



OKLAHOMA
Transportation



Virtual Public Open House

US-281 Bridgeport Bridge over the South Canadian River
September 29 to October 18, 2020



Presentation Agenda

Topics

- Open House and Project Purpose
- Project History
- Existing Conditions / Project Need
- Preliminary Alternatives
- Proposed Alternative
- Detour Information
- Environmental Findings
- Project Timeline
- Comment Submission

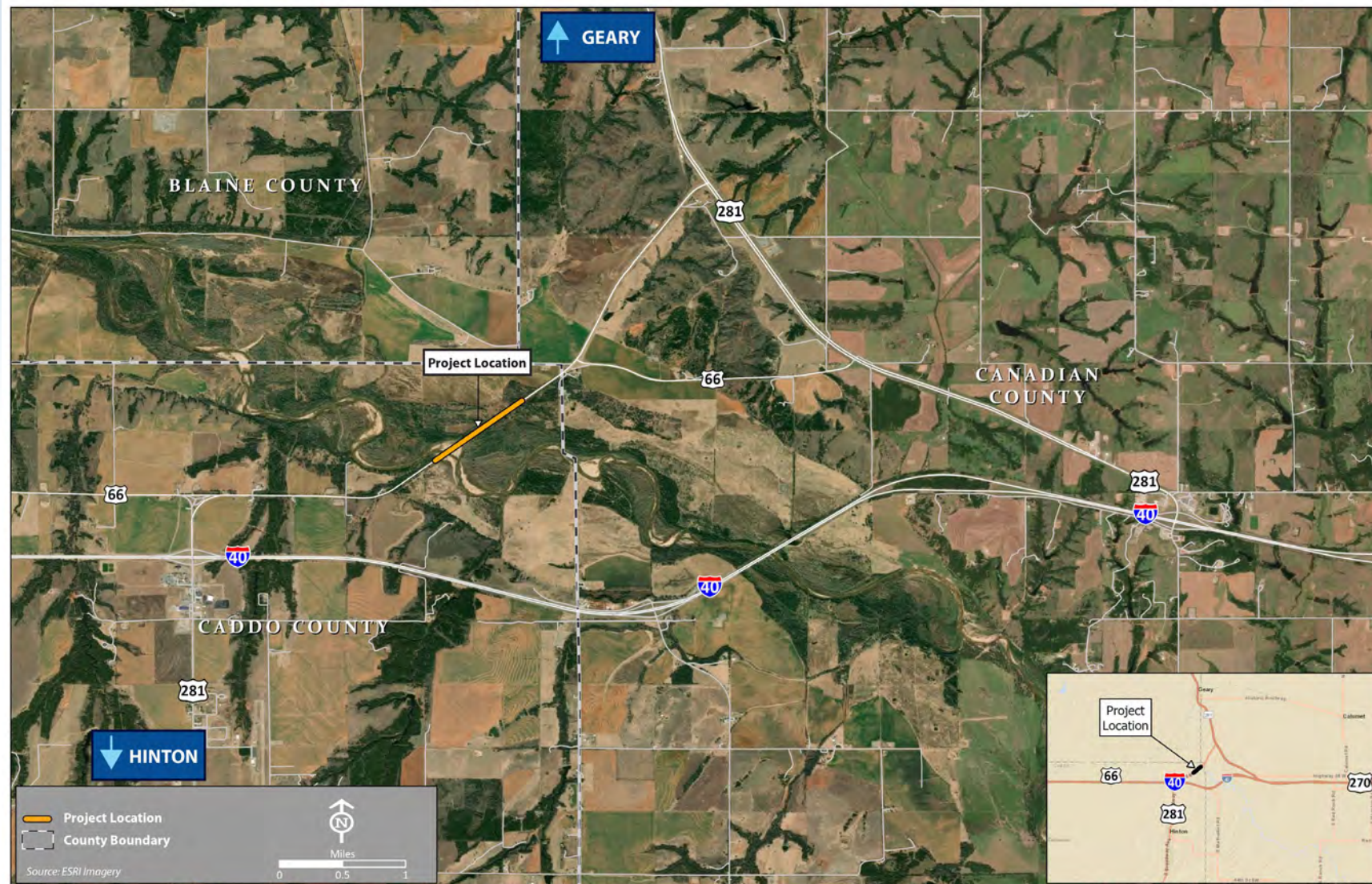


Project Location



US 281 over the South Canadian River (Historic Route 66 near Bridgeport)

