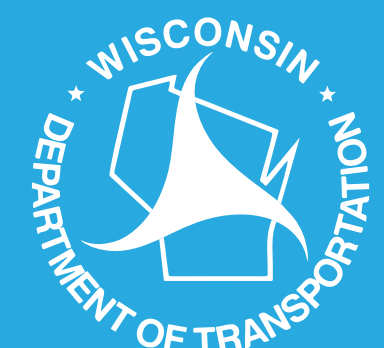
Range of Alternatives (South of Wisconsin River)



West Alternative

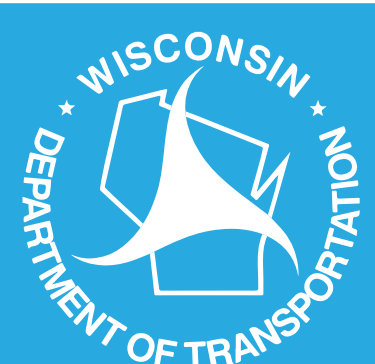


East Alternative

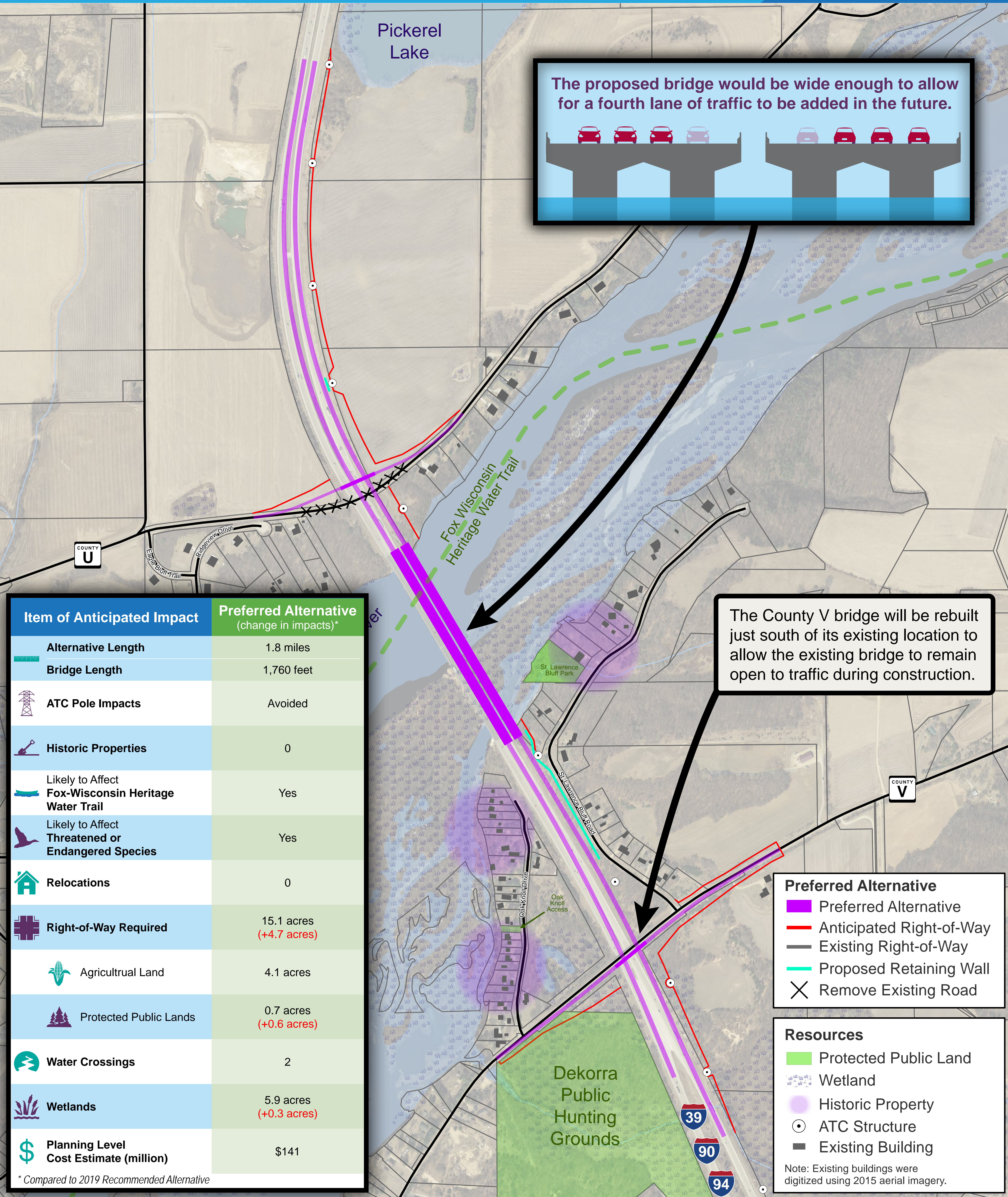


Range of Alternatives Anticipated Impacts

Item of Anticipated Impact	No Build	West Alternative	East Alternative (WisDOT 2019 Recommended)
 Alternative Length	N/A	2.0 miles	1.8 miles
Bridge Length	1,690 feet	1,840 feet	1,760 feet
 ATC Pole Impacts	No	No	Avoided
 Historic Properties	0	1	0
 Likely to Affect Fox-Wisconsin Heritage Water Trail	No	Yes	Yes
 Likely to Affect Threatened or Endangered Species	No	Yes	Yes
 Relocations	0	8	0
 Right-of-Way Required	0 acres	15.7 acres	10.4 acres
 Agricultural Land	0 acres	4.1 acres	4.1 acres
 Protected Public Land	0 acres	1.2 acres	0.1 acres
 Water Crossings	N/A	2	2
 Wetlands	0 acres	5.8 acres	5.6 acres
 Planning Level Cost Estimate (million) <small>* In-depth cost analysis was completed on the selected alternative and included in the final environmental document.</small>	\$0	\$140-190	\$140-190



Preferred Alternative



The proposed bridge would be wide enough to allow for a fourth lane of traffic to be added in the future.

The County V bridge will be rebuilt just south of its existing location to allow the existing bridge to remain open to traffic during construction.

Item of Anticipated Impact	Preferred Alternative (change in impacts)*
Alternative Length	1.8 miles
Bridge Length	1,760 feet