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Purpose of this Open House

- Inform the public and obtain input on the existing conditions and proposed improvements to the US-281 Bridgeport bridge including road closure and detour
- Provide information obtained during the environmental studies for the project
- Receive input on the proposed duration and detour route during road closure
- Outline the next steps and schedule for the project

Comments and information received from the public will be evaluated and

US-281 Bridge Over South Canadian River

Also Known As:

- The Bridgeport Bridge (most common: how we will refer to it)
- The Grapes of Wrath Bridge
- The William H. Murray Bridge
- The Pony Bridge

- Constructed in 1932-1933, put into use in 1934
- 38-Span Camelback Pony Truss Bridge, 2nd Longest Bridge still in existence in Oklahoma.
- A contributing feature of the National Register of Historic Places 17.7-mile-long Bridgeport Hill-Hydro Route 66 Segment Historic District AND is individually eligible.
 - *District was initially listed for its local significance, but is currently being considered for its national significance*

Arguably the most historically significant bridge still standing in Oklahoma



Project History

- 2015:** Preliminary reconnaissance studies and alternatives development begins
- 2015:** ODOT initially meets with Route 66 stakeholders to discuss ODOT's intent to address the deteriorating bridge
- 2016:** ODOT meets again with Route 66 stakeholders to present the draft Alternatives Analysis Report and solicit input
- 2018:** The project is suspended due to budgetary limitations
- 2019:** The project is reinitiated in an effort to save the bridge and preserve iconic features of historic Route 66
- 2019:** Environmental studies and preliminary design begin
- 2020:** Received \$22 million from the US Department of Transportation's Better Utilizing Investments to Leverage Development (BUILD) Grant Program

Project Need & Purpose

The Need for the Project is as Follows:

- The existing Bridgeport Bridge is structurally deficient and fracture critical.
- The bridge is load-posted but heavy trucks continue to use it, seriously threatening its ability to withstand the loads.
- The existing bridge is of substandard width and does not comply with current engineering standards.
- The Bridgeport Bridge and adjacent roadway segments are iconic, historic features of Route 66, integral to the regional tourism economy.

The Purpose for the Project is as Follows:

- Provide a bridge crossing that is structurally sufficient for its intended use.
- Preserve Route 66 as a tourist destination in Oklahoma.





Condition Rating Guidelines

Bridge is Structurally Deficient

Condition Ratings (2018)

- Deck = Fair (5)
- Superstructure = Poor (4)
- Substructure = Fair (5)

Loaded Posted

- 15-ton limit recently lowered to 9-ton

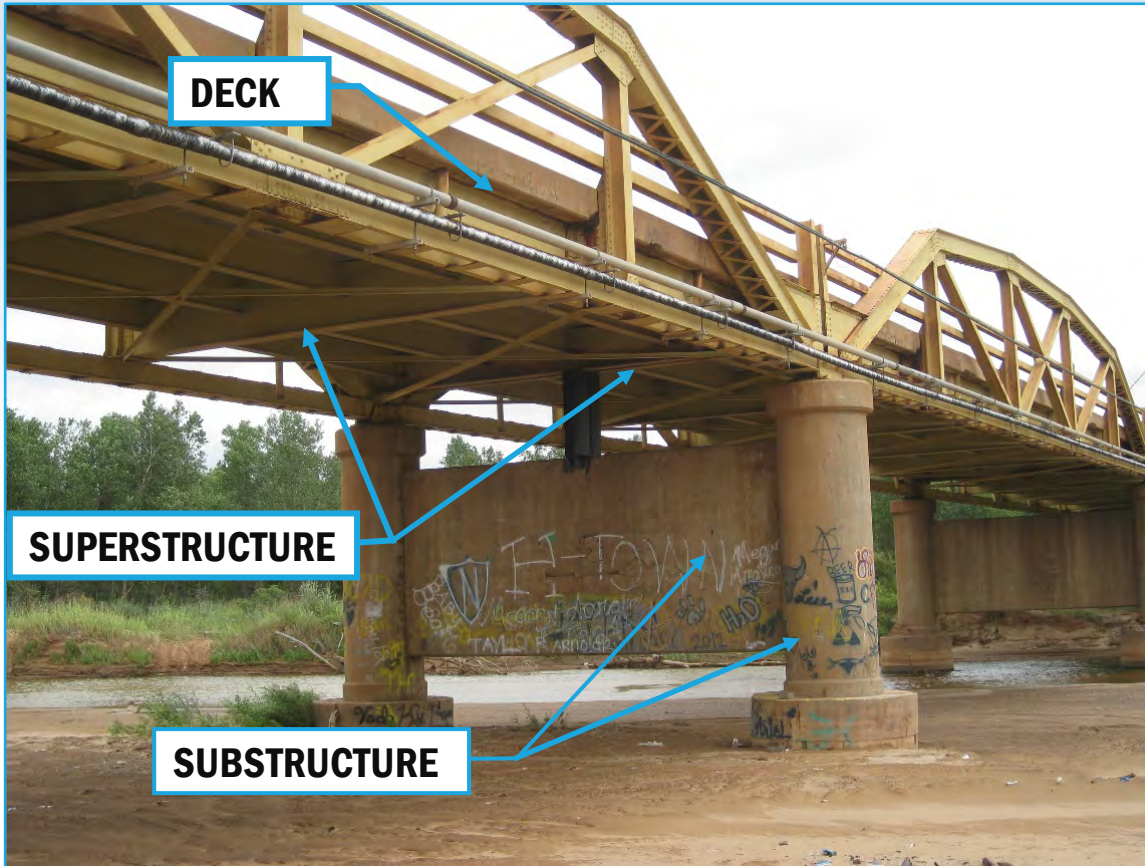
Code	Description
N	Not Applicable
9	Excellent Condition
8	Very Good Condition
7	Good Condition
6	Satisfactory Condition
5	Fair Condition
4	Poor Condition
3	Serious Condition
2	Critical Condition
1	"Imminent" Failure Condition
0	Failed Condition

GOOD

FAIR

POOR

CRITICAL



Inspections are being conducted every year (as opposed to every 2 years which is the standard) due to the deficient rating of the bridge

2019: ODOT indicated that even with ongoing maintenance and repairs, the bridge will have to be closed to ALL traffic in less than 2 years.