ATC Pole Impacts	Avoided
Historic Properties	0
Likely to Affect Fox-Wisconsin Heritage Water Trail	Yes
Likely to Affect Threatened or Endangered Species	Yes
Relocations	0
Right-of-Way Required	15.1 acres (+4.7 acres)
Agricultural Land	4.1 acres
Protected Public Lands	0.7 acres (+0.6 acres)
Water Crossings	2
Wetlands	5.9 acres (+0.3 acres)
Planning Level Cost Estimate (million)	\$141

* Compared to 2019 Recommended Alternative

Preferred Alternative

- Preferred Alternative
- Anticipated Right-of-Way
- Existing Right-of-Way
- Proposed Retaining Wall
- Remove Existing Road

Resources

- Protected Public Land
- Wetland
- Historic Property
- ATC Structure
- Existing Building

Note: Existing buildings were digitized using 2015 aerial imagery.



Project Schedule

Development of Purpose and Need

Define the issues and goals.

Spring 2019

Preliminary Alternatives

Consider all reasonable solutions.

Spring 2019

Range of Alternatives

Conduct a screening and evaluation to identify the viable solutions.

Summer 2019

Preferred Alternative

Identify the preferred solution.

Fall 2020

Environmental Document Complete

Document the project in the final study report.

Spring 2021

Final Design / Real Estate Acquisition

Design of preferred alternative.
Public meetings and agency outreach continue.
Real estate acquisition.

2021 - 2023

Construction

Construction may begin in 2024 depending upon funding.
Continued public and agency coordination.

2024 - 2026