Bridge is Too Narrow

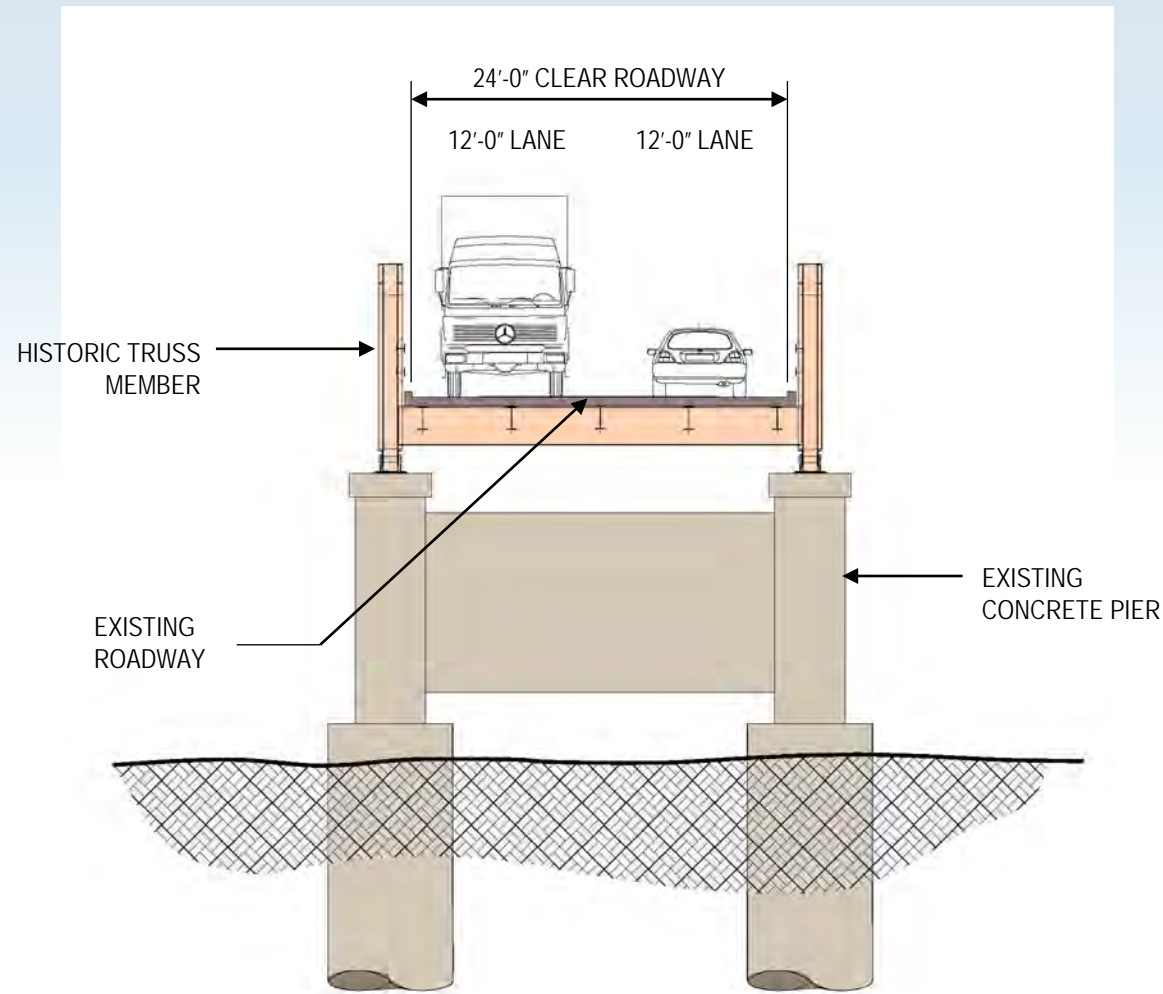
Functionally Obsolete

- Existing 24 ft. wide roadway
- (2018) 1,800 Vehicles Per Day
 - 21% Trucks
- 2040 Projected Vehicles Per Day: 2,200
- Bridge truss members are frequently struck by trucks, causing additional structural damage



Example of damage to truss member

Existing Roadway and Bridge



Preliminary Alternatives Considered

Previous alternatives focused mainly on keeping the bridge in place, using in-kind materials for rehabilitation, or an entirely new alignment

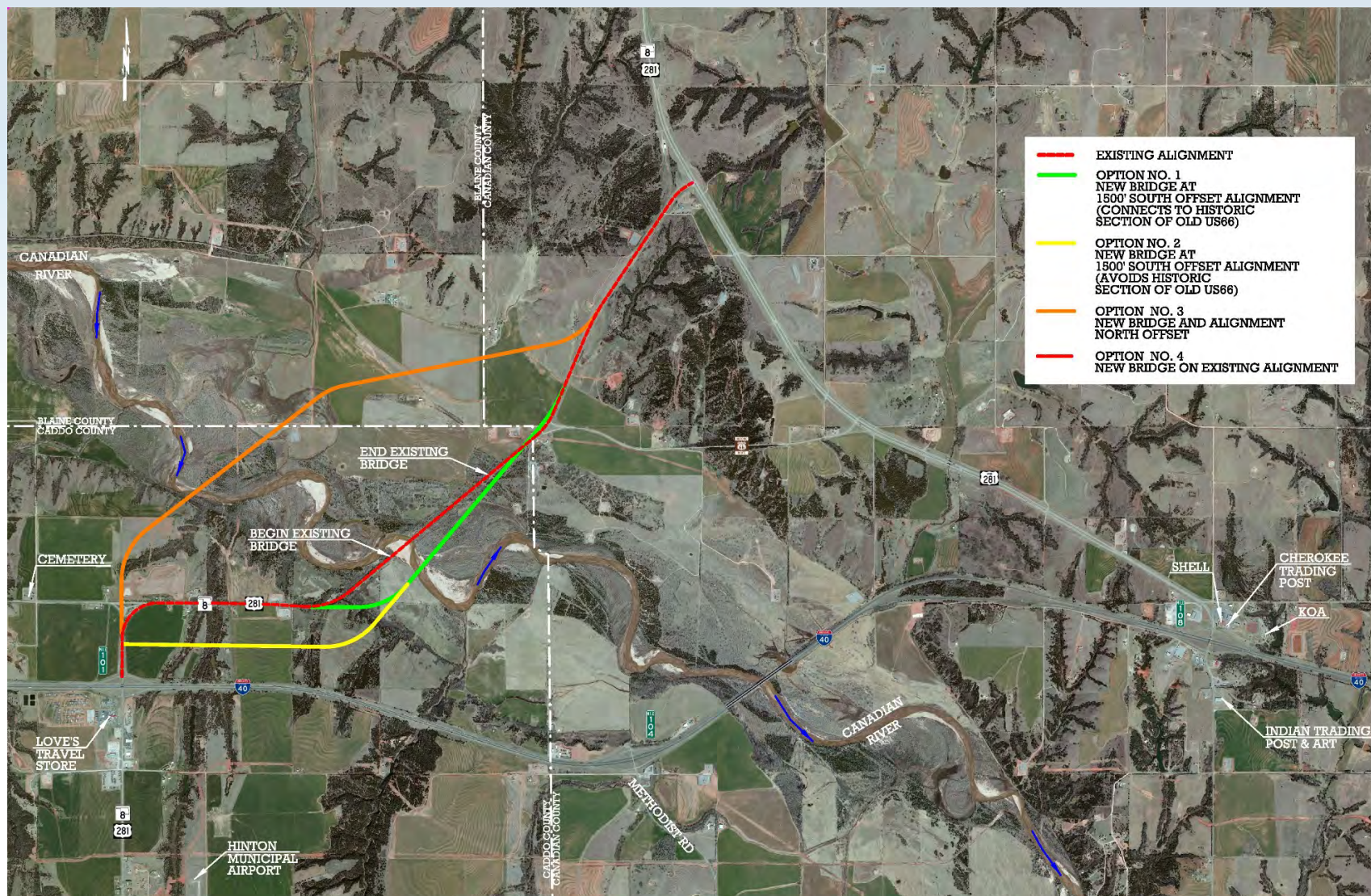
- “Do nothing” or No Build

Build Alternatives

- Option 1 - Construct new bridge offset 1500 ft. south of existing bridge, connects to historic Route 66
- Option 2 - Construct new bridge offset 1500 ft. south of existing bridge, avoids historic Route 66
- Option 3 - Construct new bridge on a new alignment north of existing bridge
- Option 4 - Construct new bridge on existing alignment

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Preliminary Alternatives Considered



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Preliminary Alternatives Considered

Reasons the preliminary alternatives were not carried forward:

- Rehabilitation using existing elements to meet current design criteria did not appear to be practical
 - Initial construction cost far exceeded available funding
 - Extensive long-term maintenance would be required due to total length
 - Fracture-critical features would remain
- Replacement on offset alignment did not appear to be prudent
 - Cost to construct new bridge and alignment exceeded \$50M
 - Alternative route along US-281 Business available
- Load posting and closing bridge seemed to be the most feasible option based on safety

*Alternatives Analysis to provide basis for Section 4(f) documentation is currently being prepared for the historic bridge and these observations are preliminary. Upon its completion, Alternatives Analysis and Section 4(f) document will be shared with Route 66 Stakeholders and featured on the project website.



Proposed Alternative

In 2019, a new alternative was developed in order to apply for Federal BUILD Grant funds. The new alternative would:

- Rehabilitate the bridge with a new deck and attach historic truss panels to it
- Widen bridge width to 28 ft. (two 14 ft. wide lanes)
- Extends bridge life to 75 years
- All construction is within the existing ODOT right of way



Proposed Alternative

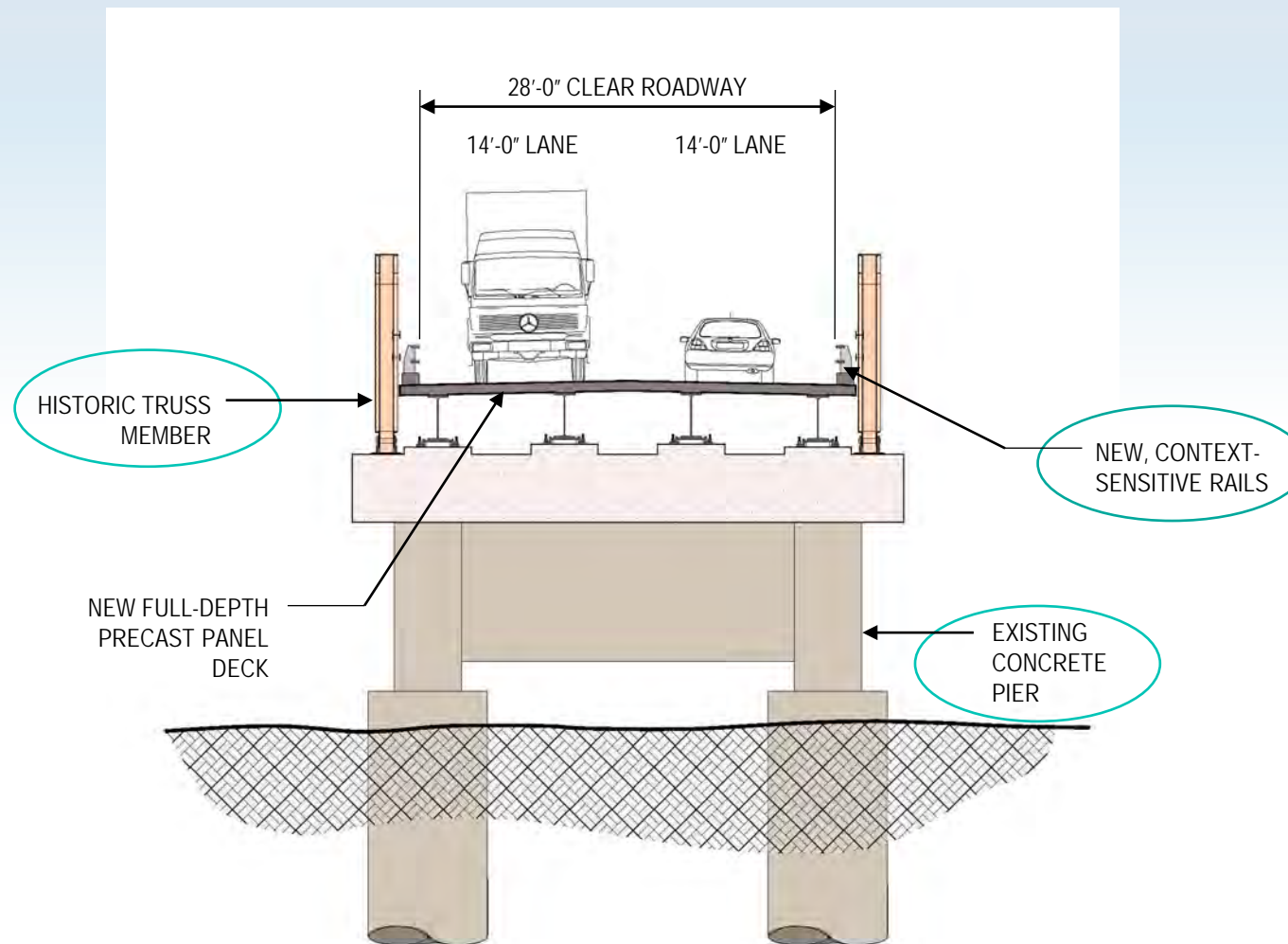
Why 28 ft. width?

- National highway guidelines are 36 ft. width for this type of roadway, so this would require a design exception
- Trucks routinely damage the trusses because of current 24-ft. width, so this would offer a cushion to protect the structure for future use
- Maintains the feel of the historic Route 66 roadway
- Allows for original piers to be preserved



Proposed Alternative

New Bridge with Historic Truss Members and Piers



Conceptual 3D Images of Proposed Bridge



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Conceptual 3D Images of Proposed Bridge



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Conceptual 3D Images of Proposed Bridge



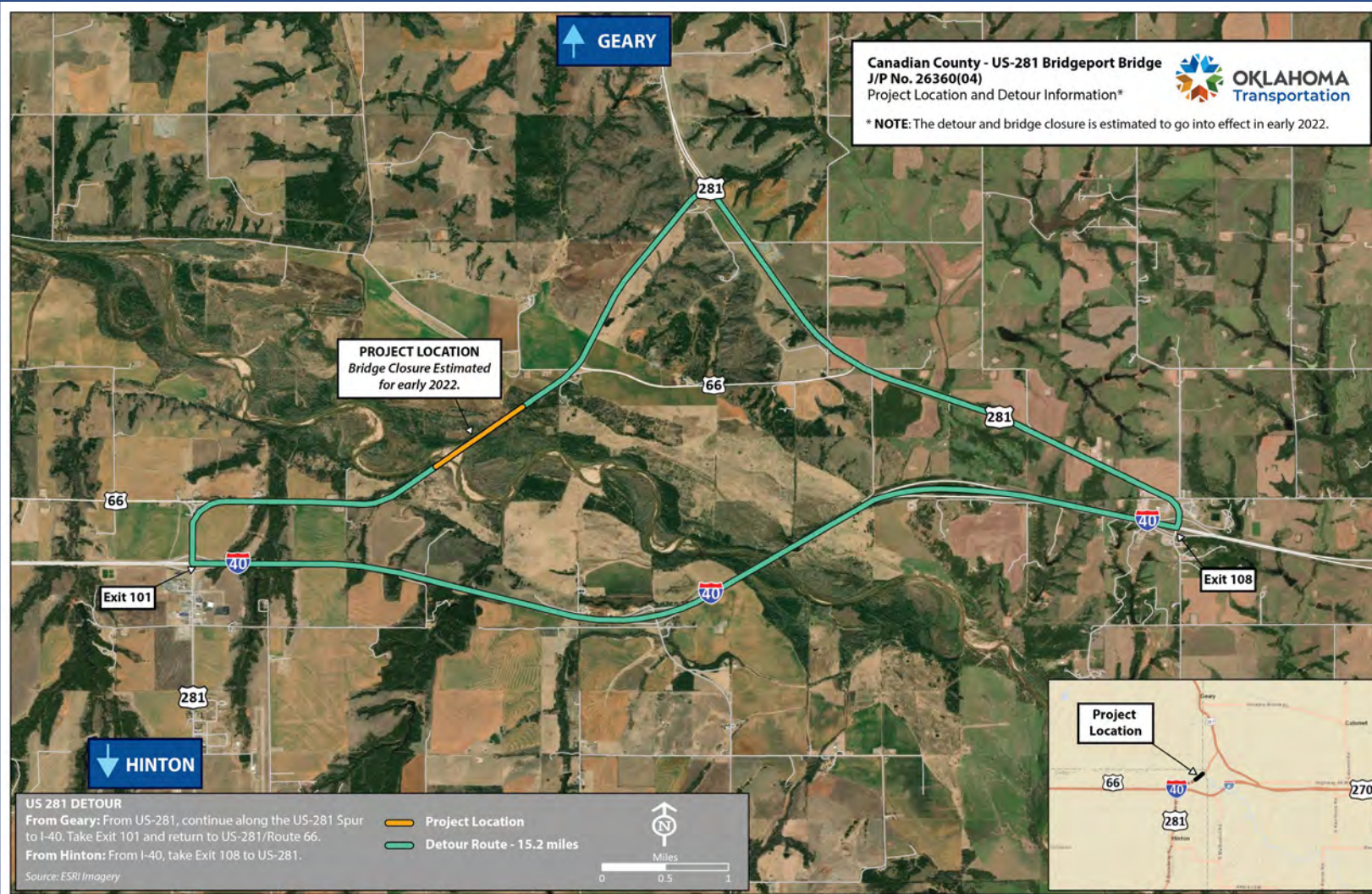
US 281 over the South Canadian River (Historic Route 66 near Bridgeport)



Bridge Closure

- The bridge will be closed during construction and traffic will be detoured
- The duration of the closure is estimated to be around 18 months
- The proposed detour route is as follows: from the US-281 / I-40 junction north of Hinton, take I-40 east to US-281 Business at exit 108 and take US-281 Business north to US-281 (approximately 15 miles from bridge end to bridge end)

Proposed Detour Route



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Typical Environmental Evaluation Criteria

Natural Resources

- Threatened and Endangered Species
- Wetlands and Waters of the U.S.
- Critical Water Resources

Cultural Resources

- Historic Properties / Structures
- Archeological Sites
- Historic Cemeteries
- Tribal Properties

Other

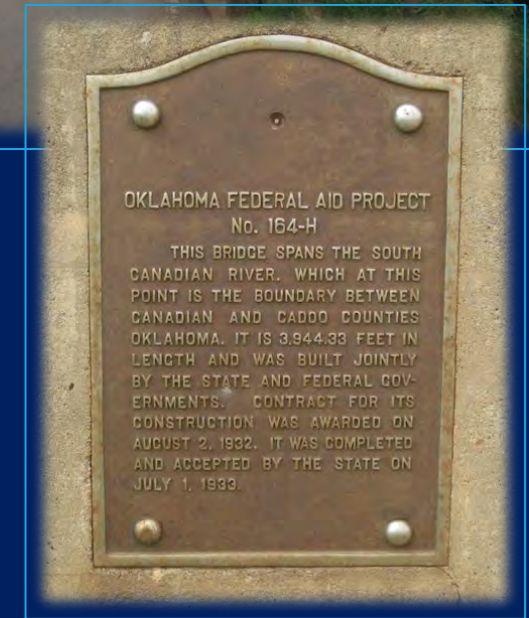
- Residential and Commercial Relocations
- Environmental Justice
- Community Impacts
- Hazardous Waste Sites / Fuel Storage Tanks
- Parks / Recreational Areas
- Air Quality
- Prime Farmland
- Traffic Noise Impacts



Noteworthy Environmental Study Findings

Cultural Resources

- The Bridgeport Bridge is individually eligible for listing in the National Register of Historic Places (NRHP)
- The Bridgeport bridge is a contributing feature of the NRHP-listed Bridgeport Hill –Hydro Route 66 Segment Historic District, which is comprised of about 17 miles of historic Route 66 roadway
- Alteration of the existing structure could result in an adverse effect under Section 106 of the National Historic Preservation Act
- An adverse effect could trigger Section 4(f) of the U.S. Department of Transportation Act, which offers protection to historic properties, among other public resources
- Section 4(f) requires an evaluation of alternatives to determine that there is no feasible and prudent alternative to the use of the historic property
- The Section 4(f) evaluation for the US-281 Bridgeport bridge replacement is currently ongoing
- No other historic resources or archaeological concerns were identified as part of the cultural resources studies





Noteworthy Environmental Study Findings

Waterways and Wetlands

- Project includes crossing the South Canadian River
- Avoidance and minimization measures will be implemented to minimize impacts to the South Canadian River and any wetlands. Stream crossings and temporary work roads can be permitted by the U.S. Army Corps of Engineers under Section 404 of the Clean Water Act

Threatened and Endangered Species

- The South Canadian River within this stretch is designated as critical habitat for the Arkansas River Shiner, which is listed as an endangered species with the U.S. Fish and Wildlife Service (USFWS)
- There is also habitat for the listed Interior Least Tern within the project limits
- Formal consultation with the USFWS will be required under Section 7 of the Endangered Species Act for the Arkansas River Shiner and the Interior Least Tern
- Measures will be implemented prior to and during the bridge construction to minimize harm to endangered species

Hazardous Waste

- No hazardous waste concerns were identified during the environmental review



Project Development Process





Project Timeline

ODOT 8 Year Construction Work Plan

- ✓ Begin construction in 2022
- ✓ Construction estimated at \$28,600,000



Next Steps

- Receive comments from public
- Finalize environmental document
- Utility relocation
- Final design and construction



Submit Your Comments

We Value Your
Input!

Comments
Due By
October 18, 2020

Download and submit a comment form at
www.odot.org/US281Bridgeport

Submit your written comments by mail to:
Oklahoma Department of Transportation
Environmental Programs Division
200 NE 21st Street
Oklahoma City, OK 73105

Email your comments to
environment@odot.org